File No. 1686

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY

Engineering Department

REQUEST FOR PROPOSALS

(C3) RFP E15-065

SUPPLY AND INSTALLATION ASSISTANCE for SALMON CREEK WATER PLANT MEMBRANE FILTERS

Issued by: Greg Smith
Greg Smith, Contract Administrator

Date: 10/15/14

SUPPLY AND INSTALLATION ASSISTANCE
FOR
SALMON CREEK WATER PLANT
MEMBRANE FILTERS

(C3) RFP No. E15-065

SCOPE OF SERVICES The City and Borough of Juneau (CBJ) is requesting proposals from Membrane System Suppliers (MSS) to provide a Membrane Water Filtration System for the Salmon Creek Water Treatment Plant in Juneau, Alaska. The water treatment plant construction is tentatively scheduled for completion on October 1, 2015.

REQUEST FOR PROPOSAL DOCUMENTS may be **obtained** from the Engineering Contracts Office, CBJ Engineering Department, Third Floor, Marine View Center, telephone (907) 586-0496.

PRE-PROPOSAL MEETING: A non-mandatory pre-proposal meeting will be held in the 3rd floor Engineering Department conference room, 230 South Franklin Street, Marine View center at **10:00 am Alaska time on October 27, 2014.** A conference call has been set up for the Pre-Proposal meeting. Proposers intending to participate via teleconference shall notify Tina Brown in the CBJ Engineering Contracts Division, at 907-586-0878, or email contracts@juneau.org by 4:30 p.m. on **October 24, 2014**.

QUESTIONS REGARDING THIS RFP: Greg Smith, Contract Administrator, phone (907) 586-0873, fax 907-586-4530, greg.smith@juneau.org is the sole point of contact for all issues pertaining to this procurement.

DEADLINE FOR PORPOSALS: 5 copies of the proposal in a **sealed envelope**, must be received by the Purchasing Division **prior to 2:00 p.m. Alaska Time on November 5, 2014**, or such later time as the Contract Administrator may announce by addendum to plan holders at any time prior to the submittal date. Proposals will be time-stamped by the Purchasing Division, which will establish the official time of receipt of proposals. Late proposals **will not** be accepted and will be returned unopened. Faxed or emailed proposal will not be accepted

Note: Mailing/delivery times to Alaska may take longer than other areas of the U.S.

Proposal documents delivered in person or by courier services must be delivered to:

PHYSCIAL LOCATION:
City and Borough of Juneau, Purchasing Division
105 Municipal Way, Room 300
Juneau, AK 99801

Proposal documents delivered in person of by the U.S. Postal Service must be mailed to:

MAILING ADDRESS:
City and Borough of Juneau, Purchasing Division
155 South Seward Street
Juneau, AK 99801

The CBJ Purchasing Division's phone number is 907-586-5258, and fax number is 907-586-4561.

Please affix the label below to the outer envelope in the lower left hand corner.

IMPORTANTNOTICE TO PROPOSER

To submit your proposal:

1. Print your company name and address on the upper left corner of your envelope.
2. **Complete this label and place it on the lower left corner of your envelope**

RFP NUMBER: E15-065

SUBJECT:
SUPPLY AND INSTALLATION ASSISTANCE FOR SALMON CREEK WATER PLANT MEMBRANE FILTERS

DATE OF OPENING AT 2:00 P.M. ALASKA TIME

SEALED PROPOSAL

Disadvantaged Business Enterprises are encouraged to respond.

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1.0 GENERAL INFORMATION

This Class 3 Request for Proposals (RFP) defines the scope of the project, explains the procedures for selecting a firm to provide the requested services, and defines the documents required to respond to the RFP.

1.1 Purpose

The City and Borough of Juneau (CBJ) is soliciting proposals from manufacturers interested in furnishing a membrane potable water filtration system. The filtration system will be required to produce at least 2 Million Gallons Per Day (MGD) of filtered surface water meeting the requirements of the U.S. Environmental Protection Agency's Long Term 2 Enhanced Surface Water Treatment Rule for removal of cryptosporidium and to provide removal of giardia and sediment causing turbidity. This facility will be located in Juneau, Alaska at the CBJ's Salmon Creek Water Treatment Facility located about 3 miles north of downtown Juneau on Egan Expressway.

This document solicits proposals from qualified Membrane System Suppliers (MSS) to provide submittals, materials, freight, parts, labor, installation assistance and operator training services for the membrane filtration system and associated equipment.

The Class 3 process is used for acquisition of professional service contracts estimated to be more than $50,000.

The CBJ intends to contract directly with the MSS at the cost and payment schedule provided under this proposal for the membrane filtration system and associated materials and required services. Subsequent to award of this contract, CBJ intends to bid and award a general construction contract for the Salmon Creek Water Treatment Plant at which time the Membrane System Supplier contract and the agreed upon terms and conditions will be assigned to the general construction contract. The Contract between the CBJ and MSS will dissolve and the MSS will enter into a contractual relationship with the General Contractor for the project. This arrangement will be similar in all respects to any other equipment supplier relationship established by the General Contractor.

1.2 Scope of Services

The MSS shall provide all equipment and services necessary to provide a membrane filtration system for the CBJ to meet the requirements of the EPA LT-2 regulations as specifically described in **Appendix A – Membrane Filtration System Specifications** for the Salmon Creek Water Treatment Plant in Juneau, Alaska and shall provide all installation and start-up assistance as specified at the price included in this request for proposals in **Appendix B Cost Proposal Form**.

A 100% Performance Bond will be required prior to award. The bond must be in a form satisfactory to the CBJ. In addition to the Performance Bond, the MSS must provide a one year warranty for all labor and materials. The warranty will provide coverage for a minimum of one year from the formal regulatory approval to operate the facility.

1.3 Completion Time

1. Within forty five (45) calendar days of Notice to Proceed the vendor must have Submittals as specified submitted to CBJ for review and approval.

2. CBJ will make every effort to complete review of the Submittals within forty five (45) days upon receiving a full and complete submittal set.

3. The new membrane filtration system must be in Juneau and ready for installation by July 15, 2015.

4. Installation and start-up testing, commissioning and ADEC Final Approval to Operate shall be obtained by October 1, 2015.

5. Inability of MSS to meet the above schedule may result in the rejection of your proposal as non-responsive.

1.4 Background

Juneau is Alaska's Capital City. The CBJ municipal offices are located at 155 South Seward Street, Juneau, Alaska 99801. The Engineering Department is located on the 3rd Floor of the Marine View Center, 230 South Franklin Street, Juneau, Alaska. The Salmon Creek Water Treatment Plant is located at about 3 Mile on Egan Drive, Juneau, Alaska 99801.

1.5 Questions

Questions regarding this proposal should be directed to:

Greg Smith, Contract Administrator
City and Borough of Juneau
ENGINEERING DEPARTMENT
Marine View Center – 3rd Floor
230 South Franklin Street
Juneau, Alaska 99801

Email: Greg.Smith@juneau.org
Attention: Greg Smith
Telephone: (907) 586-0873

Office hours are 8:00 a.m. to 4:30 p.m. local time, Monday through Friday.

1.6 Standard Contract Language

Attached to this RFP is the CBJ's standard contract (Attachment 1) which should be carefully reviewed by proposers, as it is the form of agreement that the CBJ intends that the selected Supplier sign in the event of acceptance of its proposal.

2.0 Rules Governing Competition

2.1 Pre-Proposal

Proposers should carefully examine the entire RFP, Attachments, Appendices and any addenda thereto, and all related materials and data referenced in the RFP. Proposers should become fully aware of the nature of the services requested and the conditions likely to be encountered in performing the services.

2.2 Proposal Development

The content of proposals will be kept confidential until the selection of the Supplier is publicly announced. All materials submitted in response to this RFP will become the property of the CBJ. One copy shall be retained for the official files of the Engineering Department and will become public record after announcement of the successful Proposer. The CBJ will not return proposals to the Proposer. The CBJ reserves the right to reject any or all proposals. Proposals are to be prepared in such a way as to provide a straightforward, concise delineation of the Proposer's capabilities to satisfy the requirements of this RFP. Emphasis should be concentrated on conformance to the RFP instructions, responsiveness to the RFP requirements, and on completeness and clarity of content.

This solicitation does not commit CBJ to select any Proposer(s) for the requested services. All costs associated with the respondents' preparations, submission and oral presentations (if applicable) shall be the responsibility of the Proposer.

All proposals must be signed. Proposals must be received in the number of copies stated in the RFP no later than the date and time specified in the cover letter. All copies of the proposals must be under sealed cover and plainly marked. Proposals not received by the date and time specified in the cover letter will not be considered.

2.3 Disclosure of Proposal Contents.

The City and Borough of Juneau, a municipal corporation and political subdivision of the State of Alaska, is subject to the Alaska Public Records Act codified at AS 40.25.100-220, and the public records provisions in the CBJ Charter, section 15.7. The contents of proposals submitted in response to this RFP will be kept confidential until the top ranked proposer is announced. Immediately following announcement, all proposals become public information. Trade secrets and other proprietary data contained in a proposal may be held confidential, to the extent allowed by law, by the Purchasing Officer, upon request in writing by a proposer. Material considered confidential by the proposer must be clearly identified and marked (page, section, etc.) by the proposer, and the proposer must include a brief statement that sets out the reasons for confidentiality. Marking the entire proposal confidential is not acceptable and may be cause for the City to reject your proposal as non-responsive.

3.0 PROPOSAL CONTENT REQUIREMENTS

To achieve a uniform review process and obtain the maximum degree of comparability for the Selection Committee, proposals should be organized in the manner specified below:

3.1 Title Page

Show the Request for Proposals subject, the name of your firm, address, telephone numbers, name of contact person and date of submission.

3.2 Table of Contents

Clearly identify the materials by section and page number.

3.3 Letter of Transmittal

Limit the Letter of Transmittal to one or two printed pages.

3.3.1 Briefly state your firm's understanding of the proposal requirements and summarize your capability to meet same.

3.3.2 Give name of the person who will be authorized to represent your firm, their title, address and telephone number.

3.3.3 Acknowledge Receipt of All Addenda: Failure to acknowledge addenda may result in the proposal being considered non-responsive and subject to rejection.

3.3.4 The transmittal letter must be signed by a corporate officer who has authority to bind the firm.

3.4 Scope of Services

Discuss the Scope of Services and how the firm will provide the desired equipment and services as detailed in Appendix A – Membrane Filtration System Specifications.

3.5 Equipment Information

The following questions must be answered completely and incorporated into the response to the RFP so that the equipment offered can be adequately evaluated.

3.5.1. Name of Organization

3.5.2. Name of Individual Representing the Organization, Title, Address, Phone, and Email Address.

3.5.3. Date and State of Incorporation of the Business

3.5.4. What is your approximate total bonding capacity?

3.5.5. Attach a financial statement, in a form that clearly indicates manufacturer's assets, liabilities and net worth. Include date of financial statement and the name of the firm preparing the statement

3.5.6. Who is the actual manufacturer of the equipment, and where is the manufacturing plant physically located?

3.5.7. How long has this manufacturer been producing this type of equipment?

3.5.8. Is the factory representative well established with certified factory trained technicians?

3.5.9. What is the average response time for normal problems and emergency repair?

3.5.10. How long has the distributor been supplying and manufacturing this equipment with the membranes proposed for use in Juneau?

3.5.11. Provide the distributor's name, address and phone number.

3.5.12. Provide the resumes of the factory trained technicians who are qualified to work on the supplied equipment. Resumes may be attached to the proposal as appendices.

3.5.13. How long has the equipment offered in this proposal been on the market in the United States?

3.5.14. How many installations of this equipment do you have in the United States?

3.5.15. Please provide us with the current contact names, addresses and phone numbers for a minimum of five (5) utilities comparable to ours that are currently using this equipment for the same purpose as intended in this RFP.

3.5.16. Please provide us with a list of currently operating systems in the State of Alaska and indicate those that have received Authorization to Operate from the Alaska Department of Environmental Conservation Drinking Water Program.

3.5.17. Provide Challenge Testing Report conducted in accordance with the US Environmental Protection Agency Membrane Filtration Guidance Manual for the system proposed for Juneau.

3.5.18. Provide evidence of California Department of Public Health Alternative Filtration Technology Certification for the system proposed for Juneau or certification from another State or Federal agency recognized by the USEPA or the Alaska Department of Environmental Conservation.

3.5.19. A one year warranty is required on all membrane system components. What additional warranty, if any, is offered on the various components? Does it include parts, labor and shipping?

3.5.20. Provide a basic process and instrumentation diagram (PID) schematic and written overview (System Functional Description) of how the equipment operates including the following:
   a. Feed Pumping (owner furnished feed pumps and VFDs with MSS control of feed pumps)
   b. Auto Strainers
   c. Membrane Filter System
   d. Backwash System
   e. Air Compressors
   f. Clean In Place Flux Maintenance Operation (acid/base/hypochlorite (including neutralization)
   g. Direct Integrity Testing Operation

3.5.21. Provide the recommended maintenance schedule and list of required routine replacement parts / equipment for the first five- (5) years of operation.

3.5.22. Provide drawings showing detailed dimensions of the complete membrane filter system showing major equipment items, tanks, pumps, air compressors, filter racks, etc.

3.6 COST PROPOSAL

Proposer must submit a proposal price by completing Appendix B – Cost Proposal, in its entirety. Appendix B shall be submitted in a sealed envelope separate from the rest of the proposal. Failure to submit this information will deem the proposer a non-responsive proposer and will result in rejection of your proposal.

4.0 EVALUATION OF PROPOSALS

4.1 Criteria

Proposals will be evaluated and scored, using the criteria on the EVALUATION/RANKING page, found at the end of this document, in order to ascertain which proposal best meets the needs of the CBJ. The items to be considered during the evaluation and the associated point values are numbered 1 though 8 on the EVALUATION/RANKING page.

4.2 Evaluation Data

The Evaluation Data discussed below is presented in an effort to delineate what criteria will be used to score proposals. Please do not include a separate section in your proposal for Evaluation Data. Much of the information discussed and requested below should be included in the proposal as part of the Proposal Content Requirements discussed in SECTION 3.0 of this Request for Proposals.

4.2.1 Past Record of Performance

a. Evaluation of the Proposer's experience with similar customers will be made. Detailed references including companies, specific contact persons and their phone numbers and locations should be provided.

4.2.2 Previous Alaska Experience with Membrane Filter Installations

a. Evaluation of Proposer's previous experience supplying membrane filtration systems in Alaska including reviews by the Alaska Department of Environmental Conservation will be made.

4.2.3 Proposed method to accomplish the Project and the capacity of the firm to perform the work within the estimated schedule

a. Evaluation will be made on the Proposer's ability to perform the desired services within the established schedule. The proposal should discuss the proposed schedule for the requested services and provide a reasonable timeline of activities.

4.2.4 Equipment Proposed

a. The proposal should specify and cover the quality and effectiveness of the equipment provided, challenge testing results, California Certifications and should cover any additional warranty (beyond the required one year warranty from ADEC Authorization to Operate) and overall quality.

b. Additional Warranty provided on the equipment beyond the required one year warranty.

4.2.5 Project Cost

a. Evaluation will include assessment of costs with points awarded based on the following formula:

$$\text{Points Awarded} = \frac{\text{Lowest Cost Proposal}}{\text{(Price of Cost Proposal)}} \times \text{(Maximum Points for Cost)}$$

4.2.6 Qualifications of Personnel to be Used for this Project

a. Evaluation will be made of the Proposer's organization and the ability of the personnel who will provide the equipment, technical and supervisory assistance requested. The names, titles and resumes (containing pertinent work history/experience and training/education specifically with the proposed equipment and membranes) of those people who will provide assistance to the CBJ should be provided. Please indicate the experience of each member specifically as it applies to this type of project.

4.2.7 Quality of the Proposal

a. Evaluation will include the clarity and professional quality of the document(s) submitted and specific attention to this project.

4.3 Evaluation Process

Evaluation of the proposals will be performed by a committee selected by the City and Borough of Juneau. The intent of the CBJ is to make award based on written proposals.

5.0 SELECTION AND AWARD

An evaluation committee will review, evaluate, score and rank proposals, in accordance with criteria identified below and the Evaluation/Ranking sheet located at the end of this RFP. Clarification of submitted material may be requested during the evaluation process. Interviews by telephone with top ranked Proposers may also be conducted at the discretion of the evaluation committee. If necessary, in-person interviews will be conducted. Finalists will be notified and informed of interview requirements. In the event of a tie in the ranking totals, only the raw scores of the Proposers who are tied will be totaled to determine the appropriate ranking. The successful Proposer will be invited to enter into a contract with CBJ. Upon conclusion of successful compliance with any pre-award obligations including proof of insurance and Performance Bond, award will be made in the form of a contract and a purchase order. If an agreement cannot be reached during the process, the City will notify the Proposer and terminate the offer. Negotiations may then be conducted with the next Proposer in the order of its respective ranking.

6.0 INSURANCE REQUIREMENTS

The insurance requirements for this project are specified in **Appendix C – Insurance Requirements.**

7.0 PROTESTS

The protest period begins with the posting of a notice of apparent successful proposer, in the CBJ Purchasing Division.

Protests shall be executed in accordance with CBJ Ordinance 53.50.062 PROTESTS and 53.50.080 ADMINISTRATION OF PROTEST. Copies of the ordinances describing protest procedures are available from the CBJ Purchasing Division, 155 South Seward Street, Juneau, Alaska. Questions concerning protests or protest procedures should be directed to the CBJ Purchasing Officer at 907-586-5258. CBJ Ordinance 53.50 can be viewed electronically at the following internet address: www.juneau.org/law.

8.0 MSS's GOOD STANDING WITH CBJ FINANCE DEPARTMENT

MSS must be in good standing with the CBJ prior to award, and prior to any contract renewals, and in any event no later than ***seven business days*** following notification by the CBJ of intent to award. **Good standing** means: all amounts owed to the CBJ are current and the MSS is not delinquent with respect to any taxes, fees, assessment, or other monies due and owed the CBJ, or a Confession of Judgment has been executed and the MSS is in compliance with the terms of any stipulation associated with the Confession of Judgment, including being current as to any installment payments due; and MSS is current in all CBJ reporting obligations (such as sales tax registration and reporting and business personal property declarations). Failure to meet these requirements may be cause for rejection of your proposal. To determine if your business is in good standing, or for further information, contact the CBJ Finance Department's Sales Tax Division at (907) 586-5265 for sales tax issues, Assessor's Office at (907)586-0930 for business personal property issues, or Collections Division at (907) 586-5268 for all other accounts.

MEMBRANE SYSTEM SUPPLIER: _____

SCORED BY: _____ **DATE:** _____

EVALUATION / RANKING

		POINTS AWARDED	
		Points	Written Eval.
1.	Past record of performance with similar customers installations.	0-30	_____
2.	Previous Alaska experience with membrane filter installations.	0-40	_____
3.	Proposed method to accomplish the Project and the capacity of the firm to perform the work within the estimated schedule.	0-20	_____
4.	Equipment proposed		
	a. Durability, efficiency and effectiveness of equipment offered.	0-80	_____
	b. Additional warranty provided on equipment beyond required one year warranty	0-20	_____
5.	Project Cost.*	0-40	_____
6.	Qualifications of personnel to be used for this project.	0-10	_____
7.	Quality of Proposal:		
	a. Clear and concise.	0-10	_____
	b. Responsive to the needs of the project.	0-10	_____
	TOTAL POSSIBLE POINTS	**250**	_____
	INDIVIDUAL RANKING		_____

***** The firm submitting the lowest cost proposal will be allocated the maximum amount of points for this category. Others will be awarded points according to the following formula:

$$\text{Points Awarded} = \frac{\text{(Lowest Cost Proposal) X (Maximum Points for Cost)}}{\text{(Price of Cost Proposal)}}$$

APPENDIX A
MEMBRANE FILTRATION SYSTEM

PART 1 GENERAL

1.1 SUMMARY

A. This specification defines requirements for a membrane filtration system intended to remove particulate matter, Giardia and Cryptosporidium cysts and oocysts for compliance with the US Environmental Protection Agency's Long Term 2 Enhanced Surface Water Treatment Rule and in accordance with the US Environmental Protection Agency's Membrane Filtration Guidance Manual.

B. This specification is intended to define requirements for an automated, stand-alone system. Included with the system package provided by the Membrane System Supplier (MSS) will be all hardware, controls, instrumentation, software, programing, pumps, valves, tanks and piping to allow for trouble-free operation of the entire MF system, with only occasional operator intervention. The MSS is to provide complete systems for the following: Filter Modules and Filter Racks; Valve Racks; Direct Integrity Test System; Reverse Flush System; Clean-In-Place System; Chemical Neutralization System; Air Compressor System; and Master Control Hardware, Software and Programming.

C. The MSS shall provide all information about the membrane filtration system necessary for the Alaska Department of Environmental Conservation to approve the system for use in complying with the requirements of the US Environmental Protection Agency's Long Term 2 Enhanced Surface Water Treatment Rule.

D. All wetted components shall be NSF 61 listed and shall comply with the requirements of the federal Reduction in Lead in Drinking Water Act.

E. Items not covered by this specification include:

1. Raw water feed pumps, their VFDs and raw water feed piping to the Valve Rack and Filter Rack (control of the feed pump will be by the MSS).
2. Permeate piping to the Salmon Creek Pump Station clear well.
3. Foundations and anchors for securing the equipment at the site.
4. A building to house the system (dry environment between 35°F and 98°F).
5. Installation of the skid mounted and loose components of the system in the desired location.
6. Assembly and installation of piping to deliver/discharge water and wastes to/from the system.

7. Wiring for power, off-skid instrumentation, or communication between off-skid control panels or SCADA systems.

8. Back-up power or UPS for computers, PLCs, and other critical devices.

9. Operation and maintenance of system.

10. Interconnecting piping between the membrane system skid and the module rack or between complementary equipment that may be purchased from or provided by others.

11. Supply of chemicals required for Clean-in-Place (CIP), Enhanced Flux Maintenance (EFM), instruments or other purposes.

F. WARRANTY: The MSS shall provide a One-Year Warranty for all equipment and hardware furnished for this project including freight and labor.

1.2 MEMBRANE FILTRATION SYSTEM GENERAL REQUIREMENTS

A. This specification defines requirements for a membrane filtration system intended to remove particulate matter, Giardia and Cryptosporidium cysts and oocysts for compliance with the US Environmental Protection Agency's Long Term 2 Enhanced Surface Water Treatment Rule.

B. At a minimum the proposed system shall be listed on the California Department of Public Health Alternative Filtration Technology Summary.

C. The membrane filtration system shall have had its cryptosporidium log removal value established under the requirements of the US Environmental Protection Agency's "challenge testing" requirements in 40 CFR 141.719 and the US Environmental Protection Agency's Membrane Filtration Guidance Manual.

D. The membrane filtration system shall consist of a least two units and be capable of treating a nominal capacity of 1,600 gpm and produce a minimum of 2.0 MGD of treated water.

E. The equipment provided shall be certified to provide at least 5.5 log reduction of cryptosporidium and giardia cysts and oocysts as defined in Paragraph C above.

F. The equipment shall achieve filtrate turbidity values of 0.1 nephelometric turbidity units (NTU) or less greater than 95% of the time and 0.3 NTU or less 100% of the time.

G. Raw water quality:

1. Turbidity (0.2 NTU – 15 NTU)
2. Temperature (0.5°C - 10°C)
3. Iron (0.04 mg/l)
4. Manganese (non-detect)
5. pH (7.0 pH)
6. TOC (0.5 mg/l to 0.65 mg/l)
7. Calcium Hardness as $CaCO_3$ 25 mg/l

H. Pump motors shall be 480 v, 3 phase 60 hz motors.

1.3 ACCEPTABLE MANUFACTURERS

A. The manufacturer of the microfiltration (MF) system shall have at least 10 years experience supplying hollow fiber filtration systems and demonstrate that employees have the knowledge to provide the infrastructure to fully support the system after installation of the equipment. This includes the ability to offer the following services.

1. Telephone support during normal business hours in the time zone where the support services are located.
2. Start-up/commissioning assistance
    a. Installation oversight/check-out
    b. Commissioning the system
    c. Operator Training
3. On-demand services
    a. Process/equipment troubleshooting and repair
4. Service Contracts
    a. 24-hour each day telephone support
    b. Maintenance Contracts (Equipment and Clean-In-Place procedures)
    c. Remote or on-site occasional system status monitoring
    d. Operations contracts
    e. On-site service for equipment/process troubleshooting and repair

5. Extended warranty coverage

B. The acceptable manufacturer shall be currently certified as a supplier to meet quality standards as defined by International Standards Organization (ISO) standard 9001.

1.4 SUBMITTALS

A. Submit within forty five (45) days of receipt of notice to proceed, complete drawings showing the overall dimensions and elevations including anchoring baseplate dimensions, equipment pad sizes and center lines, piping and wiring interface points, and the location of equipment required to be accessed during normal operation of the system. Unless otherwise specified, these drawings are to be provided for information. Coordinate equipment layout with Owner.

B. Provide submittals on all equipment items, piping, valves, fittings, pumps, tanks, sensors, and other such items necessary for receiving plan approval from the Owner and from the Alaska Department of Environmental Conservation.

C. Submit an Installation, Operation, and Maintenance (IOM) manual with the equipment. The IOM shall be printed in black and white onto 20 lb copy paper and placed in a sturdy 3 ring binder with tabulated index, and clear plastic pockets for drawings. Format for supply is three hard copy and six (6) electronic copies on separate, labeled, CD's. These shall include a system functional description, detailed component information (provided electronically on a submittal CD), and a recommended replacement parts list.

1.5 COMPLETION TIME

A. Submittals as detailed above – 45 days from notice to proceed.

B. New Membrane Filtration System must be in Juneau, Alaska ready for installation no later than July 15, 2015.

C. Installation, start-up testing, commissioning and Alaska DEC Final Approval to Operate of the new membrane filtration system must be complete by October 1, 2015.

PART 2 MICROFILTRATION SYSTEM GENERAL REQUIREMENTS

2.1 PERFORMANCE

A. The equipment provided shall be certified to achieve at least 5.5-log reduction of Giardia and Cryptosporidium cysts and oocysts at the specified maximum filtrate flow rate.

B. The equipment provided shall achieve filtrate turbidity values of 0.1 Nephelometric Turbidity Units (NTU) or less at least 95% of the time and less than 0.3 NTU 100% of the time at the specified maximum flow rate under normal circumstances.

C. Recovery: The systems must operate with a recovery (ratio of filtrate produced/raw water used) in excess of 95% for drinking water.

2.2 EXPERIENCE

A. The MSS shall provide experienced and qualified personnel for all operator training. Provide previous training history of personnel that will train CBJ operators. Trainer shall have provided training for at least 5 other installations.

2.3 FACTORY ACCEPTANCE TESTING (FAT)

A. MF system shall be fully tested prior to shipment. The purpose of the testing is to assure that the system components will be fully functional when properly installed at the site. The testing shall include:

1. Instrument operation and calibration verification of on-skid equipment.
2. Check operation of all on-skid pumps, valves, strainer, etc.
3. Process testing, including running water through the system to verify the various operations and check for leaks.
4. Verify that equipment supplied matches approved Process and Instrumentation Diagrams (P&ID) and electrical drawing.
5. Verify alarms and alarm display.
6. Verify that the system programming follows the System Functional Description.

PART 3 OPERATIONS

3.1 FULLY AUTOMATED PROCESSES

A. The MF system shall include all equipment and controls for automated operation of the system in the following modes.

1. Filtration
2. Regeneration/Flux Maintenance
3. Integrity Test

3.1.1 FILTRATION

A. The filtration mode is the normal mode of operation. The filtration mode shall allow the operator to preset the desired flow rate for clean water production. The system will automatically adjust the pump speed of the Owner furnished pumps to deliver this rate of water from the system. The system control shall also be configured to vary production rate based on the availability of raw water upstream of the system, or run to maintain a level in the Salmon Creek Water Storage Reservoir. Owner will provide a 4 – 20 mA signal of the reservoir level for control purposes. If the system is empty, the system will perform an automated fill/vent procedure. The system will display alarm conditions on the Human Machine Interface (HMI), notifying the operator of any abnormal conditions.

3.1.2 REGENERATION/FLUX MAINTENANCE

A. Regeneration or flux maintenance shall automatically occur at an adjustable preset time or volume of water processed interval. The process shall be fully automated and require no intervention by an operator. The flux maintenance must include the injection of air to assist in removal of solids from the membrane fibers and continuous backflow of permeate water through the membranes to eliminate the solids from the system. The modules shall then be flushed to remove any remaining solids and air bubbles through a selectable option of a feed side rinse using raw water or a backwash with filtrate. The system shall alarm the operator of abnormal conditions that would prevent the system from entering the regeneration cycle. The entire flux maintenance procedure should require no more than two minutes.

3.1.3 INTEGRITY TEST

A. The MF system must be capable of direct integrity testing (DIT) meeting the requirements of the US Environmental Protection Agency's Long Term 2 Enhanced Surface Water Treatment Rule. The testing must be fully automated and should not require operator intervention unless a failure is detected. The system must automatically alarm if the DIT fails and be capable of shutting the system down on failure. If a failure occurs, the operator shall be able to easily and quickly identify the defective module without special equipment that requires every module to be individually tested (such as sonic testing) or requiring the module to be removed from the system. Typical repair of a defective module shall not require full removal of the module from the system, and the defective module shall be capable of being repaired and returned to service in 30 minutes or less. If removal of a module is required, the module space shall be capable of being easily blanked off and allow the system to be returned to service using the remainder of the modules.

3.1.4 SEMI-AUTOMATED PROCEDURES

A. CHEMICAL CLEAN-IN-PLACE (CIP) – SYSTEM

1. The system shall automatically notify the operator for the need to chemically clean the membranes based on an increase in trans-membrane pressure, or at a preset duration since the last CIP was performed, whichever occurs first. The CIP process will be a semi-automated process requiring the operator to perform certain operations, but the process will be primarily automated. The MF system controller shall guide the operator through a detailed sequence of steps to assure that the CIP is properly performed. The actions that an operator is expected to take during this procedure are as follows:

   a. Perform the CIP process by following the sequenced procedure as defined by the system controller.

   b. Assuring that there is adequate warm water available to perform an effective CIP.

   c. Initiating the automated CIP recirculation cycle/rinse at the system's control panel.

   d. Repeating the above steps for the second cleaning cycle.

   e. Performing the final rinse routine and return the system to service.

PART 4 EQUIPMENT TO BE PROVIDED

A. The MF system shall be a complete package that is primarily skid mounted and contains all pumps, manual & automated valves, tanks, instruments, membranes, control system, on-skid piping, wiring, conduit, and tubing to make up a fully operational system. To accommodate shipping, unloading, and layout flexibility, the system shall be provided in one or more pieces to be mounted at the site for installation. If it is necessary to separate the system into two or more assemblies, such as when an off-skid module rack is provided, all the necessary interconnecting piping, tubing, wiring, etc. shall provide for the system to operate as a unit. It is the responsibility of the installation contractor to install the interconnect piping, wiring, tubing, etc.

MF system shall include the following features as a minimum:

- Feed and RF (Reverse Flush) tanks with associated level instrumentation
- Feed/recirculation pump
- Reverse Flush (RF)
- On-skid control of VFD Feed and RF pumps.
- On skid automatic backwashing pre-filter
- Pressure transmitters for pre-filter and membrane pressure differential measurement
- Temperature transmitter
- Filtrate/backwash flow transmitter
- Modulating raw water level control valve on inlet to feed tank

- Module rack and associated piping
- Fully wired control panel with HMI and PLC to provide automation
- Fully automated Integrity Test
- Fully automated air scrub/backwash system
- Semi-automatic CIP (Clean In Place) system
- All piping, valves, wiring, supports, and associated equipment to provide a fully functional system.
- Air compressor system
- Turbidimeters (on-skid)
- EFM (Enhanced Flux Maintenance)
- Automated CIP Chemical Transfer
- CIP Neutralization System
- Uninterruptible Power Supply (UPS)
- Alarm Dialer
- Modem/PC for remote access and data trending

4.1 MEMBRANES

A. Microfiltration modules shall be of hollow fiber construction and configured for a normal filtration flow direction from outside the fiber through to the inside (lumen) of the fiber. They shall be 0.1 micron rated, high-crystalline PVDF (Polyvinylidenefluoride).

B. Membranes and module shall be compatible with the following cleaning and treatment chemicals at the levels indicated.

Chemical	**Maximum Concentration**
NaOCl	< 5000 ppm
NaOH	< 4%
HNO_3, HCl, H_2SO_4	< 10%
Citric Acid	< 20%
Oxalic Acid	< 2%
EDTA	< 0.4%
Hydrogen Peroxide	< 2%
$Na/KMnO_4$	< 5000ppm
Chlorine dioxide, ClO_2	< 0.2 ppm

C. Membrane and module shall be compatible with the following coagulants:
- Alum (Aluminum Sulfate)
- PACl (Polyaluminum Chloride)
- ACH (Aluminum Chlorohydrate)
- $FeCl_3$ (Ferric Chloride)

- $Fe_2(SO_4)_3$ (Ferric Sulfate)

4.1.1 MEMBRANE MODULES

A. The membrane fibers shall be encased in an ABS (Acrylonitrile-Butadiene-Styrene copolymer) housing that is suitable for operating pressures up to 58 psig and up to 104F. The membrane fibers together with the housing shall be referred to as a membrane module.

B. The modules shall be constructed as an integral unit, without mechanical seals such as o-rings and gaskets, to eliminate the risk of raw water bypass to the filtrate side of the membrane.

C. The modules shall not require special lifting mechanisms for handling and must be able to be individually removed from the membrane rack.

4.2 PUMP ASSEMBLIES

4.2.1 FEED PUMPS

A. MF system shall be provided with a control system to control flow rate from VFD controlled feed pumps furnished and installed by the Owner. The feed pumps are driven by variable frequency drives (VFD) so that the filtrate flow rate is maintained over varying levels of flow resistance due to loading of the membranes. The MSS shall furnish a signal to the VFDs to control pump speed and flow rate.

4.2.2 CLEAN IN PLACE (CIP) FEED PUMP ASSEMBLY

A. MF system shall be supplied with an on-board centrifugal pump assembly to feed the CIP solution to the membrane modules. The pump shall provide the specified rate of flow at the required pressure. Pumps shall have 480 v, 3 phase, 60 hz motors.

4.2.3 REVERSE FILTRATION (RF) PUMP ASSEMBLY

A. For backwash of the membranes, the system shall include an on-skid centrifugal pump assembly to deliver filtrate from the RF tank in the reverse direction to the membrane modules. The pump shall provide the specified rate of flow at the required pressure. Pumps shall have 480 v, 3 phase, 60 hz motors.

B. The RF pump assembly shall be driven by the variable frequency drive (VFD) so that the proper flow to backwash the membranes can be maintained, even if the number of modules changes. The VFD shall be mounted on the MF skid in a NEMA 4X enclosure.

4.3 TANKS

4.3.1 CIP TANK

A. The MF system shall include a CIP tank.

B. The CIP tank shall serve the purpose of a recycle tank for chemical clean in place (CIP) solutions. The tank shall be equipped with a manway located on the top of the tank.

C. The CIP tank shall be equipped with level instrumentation and a modulating control valve sized to control tank level.

D. The CIP tank shall be constructed of HDPE and be compatible with CIP/water treatment chemicals such as sodium hypochlorite, organic acids, potassium permanganate, chlorine dioxide, and sodium hydroxide. Tank capacity shall be located off-skid with interconnecting piping provided by supplier but installed by others.

4.3.2 REVERSE FILTRATION (RF) TANK

A. A closed tank shall be included to collect clean filtered water to be used for backwash of the membranes.

B. The RF tank shall be equipped with level instrumentation and an on-off valve to prevent overflow in normal operation.

C. The RF Tank shall be fully enclosed to prevent contamination. It shall be vented through a filter assembly with removable cartridges rated at 10 microns absolute.

D. The RF tank shall be constructed of HDPE and be compatible with CIP/water treatment chemicals such as sodium hypochlorite, organic acids, potassium permanganate, chlorine dioxide, and sodium hydroxide. Tank capacity shall be located off-skid with interconnecting piping provided by supplier but installed by others.

4.4 INSTRUMENTATION

A. The MF unit shall include at a minimum the following instruments to monitor and report to the control system:

- Feed tank level
- Reverse filtration tank level
- Pre-filter inlet pressure
- Pre-filter outlet/module feed pressure
- Filtrate outlet pressure
- Water temperature near the module
- Filtrate flow rate exiting the membrane modules
- Throttling valve position

- Pressure switch for low-air pressure
- Module regeneration air flow rate

B. All analog instrumentation shall use 24VDC, 4-20 mA output. An alarm will sound if the system detects a transmitter failure.

C. Local display of the following shall be included, either as integrated into the transmitter, or as individual indicators for the following:

- Feed tank level
- Reverse filtration tank level
- Pre-filter inlet pressure
- Pre-filter outlet/module feed pressure
- Filtrate outlet pressure
- Filtrate flow rate
- Instrument air pressure for valve actuation
- Instrument air pressure for module regeneration
- Module regeneration air flow rate

D. On-skid instrumentation:

- Hach 660 Laser Nephelometers or equal

4.4.1 LEVEL TRANSMITTERS

A. Tank level transmitters provide accurate indication of tank level using a pressure measurement of the head in the tank. Wetted components shall be 316L stainless steel. Electronics shall be Factory Mutual (FM) approved and Local LCD display provided.

B. Calibration shall be performed with the use of a Hart Communicator.

C. Level transmitter shall be Rosemount Pressure Indicating Transmitter – 0-30 PSI. Model 2088G1S22A1M5 or equal.

4.4.2 PRESSURE TRANSMITTERS

A. Pressure transmitters shall be FM approved, with 316L stainless steel wetted components.

B. Calibration shall be performed with the use of a Hart Communicator.

C. Pressure transmitter shall be Rosemount Pressure Indicating Transmitter – 0-150 PSI. Model 2088G2S22A1M3 or equal.

4.4.3 FLOW TRANSMITTERS

A. Flow transmitters shall be magnetic type, with PTFE lined wetted components and 316L SST electrodes. Electronics shall be FM approved.

Transmitter Specifications:

Manufacturer:	Rosemount or equal
Model:	8711TSE060U1N0DW Flow Tube w/ 8732CT03N0M4 Transmitter
Flow Tube Specs:	6” Wafer Type
Liner:	Teflon
	Integral mount to 8732C Transmitter
Electrodes:	Two 316LSST, one ground
Transmitter:	5-30V DC Power
Enclosure:	NEMA 4X CSA Type 4X, Integral Mount

4.4.4 TEMPERATURE TRANSMITTERS

A. The temperature transmitter is used to protect the membranes from high temperature (maximum temperature entering membrane =104 deg F), and to monitor CIP/EFM temperature to assure proper cleaning.

B. Temperature transmitter shall be RTD type with thermowell constructed of 316 SS.

C. Approved supplier shall be Rosemount (Model 0068w/ 144 Transmitter) or equal.

4.4.5 PRESSURE GUAGES

A. Pressure Gauges shall be bourdon tube type with a liquid filled 2 ½” diameter dial display. Tube, socket, and case materials shall be 316 SST. Readout in both PSI and kPa.

B. Approved supplier shall be Ashcroft or equal.

4.4.6 PRESSURE SWITCHES

A. The pressure switch is used to verify that the air pressure is adequate to actuate the control valves and provide adequate air for the air scrub.

B. The pressure switch shall be a diaphragm type with dual action control in a NEMA 4 housing. Stainless steel shall be used for contact with the process air.

C. Approved supplier shall be Barksdale or equal.

4.5 VALVES

A. Valves in contact with raw water or filtrate water shall contain wetted components of stainless steel, PVC, or food grade elastomers that are NSF 61 listed.

4.5.1 AUTOMATED VALVES

A. Automated valves used for throttling flow control, or on/off valves that cycle regularly shall be butterfly type and incorporate a pneumatic actuator controlled by a 5/2-way solenoid valve. Butterfly valves shall be lug-style for capture between ANSI B16.5 style flanges. Automated valves and their actuator/positioner shall be certified by the manufacturer to be acceptable for use up to 1,000,000 cycles in water service, using clean, dry, instrument air as the driving force.

B. Pneumatic actuators shall be double rack and pinion type. Actuators shall operate at a drive air pressure of 90 PSIG or greater.

C. Air to valve actuators must be controlled by 5/2-way electrical solenoid valves that receive electrical signals from the control system. Solenoid valves shall be block mounted. Manual actuation capability is available so that the system's normally automated valves can be controlled in the event that the main system controller fails. Each automated valve without a spring return actuator shall include two (2) variable port valves that can be set to choke airflow to the actuators, allowing adjustment of opening and closing valve speed.

D. Tubing to deliver air to actuators shall be ¼" polyurethane.

E. Level Control valve shall be 6" Tyco/Keystone 222LT Lug-Style Butterfly or equal. Actuator shall be Keystone/Morin 79U Spring Return Pneumatic – Rack and Pinion or equal. Positioner shall be manufactured by SMC or equal.

F. Actuated valves shall be Tyco/Keystone 222LT Lug-Style Butterfly or equal. Spring return actuator shall be Keystone/Morin 79U Spring Return Pneumatic – Rack and Pinion or equal. Dual Acting actuator shall be Keystone/Morin 79U Dual Acting Pneumatic – Rack and Pinion or equal.

G. Solenoid valves shall be manufactured by Festo or equal.

4.5.2 MANUAL VALVES

A. Manual valves for on/off service shall be ball or butterfly type. For throttling service, manual valves shall lock in place to prevent position changes without manual intervention.

B. Water and Low Pressure Air (<50psi)

1. Butterfly valves shall be Tyco/Keystone 222LT Lug-Style Butterfly or equal. Body shall be cast iron. Disc and stem shall be 316 SS. Seat shall be EPDM Food Grade.

2. Ball valves greater than or equal to 1 inch shall be Spears 3629 Socket Weld or equal.

3. Ball valves less than 1 inch shall be Spears 1529 or equal Threaded.

4. Globe valves shall be Trueline N-651 200 PSI Stainless Threaded (316 SS) or equal

5. Water check valves shall be Spears Butterfly Check 542G-060, PVC Body or equal.

6. Air check valves shall be Conbroco SST Ball Check - APOLLO #62-107-01 or equal.

C. High Pressure Air valves shall be Numatics VL40N12YA w/ Muffler, Lockout Capable or equal.

D. Control Air pressure regulators shall be Monnier Model FR22 Coalescing Filter/Regulator w/gauge or equal.

E. Process regulator shall be Cashco DL Series or equal.

4.6 CONTROL SYSTEM

A. The control system shall be capable of operating the system automatically with a minimum of operator intervention. In automatic mode, the system shall monitor the instrument readings and adjust the system's operation based on those readings in accordance with the preprogrammed logic. The control system shall alarm operators of abnormal conditions, and provide an interface so that an operator can manually operate the system.

Programmable Logic Controllers – The MSS shall provide a control system capable of multiple skid control (initially 2 skids with future expansion up to 4 skids), the ControlLogix™ PLC processor or equal will be used in the master control panel with a Festo CPX I/O manifold or equal on each skid.

4.6.1 CONTROL ENCLOSURE

A. The MF system shall have a main control panel. The control panel shall be NEMA 4 rating and be designed and constructed per the National Electrical Code (NFPA 70) and NFPA 79. The main control enclosure shall be constructed of carbon steel and shall be commercial-grit blasted to SSPC-SP10, primed with one coat of aromatic urethane zinc-rich primer (2.5-3.5 mils DFT) followed by 4 - 5 mil DFT finish coat of Tnemec Endurashield, series 73 (11sf safety blue), applied in two passes with partial drying between passes (equals one high-build coat). Total coating system (primer plush finish) is 7.0 mil DFT minimum.

B. Approved supplier shall be Hoffman or equal.

4.6.2 OPERATOR INTERFACE TERMINAL (OIT)

A. The main control enclosure shall incorporate a graphical operator interface with a diagonal display length of 7 inches. The operator interface shall be programmed to display the system in line drawing form to allow clear visual confirmation of the system status. This interface shall allow the system to be started and stopped in automatic mode, display process variables and alarms, allow the user to adjust system set points, silence/acknowledge alarms, manually initiate automated processes (i.e. filtration, regeneration, integrity test, etc.), prompt the user in a step by step fashion during manual procedures (i.e. CIP procedures), and allow true manual operation of the system by allowing the user to position individual valves and control pumps.

B. In addition to the graphical OIT, the enclosure door shall contain the following devices, each containing a UL mark:

- Pilot light to indicate a general alarm condition
- Pilot light to indicate that instrumentation voltage is present
- Lighted QUICK stop pushbutton (lit when the Q-stop is engaged)
- Circuit breaker disconnect door latch

C. OIT shall be Allen-Bradley® PanelView™ Plus 6 700 - 7” Diagonal model or equal. Software shall be FactoryTalk™ View ME or equal.

4.6.3 PROGRAMMABLE LOGIC CONTROLLER

A. Mounted within the enclosure shall be the system’s main controller. This shall be a commercially available programmable logic controller with sufficient I/O to automatically control the system’s valves, send signals to operate the system’s pumps, and receive input from the instruments included with the system. Provision shall be made for receiving input from the customer’s instruments, allowing the system to accept signals from upstream or downstream equipment so that the system can be automatically stopped, started, or production rate changed based on the availability of feed water or filtrate storage space.

B. The control system shall include the following hardware.

1. PLC shall be Allen-Bradley® Logix 5000.
2. Local skid I/O shall be Festo CPX..
3. Power Supply shall be manufactured by Allen-Bradley®.
4. Terminal Blocks shall be manufactured by Allen-Bradley®.
5. Control enclosures shall be Hoffman or equal.
6. Control panel indicator lights and switches shall be Allen-Bradley®.
7. HMI Interface shall be PanelView™ by Allen-Bradley®.

8. Networking hardware shall be Phoenix Contact or equal.

9. Chemical, Hot water, Neutralization (CHN) System Hardware - Local panel with local I/O that is connected to the filtration skid via Ethernet/IP™. Local I/O: The CHN shall use Festo CPX series I/O products or equal.

10. Networking –For multiple skid systems, the control scheme shall be based on a single master PLC in a stand-alone panel with distributed I/O. The master PLC controls all filtration skid processes and devices. With multiple skids, the master PLC will control the processes and devices. The master PLC will be an Allen-Bradley® ControlLogix™ programmable logic controller. Each filtration skid will contain a manifold with Festo CPX I/O. Communication between the master PLC, HMI, and skids is handled via Ethernet/IP™. The standard master control enclosure must be located in close proximity to, and in full view of the filtration skids and contain a PanelView™ HMI.

4.6.4 NETWORK ACCESS

A. The MF system shall include an Ethernet connection port for connecting the system to the existing City and Borough of Juneau water system SCADA.

A PC-based SCADA option shall be provided. This option allows:

1) Enhanced capability for control and/or display of customer equipment.

2) Remote access to PLC through pcAnywhere™ software. Allows capability for remote troubleshooting and operation of the system.

3) Data reporting using Microsoft® Excel

4) Equipment Specifications:

a) A Dell PC (or equal) with necessary system requirements (based on most recent PC technology).

b) Software – Rockwell FactoryTalk™ View SE

4.7.5 ALARMS

A. Alarm conditions shall be displayed and acknowledged at the main OIT. An alarm condition shall also cause the alarm pilot light to be lit, and an audible horn mounted on the control panel shall sound. Controls shall be included to allow the operator to silence the horn, but the alarm will continue to be visually displayed until the alarm is corrected/acknowledged.

B. The following alarm conditions are included as a minimum:

- Q-stop
- Feed Pump Fault
- RF Pump Fault
- Lack of feed fluid/filtrate storage

- Low Air Pressure
- Integrity Test Failure
- Low/high RF tank level
- High/Low feed tank level
- CIP required (high Transmembrane Pressure)
- High turbidity
- High/low water temperature
- Level, pressure, flow, temperature transmitter failure

4.7.6 QUICK STOP

A. Once the Q-stop pushbutton is pressed (located on the control panel door), all pumps on the MF skid shall stop, and the system's inlet, outlet, and drain valves shall close. The system will not be able to operate again until the operator disengages the Q-stop button.

4.7.7 CONTROL ENCLOSURE WIRING

A. The main control panel shall be completely wired at the factory. Control enclosures shall be designed and constructed in accordance with UL 508A, and only by manufacturer's capable of listing equipment to UL 508A. All components within the control enclosure shall contain a UL mark and have termination points that are finger safe.

B. Power brought to the cabinet in the specified voltage only needs to be terminated at a circuit breaker disconnect switch that is interlocked to the enclosure door. A power supply shall be provided to convert the base voltage of the system to alternate voltages that may be required by components on the skid (120VAC, 24VDC, etc.).

C. A surge suppressor shall be included in the main enclosure to protect the power supply, the PLC and I/O modules, and the skid mounted valves and instruments from power surges.

D. Wiring within the panel shall be routed through plastic wire ways for neatness and organization. Where feasible, conductors for high (120 VAC and above) and low (24VDC) voltage shall remain separated. Copper wire shall be used and sized for its load per NEC/NFPA79 requirements. All wires will terminate through a ferrule type connector and terminate on finger safe, screw clamping terminal blocks.

4.8 ELECTRICAL WIRING

A. MF system shall be delivered completely pre-wired from the main control enclosure to solenoid valves and instruments. Wiring shall be copper, and sized for its load per NEC/NFPA79 requirements. All wires will terminate on screw clamping terminal blocks.

B. Wires from the main control enclosure shall be enclosed in conduit made of PVC or flex-tite style PVC conduit that is completely sealed from moisture. Where practical, low voltage control conductors (24VDC) shall be separated from those carrying high voltage power (120VAC and above).

4.9 INSTRUMENT AIR TUBING

A. Tubing is used to deliver instrument air to the valve actuators included on the system. Instrument air tubing shall be 1/4" diameter polyurethane. Reusable compression fittings shall be used in the instrument air system.

B. Instrument air for all purposes enter the system through a common air inlet line. Pressure adjustment shall be provided using adjustable pressure regulating valves manufactured by Monnier or equal. The main air intake line shall have a manual lockout valve to allow lockout of air to the system for valve maintenance.

4.10 PIPE AND FITTINGS

A. The MF system plumbing shall incorporate stainless steel, HDPE, or PVC pipe and fittings.

B. Stainless steel pipe shall conform to ANSI B36.19 and be constructed of schedule 10s austenitic stainless steel to ANSI A312 type 304, 304L, 316, or 316L. Only welders qualified to section IX of the ASME/ANSI boiler and pressure vessel code shall perform welding of SST pipes.

C. PVC pipe shall be NSF 61 approved Type 1 Grade 1 gray with compounds conforming to ASTM D-1784. Pipe and fitting wall thickness shall be schedule 40. Socket welded fittings shall be used whenever possible, using solvent bonding techniques.

D. Flanges shall use bolting patterns per ASME/ANSI B16.5

4.11 FRAME ASSEMBLIES

A. The MF system and modules shall be mounted on a steel framework fabricated primarily from square tubing. Exceptions to this are angles, plate, round pipe, or other structural shapes that may be welded to the tubing for use as legs or mounting brackets for pumps, instruments, and other components. Frame materials shall be seal welded together to prevent moisture from entering the welded joint or the interior of closed element such as tubing or pipe. Personnel performing welding shall be qualified to AWS 1.1.

B. Frame material shall be carbon steel. It shall be commercial grit blasted to SSPC-SP10 and primed with one coat of Tnemec 90-97 Tnemec-zinc, 2.5-3.5mil DFT. 4 - 5 mil DFT finish coat of Tnemec Endurashield, series 73 (11sf safety blue) shall be applied in two passes with partial drying between passes (equals one high-build coat).

C. The frame has legs with steel base plates for anchoring to a foundation (by others) using anchor bolts/nuts (by others).

4.12 EQUIPMENT OPTIONS

4.12.1 CHEMICAL, HOT WATER, NEUTRALIZATION (CHN) SKID

A. A CHN (Chemical, Hot water, Neutralization) system shall be provided. This system provides the following:

1. Warm water for CIP (Clean In Place) operations.
2. Provides EFM (Enhanced Flux Maintenance) capability.
3. Provides capability for automatic injection of CIP chemicals, if an automated CIP injection option is purchased.
4. Provides capability for automatic injection of chemicals to neutralize the CIP waste.

B. This system generally includes: a tank with an immersion heater, level control and temperature transmitter, a supply pump to transfer the water to the system feed/recirculation tank, air driven diaphragm chemical pump, solenoids, control panel to control the operation and communicate with the AP or master control system, and the various valves, injection ports, piping, and wiring required. The supply pump, valving, injection ports, control panel, etc., are skid mounted, with interconnect piping included to connect to the free-standing warm water tank. The chemical pump is mounted on a plate and shipped loose so that it can be located directly on a chemical drum or tote.

C. Equipment used for the CHN skid shall be as follows:

a. Tank vertical round style, HDPE tank manufactured by Snyder or equal.

b. Tank heater shall be Hubbell V1645T4XX circulation heater or equal. Material shall be 304 L SS.

c. Warm water transfer pump capable of providing the desired flow rate and pressure.

d. Solenoid Valves shall be 5/2-way and 3/2-way as manufactured by Festo or equal.

e. Flow switch shall be Harwill paddle style with socket weld PVC or equal.

f. Chemical transfer pumps shall be diaghram, air operated. Pumps shall produce the desired flow rate and pressure with an air consumption of 5 SCFM max.

g. Actuated valves shall be Tyco/Keystone 222LT Lug-Style Butterfly with cast iron body, 316 SS disc and stem, and EPDM Food Grade Seat or equal. Spring return actuator shall be Keystone/Morin 79U Spring Return Pneumatic – Rack and Pinion. Dual Acting actuator shall be Keystone/Morin 79U Dual Acting Pneumatic – Rack and Pinion or equal.

h. Manual Valves

a. Ball valves shall be Spears 3629 socket weld with PVC body and EPDM gaskets or equal.

b. Gate valve shall be Spears 2022 socket weld with PVC body and EPDM O-ring or equal.

i. Check Valves

a. Butterfly valves shall be Spears 542G-020 PVC or equal(2 in.)

b. Poppet valves shall be FLO 1790-C20 PVC or equal(2 in.)

j. Level Transmitter shall be Rosemount 2088 0-30 PSI with LCD display. Wetted parts shall be 316L SST or equal.

k. Temperature transmitter shall be Rosemount RTD with 316 SS thermowell or equal.

l. Injection Valve shall be LMI Chem Injector/check valve #38026 or equal.

m. Foot valve shall be Jaco Kynar Ball check valve with Hastelloy Spring, Buna N O-Ring and Teflon Ball or equal.

4.12.2 CIP TRANSFER/INJECTION

A. Chemical Transfer pumps shall be Diaphragm style and air operated.

1. Pumps shall produce the desired flow rate and pressure consuming a maximum 5 SCFM air.

2. Foot valve shall be Jaco Kynar Ball Check Valve with Hastelloy Spring, Viton O-Ring, and Teflon ball or equal.

3. Injection valve shall be LMI Chem Injector/check valve #38026 or equal.

4. Approved manufacture shall be Wilden or equal.

4.12.3 AIR COMPRESSOR SYSTEM

The MSS shall provide an air compressor system to meet the air requirements of their system. The system shall consist of of a rotary screw compressors (dual system required for redundancy) and a receiver tank, along with associated filters, gauges, relief valves, drains, etc., required for a complete air supply system.

The compressor shall be as the follows or equal:

Manufacturer	Atlas Copco
Model	GX – series Full Featured w/Enclosure
Type	Single Stage Oil Flooded Rotary Screw
Features	Inlet Air Filter
	Integrated Refrigerated Dryer
	TEFC Motor

Differential Pressure Oil System with Oil Cooler Air/Oil Separator with Oil Level Sight Glass
Oil Filter
V-Belt Drive with Tensioning Device
Load/No Load Capacity Control
Sound Attenuating Enclosure - CSA/UL Appr.
Factory Oil Fill-Food Grade Oil
Electro-pneumatic start/stop control
Motor Starter Mounted and Prewired
Emergency Stop Button
After-cooler & Moisture Separator
Dew-point Gauge
Sound level ≤ 70 db

External Filters (installed separately)

DDX Coalescing Filter	0.1 ppm oil/water, 1 micron filter
PDX Coalescing Filter	0.01 ppm oil/water, 0.01 micron filter

Receiver

Manufacturers	Silvan or Manchester
Type	Vertical
Rating	ASME Coded 200 psi
PRV	¼-inch 200 psi 178 scfm
Pressure Gauge	4-inch 0-200 psi
Drain Valve	½-inch ball valve

4.12.4 TURBIDIMETERS

Turbidimeters shall be provided to measure and report the turbidity (in NTU) of the feed and filtrate. The turbidimeters shall be mounted on the skid, with feed and filtrate ports already installed,. The turbidimeters use a Hach SC-100 controller with display with 4-20mA signal to the MSS control system PLC. A Hach 1720E turbidimeter shall be used on the feed and the Hach FilterTrak 660 Laser Nephelometer shall be used for filtrate.

Hach 1720E Specifications:

Range	0.001 – 100 NTU
Accuracy	0 – 10 NTU +/- 2% of reading or 0.015 NTU
	10 – 40 NTU +/- 5% of reading
	40 – 100 NTU +/- 10% of reading
Sample Flow	200 – 750 ml/min
	Built-in Bubble Removal Included
Controller	Hach SC-200
Power	100 – 230Vac 50/60 Hz Auto Selectable
Controller Enclosure	Nema 4X
Output	4-20 mA

Hach FilterTrak 660 Specifications

Range	0 – 1000 mNTU (0 - 1NTU)
Accuracy	+/- 5% of Reading
Sample Flow	100 – 750 ml/min
	Built-in Bubble Remover Included
Controller	Hach SC-200
Power	100 – 230Vac 50/60 Hz Auto Selectable
Controller Enclosure	Nema 4X
Output	4-20 mA

4.12.5 UNINTERRUPTIBLE POWER SUPPLY (UPS)

A. A UPS (Uninterruptible Power Supply) is to be provided to prevent loss of power. The UPS shall provide 30 minutes of power to the master PLC during a short-term power outage, allowing the system to restart automatically.

B. UPS shall be 1kVa, 120V manufactured by Eaton Powerware or 240W, 24V manufactured by Allen-Bradley® or equal.

4.12.6 SCADA OPTION

A. A PC-based SCADA option shall be provided. This system shall allow:

Enhanced capability for control and/or display of customer equipment
Remote access to PLC through pcAnywhere™ to allow remote troubleshooting and operation of the system
Data Reporting using Microsoft® Excel

Equipment Specifications:

Dell PC (or equal) with necessary system requirements (based on most recent PC technology)

4.12.7 ALARM DIALER

A. An alarm dialer shall be provided to alert plant personnel of critical alarms by dialing a pre-set list of phone numbers. The system PLC will activate the alarm dialer when specific critical alarms occur. The alarm dialer will notify the call recipient of the alarm information through a voice-synthesized message, and a user may call in to receive a status. The details are as follows:

Manufacturer	RACO
Model	Guard-IT™ 200GI-4 or Verbatim™ 300VSS-8C or equal
Enclosure	NEMA 4X

4.12.8 NEUTRALIZATION SYSTEM

A. A Neutralization System shall be provided to collect the CIP waste solutions and adjust the pH to an acceptable range before discharging to waste. The system shall generally consists of an HDPE tank, pump to mix solution in tank and discharge neutralized solution to waste, level transmitter, pH sampling port, chemical addition for neutralization, and a CIP Waste Collection and Transfer System to transfer the CIP chemical solutions from the modules to the Neutralization tank.

B. The system shall generally consists of the following, actual sizing/equipment must be determined based on the actual application:

Tank - approx. 4000-6000 gal HDPE with fittings (size depends on site specific requirements)
Neutralization and Waste Discharge Pump
Waste Collection and Transfer Sump includes HDPE tank and 0.5 HP Pump (115 VAC)
Level Transmitter for Neutralization Tank
Chemical Addition Supplied by optional CHN system
pH Sample Port in Circulation Piping

END OF SECTION

APPENDIX B

COST PROPOSAL

COST PROPOSAL TO CITY AND BOROUGH OF JUNEAU, OWNER

1. The undersigned Membrane System Supplier (MSS) proposes and agrees, if this Cost Proposal is accepted, to enter into an Agreement with the OWNER in the form included as Attachment 1 Standard Contract in the Contract Documents to perform the WORK as specified or indicated in said Contract Documents entitled

2. Proposer accepts all of the terms and conditions of the Contract Documents, without limitation.

3. This Proposal will remain open for a minimum of 120-days. Proposer will enter into an Agreement within the time and in the manner required in the Request for Proposals and will furnish the insurance certificates, and Performance Bond required by the Contract Documents.

4. Bidder has examined copies of all the Contract Documents including the following addenda (receipt of all of which is hereby acknowledged):

Number	Date
_____	_____
_____	_____
_____	_____
_____	_____

Failure to acknowledge receipt of all addenda will cause the Bid to be non-responsive and shall cause its rejection.

5. Proposer has familiarized itself with the nature and extent of the Contract Documents, WORK, site, locality where the WORK is to be performed, the legal requirements (federal, state and local laws, ordinances, rules, and regulations), and the conditions affecting cost, progress or performance of the WORK and has made such independent investigations as Proposer deems necessary.

6. This Proposal is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Proposer has not directly or indirectly induced or solicited any other Proposer to submit a false or sham Proposal; Proposer has not solicited or induced any person, firm or corporation to refrain from proposing; and Proposer has not sought by collusion to obtain for itself any advantage over any other Proposer or over OWNER.

7. Payment Schedule – The CBJ will provide payment for the Membrane System to the General Contractor on the following Schedule:

   10% Upon Notice to Proceed for General Construction Contract and Receipt of complete Submittal package

   10% Upon Approval of Submittals and Receipt of ADEC Plan Review Approval of the Membrane Filtration System provided Notice to Proceed has been issued for General Construction Contract

   30% Upon Successful Delivery of Membrane Filtration System to Juneau project site

   35% Upon Successful Complete Installation, Start-Up Testing, Operator Training and Beneficial Use of Membrane Filtration System

   15% Upon Receipt of Final Approval to Operate from the Alaska Department of Environmental Conservation

To all the foregoing, said Proposer agrees, said Proposer further agrees to complete the WORK required under the Request for Proposals Documents within the Contract Time stipulated in said Proposal Documents, and to accept in full payment therefor the Proposed Price provided below.

All representations made by Proposer in this Proposal are made under penalty of perjury.

Dated: _____ Proposer: _____

By: _____
(Signature)

Title: _____

Address: _____

_____

Contractor's License No. _____

Phone: _____

Proposal - Furnish all services, labor and materials and perform all WORK as described in these Contract Documents.

PROPOSAL PRICE $_____

(PRICE IN FIGURES)

$_____

(PRICE IN WORDS)

APPENDIX C

INSURANCE REQUIREMENTS

The following insurance requirement would be required of the MSS should an agreement between the MSS and General Contractor for on-site services beyond that of a normal material supplier. These requirements will not be required of the MSS for execution of the professional services contract between the CBJ and the MSS.

The MSS must provide certification of proper insurance coverage or binder to the City and Borough of Juneau. The certificate of insurance supplied to the City shall state that the City is named as **"Additional Insured for any and all work performed for the City & Borough of Juneau."** The Additional Insured requirement does not apply to Professional Liability and Workers Compensation insurance. Should any of the above described policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions. The City no longer requires certificates of insurance referencing project names and contract numbers. Proof of the following insurance is required before award:

Commercial General Liability Insurance. The MSS must maintain Commercial General Liability Insurance in an amount it deems reasonably sufficient to cover any suit that may be brought against the MSS. This amount must be at least one million dollars ($1,000,000.00) per occurrence, and two million dollars ($2,000,000.00) aggregate.

Professional Liability Insurance. The MSS must maintain Professional Liability Insurance in an amount not less than one million dollars ($1,000,000.00) aggregate to protect the MSS from any claims or damages for any error, omission, or negligent act of the MSS, the MSS's firm and employees. This requirement applies to the MSS's firm, the MSS's subcontractors and assignees, and anyone directly or indirectly employed to perform work under this contract.

Workers Compensation Insurance. The MSS must maintain Workers Compensation Insurance to protect the MSS from any claims or damages for any personal injury or death which may arise from services performed under this contract. This requirement applies to the MSS's firm, the MSS's subcontractors and assignees, and anyone directly or indirectly employed to perform work under this contract. The MSS must notify the City as well as the State Division of Workers Compensation immediately when changes in the MSS's business operation affect the MSS's insurance status. Statutory limits apply to Workers Compensation Insurance. The policy must include employer's liability coverage of one hundred thousand dollars ($100,000.00) per injury, and five hundred thousand dollars ($500,000.00) policy limits.

Comprehensive Automobile Liability Insurance. The coverage shall include all owned, hired, and non-owned vehicles to a one million dollar ($1,000,000.00) combined single limit coverage.

Each policy shall be endorsed to waive all rights of subrogation against the City by reason of any payment made for claims under the above coverage, except Workers Compensation and Professional Liability.

APPENDIX D

PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS: That we _____
(Name of Membrane System Supplier)

_____ a _____
(Corporation, Partnership, Individual)

hereinafter called "Principal" and _____
(Surety)

of _____, State of _____hereinafter called the "Surety," are held and firmly bound to the CITY AND BOROUGH OF JUNEAU, ALASKA hereinafter called "OWNER,"
(Owner) (City and State)

for the penal sum of _____

_____dollars ($_____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the CONTRACTOR has entered into a certain contract with the OWNER, the effective date of which is _____, a copy of which is hereto attached and made a part hereof for:

NOW, THEREFORE, if the Principal shall truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof, which may be granted by the OWNER, with or without notice to the Surety, and if it shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the WORK to be performed thereunder or the specifications accompanying the same shall in any wise affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the Specifications.

PROVIDED, FURTHER, that no final settlement between the OWNER and the Principal shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is issued in two (2) identical counterparts, each one of

which shall be deemed an original.

MEMBRANE SYSTEM SUPPLIER:

By:_____
(Signature)

_____
(Printed Name)

_____
(Company Name)

_____
(Street or P.0. Box)

_____
(City, State, Zip Code)

SURETY:

By: _____ Date Issued:_____
(Signature of Attorney-in-Fact)

_____
(Printed Name)

_____
(Company Name)

_____
(Street or P.0. Box)

_____
(City, State, Zip Code)

(Affix SURETY'S SEAL)

NOTE: If CONTRACTOR is Partnership, all Partners must execute bond.

APPENDIX E

STATE OF ALASKA
DEPARMENT OF ENVIRONMENTAL CONSERVATION
STATE DRINKING WATER LOAN PROGRAM

American Iron and Steel Requirement of the Consolidated Appropriations Act of 2014 (Public Law 113-76)

The CBJ is utilizing Alaska Department of Conservation (ADEC) State Drinking Water Loan Program Funds as partial funding for this project. As a requirement, the project must follow the buy *American Iron & Steel (AIS) Requirement of the Consolidated Appropriations Act of 2014 (Public Law 113-76).* Documentation of the requirements for the AIS are provided on the ADEC Municipal Loans website: http://dec.alaska.gov/wateR/muniloan/forms.htm

While water filtration equipment is exempt from the AIS, this information is provided in the event that an agreement is formed between the MSS and General Contractor to supply products beyond water filtration equipment that would be regulated under the AIS.

The CBJ intends to use the STEP process referenced within the AIS documentation. The documents will be included in the bid documents / construction contract for the Salmon Creek water filtration.

APPENDIX F

ALASKA LABOR STANDARDS, REPORTING AND PREVAILING WAGE RATE DETERMINATION

The following Alaska Labor Standards, reporting and prevailing wage rate determination requirements would be required of the MSS should an agreement between the MSS and General Contractor for on-site services beyond that of a normal material supplier. These requirements will not be required of the MSS for execution of the professional services contract between the CBJ and the MSS.

1. CERTIFIED PAYROLLS

   A. All CONTRACTORs or Subcontractor who perform work on a public construction contract for the OWNER shall file a certified payroll with the Alaska Department of Labor before Friday of each week that covers the preceding week (Section 14-2-4 ACLA 1949; am Section 4 ch 142 SLA 1972).

   B. In lieu of submitting the State payroll form, the CONTRACTOR's standard payroll form may be submitted, provided it contains the information required by AS 36.05.040 and a statement that the CONTRACTOR is complying with AS 36.10.010.

   C. A contractor or subcontractor, who performs work on public construction in the State, as defined by AS 36.95.010(3), shall pay not less than the current prevailing rate of wages as issued by the Alaska Department of Labor before the end of the pay period. (AS 36.05.010).

2. PREVAILING WAGE RATES

   A. Wage rates for Laborers and Mechanics on Public Contracts, AS 36.05.070. The CONTRACTOR, or Subcontractors, shall pay all employees unconditionally and not less than once a week. Wages may not be less than those stated in Paragraph 16.8C, regardless of the contractual relationship between the CONTRACTOR or Subcontractors and laborers, mechanics, or field surveyors. The scale of wages to be paid shall be posted by the CONTRACTOR in a prominent, easily accessible place at the site of the WORK.

   B. Failure to Pay Agreed Wages, AS 36.05.080. If it is found that a laborer, mechanic, or field surveyor employed by the CONTRACTOR or Subcontractor has been, or is being, paid a rate or wages less than the established rate, the OWNER may, by written notice, terminate the CONTRACTOR or Subcontractors right to proceed with the work. The OWNER may prosecute the work to completion by contract or otherwise, and the CONTRACTOR and sureties will be held liable to the OWNER for excess costs for completing the WORK. (Section 2 ch 52 SLA 1959).

C. Listing Contractor's Who Violate Contracts, AS 36.05.090. In addition, a list giving the names of persons who have disregarded the rights of their employees shall be distributed to all departments of State government and all political subdivisions. No person appearing on this list, and no firm, corporation, partnership or association in which the person has an interest, may work as a CONTRACTOR or Subcontractor on a public construction contract for the State, or a political subdivision of the state, until three years after the date of publication of the list. (Section 3 ch 52 SLA 1959; am Section 9 ch 142 SLA).

3. EMPLOYMENT REFERENCE. Workers employed in the execution of the contract by the CONTRACTOR or by any Subcontractor under this contract shall not be required or permitted to labor more than 8 hours a day or 40 hours per week in violation of the provisions of the Alaska Wage and Hour Act, Section 23.10.060.

ENGINEERING DEPARTMENT

ATTACHMENT 1

PROFESSIONAL SERVICES CONTRACT
Supply and Installation Assistance
Salmon Creek Water Plant Membrane Filters
Contract No. RFP E15-065

This Agreement is entered into by and between the City and Borough of Juneau, Alaska ("City"), and _____company name_____ whose address is _____phone and fax__ ("Consultant").

Witnesseth:

Whereas, the City desires to engage the Consultant for the purpose of rendering certain professional services, and

Whereas, the Consultant represents that it is in all respects licensed and qualified to perform such services;

Now, Therefore, the parties agree as follows:

1. CONTRACTUAL RELATIONSHIP. The parties intend that an independent Consultant/City relationship will be created by this Contract. City is interested only in the results to be achieved, and the conduct and control of the work will lie solely with the Consultant. Consultant is not considered to be an agent or employee of City for any purpose, and the employees of Consultant are not entitled to any benefits that City provides for City's employees. It is understood that the City does not agree to use the Consultant exclusively. It is further understood that the Consultant is free to contract for similar services to be performed for others while it is under contract with the City.

2. SCOPE OF SERVICE. The Consultant shall carry out in a professional and prudent manner all of the services required by the Contract. These services include all of the services described in RFP Documents. Consultant will diligently proceed with the Scope of Services, and will provide such services in a timely manner.

3. PERSONNEL, EQUIPMENT, SUPPLIES, AND LICENSES.

(A) Except as noted in RFP Documents, the Consultant represents that it has or will secure at its own expense all personnel, equipment, and supplies required in performing the services under this Contract.

(B) All of the services required hereunder will be performed by the Consultant or under its supervision.

(C) None of the work or services covered by this Contract shall be subcontracted without prior written approval of the Contract Administrator.

(D) Consultant warrants that it is fully licensed under all applicable local, state, and federal laws to perform the services to be provided hereunder.

4. TIME OF PERFORMANCE. The services of the Consultant are to commence after the execution of the Contract and issuance of Notice to Proceed and Purchase Order. All work shall be completed no later than the time specified in RFP Documents. Amendment to this Contract may be made upon mutual, written agreement prior to the contract expiration date.

5. REPORTING. Except as authorized within RFP Documents, the City's primary representative for this Contract shall be Alan Steffert, P.E. The City Manager shall be an alternate representative. The City shall not be liable for Consultant's expenses incurred in reliance on directions received from any other municipal officer or employee. The Consultant's representative shall be _____[put P.E. or AIA if applicable.

6. COMPENSATION. The City agrees to pay the Consultant according to the schedule attached as Appendix B. The Consultant's estimated fee schedule is attached to Appendix B.

7. TERMINATION OF CONTRACT FOR CAUSE. If, through any cause, except causes beyond the control of the Consultant, the Consultant shall fail to fulfill in a timely and proper manner its obligations under this Contract; or if the Consultant shall violate any of the covenants, agreements, or stipulations of this Contract, the City shall have the right to terminate this Contract by giving written notice to the Consultant of such termination and specifying the effective date thereof, at least ten days before the effective date of such termination. In that event, all finished or unfinished documents, or other data, in whatever form, prepared by the Consultant under this Contract shall, at the option of the City, become its property, and the Consultant shall be entitled to receive just and equitable compensation for any satisfactory work completed on such documents and materials, not to exceed the Contract amount.

8. TERMINATION FOR CONVENIENCE OF CITY. The City may terminate this Contract at any time by giving written notice to the Consultant of such termination and specifying the effective date thereof, at least thirty days before the effective day of such termination. In that event, all finished or unfinished documents and other materials as described in paragraph 7 above shall, at the option of the City become its property, and the Consultant will be paid an amount not to exceed the sum set forth in Appendix B for work satisfactorily completed on or before the date of termination, less payments of compensation previously made.

9. CONTRACT AGREEMENT. All parties mutually agreed to the terms of this Contract. The Contract should not be construed in favor of or against any party. This Contract contains the entire agreement between the parties; there are no other promises, terms, conditions, or obligations other than those contained herein; and this Contract shall supersede all previous communications, representations or agreements, either oral or written, between the parties.

10. CHANGES. The City may, from time to time, require changes in the scope of services to be performed under this Contract. Such changes, including any increase or decrease in the amount of the Consultant's compensation, must be mutually agreed upon in writing before they will be regarded as part of this Contract.

11. EQUAL EMPLOYMENT OPPORTUNITY. The Consultant will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin.

12. CONFLICTS OF INTEREST. Consultant agrees that no employee of the City who has exercised or will exercise any authority over the specifications, procurement, supervision or payment for this Contract, and no member of the employee's immediate family, has had or will have any direct or indirect financial interest in this Contract. If the Consultant learns of any such interest, the Consultant shall without delay inform the City Attorney or one of the officers specified in Paragraph 5.

13. ETHICS. Consultant shall discharge its duties fairly, impartially and maintain a standard of conduct that competently serves the City and the interests of the City. Consultant shall at all times exercise unbiased judgment when performing its duties under this contract.

14. PUBLIC RELATIONS. Consultant shall issue press releases, respond to press inquiries, make public speeches, appear on broadcast media or otherwise engage in public relations regarding the project only with the specific approval of the CBJ Project Manager.

15. ELECTED OFFICIALS. The Consultant shall respond to project-related inquiries from elected officials by providing impartial, factual information, but shall not initiate contact or attempt to persuade an elected official to agree with any viewpoint or to take any official action. The Consultant will promptly notify the Project manager of any request by an elected official for project-related information.

16. ASSIGNABILITY. The Consultant shall not assign any interest in this Contract and shall not transfer any interest in the same without the prior written consent of the City; however, claims for money due or to become due to the Consultant from the City under this Contract may be assigned to a bank, trust company, or other financial institution without approval. Notice of any such assignment or transfer shall be furnished promptly to the City.

17. FINDINGS CONFIDENTIAL. Any information given to or prepared by the Consultant under this Contract which the City requests to be kept as confidential shall not be made available to any individual or organization by the Consultant without the prior written approval of the City.

18. IDENTIFICATION OF DOCUMENTS. All reports, maps, and other documents completed as a part of this Contract, other than documents exclusively for internal use within the City, shall carry a City notation or logo as directed by the City.

19. PUBLICATION, REPRODUCTION, AND USE OF MATERIALS. No services, information, computer program elements, reports or other deliverables which may have a potential patent or copyright value produced in whole or in part under this Contract shall be subject to copyright in the United States or any other country.

If a copyright applies by law to the work produced under this Contract, that copyright will either be signed over to the City or the City will be given unrestricted license to the copyright. The City shall have unrestricted license to publish, disclose, distribute, and otherwise use, in whole or in part, any reports, data, or other materials prepared under this Contract. If this Contract includes architectural and/or engineering design services, any use of the design features or details produced under this Contract on other City facilities will be at the City's risk.

20. RECORDS. During performance and after termination of this Contract, each party shall make available to the other party for inspection and copying, all records, whether external or internal, having any relevance to this Contract.

21. INSURANCE REQUIREMENTS. The Consultant has secured and shall maintain insurance for the risks and in the amounts specified in Appendix C. The Consultant and its insurance carrier waive subrogation against the City, except Workers Compensation and Professional Liability.

22. INDEMNIFICATION AND HOLD HARMLESS. The Consultant agrees to defend, indemnify, and hold harmless CBJ, its employees, and authorized representatives, with respect to any action, claim, or lawsuit arising out of or related to the Consultant's negligent performance of this contract without limitation as to the amount of fees, and without limitation as to any damages, cost or expense resulting from settlement, judgment, or verdict, and includes the award of any attorney's fees even if in excess of Alaska Civil Rule 82. This indemnification agreement applies to the fullest extent permitted by law, meaning that if there is a claim of, or liability for, a joint act, error, or omission of the consultant and the CBJ, the indemnification, defense, and hold harmless obligation of this provision shall be apportioned on a comparative fault basis. This agreement is in full force and effect whenever and wherever any action, claim, or lawsuit is initiated, filed, or otherwise brought against CBJ relating to this contract. The obligations of Consultant arise immediately upon actual or constructive notice of any action, claim, or lawsuit. CBJ shall notify Consultant in a timely manner of the need for indemnification, but such notice is not a condition precedent to Consultant's obligations and may be waived where the Consultant has actual notice.

23. CHOICE OF LAW; JURISDICTION. This Contract shall be governed by the laws of the State of Alaska. Jurisdiction shall be in the State of Alaska, First Judicial District.

24. SUCCESSORS. This Contract shall be binding upon the successors and assigns of the parties.

25. PRECEDENCE OF DOCUMENTS. In the event of a conflict between the provisions of this document and its appendices, the order of precedence shall be this document, RFP Documents, Appendix B and Appendix C.

In Witness Whereof the parties have affixed their signatures the date first above set out:

CITY AND BOROUGH OF JUNEAU

_____

Kimberly A. Kiefer Date
City and Borough Manager

Company name

_____

Name Date
Rank [i.e. President]
email

Approved as to content:

_____

Greg Smith Date
Contract Administrator

CIP Coding: