POSSIBLE MOTION

I MOVE TO APPROVE an award of a Professional Engineering Services Contract for the Sawmill Cove Industrial Park Dock Project (CBS#90748) to Moffatt & Nichol not to exceed $790,114.00.

City and Borough of Sitka

PUBLIC WORKS
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MEMORANDUM

To: Mayor McConnell and Assembly Members
Mark Gorman, City Administrator

From: Michael Harmon, P.E., CBS Public Works Director
John P. Flory, P.E., CBS Project Manager

cc: Garry White, Executive Director, Sawmill Cove Industrial Park
Jay Sweeney, Finance Director
Tori Fleming, Contracts Coordinator

Date: 16 August 2014

Subject: Award a Professional Engineering Services Contract to the firm of Moffatt & Nichol, for the Sawmill Cove Industrial Park DOCK Project (CBS #90748).

Background

The Sawmill Cove Industrial Park (SCIP) Dock Project is part of a strategic plan for overall waterfront improvements that the SCIP Board of Directors has developed. The plan includes the possibility for various marine-service infrastructure, for which the construction of a multi-purpose docking facility is a central feature. Over the course of the past dozen years there have been several conceptual designs developed for the SCIP site. Most of these structures involved some combination of a bulkhead-type structure, an appended pier to deeper water, and mooring dolphins.

This Project has received high priority for several years in the City & Borough of Sitka (CBS) requests to the Legislature. In 2013 the CBS received a State of Alaska Designated Legislative Grant for the SCIP Dock Project in the amount of $7,500,000. These monies comprise the total budget for this project, including engineering fees, construction, contract administration and contingencies.

Analysis

In January of 2014 the City & Borough of Sitka (CBS) advertised a Request for Qualifications for Engineering Services, to include planning, permits, design, assistance with bidding, and (perhaps) construction management services. Two Engineering firms responded to the RFQ. Staff from CBS Department of Public Works reviewed and evaluated the Statements of Qualifications for Engineering Services that were submitted by two well-known firms (Moffatt & Nichol and PND Engineers, Inc.). The firm of Moffatt & Nichol scored highest in the evaluation process; CBS staff have since then negotiated a Scope of Work (see Attachment A) and a Fee Proposal (see Attachment B) for the desired engineering services. The scope and fees that have been successfully negotiated are within industry standards for these services.

Moffatt & Nichol and its team of sub-consultants are qualified to perform this work and are familiar with the Sitka area and the workings of the City & Borough of Sitka.

Recommendation:

Approve Award of the Professional Engineering Services Contract for the Sawmill Cove Industrial Park Dock Project (CBS #90748) in the not-to-exceed amount of $790,114.00, to the firm of Moffatt & Nichol.

Sawmill Cove Dock

Attachment A – Scope of Work (Rev.05)

CITY & BOROUGH OF SITKA (CBS)
SAWMILL COVE DOCK

ATTACHMENT A – SCOPE OF WORK

A. INTRODUCTION

The City and Borough of Sitka (CBS) desires to construct a new multi-purpose dock in Sawmill Cove. The site of the work is the Sawmill Cove Industrial Park (SCIP), located on Silver Bay in Sitka. A new multi-purpose dock is needed to support commercial fishing, vessel haul-out and repair, and other water-dependent operations planned for the redevelopment of the Marine Industry Service Center (MISC). We understand that CBS has secured $7.5 million in funding to cover construction, professional fees, contract administration and all contingencies.

The existing SCIP facilities include two existing, decommissioned docks: the Utility and Pulp Docks, located north and south of the planned dock area, respectively. It is anticipated that all existing infrastructure will remain. Existing dolphins are arranged in a generally southeasterly alignment from about due east of the existing utility dock to just beyond the planned south edge of the planned new dock. The new dock is intended to be comprised of at least 120 lineal feet of direct seaward moorage, with a height from seafloor to top of dock of at least 56-feet.

New dock amenities are expected to include, but not be limited to:

a. Three-phase shore power distribution for vessels of various lengths and configurations.
b. Luminaire and/or high level (pole-mounted) lighting.
c. A combined potable water / fire water system.
d. A flexible moorage system (bollards, cleats and/or bullrail) for multiple vessels sizes and configurations.
e. Safety appurtenances including life rings, fire extinguishers and safety ladders.

Moffatt & Nichol (M&N) was selected by CBS to lead all aspects of the work out of its Anchorage, AK office with technical support from its Seattle, WA office. All design tasks will be sealed by Professional Engineers licensed in the State of Alaska. The following professional supporting services will be subcontracted:

a. Electrical/Lighting: RSA Engineering, Anchorage, AK
b. Topographic and Bathymetric Survey: DOWL HKM, Juneau, AK

c. Geotechnical Engineering: Shannon & Wilson, Anchorage, AK

d. Cathodic Protection: Norton Corrosion, Seattle, WA

All other project tasks will be executed directly by M&N personnel. M&N will integrate all design solution components into a single, coherent construction document package and will serve as CBS liaison to all members of the M&N Team.

B. SCOPE OF WORK

The Scope of Work (SOW) will comprise the following work breakdown structure:

Task 1: Project Management

Shaun McFarlane will serve as Project Manager for the duration of the contract. Project Management activities will include, but not be limited to:

a. Team Coordination and Subconsultant Management. Facilitate and direct coordination, and collect and convey information between CBS and the M&N Team.

b. Public Involvement. Shaun McFarlane, Project Manager, will lead Public Involvement, including all Public and stakeholder presentations and meetings; drawing backup and support from remote team members as needed and appropriate.

c. Meetings. Schedule and organize project coordination meetings, and produce and distribute informal meeting notes. Weekly M&N Team meetings will be conducted with CBS during the Design, Bid and Construction phases of the project.

d. Document management. M&N will maintain an organized project ftp server using NewForma Project Center™ for all correspondence and project documents: a user-friendly document management system accessible by the M&N Team and authorized CBS representatives for real-time access to, and email notification of, newly uploaded documents and revisions.

e. Progress Communication. Provide CBS with monthly reports accompanying project invoices, documenting design (and later, fabrication and installation) progress, anticipated work in the next period, and any special concerns or needs. Reporting will be at a level of detail suitable to inform the State of Alaska of project progress. To this end, M&N will review and recommend payment of progress requests by the Contractor.

f. Change Management (e.g., scope, project cost, schedule.) Provide clear descriptions regarding how changes to scope, schedule or budget are to be managed and documented.

g. Schedule Support. Develop realistic design, and construction schedules and maintain an overall schedule for the project; updated with each progress invoice.

Task 2: Site Investigation

2.1 Initial Site Visit and Project Intake Meetings

M&N's Project Manager, Shaun McFarlane will travel to Sitka for two days to perform the following:

a. A kickoff meeting with the CBS Project Manager and other CBS and SCIP personnel.

b. A site walk at SCIP with CBS personnel as designated by the CBS Project Manager, in order to comprise a list of preferred features and those to avoid, and to discuss in detail the required levels of electrical, fire and potable water and lighting systems.

c. A topside and low-tide visual observation of the existing utility dock and existing pulp dock, for general reference.

d. A project intake meeting with CBS Public Works, Sawmill Cove Industrial Park Board of Directors (SCIP Board) and CBS Harbors and Maintenance personnel to gather initial input and direction.

e. Meetings with other project Stakeholders as suggested or directed by CBS, for the purpose of gathering input to the project.

f. A debrief meeting with CBS to discuss findings, recommendations and to clarify direction moving forward.

M&N and subconsultant subject matter experts will be available as needed to dial into these meetings. M&N will record photography and video and post to a project FTP server for reference by the M&N Team.

M&N offers to provide all professional fees and expenses noted in Task 2.1 at no net cost to CBS. Time and expenses will be billed to the project task and subsequently credited against the initial project invoice.

Deliverables: Memorandum summarizing initial site visit and project intake meetings.

2.2 Subsurface and Submarine Geotechnical Investigation

As sub-consultant to M&N, Shannon & Wilson will travel to Sitka to explore the geotechnical subsurface and submarine soil conditions, in an effort to supplement the existing data, as necessary. Additional soils data will be gathered using a combination of borehole drilling and test pit excavation sampling. The exploration effort will be limited in scope to that necessary to complete the assessment of localized geotechnology.

It is anticipated that up to five (5) offshore borings and two (2) onshore borings will be executed in the vicinity of the dock, which may include to the north and to the south of the proposed dock limits. Additionally, test pits may be excavated in number and location as deemed appropriate, depending on the success and field observation of the borehole sampling. Soil samples will be preserved from each borehole and test pit. Shannon & Wilson will then: (a) perform laboratory tests on the retrieved soil samples; (b) conduct a foundation analysis; and (c) work iteratively with M&N Structural Engineers to develop a practical, economical dock design.

M&N has reviewed existing surveys and reports provided by CBS, and this is believed to be the complete record of available information. Notwithstanding we will continue to seek out and review any additional as-built drawings, pile installation logs, subsurface or bathymetric survey data, or other available and relevant information concerning past waterfront construction activities in the vicinity of the proposed dock. Sources to be solicited include, but will not be limited to CBS, ADOT&PF, and Alaska Division of Geological & Geophysical Surveys (ADGGS).

Shannon & Wilson will apply for all applicable Federal, State of Alaska, and local permits needed to perform the investigations. Based on the work to be performed, we anticipate permit coordination with, at a minimum, Alaska Department of Natural Resources (ADNR; including Division of Mining), Alaska Department of Fish and Game (ADF&G), Alaska Department of Environmental Conservation (ADEC; Division of Water), National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), the U.S. Army Corps of Engineers (USACE), and Sitka Coastal District/CSB. Shannon & Wilson will coordinate with the CBS through M&N to notify users of investigation work in order to limit disruption of marine traffic. Laboratory tests will be performed on recovered samples to measure primary soil index testing and rock strengths. Rock strength will be measured using point load and unconfined compression testing.

Findings and recommendations will be summarized in a geotechnical and subsurface geophysical report sealed by a Geotechnical Engineer licensed in the State of Alaska. The report, which will be included as part of the Reference Documents for the bid package, will address:

a. Geotechnical recommendations for socketed steel piles and/or driven steel sheet piling.

b. Recommendations for excavation of existing subsea sediment, if applicable.

c. Pile material, design recommendations, and installation recommendations.

d. Parameters for LPILE analysis to be conducted by M&N and Shannon & Wilson.

e. Static and seismic considerations including lateral loading earth pressures and liquefaction, if applicable.

f. A summary of coordination with M&N Structural Engineers to the date of the report.

A total of seven days of field investigation have been estimated and budgeted. No contingency was included for standby or downtime due to weather. Standby days due to inclement weather will be charged on a per-day cost basis (plus standard sub-consultant mark-up.)

Deliverables: Geotechnical and Subsurface Geophysical Report (Draft and Final)

2.3 Site Boundary and Bathymetric Survey

As subconsultant to M&N, DOWL HKM will conduct a topographic boundary and bathymetric survey in the vicinity of the planned dock to provide site specific information and project control coordinates:

a. Existing bathymetric data in the vicinity of the planned dock location appears to be compete and current enough to provide value to the present project. As a means of validating this existing data, a pattern of manual soundings will be executed in the area, using locally available small craft. A bathymetric sweep at 1-foot contours will be executed to 150 feet from the planned perimeter of the dock, on all three sides.

b. A topographic boundary survey will be executed from toe to the top of the slope at waterline, and will extend beyond the top of slope far enough (i.e., approximately 30-feet) for design of the landward edge of the dock (e.g., capwall or deck bearing.)

   Existing site monumentation will be located and annotated for horizontal and vertical project control.

c. Approximate quantity take-off (QTO) of up to six (6) shot rock stockpiles on SCIP site.

DOWL HKM will provide M&N with a point plan in AutoCAD format for the purposes of developing a site base plan. M&N will subsequently prepare a project base plan in AutoCAD, overlaid on a recent aerial photograph of the harbor.

Deliverables: Rock stockpile QTOs summarized in a Memorandum with a plan referencing stockpiles measured.

Task 3: Basis of Design and Concept Development

3.1 Basis of Design (BOD)

M&N will prepare a Basis of Design (BOD) document for the project based on the input received during the site visit and intake meetings. The BOD will comprise the following:

a. General functional and operational criteria for the dock
b. Dock footprint
c. Codes, standards and design guidelines
d. Marine Criteria (i.e., design vessels, mooring and berthing forces)
e. Design Loads (i.e., dead, live, berthing, mooring, equipment, impact, wind, wave, and seismic)
f. Utilities to be provided on site

The BOD will be presented to CBS for consideration and discussed to determine consensus and a common understanding and direction, moving forward. This document will form the basis for alternatives analysis and detailed design for the project.

Deliverables: BOD document (Draft and Final.)

3.2 Conceptual Alternative Evaluation

M&N will evaluate bulkhead alternatives for the site specific design criteria established in the BOD. Up to three primary structural systems will be considered, including:

a. Steel pile-supported dock
b. Anchored-backfilled steel sheet pile (SSP) bulkhead dock (with up to three anchoring systems evaluated)
c. Cellular sheet pile (CSP) gravity dock

Consideration will be given to maximizing the dock footprint to the extent possible within the available overall project budget, and to extending the marginal face of the dock into as great a depth of water as practicable and affordable.

An Alternatives Evaluation Report will be issued to CBS for review and comment, and subsequently finalized for inclusion in the CBS Assembly packet. The report shall provide a detailed discussion on each alternative for its adaptability for various functional needs, environmental concerns, ability and ease of obtaining permits, constructability, and comparative Rough Order of Magnitude (ROM) Opinions of Probable Construction Cost (OPCC) with suitable levels of construction contingency, to facilitate the final alternative selection.

M&N Project Manager Shaun McFarlane will travel to Sitka to present the BOD and Alternatives Evaluation Report on consecutive evenings to the SCIP Board and CBS Assembly. The SCIP Board presentation will focus on the relative features, merits and costs of each alternative considered, seeking approval to proceed with the Preferred Alternative. The Assembly presentation will summarize the conceptual development process and will present the Preferred Alternative for approval. Prior to leaving Sitka, M&N will debrief with the CBS Project Manager and Harbor and Maintenance personnel to seek consensus among these parties, and written direction from CBS on specific elements of the Preferred Alternative for specific focus, proceeding towards detailed design.

Deliverables: Alternatives Evaluation Report (Draft and Final.)

Task 4: Environmental Permitting

M&N will identify, prepare, submit and negotiate on behalf of CBS all required Federal, State and local permits[1]. Work will include a pre-application teleconference with the U.S. Army Corps of Engineers, Alaska District (Regulatory Division), and responding to all agency review comments and questions. The following permits are anticipated to be required:

a. U.S. Army Corps of Engineers Individual Permit (Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act) for work in waters of the U.S. involving excavation, dredging and/or fill work below the mean high water (MHW) line. The time period anticipated to obtain this permit from the date of application submittal can vary from

[1] The SOW is based on an anchored steel sheet pile (SSP) wall. If, following alternative evaluation, another alternative is selected, or a more complex project is anticipated, additional scope and fee may be negotiated for this task.

between 4 and 9 months (on average) following submittal of a completed application package. This timeframe varies depending on the review and comments received by other regulatory agencies during the public notice period (Fish and Game, State Historic Preservation Office, tribal governments, etc.), whether or not a public hearing is required, and the number and types of comments received.

b. Alaska Department of Environmental Conservation (ADEC) Water Quality Certification (Clean Water Act Section 401) for work that may result in a discharge into waters of the U.S. A waiver may be applicable depending on ADEC review.

c. ADEC Interim and Final Approvals to operate the potable water system, noting that final design documents are required for ADEC review and approval.

d. CBS approvals as needed for structural, electrical and fire protection systems (to be obtained by CBS through distribution during the review of the bid documents under development.)

M&N will demonstrate professionalism, cooperation, collaboration and mutual respect in working with permitting authorities: a proven strategy for streamlining the permitting process. A close dialogue will be maintained with CBS on all permitting matters that may impact the project schedule, build-out, facility features or project cost. M&N will make all reasonable efforts to secure the required permits for the work, noting that the successful award of any permit is contingent on external authorities and cannot be guaranteed.

The need for blasting or dredging is not anticipated for this project. We do not expect that any significant regulatory concerns will arise during the permit acquisition process, and have budgeted accordingly. Some incidental riprap work will be needed along the shoreline but substantial excavation below MHW is not anticipated. Sediment testing below the MHW line is not anticipated. Environmental impacts are anticipated to be low to minor and compensatory mitigation is not currently proposed or estimated. This SOW and associated fee reflects the best current estimate based on understanding of the project and its permitting environment, and does not accommodate for: protracted permit negotiations; a capital dredging permit; compensatory mitigation for any potential adverse environmental impacts; or for additional permitting effort required for a different alternative identified during the Alternatives Evaluation process.

Deliverables: Copies of all permit applications and original permits obtained.

Task 5: Design and Bid Documents

The M&N Team will perform the design of all components associated with the Preferred Alternative, noting that design effort can vary based on the selected alternative[2]. The design will include the following:

Analysis and design of the dock structural system will be executed according to governing code and material specification design requirements. The design will consider all applicable dead, live and transient loads, factored and combined as required by code. Manual calculations and analyses by commercially available design software packages will be utilized to complete the design. Structural design will include design for the substructure, anchor system, superstructure (i.e., concrete edge beam), and will include detailing associated with utilities/appurtenances to be terminated at the face of the dock. Berthing and mooring hardware and appurtenances necessary for dock operations will be identified and associated anchorage to the dock designed.

a. The new dock will include cathodic protection (CP) for a 15-year service life (i.e., before replacement anodes are needed) and will be tailored to the selected dock type, geometry and configuration. A passive (i.e., sacrificial anode) CP system is proposed for the new dock.

b. A combination potable / fire water line will be designed for dockside service. The new HDPE or ductile iron pipe line is expected to tie in to the existing water system, assuming the existing system has adequate reserve capacity to support dockside fire suppression and potable water service for vessels mooring at the facility.

c. Electrical and lighting design will include minimum lighting and landward electrical design required to accommodate safe berthing operations. Dockside vessel power supply design will include four (4) receptacles distributed along the dock face. The new shore power system is expected to tie in to the existing three-phase electrical service, assuming the existing system has adequate reserve capacity to support shore power for vessels mooring at the facility.

Engineers of Record for the design will be licensed in their respective disciplines in the State of Alaska.

M&N will prepare construction documents including plans and general and technical specifications outlining requirements for a standard Design-Bid-Build (D-B-B) procurement process, including:

[2] The SOW is based on an anchored steel sheet pile (SSP) wall. If, following alternative evaluation, another alternative is selected, or a more complex project is anticipated, additional scope and fee may be negotiated for this task.

a. Fabrication and installation of all dock components
b. Landward and underwater excavation (if required)
c. Rock sockets for dock piling, if needed.
d. Cathodic Protection (CP) system.
e. Lighting and landward electrical service.
f. Dockside vessel shore power.
g. Dockside potable and fire water systems.
h. Supplemental fire protection (e.g. extinguishers) and other safety appurtenances (e.g., ladders, life rings.)
i. Detailed plans for demolition, removal and salvage, if needed.
j. Detailed plans for the installation of Owner-supplied appurtenances, if any.

M&N will develop and issue an Opinion of Probable Construction Cost (OPCC) accompanying each design review submittal, with contingencies appropriate to the level of design development. The OPCC will be structured to match the project bid form, identifying all line items. M&N will provide an OPCC based on bid tabulations from recent similar projects, adjusted for regional cost differences as appropriate, following industry standard practices including reasonable contingencies for unforeseen conditions. M&N will endeavor to develop a design that is constructible within the available project construction budget; however Contractor's bids are beyond our control. M&N therefore makes no warranty or representation that the project can be completed within the design budget. Design, permitting and bid phase services required to modify the project in light of unaffordable construction bids will be negotiated as Additional Services to the contract.

M&N will prepare a volume of Reference Documents (e.g., background data and reports, project geotechnical/geophysical report) to accompany the bid documents and assist prospective bidders in pricing the work. It is assumed that CBS will prepare up-front contract documents and that M&N will be responsible to provide the plans and general and technical specifications only.

CBS will have the opportunity to provide formal review and feedback on the design at a 35-, 65- and 95-percent level of design development. A single set of coordinated annotated review comments will be provided for each review deliverable (i.e., 35-, 65- and 95-percent) within one week of receipt for review. A MS Excel worksheet will be provided for coordination, response and resolution of comments and the completed worksheet, accompanying a single redlined set of review documents (coordinated to resolve comments from multiple reviewers), will be furnished

to M&N at each stage of design review, and the annotated comment worksheet used to reach consensus on review comments between the M&N Team and CBS reviewers.

Deliverables: Design review documents will be provided to CBS at the following stages of design development:

a. 35-percent: Plans, an index of technical specification sections, and OPCC.

b. 65-percent: Plans, general and technical specifications, and OPCC.

c. 95-percent: Plans, general and technical specifications, and OPCC.

d. Final: Bid-ready plans, general and technical specifications, OPCC, and Reference Documents.

C. OPTIONAL SERVICES (NOT AUTHORIZED)

The following Optional Services have been scoped and estimated for the purpose of project and budget planning but will not be authorized at this time:

Task 6: Bid Phase Services

CBS will advertise, assemble and distribute bid documents, and maintain an active Planholders List. M&N will provide plans and general and technical specifications to CBS for insertion in the bid document package, and will provide a Bid Form with contract quantities. M&N will assist CBS to prepare Instructions to Bidders and any other pertinent documentation needed to assist interested Contractors in bidding the work.

M&N will travel to Sitka to lead a non-mandatory pre-bid meeting and site walk in Sitka for interested bidders. During the bidding phase, the M&N Team will provide timely responses to scope and technical queries related to the project. Contractual inquiries will be coordinated with CBS and M&N will prepare responses for CBS to distribute to Planholders as Bid Addenda.

M&N will participate remotely in the Bid Opening and will subsequently review all submittals to verify that the bids are in compliance with the instructions and specifications of the contract documents, and to provide a technical analysis of the bid sensitivities to changes in quantities and scope (i.e., bid unbalancing). M&N will then prepare Bid Tabulation and will prepare and issue a Recommendation for Award to CBS for the construction contract.

Deliverables: The following deliverables will be provided during the Bid Phase:

a. Bid Form with final contract quantities.
b. Bid addenda as needed (up to three assumed.)
c. Bid Tabulation.
d. Recommendation for Award.

Task 7: Construction Phase Services

M&N will provide the following Construction services during the Construction Phase:

7.1 Pre-construction Conference

M&N Senior Engineer and a Resident Inspector will travel to Sitka to conduct a pre-construction conference with the Contractor, CBS and SCIP personnel, to walk the site and address any issues, questions or concerns relating to mobilization and execution of the construction contract.

Deliverables: None.

7.2 Resident Inspection

M&N will mobilize qualified Resident Inspector(s) to Sitka for up to fifteen (15) weeks of construction, assuming 60-hour work weeks. Three (3) round-trips between Anchorage and Sitka or Seattle and Sitka (dependent on Resident Inspector's home office) are assumed to provide schedule fluidity during critical periods of construction (e.g., pile driving), to allow for Resident Inspectors to be changed out, and to accommodate stoppages in the work (e.g., over holidays) and demobilization during non-critical procedures or down periods. Senior M&N staff will support the Resident Inspector(s) as required throughout construction.

M&N Resident Inspectors will provide daily inspection reports detailing the work completed that day with annotated photos, highlighting any outstanding or contentious issues to CBS. Weekly summary reports will be provided to CBS. Daily and weekly reports will be issued within 24 hours and will be maintained at the M&N field office and compiled into an archival record documenting the work. The Resident Inspector(s) will maintain and manage daily and weekly reports in the project site office and through use of NewForma Project Center™ on the project FTP server.

Deliverables: Daily and weekly construction progress reports.

7.3 Submittals, Requests for Information and Substitution Requests

The successful Contractor will be responsible for procurement of all materials of construction, excepting Owner-supplied materials and appurtenances that may be furnished to the contract by direct procurement by the Owner. Prior to fabrication and/or shipment of any materials of construction, the Contractor shall provide all required shop drawings, materials certifications, design calculations and other product data as required in the construction documents for review by the M&N Team. A Submittal Log will be maintained by M&N throughout the Construction Phase.

Submittal review includes review of fabrication drawings (a.k.a. shop drawings), product samples and other Contractor submittals as outlined in the Contract Documents. The proposed level of effort assumes up to thirty (30) items to be submitted and reviewed by the M&N Team (i.e., with each item scheduled for submission, and each resubmittal necessitated by erroneous or incomplete Contractor submittals, counted as a submittal.) An average of six hours per submittal review is estimated from past experience on similar projects.

The anticipated level of effort assumes up to ten (10) Requests for Information (RFI) throughout the course of construction. M&N will develop and issue technical sketches to address clarifications and/or minor changes to the Contractor's scope of work.

M&N will provide review of any substitution requests submitted by the Contractor. Substitution requests will be reviewed for technical adequacy and cost and CBS will be advised of the pros and cons of the substitution and accompany recommendation for acceptance or rejection of the request. M&N assumes two (2) substitution requests to estimate the level of effort.

M&Nwill maintain and track all Contractor submittals and requests through the use of NewForma Project Center™ on the project FTP server.

The effort to process additional Submittals, Requests for Information and/or Substitution Requests in excess of the estimates noted above may incur additional fees.

Deliverables: Real-time maintained Submittal, Substitution Request and RFI log.

7.4 Special Inspections

M&N's Engineer of Record, or other qualified Senior Engineer engaged in the design of the project, will travel to Sitka to perform inspections identified below:

a. Substantial Completion Inspection conducted concurrently with the Installation contractor, M&N's Resident Inspector, Electrical Engineer of Record and CBS

personnel. A punch list will be generated at substantial completion and adhered to for final acceptance of the work. Round-trip travel will be required from either Seattle or Anchorage.

b. Final Inspection conducted concurrently with the Installation contractor, M&N's Resident Inspector, Electrical Engineer of Record and CBS personnel. Round-trip travel will be required from either Seattle or Anchorage

The contract will dictate that the Contractor provide a one-year warranty on the dock structure construction and a three-year warranty on all dock appurtenances (i.e. lighting, power, water, etc.). Warranty inspections are not included in this scope but may be negotiated as Additional Services.

Deliverables:

a. Substantial Completion Inspection letter report (with punchlist.)

b. Final Completion letter report.

7.5 Project Record Documents

Upon completion of the project, M&N will solicit from the Contractor (as a required submittal) a single set of annotated Conformed Bid Documents reflecting all recorded deviations and changes to the contract resulting from of field modifications and approved substitutions. M&N will subsequently record these modifications in AutoCAD (plans) and MS Word (specifications) to produce a comprehensive set of approved modifications to the contract. Note that the completeness and accuracy of this project record will depend entirely on the Contractor's conformance to the contractual requirement to record any and all significant deviations from the Bid Documents.

Permit applications, annotated review comments, permits obtained, daily and weekly inspection reports, project Submittals, RFIs and Substitution Requests, and other pertinent project correspondence, will be appended as part of the Project Record Documents.

Deliverables: Project Record Documents (electronic format on DVD.)

D. STANDARD OF CARE

Included in the above tasks is an appropriate level of Quality Assurance / Quality Control (QA/QC), performed by qualified M&N senior staff and other members of the M&N Team.

Subconsultants are responsible for their own in-house QA/QC and have each committed to following quality standards consistent with those of M&N. The M&N Team will be responsible for the quality of our design and deliverables to the industry's standard of care. QA/QC for the project shall include checking and reviewing M&N's work for consistency with that of other members of the M&N Team to deliver a coordinated set of construction documents. Typical QA/QC tasks include, but are not limited to:

a. Design Integrity Check. Verification will be made of the adequacy of the design of the main elements of the work. Verification will consist of independent calculations and/or a thorough review of the designer's calculations.

b. Plan Check. A thorough review of the plans will be made to confirm that sufficient detail has been provided to convey design intent, and that the plans accurately reflect the results of the design calculations, e.g. major controlling geometry, elevations, dimensions are checked. Final quantities and specifications are reviewed.

c. Constructability Check. A review of the plans will be performed to confirm that the design is constructible and that details and notes are coordinated and unambiguous.

E. PERIOD OF PERFORMANCE

CBS desires that the project be completed in its entirety by December 31, 2015, noting that tasks such as environmental permitting rely on the performance and responsiveness of third-party authorities and as such can only be estimated based on past experience on similar projects. Services associated with this Scope of Work will be completed by December 12, 2014. A project schedule will be developed by M&N in collaboration with CBS upon award of the Contract, and updates will be provided by M&N with each milestone. Project milestones and deliverables identified at this time include the following (with dates subject to change):

April 23, 2014	Notice to Proceed
April 25, 2014	Signed Contract to M&N
April 28-29, 2014	Initial Site Visit and Project Intake Meetings in Sitka
May 16, 2014	BOD Document to CBS (Draft)
May 2014	Boundary and Bathymetric Survey
May 2014	Geophysical Subsurface and Geotechnical Investigations
May 30, 2014	Survey Base Map to M&N

June 13, 2014	Alternatives Analysis Report to CBS (Draft)
June 27, 2014	Alternatives Analysis Report to CBS (Final)
August 15, 2014	Design Review Documents to CBS (35-percent)
August 20, 2014	Subsurface Geophysical and Geotechnical Reports to M&N (Draft)
August 22, 2014	M&N Team Review Meeting with CBS (35-percent)
August 22, 2014	Permit Applications Submitted
August 22, 2014	Subsurface Geophysical and Geotechnical Reports to CBS (Final)
October 3, 2014	Design Review Documents to CBS (65-percent)
October 8, 2014	M&N Team Review Meeting with CBS (65-percent)
November 21, 2014	Design Review Documents to CBS (95-percent)
November 24, 2014	M&N Team Review Meeting with CBS (95-percent)
December 12, 2014	Final plans and specifications complete
December 12, 2014	Bid-ready Documents to CBS

F. ITEMS TO BE FURNISHED BY CBS

The following shall be furnished by CBS to M&N to facilitate the work:

1. High resolution electronic file of recent aerial photograph of Sawmill Cove (i.e., Sheet 1/1 in the project RFQ.)
2. SCIP Board, CBS Assembly, Stakeholder and Public meeting advertisement, accommodation, speaker phone connection for remote participants, and meeting coordination.
3. CBS will pay direct costs for Federal, State and local permit applications, and for compensatory mitigation if required.
4. Front-end bid documents for the Final bid package (i.e., M&N to provide plans, general and technical specifications for integration with CBS-developed contract documents.)
5. Bid advertisement for Procurement and Installation bid packages; management of the Planholders list for both contracts; and dissemination of bid documents and addenda.
6. Local transportation to/from Sawmill Cove as needed during trips to Sitka preceding the Construction Phase.

7. Use of a CBS vehicle at no cost to M&N for the exclusive use of M&N Resident Inspector(s) during the Construction Phase. M&N will be responsible for fuel and will provide company magnets affixed to the vehicle to cover the CBS logo (pertains to Task 7, not executed.)
8. Heated office at SCIP with telephone and high speed Internet connection, at no cost to M&N for the exclusive use of M&N Resident Inspector(s) during the Construction Phase (pertains to Task 7, not excecuted.)
9. CBS will provide information from Construction Phase activities or testing not performed by M&N Resident Inspectors to support applications necessary to obtain Interim and Final Approvals to operate the combined potable/fire water distribution system. This information includes: field inspection reports; photographs; pressure test and disinfection test results; and other construction documentation supporting the certifications and verifications. (Pertains to Task 7, not executed.)

Sawmill Cove Dock

Attachment B – Fee Proposal (Rev.01)

Attachment B
Fee Proposal - Detailed Cost Breakdown

moffatt & nichol

Client: **City & Borough of Sitka**
Proj. # **P14258**
Proj. Name **Sawmill Cove Multi-Purpose Dock**
Proj. Mgr. **Shaun McFarlane, PE**
Proj. Princ. **Tom McCollough, PE**

Date: 04/14/14
Rev. 1

I. MAN-HOUR BUDGET

Task		Principal Eng./Sci. P-9, P-8 $ 220	Supervisor Eng./Sci. P-7 $ 205	Senior Eng./Sci. P-6 $ 178	Eng./Sci. III P-5 $ 158	Eng./Sci. II P-4 $ 126	Eng./Sci. I P-3 $ 111	Staff Eng. P-2, P-1 $ 94	Senior Tech. T-5 $ 131	Designer T-4 $ 116	CADD II T-3 $ 99	CADD I T-2, T-1 $ 79	Word Processor A-4, A-3 $ 89	General Clerical A-2, A-1 $ 74	HOURS	LABOR TOTAL
1	**Project Management**		388											64	452	$ 84,276
2	**Site Investigation**															
2.1	**Initial Site Visit and Project Intake Meetings***		24		6		6							4	40	$ 6,830
2.2	Geotechnical Investigations		8		16										24	$ 4,168
2.3	Site Boundary and Bathymetric Survey		4		4		4								12	$ 1,896
3	**BOD and Concept Development**															
3.1	Basis of Design		20		40					10			8		78	$ 12,292
3.2	Alternatives Analysis		40		40		16			20					116	$ 18,616
4	**Environmental Permitting**															
4.1	Compare Alternatives		4			16									20	$ 2,836
4.2	Permit Applications and Agency Coordination		36			150				54	24		12	2	278	$ 36,136
5	**Design and Bid Documents**															
5.1	35% design															
	Structural Analysis		40		40										80	$ 14,520
	Structural Design		30		30		40								100	$ 15,330
	Civil Design		8				32								40	$ 5,192
	CADD		16		16		8			104			6		150	$ 19,294
	Outline Specifications				16										16	$ 2,528
	Cost Estimate		4		4		24								32	$ 4,116
	QA/QC	24													24	$ 5,280
5.2	65% design															
	Structural Analysis & Design		40		40		40								120	$ 18,960
	Civil Design		16				40								56	$ 7,720
	CADD		16		16		8			100					140	$ 18,296
	Specifications		40		40		16						12		108	$ 17,364
	Cost Estimate		4		4		24								32	$ 4,116
	QA/QC	40													40	$ 8,800
5.3	95% Design															
	Structural Analysis & Design		40		40		20								100	$ 16,740
	Civil Design		8				24								32	$ 4,304
	CADD		8		8		4			100					120	$ 14,948
	Specifications		24		24		16						6		70	$ 11,022
	Cost Estimate		2		2		8								12	$ 1,614
	QA/QC	32													32	$ 7,040
5.4	Project Bid Documents		16		16		8			40					80	$ 11,336
6	**Bid Phase Services **Not Authorized****	4	20		20		20			40					104	$ 15,000
7	**Construction Phase Services **Not Authorized****															
	Preconstruction Conference			16											16	$ 2,848
	Resident Engineer					1,050									1,050	$ 132,300
	Substantial and Final Inspection		16	16											32	$ 6,128
	Submittal Reviews			120			60								180	$ 28,020
	RFIs			40											40	$ 7,120
	Record Drawings		4	8			2		40						52	$ 7,484
	Substitution Requests		8	8			2								18	$ 3,286
	ADEC Permits		6			6									12	$ 1,986
TOTAL MAN-HOURS		100	860	208	427	1,222	420	0	40	468	24	0	44	70	3,908	
II. MOFFATT & NICHOL LABOR		$ 22,000	$ 176,300	$ 37,024	$ 67,516	$ 153,972	$ 46,620	$ -	$ 5,240	$ 54,288	$ 2,376	$ -	$ 3,916	$ 5,180		$ 579,742
	Breakdown by Hours	2.6%	22.8%	5.3%	10.8%	31.3%	10.7%	0.0%	1.0%	12.0%	0.6%	0.0%	1.1%	1.8%		
	Breakdown by Cost	3.8%	31.3%	6.4%	11.5%	26.6%	8.0%	0.0%	0.9%	9.4%	0.4%	0.0%	0.7%	0.9%		

III. OTHER COSTS

A. Subconsultants		Markup	Total
Shannon & Wilson (Geotechnical/Geophysical)	$ 317,769	$ 31,777	$ 349,546
Dowl HKM (Boundary/Bathymetric Survey)	$ 12,630	$ 1,263	$ 13,893
Norton Corrosion (Corrosion Protection)	$ 34,546	$ 3,455	$ 38,001
RSA Engineering (Electrical/Power/Lighting)	$ 28,500	$ 2,850	$ 31,350
	$ -	$ -	$ -
Total Subconsultants	$ 393,445	$ 39,345	$ 432,790

B. Other Direct Costs (ODCs)			
Airfare (8 roundtrips @ $680 avg. est.)	$ 5,440	$ 544	$ 5,984
Lodging: 110 Resident Eng. (Contracted @ $35/night)	$ 3,850	$ 385	$ 4,235
Lodging: 12 Misc. (Est. $110/night)	$ 1,320	$ 132	$ 1,452
Per Diem: 110 Resident Eng. (Avg. $115 Fed. OCONUS rate)	$ 12,650	$ 1,265	$ 13,915
Meals: 12 Misc. ($60/day)	$ 720	$ 72	$ 792
Ground Transportation (ANC, SEA mileage, parking)	$ 400	$ 40	$ 440
Outside Reproduction	$ 600	$ 60	$ 660
Postage/Delivery	$ 120	$ 12	$ 132
Other	$ -	$ -	$ -
	$ 25,100	$ 2,510	$ 27,610

Subconsultant Mark-up: 10%
ODC Mark-up: 10%

IV. PROJECT SUMMARY/BREAKDOWN

Proposed Professional Fees (Tasks 1-7)

Moffatt & Nichol Labor		$ 579,742	55.7%
Subconsultant Cost		$ 393,445	37.8%
Other Direct Costs (ODCs)		$ 25,100	2.4%
Mark-up on Subconsultants		$ 39,345	3.8%
Mark-up on ODCs		$ 2,510	0.2%
Subtotal - Professional Fees (Tasks 1-7)		$ 1,040,142	
* Less Moffatt & Nichol Contribution (Task 2.1)		$ (7,886)	
Total - Proposed Professional Fees (Tasks 1-7)		$ 1,032,256	

Estimated Construction Budget

Overall Project Budget		$ 7,500,000	
Less Estimated Professional Fees (Tasks 1-5)		$ (790,114)	10.5%
Less Bid Phase Services (Task 6) **Not Authorized**		$ (19,596)	0.3%
Less Construction Phase Services (Task 7) **Not Authorized**		$ (222,546)	3.0%
Less CBS Administration Cost	Allow 3%	$ (225,000)	3.0%
Estimated Construction Budget		$ 6,242,744	

Fee Breakdown (Tasks 1-7)

Task	Description		Cost		
1	Project Management		$ 84,276	8.2%	
2	Site Investigation		$ 365,143	35.4%	
3	BOD and Concept Development		$ 32,085	3.1%	
4	Environmental Permitting		$ 40,149	3.9%	
5	Design and Bid Documents		$ 268,461	26.0%	
Total - Proposed Professional Fees (Tasks 1-5)		Total	$ 790,114	76.5%	12.7%
6	Bid Phase Services **Not Authorized**		$ 19,596	1.9%	
7	Construction Phase Services **Not Authorized**		$ 222,546	21.6%	
Total - Additional Services (Tasks 6-7) **Not Authorized*		Total	$ 242,142	23.5%	3.9%

16.7%

moffatt & nichol

Sawmill Cove Dock

Subconsultant Fee Proposal
Shannon & Wilson

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

ALASKA
CALIFORNIA
COLORADO
FLORIDA
MISSOURI
OREGON
WASHINGTON
WISCONSIN

April 14, 2014

Moffatt & Nichol
880 H Street, Suite 208
Anchorage, AK 99501

Attn: Shaun McFarlane, PE Phone: (907) 677-7500

RE: REVISED GEOTECHNICAL ENGINEERING SERVICES, SAWMILL COVE DOCK, SITKA, ALASKA

This letter presents our revised geotechnical scope of services and schedule in support of the proposed improvements to Sawmill Cove in Sitka, Alaska. Our most recent revision of this proposal was submitted on March 26, 2014 and this revision includes presenting upland test pit explorations and two of the proposed offshore borings as deductive alternates and visual assessment of rock and soil materials in several stockpiles within the project area. The work described in this letter includes subsurface explorations, engineering analyses, and further design support for the project. The improvements will include developing a new dock or bulkhead structure within the Sawmill Cove area just south of Sitka, Alaska. The proposed location of the new structure is on the west side of the cove, just north of the existing Silver Bay wharf structure. At the time of this proposal, a limited amount of subsurface information from the project area, however, our experience in the general project vicinity suggests that the project site likely has shallow bedrock conditions. Given that much of the upland area around the perimeter of the cove has been subject to development, a significant layer of fill soils likely exist within the project footprint. The condition of the fills is likely variable as much of the fill was likely placed in the wet to develop the uplands. Native soils likely consist of either unconsolidated ocean floor sediments, alluvial/estuary soils (deposited by the creek at the head of the cove), or glacial till. It is likely that soil deposits are relatively thin (less than 20 feet thick) given rock exposure around the cove and as noted by dive observations conducted for an existing bathymetric survey provided by the City of Sitka. However, given the glacial terrain of the area, it is possible that significantly thicker soil deposits exist over bedrock.

PROPOSED APPROACH

The following describes our proposed approach to provide the engineering recommendations requested for the project. The general approach includes preliminary data review and design/alternatives analysis support, site specific explorations, engineering analysis

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ANCHORAGE, ALASKA 99518
907-561-2120 • FAX 907-561-4483

and reporting, and design drawing development support. It is our opinion that the scope described herein is consistent with what you requested and the local standard of practice.

Task 1: Data Review and Preliminary Design Support

This task includes preliminary design support for the project, consisting of existing data review, participation in an initial site visit, and development of preliminary geotechnical design recommendations to support an alternatives analysis.

The initial portion of this task will include a detailed review of the available subsurface information from the project vicinity. We assume that the City of Sitka will provide all existing geotechnical from the project area that they have on file. We will also search our in-house library and other external sources such as the Alaska Department of Transportation & Public Facilities (ADOT&PF) and the Alaska Division of Geological and Geophysical Surveys (DGGS) for available surface information from the project area. This information will provide the basis for developing an understanding of the likely conditions at the site and our preliminary engineering analysis and geotechnical recommendations.

At your request, we have also included effort for attending a 3-hour kickoff meeting (assumed telecom or attendance in person if it is held in Anchorage) and an on-site meeting at the beginning of the project. We will mobilize our project manager from Anchorage to Sitka to attend the meeting in person. During time on site, our representative will visit the project site and observe surface conditions in and around the project area. In addition, our representative will visually observe approximately six stockpiles of soil and/or rock material that are present on the site. The purpose of the observations is to evaluate the potential uses for the materials for this or other projects. We have assumed that the meeting will require two full days (with one overnight in Sitka) including travel time. We assume that we will be responsible for lodging and subsistence for our personnel, but that you will provide transportation while in Sitka.

Upon completion of our attendance at the site visit and data review, we will develop a brief letter report summarizing our findings and presenting preliminary geotechnical engineering recommendations. The development of these recommendations will likely depend on coordination between our project manager and the rest of the design team as the alternatives analysis is developed. We envision that we will discuss a relatively wide range of alternatives in the letter in general terms, but include more focused discussions and preliminary recommendations on two to three favored alternatives (e.g. anchored sheet pile walls, cellular

cofferdams, pile supported structures, etc.). We will also include a brief narrative of the observations made at the site including a discussion of potential uses for the observed stockpiled materials.

Task 2: Explorations and Design Recommendations

This task includes site specific drilling and test pit explorations, laboratory testing, engineering analysis, and development of a geotechnical engineering report. This effort assumes that a preliminary design of the structure will be developed during the alternatives analysis, however, given the possible alternatives, there is likely some flexibility in what type of structure is ultimately addressed in our final engineering report. During this task, we will work closely with the design team to provide information as it becomes available so that adjustments to the approach can be made as soon as practicable.

Explorations:

Based on our correspondence, we have included scope and cost estimates for drilling five offshore borings and two onshore borings. Additional test pits (presented herein as a deductive alternate) may be conducted in upland areas to allow for evaluation of near-surface fills. These borings and test pits (if conducted) will facilitate our engineering studies for the proposed dock or bulkhead structure. It should be noted that this is an anticipated effort assuming no existing subsurface information is available. It is possible that if subsurface information of sufficient quality from the project area becomes available prior to explorations, the program could be reduced. Likewise, our effort described in this letter assumes a dock structure that is approximately 250 feet long (total length) and additional explorations may need to be conducted if through preliminary design, the dock length is significantly increased.

We assume that the onshore drill sites are accessible with a truck-mounted drilling rig and that the ground surface is not paved such that a tracked excavator can access the test pit locations. The exact locations of the explorations will be determined after a preliminary design and site layout has been developed. Prior to mobilization of the drilling equipment, coordination with the US Coast Guard (USCG) and the Marine Management service is required to obtain the necessary permits to perform the offshore work. Additional coordination with the US Army Corps of Engineers (USACE) for work under the Nationwide Permit Number 6 is required. We assume that you will procure all necessary permits and permissions to conduct the proposed explorations and that we will work in a support capacity through this process. We also assume

that the proposed boring locations will be accessible in that their locations will not cause obstruction to shipping lanes when the drilling platform has anchored on location. We will coordinate with the utility locate call center to locate potential utilities in the area and assume that the City of Sitka will assist in identifying private utilities (not covered by the public call center) within the project limits.

A truck mounted drill rig supplied by an Anchorage drilling subcontractor will perform the drilling work. The drill rig will be equipped to do auger/casing drilling, wire line rock coring, and soil sampling. A two-person crew from our drilling subcontractor and an experienced geotechnical staff member from Shannon & Wilson will travel to Sitka and conduct the drilling explorations. Note that offshore drilling will be conducted 24-hours per day consisting of two 12-hour shifts per day. A landing craft operator from the Juneau area will support the drill rig and crew for overwater drilling. The landing craft will be equipped with sufficient anchors to hold position during each boring exploration. We assume that the anticipated time frame for the drilling to occur will be between April and May 2014.

We will advance the offshore and upland borings through upper sediment and weathered bedrock layers up to approximately 30 feet into competent bedrock depending on the overburden thickness and rock quality. We estimate maximum boring depths to be approximately 60 to 80 feet below the mudline. In each of the borings, Standard or Modified Penetration Test drive samples (depending on the particle sizes that are being encountered) will be generally taken at 5-foot intervals in overburden soils, and continuous wireline coring will be done when bedrock is encountered.

After drilling is complete, and if the test pit explorations are authorized, we will mobilize a local excavator to the site to advance test pits. The test pits will be advanced to a maximum of approximately 15 feet below the ground surface or shallower if shallow rock or groundwater inhibits excavations. Test pits will only be conducted in areas where damage to existing structures and asphalt/concrete pavements will not be damaged, due to undermining or penetration at the surface. Upon completion, the test pits will be backfilled with cuttings removed during excavations and periodically tamped with the excavator bucket. Note that we have not included backfilling the excavations using moisture/density control.

An experienced engineering or geological specialist will be on site continuously to observe drilling and excavation activities, locate borings and test pits, log conditions encountered, and collect soil and rock samples. The soil samples will be sealed in air tight

containers and transported to our laboratory for testing, as necessary. The rock cores will be placed in 2-foot long core boxes, labeled, photographed, and then shipped back to Anchorage for detailed logging, selective testing, and storage. We plan to measure horizontal boring locations with our handheld, differential GPS unit. Classification of rock and soil samples will be consistent with the State of Alaska DOT standards described in the October 2003 Geotechnical Procedures Manual.

Lab Testing:

Laboratory tests will be performed on soil and rock samples to evaluate the material and foundation behavior characteristics of the material encountered. We anticipate that soil samples may have to be tested for natural water content, grain-size distribution, and possibly Atterberg Limits or one-dimensional consolidation tests, if appropriate. A few intact rock cores may be tested for compressive strength (point load or uniaxial compression tests), and hardness using the Schmidt Hammer. We will plan to adjust the types of tests and the testing program based on the actual conditions encountered. ASTM International procedures will generally be followed for all soils and rock testing.

Engineering and Reporting:

Upon completion of field work and laboratory tests, we will conduct geotechnical engineering analyses to evaluate the design parameters and provide recommendations needed for the design of the proposed project. Conclusions and recommendations will be tailored to the specific structure selected, but will generally address use of local materials for construction, pile design (sheet and/or pipe as appropriate), rock anchoring, placement of soil or rock fill, global stability, settlement, seismic design considerations, and construction consideration.

Along with the basic geotechnical recommendations, our report will also present a narrative description of the subsurface conditions encountered including a site description, a summary of field explorations, and laboratory test procedures and results. Logs of borings and test pits will support this description. Discussions of groundwater conditions and measured water levels in the explorations will also be included, if encountered. Our report will be performed under and sealed by a registered civil engineer experienced in geotechnical engineering. We will submit an electronic copy of our draft report for review and comment. Upon receipt of comments, we will address and provide four bound copies and one electronic copy of the final report.

Task 3: Design Support/Meetings

This task includes follow-on design support and attendance at design meetings throughout the project. The design review support will consist of a labor during development of the drawings and attendance at a 1-day design review meeting for the 65 percent design level. We have also included effort to attend via teleconference twelve weekly design team meetings at one hour each.

SCHEDULE

As stated above, we assume that the explorations described herein will take place this spring and summer. We anticipate that the Task 1 activities will be completed in approximately four weeks after receiving notice to proceed. We estimate that the explorations should take approximately seven days (including one day each for loading and unloading the drilling equipment from the drilling platform). This assumes that the offshore drilling will be accomplished expeditiously with no slowdowns due to difficult drilling conditions or weather. Laboratory testing should be completed roughly two to three weeks after explorations are complete. Development of our draft report will likely be a collaborative effort, but we estimate that it should be completed approximately 12 weeks after completion of the field work. Finalizing the report will depend on the nature of the comments received, but typically requires approximately two weeks. If the additive alternate is authorized, the field schedule will increase by approximately five days, but other efforts (lab testing, engineering, reporting, etc.) should not experience a significant lengthening due to the additional work and the total increase in schedule after field work should be less than approximately one week. Throughout this project, we will work closely with the design team to provide preliminary information on a continuing basis as it is developed by our studies. We will also notify you if unexpected conditions are encountered in the field so that the scope of services and/or the budget can be adjusted accordingly.

ESTIMATE COST AND FEE BASIS

We are prepared to undertake the above tasks on a time and materials basis as outlined on the attached summary cost estimate. Our fee for the above work and the terms under which our services are offered would be in accordance with a mutually agreed upon contract for professional services. If other services are desired after submittal of the report, such as additional meetings with our staff or inspection of construction; the cost would be in addition to that quoted above. We have included a line item fee for standby time in the event that weather

prevents demobilization of our crews from Sitka or prevents offshore drilling during storm events. We have also included line items on the cost estimate representing deductive alternates for in the event that the test pit explorations are not authorized or if the offshore drilling explorations are reduced by one or two borings.

To guide you in understanding and evaluating the nature of our work, we have also enclosed for your use *Important Information About Your Geotechnical/Environmental Proposal*. If you have any questions or comments or wish to revise the scope of our services, please contact the undersigned. We look forward to the opportunity to work with you on this project.

Sincerely,

SHANNON & WILSON, INC.

Kyle Brennan, P.E.
Senior Associate

Attachments: Summary Cost Estimate
Important Information About Your Geotechnical/Environmental Proposal

SUMMARY COST ESTIMATE
GEOTECHNICAL STUDIES

GEOTECHNICAL ENGINEERING SERVICES

Task 1: Data Review and Preliminary Design Support					**COST**
1. Existing Data Review					**$2,340.00**
Senior Associate	6	hrs. x	$170.00 /hr.	$1,020.00	
Sr. Engineering/Geology Staff	12	hrs. x	$110.00 /hr.	$1,320.00	
2. On-Site Meeting					**$2,366.00**
Sr. Associate	8	hrs. x	$170.00 /hr.	$1,360.00	
Airfare (R/T Anchorage To Sitka)	1	x	$748.00 each	$748.00	
Per diem (on-site meeting and travel)	2	days x	$60.00 /day	$120.00	
Lodging (one overnight)	1	days x	$138.00 /day	$138.00	
3. Kick-off Meeting (in person if in Anchorage or else telecom)					**$1,120.00**
Sr. Associate	4	hrs. x	$170.00 /hr.	$680.00	
Sr. Engineering/Geology Staff	4	hrs. x	$110.00 /hr.	$440.00	
4. Preliminary Engineering/Reporting					**$5,000.00**
Principal	1	hrs. x	$210.00 /hr.	$210.00	
Sr. Associate	6	hrs. x	$170.00 /hr.	$1,020.00	
Sr. Principal Engineer	10	hrs. x	$135.00 /hr.	$1,350.00	
Sr. Engineering/Geology Staff	20	hrs. x	$110.00 /hr.	$2,200.00	
Clerical/Drafting	4	hrs. x	$55.00 /hr.	$220.00	
Task 2: Explorations and Design Recommendations					
1. Project Setup and Coordination					**$1,640.00**
Sr. Principal Engineer	4	hrs. x	$135.00 /hr.	$540.00	
Sr. Engineering/Geology Staff	10	hrs. x	$110.00 /hr.	$1,100.00	
2. Permit Support and Utility Locates					**$1,150.00**
Sr. Principal Engineer	2	hrs. x	$135.00 /hr.	$270.00	
Sr. Engineering/Geology Staff	8	hrs. x	$110.00 /hr.	$880.00	
3. Shannon & Wilson Mobilization					**$5,248.00**
Sr. Engineering/Geology Staff (field prep)	8	hrs. x	$110.00 /hr.	$880.00	
Sr. Engineering/Geology Staff (travel time)	16	hrs. x	$110.00 /hr.	$1,760.00	
Sr. Engineering/Geology Staff	16	hrs. x	$85.00 /hr.	$1,360.00	
Airfare (R/T Anchorage To Sitka)	1	x	$748.00 each	$748.00	
Equipment/Sample Shipping	1	x	$500.00 each	$500.00	
4. Explorations					**$256,300.00**
Driller mob/demob	1	x	$34,040.00 each	$34,040.00	
Landing Craft mob/demob	1	x	$24,288.00 each	$24,288.00	
Drilling (offshore including loading/unloading drill rig)	16	shifts x	$5,348.00 each	$85,568.00	
Landing Craft (offshore drilling)	8	days x	$7,728.00 each	$61,824.00	
Drilling (onshore)	2	shifts x	$5,348.00 each	$10,696.00	
Drilling expendables (bits for auger/casing, coring bits, etc)	1	x	$9,200.00 each	$9,200.00	
Excavator mob/demob	2	x	$460.00 each	$920.00	
Excavator (excavate and backfill test pits)	8	hrs. x	$230.00 /hr.	$1,840.00	
Sr. Engineering/Geology Staff (offshore drilling 12-hour shifts)	96	hrs. x	$110.00 /hr.	$10,560.00	
Engineering/Geology Staff III (offshore drilling 12-hour shifts)	96	hrs. x	$85.00 /hr.	$8,160.00	
Sr. Engineering/Geology Staff (onshore drilling 12-hour shifts)	24	hrs. x	$110.00 /hr.	$2,640.00	
Sr. Engineering/Geology Staff (test pits 12-hour shifts)	12	hrs. x	$110.00 /hr.	$1,320.00	
Per diem (18 person days work, 4 person days travel)	22	days x	$60.00 /day	$1,320.00	
Lodging	18	days x	$114.00 /day	$2,052.00	
Rental Car	18	days x	$104.00 /day	$1,872.00	
5. Laboratory Testing					**$10,105.00**
Moisture Content	120	x	$15.00 each	$1,800.00	
Grain Size (with hydrometer)	24	x	$175.00 each	$4,200.00	
Atterberg Limits	7	x	$190.00 each	$1,330.00	
One Dimensional Consolidation	3	x	$350.00 each	$1,050.00	
Point Load Tests (bedrock)	35	x	$25.00 each	$875.00	
Uniaxial Compression	10	x	$85.00 each	$850.00	
6. Draft Report (Geotechnical)					**$22,940.00**
Principal	6	hrs. x	$190.00 /hr.	$1,140.00	
Sr. Associate	20	hrs. x	$155.00 /hr.	$3,100.00	
Sr. Principal Engineer	45	hrs. x	$130.00 /hr.	$5,850.00	
Sr. Engineering/Geology Staff	150	hrs. x	$82.00 /hr.	$12,300.00	
Clerical/Drafting	10	hrs. x	$55.00 /hr.	$550.00	

SUMMARY COST ESTIMATE
GEOTECHNICAL STUDIES

7. Final Report (Geotechnical)					**$4,160.00**
Principal	2	hrs. x	$190.00 /hr.	$380.00	
Associate	4	hrs. x	$155.00 /hr.	$620.00	
Sr. Principal Engineer	10	hrs. x	$130.00 /hr.	$1,300.00	
Sr. Engineering/Geology Staff	20	hrs. x	$82.00 /hr.	$1,640.00	
Clerical/Drafting	4	hrs. x	$55.00 /hr.	$220.00	
Task 3: Design Support/Meetings					
1. Project Setup and Coordination					**$5,400.00**
Sr. Associate (ongoing design review)	4	hrs. x	$170.00 /hr.	$680.00	
Sr. Associate (65 percent review meeting)	8	hrs. x	$170.00 /hr.	$1,360.00	
Sr. Associate (weekly design team meeting)	12	hrs. x	$170.00 /hr.	$2,040.00	
Sr. Engineering/Geology Staff (weekly design team meeting)	12	hrs. x	$110.00 /hr.	$1,320.00	
				Total:	**$317,769.00**
Deductive Alternate (Removal of one offshore boring and associated lab testing and reporting)					
1. Explorations					**$32,705.00**
Drilling (offshore)	3	shifts x	$5,348.00 each	$16,044.00	
Landing Craft (offshore drilling)	1.5	days x	$7,728.00 each	$11,592.00	
Drilling expendables (bits for auger/casing, coring bits, etc)	1	x	$575.00 each	$575.00	
Sr. Engineering/Geology Staff (offshore drilling 12-hour shifts)	24	hrs. x	$110.00 /hr.	$2,640.00	
Engineering/Geology Staff III (offshore drilling 12-hour shifts)	12	hrs. x	$85.00 /hr.	$1,020.00	
Per diem (3 person days work)	3	days x	$60.00 /day	$180.00	
Lodging	3	days x	$114.00 /day	$342.00	
Rental Car	3	days x	$104.00 /day	$312.00	
2. Laboratory Testing					**$900.00**
Moisture Content	10	x	$15.00 each	$150.00	
Grain Size (with hydrometer)	2	x	$175.00 each	$350.00	
Atterberg Limits	1	x	$190.00 each	$190.00	
Point Load Tests (bedrock)	5	x	$25.00 each	$125.00	
Uniaxial Compression	1	x	$85.00 each	$85.00	
3. Reporting (Geotechnical)					**$1,135.00**
Sr. Principal Engineer	2	hrs. x	$130.00 /hr.	$260.00	
Sr. Engineering/Geology Staff	10	hrs. x	$82.00 /hr.	$820.00	
Clerical/Drafting	1	hrs. x	$55.00 /hr.	$55.00	
Deductive Alternate Total (Per Offshore Hole Removed, Assumed Not More Than Two Holes Removed):					**$34,740.00**
Deductive Alternate (If test pit explorations are not authorized)					
1. Explorations					**$4,358.00**
Excavator mob/demob	2	x	$460.00 each	$920.00	
Excavator (excavate and backfill test pits)	8	hrs. x	$230.00 /hr.	$1,840.00	
Sr. Engineering/Geology Staff (test pits 12-hour shifts)	12	hrs. x	$110.00 /hr.	$1,320.00	
Per diem	1	days x	$60.00 /day	$60.00	
Lodging	1	days x	$114.00 /day	$114.00	
Rental Car	1	days x	$104.00 /day	$104.00	
2. Laboratory Testing					**$1,230.00**
Moisture Content	12	x	$15.00 each	$180.00	
Grain Size (with hydrometer)	6	x	$175.00 each	$1,050.00	
3. Draft Report (Geotechnical)					**$458.00**
Sr. Principal Engineer	1	hrs. x	$130.00 /hr.	$130.00	
Sr. Engineering/Geology Staff	4	hrs. x	$82.00 /hr.	$328.00	
Deductive Alternate Total (If Test Pits are Not Authorized):					**$6,046.00**
Weather Standby (at discretion of barge captain)					**$7,913.00**
Sr. Engineering/Geology Staff	8	hrs. x	$110.00 /hr.	$880.00	
Engineering/Geology Staff III	8	hrs. x	$85.00 /hr.	$680.00	
S&W subsistance/lodging/car (two people)	2	days x	$560.00 /day	$1,120.00	
Driller (barge included)	1	day x	$5,233.00 /day	$5,233.00	

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

Attachment to and part of Proposal 32-2-04557r2

Date: April 2014
To: Moffatt Nichol
Re: Sawmill Cove Dock, Sitka, Alaska

Important Information About Your Geotechnical/Environmental Proposal

More construction problems are caused by site subsurface conditions than any other factor. The following suggestions and observations are offered to help you manage your risks.

HAVE REALISTIC EXPECTATIONS.

If you have never before dealt with geotechnical or environmental issues, you should recognize that site exploration identifies actual subsurface conditions at those points where samples are taken, at the time they are taken. The data derived are extrapolated by the consultant, who then applies judgment to render an opinion about overall subsurface conditions; their reaction to construction activity; appropriate design of foundations, slopes, impoundments, recovery wells; and other construction and/or remediation elements. Even under optimal circumstances, actual conditions may differ from those inferred to exist, because no consultant, no matter how qualified, and no subsurface program, no matter how comprehensive, can reveal what is hidden by earth, rock, and time.

DEVELOP THE SUBSURFACE EXPLORATION PLAN WITH CARE.

The nature of subsurface explorations—the types, quantities, and locations of procedures used—in large measure determines the effectiveness of the geotechnical/environmental report and the design based upon it. The more comprehensive a subsurface exploration and testing program, the more information it provides to the consultant, helping to reduce the risk of unanticipated conditions and the attendant risk of costly delays and disputes. Even the cost of subsurface construction may be lowered.

Developing a proper subsurface exploration plan is a basic element of geotechnical/environmental design, which should be accomplished jointly by the consultant and the client (or designated professional representatives). This helps the parties involved recognize mutual concerns and makes the client aware of the technical options available. Clients who develop a subsurface exploration plan without the involvement and concurrence of a consultant may be required to assume responsibility and liability for the plan's adequacy.

READ GENERAL CONDITIONS CAREFULLY.

Most consultants include standard general contract conditions in their proposals. One of the general conditions most commonly employed is to limit the consulting firm's liability. Known as a "risk allocation" or "limitation of liability," this approach helps prevent problems at the beginning and establishes a fair and reasonable framework for handling them, should they arise.

Various other elements of general conditions delineate your consultant's responsibilities. These are used to help eliminate confusion and misunderstandings, thereby helping all parties recognize who is responsible for different tasks. In all cases, read your consultant's general conditions carefully and ask any questions you may have.

HAVE YOUR CONSULTANT WORK WITH OTHER DESIGN PROFESSIONALS.

Costly problems can occur when other design professionals develop their plans based on misinterpretations of a consultant's report. To help avoid misinterpretations, retain your consultant to work with other project design professionals who are affected by the geotechnical/environmental report. This allows a consultant to explain report implications to design professionals affected by them, and to review their plans and specifications so that issues can be dealt with adequately. Although some other design professionals may be familiar with geotechnical/environmental concerns, none knows as much about them as a competent consultant.

OBTAIN CONSTRUCTION MONITORING SERVICES.

Most experienced clients also retain their consultant to serve during the construction phase of their projects. Involvement during the construction phase is particularly important because this permits the consultant to be on hand quickly to evaluate unanticipated conditions, to conduct additional tests if required, and when necessary, to recommend alternative solutions to problems. The consultant can also monitor the geotechnical/environmental work performed by contractors. It is essential to recognize that the construction recommendations included in a report are preliminary, because they must be based on the assumption that conditions revealed through selective exploratory sampling are indicative of actual conditions throughout a site.

Because actual subsurface conditions can be discerned only during earthwork and/or drilling, design consultants need to observe those conditions in order to provide their recommendations. Only the consultant who prepares the report is fully familiar with the background information needed to determine whether or not the report's recommendations are valid. The consultant submitting the report cannot assume responsibility or liability for the adequacy of preliminary recommendations if another party is retained to observe construction.

REALIZE THAT ENVIRONMENTAL ISSUES MAY NOT HAVE BEEN ADDRESSED.

If you have requested only a geotechnical engineering proposal, it will not include services needed to evaluate the likelihood of contamination by hazardous materials or other pollutants. Given the liabilities involved, it is prudent practice to always have a site reviewed from an environmental viewpoint. A consultant cannot be responsible for failing to detect contaminants when the services needed to perform that function are not being provided.

ONE OF THE OBLIGATIONS OF YOUR CONSULTANT IS TO PROTECT THE SAFETY, PROPERTY, AND WELFARE OF THE PUBLIC.

A geotechnical/environmental investigation will sometimes disclose the existence of conditions that may endanger the safety, health, property, or welfare of the public. Your consultant may be obligated under rules of professional conduct, or statutory or common law, to notify you and others of these conditions.

RELY ON YOUR CONSULTANT FOR ADDITIONAL ASSISTANCE.

Your consulting firm is familiar with several techniques and approaches that can be used to help reduce risk exposure for all parties to a construction project, from design through construction. Ask your consultant, not only about geotechnical and environmental issues, but others as well, to learn about approaches that may be of genuine benefit.

The preceding paragraphs are based on information provided by the
ASFE/Association of Engineering Firms Practicing in the Geosciences, Silver Spring, Maryland

1/2002

moffatt & nichol

Sawmill Cove Dock

Subconsultant Fee Proposal
DOWL HKM

COST ESTIMATE PER TASK

FIRM: DOWL HKM | PROJECT TITLE: Sitka Sawmill Cove Dock

TASK NO: 1 | TASK DESCRIPTION: Marine Survey and Partial Uplands Survey | DATE: 4/11/2014

GROUP: | METHOD OF PAYMENT: FP ☐ FPPE ☐ T&E ☑ CP ☐ | PREPARED BY: W. Pence

SUB-TASK NO.	SUB-TASK DESCRIPTION	Professional Land Surveyor V (BP)	Professional Land Surveyor III	2 Person Crew W/ GPS	1 Person Surv. W/ GPS	Surveyor Party Chief	Survey Tech	AutoCad Tech	Admin.							
1	Project Management	3							1							
	Mob & Travel		6				4									
	Data Reductions, Computations, Research	4	3													
	Field Survey Bathymetry & Uplands			11												
	Field Survey Control			4												
	Site Plan Prep	2						10								
	Pile Quantity Survey	2			9	2		1								
TOTAL LABOR HOURS		11	9	15	9	2	4	11	1	0	0	0	0			
* LABOR RATES ($/HR)		$165.00	$150.00	$190.00	$120.00	$100.00	$85.00	$100.00	$85.00	$110.00	$90.00	$115.00	$70.00			
LABOR COSTS ($)		$1,815.00	$1,350.00	$2,850.00	$1,080.00	$200.00	$340.00	$1,100.00	$85.00	$0.00	$0.00	$0.00	$0.00			

SUB-TASK NO.	ITEM(S)	QUANTITY	UNIT PRICE	TOTAL PRICE
1 exp	Per Diem (2 person crew for 2 days)	5	$68.00	$340.00
	Airfare JNU-SIT RT	2	$352.00	$704.00
	Boat Rental	1	$800.00	$800.00
	Lodging	3	$140.00	$420.00
	Fathometer shipping & rental	1	$900.00	$900.00
	Vehicle Rental	3	$100.00	$300.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
			TOTAL EXPENSES:	$3,464

COMMENTS:
The limits of the bathymetric survey is 150' beyond the limits of the proposed Bulkhead Dock bounded by the uplands.
Uplands survey 30' beyond top of bank.

Pile Quantity Survey is Based on 6 material piles at one or 2 locations.

FIRM'S TOTAL COST OF LABOR (or Fixed Price):	$8,820
IF CPFF, TOTAL INDIRECT COST @ 0.00%	$0
FIRM'S TOTAL EXPENSES (+10% markup)	$3,810
FIRM'S TOTAL COST (no Subcontracts or Fee)	$12,630
TOTAL SUBCONTRACTOR PRICES:	$0

SUB-CONTRACTORS: Firm Initials and Price Per Task

FIRM:									
AMOUNT:									

* Labor Rates shall be direct labor (base pay) only if Method of Payment is CPFF; otherwise, Labor Rates shall be total rates (i.e. base pay + benefits + overhead + profit.)

moffatt & nichol

Sawmill Cove Dock

Subconsultant Fee Proposal
Norton Corrosion

NORTON CORROSION LIMITED

8820 222nd Street SE, Woodinville, WA 98077
Phone (425) 483-1616 • Fax (425) 485-1754
e-mail: pgoodwin@nortoncorrosion.com

April 4, 2014

Paul Wallis
Moffatt & Nichols
Anchorage, AK
pwallis@moffattnichol.com

Ph 907.677.7500
Cell 907.227.7129

Subject: **CATHODIC PROTECTION ENGINEERING & DESIGN**
SAWMILL COVE INDUSTRIAL PARK DOCK PROJECT
SITKA, ALASKA

Dear Paul:

As requested, please consider this revised proposal for your above noted project. Per your comments in your email dated today April 4, 2014, we have taken out all site visits out of our costs noted below. NCL understands that this proposal is to include our efforts in the following areas:

1. Pre-Design Support: Participation in a kickoff meeting. Gathering of samples and site CP design considerations to be provided/verified by others. The following items might be required:
    a. Water Samples: In addition to samples from the water surface, samples from water depths of 10 ft below the surface may be recommended. Moreover, NCL has concerns regarding possible fresh water influences to the project area.
    b. AC power availability needs to be verified for possible ICCP system consideration.
    c. Verification of possible influences of foreign CP systems in the project area.
    d. Review of the possible effects that a new CP system might have on neighboring structures.
2. Design Phase: NCL is to provide CP design drawings and specifications. We understand that there will be a four step submittal process.
3. Bid Phase: NCL will provide assistance in answering CP related questions during the bid phase and review CP submittals

Please consider the following:

Item	Quantity	Description- NCL's Approach to Project	Rate	Ext. Rate
		Pre-Design Work		
1	2 hrs	Review current and historic documents by NCL Principal	$209.00	$418.00
2	2 hrs	Project Management/Project Work Plan	$209.00	$418.00
3	1 hrs	Project Cost Control	$209.00	$209.00
4	4 hrs	Kick-off Meeting & Meeting Follow up: Via conference phone call, NCL to participate in kick-off meeting discuss latest project information, solidify design focus guidelines and provide meeting follow up.	$176.00	$704.00
		Pre-Design-Estimated Budget		**$1,331.00**

			Design and Specifications 1st Submittal-35%		
5	4	hrs	Basis of Design	$176.00	$704.00
6	4	hrs	Design Calculations	$176.00	$704.00
7	2	hrs	Prepare Specifications	$176.00	$352.00
8	4	hrs	Prepare Cost Estimate of materials, manpower, and installation support/assistance needs.	$176.00	$704.00
9	4	hrs	Prepare Design Drawings supporting new design (Engineer)	$176.00	$704.00
10	8	hrs	CAD Drawings	$93.00	$744.00
11	2	hrs	Secretarial Support	$72.00	$144.00
12	1	hrs	Principal Review	$209.00	$209.00
			1st Submittal-Estimated Budget		**$4,265.00**
			Design and Specifications 2nd Submittal-65%		
13	4	hrs	35% Submittal Revision Review & Phone Meetings	$176.00	$704.00
14	6	hrs	Basis of Design	$176.00	$1,056.00
15	12	hrs	Design Calculations	$176.00	$2,112.00
16	20	hrs	Prepare Specifications	$176.00	$3,520.00
17	8	hrs	Prepare Cost Estimate of materials, manpower, and installation support/assistance needs.	$176.00	$1,408.00
18	12	hrs	Prepare Design Drawings supporting new design (Engineer)	$176.00	$2,112.00
19	20	hrs	CAD Drawings	$93.00	$1,860.00
20	4	hrs	Secretarial Support	$72.00	$288.00
21	4	hrs	Principal Review	$209.00	$836.00
			2nd Submittal-Estimated Budget		**$13,896.00**
			Design and Specifications 3rd Submittal-95%		
22	2	hrs	65% Submittal Revision Review	$176.00	$352.00
23	4	hrs	Basis of Design	$176.00	$704.00
24	4	hrs	Design Calculations	$176.00	$704.00
25	12	hrs	Prepare Specifications	$176.00	$2,112.00
26	4	hrs	Prepare Cost Estimate of materials, manpower, and installation support/assistance needs.	$176.00	$704.00
27	8	hrs	Prepare Design Drawings supporting new design (Engineer)	$176.00	$1,408.00
28	10	hrs	CAD Drawings	$93.00	$930.00
29	4	hrs	Secretarial Support	$72.00	$288.00
30	2	hrs	Principal Review	$209.00	$418.00
			3rd Submittal-Estimated Budget		**$7,620.00**
			Design and Specifications 4th Submittal-Final		
31	2	hrs	95% Submittal Revision Review	$176.00	$352.00
32	2	hrs	Basis of Design	$176.00	$352.00
33	2	hrs	Design Calculations	$176.00	$352.00
34	4	hrs	Prepare Specifications	$176.00	$704.00
35	2	hrs	Prepare Cost Estimate of materials, manpower, and installation support/assistance needs.	$176.00	$352.00
36	4	hrs	Prepare Design Drawings supporting new design (Engineer)	$176.00	$704.00
37	8	hrs	CAD Drawings	$93.00	$744.00

38	2	hrs	Secretarial Support	$72.00	$288.00
39	2	hrs	Principal Review	$209.00	$418.00
			4th Submittal-Estimated Budget		**$4,266.00**
			Bid Support		
40	10	hrs	Research and respond to CP related bid questions	$176.00	$1,760.00
41	2	lot	Review contractor CP Submittals (we have allotted for two submittal reviews-if there are more than two each additional review will be $704.00)	$704.00	$1,408.00
			Bid Support		**$3,168.00**
			Total Estimated Budget-Bid Support		**$34,546.00**

Terms: Net 30 days on approved credit. Validity of proposal 60 days. NCL maintains $3/5 Million professional liability insurance- higher limits are available at additional cost.

Thank you for the opportunity to present this proposal. We look forward to your positive response.

Sincerely,

Philip Goodwin
Technical Marketing

Authorized by Date

(7) SC\PBC\MoffattNichols_SawmillCoveA

moffatt & nichol

Sawmill Cove Dock

Subconsultant Fee Proposal
RSA Engineering

March 20, 2014
Revised March 28, 2014

Moffatt & Nichol
880 H Street, Suite 208
Anchorage, AK 99501

ATTENTION: Shaun G. McFarlane, P.E.

Dear Shaun,

REFERENCE: Sawmill Cove Dock Project Electrical Fee Proposal

RSA Engineering is pleased to offer a fee proposal for electrical engineering services for the referenced project. Our understanding of the scope of work required for this project is based on a meeting held at your offices with Paul Wallis on 3/13/2014:

- The City and Borough of Sitka is pursuing a new waterfront dock facility at the Sawmill Cove location in Sitka, Alaska. Although the exact size and type of dock are unknown at this time, it is anticipated that the structure will consist of a sheet pile bulkhead and/or a pier dock.
- RSA's design will include area lighting, power distribution, electrical service upgrades (if required) and coordination with other disciplines to ensure all items requiring electrical connections are captured.
- Lighting design is anticipated to include the minimum requirements for lighting the dock mooring only. It is our understanding that any additional lighting for work in the area will be determined in later project phases.
- Power distribution design is anticipated to include limited shore power receptacles for vessels of 150' or more. Shore power will be included in 4 locations along the dock face. Additionally, power supply to the cathodic protection system if applicable will be included.
- Our design will also include a new electrical service for the dock as well as coordination with the City and Borough of Sitka Electrical Department for a utility line extension to the new service.
- There will be no electronic security or CCTV systems included in this phase.
- It is our understanding that there will be design document submittals at the 35%, 65% and 95% phases for Owner review, and a final 100% construction document submittal. We anticipate using 2004 CSI specifications with outline specifications to be provided at 65% and edited specs at 95% review and 100% submittal phases.
- This fee assumes that RSA will attend the following design and construction meetings.
    - One 3-hour Design Kick-off meeting
    - Weekly progress meetings during design and construction (24 total).

  - Design review meetings at 35%, 65% and 95%

- We anticipate a limited amount of in office construction administration time will be required for necessary review of submittals and RFIs.
- Our fee proposal includes three (3) site visits, one (1) to be performed at the pre-design phase to determine existing site conditions and two (2) construction phase inspections.

Exclusions:

- We have excluded Permitting Services, Commissioning Services, LEED Services, Cost Estimation Services and Reproduction Services from our proposal at this time. If these services are desired in future, we propose to negotiate costs for the work at that time.
- The cathodic protection system design is not included with our fee proposal as it is understood that this service is being designed by another firm. RSA's involvement will be limited to the necessary coordination to provide power to the cathodic protection system.

RSA proposes to provide these service the following fee, which will be billed on a time and expenses basis at our standard hourly rates:

Task Description	**Fee**	**Reimbursables**
Pre-Design Site Visit	$ 1,825.00	$1,300.00
35% Design	$ 3,025.00	
65% Design	$ 4,275.00	
95% Design & Specs	$ 5,100.00	
100% Design & Specs	$ 2,075.00	
In-House CA	$ 4,650.00	
2 Site Inspections	$ 3,650.00	$2,600.00
Subtotals	$24,600.00	$3,900.00
TOTAL	**$28,500.00**	

Please review and advise if this proposal is acceptable by signing below and returning a copy to our office as our notice to proceed. We have attached a copy of our Standard Terms and Conditions to provide guidelines for contractual issues in the absence of a formal contract for this project. We look forward to working with you on this project.

Sincerely,

Timothy Hall, P.E.
Vice President

db/teh/hhm
14-0181r/L4034
Attachment

_____
Accepted for the Moffatt & Nichol

RSA Engineering, Inc. – Standard Terms and Conditions

This document is intended to provide guidelines for contractual issues in the absence of a contract supplied by our client.

Performance:
RSA Engineering, Inc., herein known as RSA and its employees will exercise the degree of skill and care expected by customarily accepted practices and procedures. No warranties, expressed or employed, are made with respect to RSA's performance, unless agreed in writing. RSA is not a guarantor of the project to which its services are directed, and responsibility is limited to work performed for the client. RSA is not responsible for acts and omissions of the client, nor for third parties not under its direct control. RSA shall not be liable for any reason for any special, indirect or consequential damages including loss of use and/or loss of profit. RSA may rely upon information supplied by the client engaging RSA and its contractors or its consultants without independent verifications.

Ownership of Documents:
Documents prepared under this agreement are instruments of Service for the sole use and benefit of the Owner. RSA retains a property interest in the work products including rights to copy and reuse. RSA grants the Owner a perpetual and non-transferrable license to reproduce the Instruments of Service for their intended use, including the right to reproduce for construction, upkeep, operation and maintenance. RSA will incur no liability from the unauthorized use or modification of the Instruments of Service for other than their original purpose without RSA's written permission. RSA's signatures, professional seals and dates shall be removed from the Instruments of Service when these documents are used for other than their intended purposes.

Governing Law:
This contract shall be governed by the laws of the State of Alaska, and any lawsuits brought thereon shall be filed at the Judicial District Court in Anchorage, Alaska.

Insurance:
RSA maintains errors and omission insurance (claims made basis), commercial general liability insurance, automobile liability insurance and workers compensation and employer's liability insurance for employees performing work under this contract.

Indemnity:
RSA shall indemnify, defend and hold the client, agents and employees harmless from and against any and all claims, demands, suits, liability of any nature under this agreement resulting from negligent acts, errors or omissions of RSA, RSA's officers, agents, and subconsultants who are directly responsible to RSA. RSA is not required to indemnify, defend or hold harmless the client for a claim of, or liability for, independent negligent acts, errors, or omissions of the client. If there is a claim of, or liability for, a joint negligent act, error or omission of RSA and the Client, the indemnification, defense and hold harmless obligation of this agreement shall be apportioned on a comparative fault basis.

Dispute Resolution:
Prior to initiating court action, RSA and the client shall in good faith seek to settle or resolve the controversy by submitting the matter to mediation in Anchorage, Alaska. Such notice shall be within the statutory time limit for commencing a legal action involving the controversy. The independent third party Mediator will be selected by mutual consent of both Parties from a list of available members of the American Arbitration Association.

Arbitration:
At the election of either party, any dispute arising between the parties herein relating to the subject matter of this agreement shall be resolved by arbitration. The results of said arbitration shall be conclusive, final and binding upon all parties and may be entered into any initial Court of Records as a final judgment. Arbitration proceedings shall be conducted pursuant to the administrative procedural rules promulgated by the American Arbitration Association. Any final arbitration award shall include an award for all reasonable costs and reasonable attorney fees.

Proposals:
Proposals expire 90 days after submission to a client unless a different expiration limit is included in the proposal. RSA may withdraw or modify a proposal at any time prior to acceptance by the client.

Payments:
Payments for RSA Services shall be made after client's approval of RSA submission and invoice. Client shall review and approve each submission and invoice and shall pay the invoice amount with in 30 days (or other agreed upon timetable) of approval. If the owner does not approve a submission it shall be returned to RSA for revision.

Invoicing:
RSA will invoice on a monthly basis. All invoices shall be due and payable upon receipt. Interest charges of 1.5% per month may be assessed for unpaid balances beyond 120 days past due unless other arrangements are made. In the event billing is on a pay when paid basis, RSA and the client agree to six months past due prior to assessing interest charges unless other arrangements are made. It is agreed that in the event of failure of the client to make payments in compliance with this agreement, RSA, at its option, may terminate all services in connection with this agreement.

Termination:
This contract may be terminated by either party upon 30 days written notice, should the other party fail to substantially perform in accordance with the terms and conditions herein. In the event of termination the consultant shall be paid compensation for services actually performed and for reimbursable expenses actually incurred. RSA reserves the right to complete analysis and records as are necessary to put files in order, and were considered by us necessary to protect our professional reputation.

FY2015 CBS CAPITAL IMPROVEMENT PROJECTS STATE REQUEST

Project Title: SAWMILL COVE INDUSTRIAL PARK WATERFRONT DEVELOPMENT

Total Waterfront Development Project Cost:	**$ 7,100,000**
FY2015 State Priority 1 Funding Request:	**$ 7,100,000**
Previous Upland Development Funded:	**$ 9,850,000 (Federal)**
	$ 7,500,000 (State)
	$ 2,500,000 (CBS)
City and Borough of Sitka Federal Tax ID Number:	**92-0041163**

The City and Borough of Sitka (CBS) requests the State continue to partner with the CBS to develop the waterfront at the Sawmill Cove Industrial Park (SCIP) by providing $7,100,000. The State recently included $7.5 million dollars for construction of a bulkhead dock at the SCIP in the November 2012 General Obligation Transportation Project Bond. This central waterfront bulkhead project funding will allow for the construction of a bulkhead dock, fender system, uplands improvements, and other infrastructure improvements to allow barge freight to come over the dock. The CBS is requesting further assistance to construct additional waterfront infrastructure needed to accommodate bulk water tankers and other larger ocean going vessels and continue to complete the multi-purpose docking facility.

In 1993 the Alaska Pulp Corporation mill operation shut down, resulting in the loss of over 400 jobs in the community of Sitka. The City and Borough of Sitka took over the former Alaska Pulp Corporation mill site in 1999. Over $11,000,000 of Federal, State and CBS funds have been used to complete upland utilities, system upgrades, and paving. The State contributed $1 million toward a raw water line to allow for bulk water export. The Industrial Park is operational with multiple tenants. Total private investment into the Industrial Park is over $20,000,000. Development at the Industrial Park has created 60 full time jobs and seasonal employment for over 320 people.

The CBS has plans to develop a marine services industry at the Industrial Park and are currently under contract with Northern Economics to perform feasibility studies to determine the viability. Additionally, the CBS is currently involved in a public-private partnership to complete shoreline stabilization, which will provide much needed shoreline protection, help provide the base for future development, and provide a cost savings to the CBS.

The Waterfront Development total project cost is $7,100,000. The Sawmill Cove Industrial Park has not reached its full potential due to the lack of infrastructure to access the ocean and water based commerce. **Priority 1 includes additional uplands development, breasting/mooring dolphins, and catwalks.** This priority is the second phase to the central waterfront development allowing marine access to the Industrial Park and is critical to future development.

Past public investments into the Sawmill Cove Industrial Park have resulted in private investment, job creation, and a sustainable tax base for the CBS. The former Pulp Mill deep water dock formerly served ocean going container ships transiting across the Pacific Ocean. Sitka is closer to open ocean than any other Southeast port yet has no ability to function as a deep water port. The Waterfront Development Project at Sawmill Cove Park is the key to enabling Sitka to develop an economically viable deep water port intermodal facility once again.