

REQUEST FOR QUALIFICATIONS No. 15-0127DW

FOR

**SUPPLY OF A SUBMERGED MEMBRANE FILTRATION
SYSTEM FOR A DRINKING WATER APPLICATION**



ENGINEER

Carollo Engineers, Inc.
401 North Cattleman Road, Suite 306
Sarasota, Florida 34232
Ph.: 941-371-9832
Fax: 941-371-9873

DEADLINE FOR CLARIFICATION REQUESTS: December 2, 2014 AT 3:00 p.m. EST

RESPONSES (SOQ) ARE DUE BY: DECEMBER 9, 2014 AT 3:00 p.m. EST

**ONE (1) ORIGINAL AND SEVEN (7) COPIES AND ONE (1) CD OF THE STATEMENTS
OF QUALIFICATIONS SHALL BE SENT TO:**

**Manatee County Government
Financial Management Department, Purchasing Division
1112 Manatee Avenue West, Suite 803, Bradenton, FL 34205
Attn: Dennis Wallace, Procurement Contracts & Buyer Manager**

MANATEE COUNTY

**REQUEST FOR QUALIFICATIONS FOR SUPPLY OF A
SUBMERGED MEMBRANE FILTRATION SYSTEM FOR A
DRINKING WATER APPLICATION**

TABLE OF CONTENTS

	<u>Page</u>
1.0 INSTRUCTIONS TO MEMBRANE SYSTEM SUPPLIERS	1
1.1 General	1
1.2 Submittal Procedure	1
1.3 Single Point of Contact	2
1.4 General Guidelines for Content	2
1.5 Confidential or Proprietary Information	2
1.6 Lobbying	3
1.7 Royalties and Patents	3
1.8 SOQ Evaluation Process	3
1.9 Anticipated Procurement Process	4
2.0 PROJECT BACKGROUND	5
2.1 Project Description	6
3.0 STATEMENT OF QUALIFICATIONS CONTENT	6
3.1 Section 1 – Signed Declaration	7
3.2 Section 2 - Response to Minimum Qualifications Criteria	8
3.3 Section 3 - Membrane Supplier Company Information	11
3.4 Section 4 - Manufacturing Capacity	11
3.5 Section 5 - Experience	12
3.6 Section 6 - Membrane Configuration, Operation, and Chemistry	12
3.7 Section 7 - Membrane System Filtration and Disinfection Capabilities	13
3.8 Section 8 - Conceptual Membrane System Layout	13
4.0 PROOF PILOT TESTING OF PREQUALIFIED MEMBRANE SYSTEMS	14
5.0 SCHEDULE	15

ATTACHMENT A – Process Flow Diagram of the LMWTP Surface Water Treatment Train
ATTACHMENT B – Filter Bay B Plan and Section
ATTACHMENT C – Anticipated Membrane Feed Water Quality Data
ATTACHMENT D – Minimum Bonding Requirements
ATTACHMENT E – Minimum Insurance Requirements
ATTACHMENT F – PUBLIC ENTITY CRIMES STATEMENT

**REQUEST FOR QUALIFICATIONS FOR SUPPLY OF A
SUBMERGED MEMBRANE FILTRATION SYSTEM FOR A
DRINKING WATER APPLICATION**

1.0 INSTRUCTIONS TO MEMBRANE SYSTEM SUPPLIERS

1.1 General

Manatee County, a political subdivision of the State of Florida, (County) will use a submerged ultrafiltration (UF) membrane filtration system to replace the existing media filters at its Lake Manatee Water Treatment Plant (LMWTP). The County has entered into an engineering agreement with Carollo Engineers, Inc. (Engineer) to provide procurement and technical services for short-listing qualified membrane system suppliers.

Only membrane system suppliers (Suppliers) that submit Statement of Qualifications (SOQs) **with the Signed Declaration (see Section 3.1) and who meet ALL of the minimum qualifications specified in Section 3.2, Response to Minimum Qualifications Criteria**, will be considered prequalified. Only the prequalified Suppliers shall be permitted to participate in the subsequent membrane system procurement process.

1.2 Submittal Procedure

Eight (8) copies (one original, marked "Original", and seven (7) copies, marked "Copy") and one (1) CD of the signed SOQ prepared by the prospective Supplier in response to the Request For Qualifications shall be submitted in one sealed package, clearly marked on the outside "SOQ No. 15-0127DW- Supply of a Submerged Membrane Filtration System for a Drinking Water Application" along with prospective Supplier's name. See Section 1.5 regarding confidential and/or proprietary information.

SOQs must be received by **3:00 p.m. Eastern Time on Friday, DECEMBER 9, 2014** at the following address:

Manatee County Government / Financial Management Department, Purchasing Division
1112 Manatee Avenue West, Suite 803
Bradenton, FL 34205
Attn: Dennis Wallace, Procurement Contracts & Buyer Manager, Ref: SOQ#15-0127

Any SOQs received after the stated time and date will not be considered. It shall be the sole responsibility of the prospective Supplier to have their SOQ delivered to the Manatee County Purchasing Division for receipt on or before the stated time and date. Prospective Supplier shall be solely and strictly responsible for its timely delivery to the Purchasing Division. SOQs delayed by mail, courier, or SOQs delayed for any other reason, shall not

be considered, shall not be opened, and arrangements shall be made for their return at the prospective Supplier's request and expense.

SOQ content should be prepared in accordance with Section 3.0, Statement of Qualifications Content. Suppliers are solely responsible for the cost of preparing their SOQs.

1.3 Single Point of Contact

Questions regarding this project shall be directed in writing via e-mail to Dennis Wallace (dennis.wallace@mymanatee.org), Procurement Contracts & Buyer Manager at Manatee County.

December 2, 2014 at 3:00 p.m. EST shall be the deadline to submit to the contact noted above, in writing, all inquiries, suggestions, or requests concerning interpretation, clarification or additional information pertaining to this Request for Qualifications. Oral questions, explanations, or instructions will not be allowed. Questions and responses in connection with this document will be addressed by written addendum. The issuance of a written Addendum is the only official method whereby interpretation, clarification, or additional information can be given.

It shall be the responsibility of each prospective Supplier, prior to submitting their SOQ, to contact the Manatee County Purchasing Division at (941) 748-4500, extension 3014, to determine if addenda were issued and to **acknowledge receipt of same in their SOQ submittal by indicating the Addendum number and issue date on the Signed Declaration page (see Section 3.1).**

1.4 General Guidelines for Content

The SOQ shall be clear and concise and each question stated herein shall be answered by the prospective Supplier to enable the Engineer to make a thorough evaluation and arrive at sound determination as to whether the prospective Supplier's SOQ meets the minimum requirements of the County. To this end, the SOQ should be so specific, detailed, and complete as to clearly and fully demonstrate the prospective Supplier has a thorough understanding of the work and has demonstrated knowledge of the requirements to perform the supply of the membrane system.

1.5 Confidential or Proprietary Information

Upon receipt, all SOQs, and inquiries and responses to inquiries related to this Request for Qualifications become "Public Records," and shall be subject to public disclosure consistent with Florida Statutes, Chapter 119. If the prospective Supplier includes confidential and/or proprietary information in their SOQ, that information shall be marked, in bold letters, as "Confidential" on the face of each affected page of such material. In the event the prospective Supplier's SOQ contains any page marked "Confidential", the Supplier shall

include one (1) redacted copy (marked "Redacted Copy") of the SOQ (in addition to the 8 complete copies) in the sealed submittal package, in which the exempt information on each affected page, and only such exempt information, has been rendered unreadable. In the event a prospective Supplier fails to submit a redacted copy of such material, the complete version of the SOQ submitted will be deemed a public record subject to disclosure and copying regardless of any annotations to the contrary on the face of such document or any page(s) thereof.

Should any person request to examine or copy the prospective Supplier's SOQ, and provided the affected Supplier has otherwise fully complied with this provision, County, in reliance on the representations of the Supplier, will produce for that person only the redacted version of the Supplier's SOQ. In the event the prospective Supplier's complete version of the SOQ is requested subject to a Public Records Act Request, the County shall notify the prospective Supplier and it shall be the responsibility of the prospective Supplier to undertake any legal proceedings to protect their "Confidential" information from disclosure.

1.6 Lobbying

After the issuance of any Request for Qualifications prospective Suppliers, or any agent, representative or person acting at the request of such prospective Supplier shall not contact, communicate with or discuss any matter relating in any way to the Request for Qualification with any officer, agent or employee of the County other than the Purchasing Official or the contact identified in the Request for Qualifications, pursuant to the Manatee County Code of Laws. This prohibition includes the act of carbon copying officers, agents or employees of the County on all correspondence, including email correspondence. This requirement begins with the issuance of the Request for Qualifications, and ends upon written notification of the prequalification determination of Suppliers or when the Request for Qualifications has been cancelled. Violators of this prohibition shall be subject to sanctions as provided in the Manatee County Code of Laws.

1.7 Royalties and Patents

The prospective Supplier shall pay all royalties and license fees for equipment or processes in conjunction with the equipment and/or services being furnished. The prospective Supplier shall defend all suits or claims for infringement of any patent, trademark or copyright, and shall save the County harmless from loss on account thereof, including costs and attorney's fees.

1.8 SOQ Evaluation Process

Evaluation of the Supplier's responses to the minimum qualifications criteria will be determined by the application of a pre-established pass/fail rating system as described in Section 3.0, Statement of Qualification Content.

Only Suppliers that submit Statement of Qualifications (SOQs) **with the Signed Declaration (see Section 3.1) and who meet ALL of the minimum qualifications specified in Section 3.2, Response to Minimum Qualifications Criteria**, will be deemed prequalified. The minimum qualifications are associated with submerged membrane applications treating surface waters for potable water production. Only prequalified Suppliers shall be permitted to participate in the subsequent membrane system procurement process. If a Supplier has more than one membrane or membrane system that meets the requirements of this document, it will be up to the discretion of the Supplier to propose their preferred system for the application. A Supplier may not propose more than one membrane or membrane system.

The Engineer will evaluate the SOQ response from the membrane system suppliers and submit results to County. The County will send written notification of the determination of prequalification status to each Supplier submitting a SOQ.

Submission of an SOQ constitutes Suppliers approval for County and its Engineer to conduct reasonable investigations and reference checks of the Supplier and its team members, and such other persons and organizations, as County deems necessary to assist in the evaluation of any SOQ. This investigation may include, without limitation, confirmations/verifications with referenced owners and referenced owner's engineers.

The County reserves the right to interpret or change any provision of this Request for Qualifications at any time prior to the SOQ submission date. Such interpretations or changes shall be in the form of addenda. The County, in its sole discretion, may determine that a time extension is required for submission of SOQs, in which case such addenda shall indicate a new SOQ submission deadline.

The submission of an SOQ does not commit the County to award for the procurement, or to procure or contract for any goods or services. The County reserves the right, in its sole discretion, to determine substantial compliance based on objective characteristics. The County retains the right to reject any and all SOQs, to change the scope of procurement to be performed by the successful Supplier, or to abandon the procurement entirely. All decisions concerning Supplier selections shall be made in the best interests of the County and the project. The County also reserves the right to waive any and all informalities in selection of the Suppliers for participation in the procurement process.

1.9 Anticipated Procurement Process

Supply of the membrane system will be awarded to a prequalified Supplier on the basis of lowest net present value of life-cycle cost, accounting for capital and operating costs over a 20 year evaluation period. The anticipated membrane procurement process is as follows:

- Issue Request for Qualifications No. 15-0127DW (this document).
- Statement of Qualifications submitted by Suppliers (the response to this document).

- Prequalification (short-listing) notification of submerged membrane system suppliers.
- County contracts for pilots with prequalified Suppliers.
- Issue procurement documents for full-scale submerged membrane system.
- Receive submittals from prequalified Suppliers.
- Scope negotiation meetings.
- Proof pilot testing.
- Final price evaluation (net present value of life-cycle cost).
- Award membrane system contract.
- Final design.

See Section 5.0 (Schedule) for information on the expected timeline. This timeline is subject to change without notice.

2.0 PROJECT BACKGROUND

The LMWTP includes two separate treatment trains: one for surface water from Lake Manatee and the other for groundwater from the wellfields. The existing conventional surface water treatment train has a capacity of 54 (52 net) million gallons per day (mgd) and comprises coagulation, flocculation, sedimentation, and multi-media filtration (in filter bays A and B).

The multi-media filters in the surface water treatment train are approaching the end of their useful life, and based on previous evaluations, the County has decided to retrofit them with an UF membrane system. In 2008, the County undertook a pilot test that included evaluation of several treatment alternatives. Based on the results of the treatment and economic evaluations, UF was selected to retrofit within the footprint of the existing media filters. In 2010, the County developed a basis of design report (BODR) for the UF retrofit. As part of further evaluations performed in 2013, a submerged membrane filtration system (SMFS) UF configuration was selected for retrofitting the granular media filters at the LMWTP.

The surface water treatment train uses aluminum sulfate (alum) as coagulant and a nonionic polymer as a settling aid. Note that as part of the current project, the possibility of reducing polymer usage, either using the existing coagulant (alum) or an alternate coagulant (e.g. aluminum chlorohydrate (ACH)), is being investigated. Lime is added at the rapid mix and post mix basins for pH adjustment.

Additionally, powdered activated carbon (PAC) is currently added, based on seasonal need, upstream of the raw water pump stations for taste and odor (T&O) control. Note that a separate project, which recently completed pre-design, is implementing biological roughing filter (BRF) treatment ahead of the surface water treatment trains to operationally replace the existing PAC system for T&O control. The BRF system will include flexibility to be bypassed depending on seasonal need. The County intends to retain the PAC system to provide additional flexibility and reliability. Although the BRF system will serve as the primary T&O control process, the PAC system may sometimes be used in tandem with the BRF system to provide additional control, if needed. It is planned for the BRF system to be in place when the membrane retrofit is implemented in 2018.

A process flow diagram for the surface water treatment train illustrating the existing media filters (and future BRF system) is shown in Attachment A.

2.1 Project Description

The submerged UF retrofit of the conventional surface water treatment trains includes use of the existing filter bays and the construction of a new building for membrane chemical cleaning equipment. An engineering analysis has determined that it is feasible to fit a 52 mgd net capacity system operating in constant feed water flow configuration (6 filter boxes, 12 cells) within the existing filter Bay B. The new membrane chemical cleaning building would be sited adjacent to filter Bay B. Based on the BODR, a 500-micron nominal opening size gravity screen strainer would be installed in the post mix basins (although alternate location for the strainer may be explored by Carollo as part of the design).

The submerged membrane filters, manifolds, filtrate pumping systems, and dedicated valves shall fit into two parallel rectangular footprints of approximately 93 ft by 27.5 ft. The filters are 9-ft, 3-in deep and supported on a 12-in slab above the clearwell. It is anticipated that a “false floor” will be required in the existing filter boxes to separate the membrane feed water from the finished water stored in the clearwell below. There is currently 8-ft, 6-in of headroom between the operating level and the roof beams. Based on initial estimate, it is anticipated that the roof will be raised by about 6 feet to accommodate the membrane system and the overhead crane. A plan and section through the existing filter Bay B is provided in Attachment B.

Anticipated membrane feed water data are provided in Attachment C.

3.0 STATEMENT OF QUALIFICATIONS CONTENT

The proposed SOQ shall be arranged to follow the following Subsections 1-8 of this Section 3.0, Statement of Qualifications Content. Each section shall be separately tabbed and labeled with the title of each subsection as indicated. **The Signed Declaration in Section 3.1 and ALL the minimum qualifications specified in Section 3.2, Response to Minimum Qualifications Criteria, need to be met in order to be prequalified** (see

Section 1.8 for SOQ Evaluation Process). All remaining information noted below as SOQ content in Sections 3.3 through 3.8 is for informational purposes, but is required for a complete SOQ response and will be subject to verification as needed.

3.1 Section 1 – Signed Declaration

The SOQ shall be verified and signed by the prospective Supplier under penalty of perjury by an officer or partner of the Supplier by signing the following declaration and including it in the Supplier’s SOQ. Further, it shall be the responsibility of each prospective Supplier, prior to submitting their SOQ, to contact the Manatee County Purchasing Division at (941) 748-4500, extension 3014, to determine if addenda were issued and to acknowledge receipt of same in their SOQ submittal by indicating the Addendum number and issue date on the Signed Declaration page, as shown below.

Each of the undersigned hereby declares under penalty of perjury under the laws of the State of Florida that he or she has read Request for Qualifications No. 15-0127DW, as well as the Statement of Qualifications submitted in response thereto, and personally confirms that the contents of this submitted SOQ, and that the statements therein are true and correct to the undersigned’s own personal knowledge.

Further, Supplier acknowledges receipt of Addenda as follows:

Acknowledge Addendum No.____ Dated: _____ Acknowledge Addendum No.____ Dated: _____
Acknowledge Addendum No.____ Dated: _____ Acknowledge Addendum No.____ Dated: _____
Acknowledge Addendum No.____ Dated: _____ Acknowledge Addendum No.____ Dated: _____

Authorized Signature(s) _____

Name, Title, and Company of
Above Signer(s) _____

Date: _____

3.2 Section 2 - Response to Minimum Qualifications Criteria

Each Supplier shall provide a response to each of the minimum qualifications criteria specified below. **The minimum qualifications are associated with submerged membrane system applications treating surface waters for potable water production.** The response shall be specific, detailed, and complete as to allow for a pass/fail rating.

- 1) Supplier shall not have had a surety finish work on any contract in the past five years
Reviewers' Evaluation: Pass _____ Fail _____
- 2) Supplier shall not have filed a bankruptcy petition in the past five years
Reviewers' Evaluation: Pass _____ Fail _____
- 3) Supplier shall meet minimum standards for bonding capacity (Supplier's bonding capacity is at least \$25,000,000 and Supplier has at least \$15,000,000 of capacity available to be considered for this work). Supplier shall provide a letter from its bonding company/surety indicating the total bonding capacity and then-current bonding available capacity. Additional information regarding minimum bonding requirements are in Attachment D.
Reviewers' Evaluation: Pass _____ Fail _____
- 4) Supplier shall be able to obtain minimum insurance requirements (see Attachment E). Supplier shall also provide a letter from the insurance broker indicating the Supplier's ability to meet the minimum insurance requirements in Attachment E.
Reviewers' Evaluation: Pass _____ Fail _____
- 5) Supplier shall provide a statement signed by an officer of the membrane company attesting that its membrane fiber manufacturing capacity is at least 10 million square feet/year for the fiber proposed for this project.
Reviewers' Evaluation: Pass _____ Fail _____
- 6) Membrane module integrity and repair history: maximum fiber repair rate of 0.0035 fibers repaired/ft²/yr. Supplier shall provide data to substantiate claim for meeting this criterion for: (1) minimum two water treatment plants with strained (or screened) membrane feed water (if the Supplier does not have data for plants with screened membrane feed water, then data from plants with unscreened membrane feed water may be submitted; however, all data will be evaluated against the maximum fiber repair rate of 0.0035 fibers repaired/ft²/yr); (2) minimum module age: 24 months; (3) minimum sample size: 500 modules; (4) using current or previous generation of the proposed module product line, and a hollow fiber of the proposed base polymer.

Supplier shall provide time series of previous 12 months of daily log reduction values (LRVs) for each data set and indicate when fiber repairs were made. Provide reference contact information for the project owner (name, email address, phone number) who would be able to verify the data provided. Data provided to demonstrate fiber repair rate is subject to verification/exclusion based on reference checks with the reference project owners.

Reviewers' Evaluation: Pass _____ Fail _____

- 7) Minimum capacity of largest submerged installation: 52 mgd (does not have to be for the module currently proposed). Include reference contact information (name, email address, phone number). Installation listed to demonstrate experience is subject to verification/exclusion based on reference checks.

Reviewers' Evaluation: Pass _____ Fail _____

- 8) Minimum of 10 years of submerged membrane system operation (does not have to be for the module proposed for this project).

Reviewers' Evaluation: Pass _____ Fail _____

- 9) Minimum of 5 retrofit installations of submerged membranes in existing water treatment plant filter boxes (does not have to be for the module proposed for this project). Include reference contact information (name, email address, phone number). Installations listed to demonstrate experience are subject to verification/exclusion based on reference checks.

Reviewers' Evaluation: Pass _____ Fail _____

- 10) Submerged, hollow fiber configuration.

Reviewers' Evaluation: Pass _____ Fail _____

- 11) Polymeric material compatible with a continuous exposure to a free chlorine residual of 2 mg/L and continuous exposure to pH conditions in the range of 5.0 to 9.0.

Reviewers' Evaluation: Pass _____ Fail _____

- 12) Compatibility with water pretreated with alum and polyaluminum coagulants in the upstream sedimentation process.

Reviewers' Evaluation: Pass _____ Fail _____

- 13) Compatibility with sodium hypochlorite in cleaning applications up to 200 mg/L, acid cleaning solutions as low as pH 2 and caustic cleaning solutions up to pH 10.

Reviewers' Evaluation: Pass _____ Fail _____

- 14) Compatibility with up to 5 mg/L of powdered activated carbon carryover from the upstream processes.

Reviewers' Evaluation: Pass _____ Fail _____

- 15) The proposed membrane product shall be compatible with nonionic or anionic water treatment polymers (up to 0.25 mg/L as product dosed upstream of the sedimentation process) necessary for the pretreatment process.

Reviewers' Evaluation: Pass _____ Fail _____

- 16) The membrane system and module shall have been previously demonstrated to achieve a minimum of 4-log removal of protozoans (e.g., *Giardia* cysts, *Cryptosporidium* oocysts) when the membrane exhibits full integrity as determined through third party testing. Third party testing must have been completed within the last 5 years and have approval by the California State Water Resources Control Board.

Reviewers' Evaluation: Pass _____ Fail _____

- 17) The proposed equipment shall achieve a filtered water turbidity never exceeding 0.1 NTU.

Reviewers' Evaluation: Pass _____ Fail _____

- 18) The membrane system must have a direct integrity test to verify a minimum of 4-log *Cryptosporidium* removal in accordance with the LT2ESWTR and the USEPA's Membrane Filtration Guidance Manual requirements.

A description of membrane integrity test and approach to log removal value calculation shall be provided. Required elements of the description shall be consistent with the USEPA Membrane Filtration Guidance Manual, and shall also include the following:

- Provide calculation of the air integrity test pressure required for a 3 micron resolution. The Supplier shall provide values used for the following variables in the test pressure calculation:

Parameter	Value	Units
k (pore shape correction factor)	1	(unitless)
s (surface tension)		Dynes/cm
□ (contact angle)	0	Degrees
BP (back pressure, assumed)		psi

- Technical justification, including third-party test data, shall be required if using a contact angle greater than 0 degrees or a pore share correction factor other than 1. The Supplier shall provide letters of approval from at least (2) state regulatory

agencies, with each letter indicating acceptance of the proposed contact angle or pore shape correction factor for an operating installation of the proposed membrane module.

Reviewers' Evaluation: Pass _____ Fail _____

- 19) Requires current NSF 61 certification documentation for the proposed membrane module.

Reviewers' Evaluation: Pass _____ Fail _____

3.3 Section 3 - Membrane Supplier Company Information

The Supplier shall provide a description of its business and product structure including:

- Membrane and non-membrane product lines.
- Total number of employees. Include an organizational chart showing the distribution of number of employees among membrane system and non-membrane product lines.
- Organizational structure as it relates to membrane system product line. Include other entities involved.
- Parent company, years in current organization.
- List any litigation or judgments involving any submerged membrane filtration system against the Supplier within the last five (5) years. The description should include the year originally filed, the nature of the litigation/judgment, and the final resolution.

3.4 Section 4 - Manufacturing Capacity

The Supplier shall provide the following information related to membrane product manufacturing capabilities.

- Identify the location(s) of hollow fiber membrane material and membrane module manufacturing.
- Identify location(s) from which modules are shipped to current operating facilities in the United States.
- If the manufacturer of the membrane system is different from the module supplier, manufacturer of the membrane unit equipment shall be stated.
- Define how the supply chain is organized, monitored, and controlled for all major components from raw materials to membranes and system.
- Indicate the quality management system certification (ISO or equal) for each step of the supply chain.

3.5 Section 5 - Experience

The Supplier shall have required experience with SMFS of water for potable water treatment. Both membrane manufacturer and equipment manufacturer qualifications will be required. Installations listed to demonstrate experience are subject to verification based on reference checks. Information provided under this section will be used to identify facilities that will be contacted. The County shall follow up with facilities identified here and verify with each one of its applicability to this project. Facilities will be contacted for each Supplier.

The Supplier shall provide the following:

- Comprehensive list of its potable water membrane filtration installations.
- A detailed description of applicable reference plants that meet the minimum criteria listed above including:
 - Either a process flow schematic (including treatment chemicals), or a list of the unit processes comprising the treatment train.
 - Location
 - Capacity
 - Start up date
 - Scope of supply (products/services provided for each).
 - Aftermarket services and parts/spare parts being provided.
- Rate of broken fibers (average and maximum fiber repair rate, as number of fibers repaired/ft²/yr).
- Reference contact information (include name, email address, phone number).
- Resumes of key personnel with focus on submerged membrane facilities.

3.6 Section 6 - Membrane Configuration, Operation, and Chemistry

The Supplier shall provide a description of pilot-scale and full-scale equipment including description of the membrane configuration and chemistry, including the following information:

- Membrane material(s).
- Membrane fiber diameters (ID and OD).
- Membrane pore size (nominal and absolute).
- Membrane symmetry (symmetric, asymmetric, composite).
- Supplier module designation.

- Feed side membrane surface area per module (sq feet).
- Tolerance to oxidants (instantaneous (mg/L) and lifetime mg/L-hours).
- Range of pH tolerance (continuous and in cleaning).
- Compatibility with aluminum based coagulants.
- Tolerance to use of powdered activated carbon. Provide a maximum dose (above the minimum criteria listed above), duration, and any specifications on the characteristics of the carbon used.
- Tolerance to water treatment polymers. Specify type, molecular weight or list polymers that the Supplier has experience with and are compatible without detrimental impacts to process performance. (Note: The polymer currently used for pretreatment at the LMWTP is PN100PWG (high molecular weight nonionic polymer) from the KED Group Inc).

3.7 Section 7 - Membrane System Filtration and Disinfection Capabilities

The Supplier shall provide its third party testing results for pathogen removal and a list of written state approvals (for states where use in drinking has been approved). Indicate if the testing was done in conformance with the US EPA Membrane Filtration Guidance Manual. At a minimum, documentation of third party testing shall include the following information:

- Module designation.
- Description of the membrane tested.
- Test site location.
- Raw water source.
- Awarded cryptosporidium removal credits.
- Operational limits including maximum flux and transmembrane pressure.
- Describe approach to log removal value calculation.
- Provide pore size distribution data include nominal and absolute pore size and identify methods used for characterizing pore size distribution.

3.8 Section 8 - Conceptual Membrane System Layout

As proof of concept that the proposed system fits into the existing filter gallery, the Supplier shall provide a layout (plan and sections) for the membrane system. The Supplier shall provide preliminary process projections.

The Supplier shall include:

- Conceptual layout for 52 mgd of net membrane filter basin capacity into filter Bay B. The layout shall provide for a constant feed water flow assuming two out of service; one out of service for a chemically enhanced backwash or a membrane integrity test and another out of service for an extended chemical cleaning cycle.
- Preliminary process projections including range of instantaneous flows at capacity, residuals volumes, chemical cleaning regimes.

4.0 PROOF PILOT TESTING OF PREQUALIFIED MEMBRANE SYSTEMS

The general objectives and requirements for the side-by-side pilot testing of the prequalified membrane systems are listed below. The detailed piloting requirements and pilot test protocol will be developed as part of subsequent tasks, and provided to the prequalified Suppliers at a later date. Side-by-side pilot testing of prequalified membrane systems will be used to validate membrane performance and associated life cycle cost evaluation.

General Piloting Objectives

- Side-by-side pilot testing and evaluation of prequalified membrane systems (estimated 3 month operation)
- Validation of performance and life cycle cost evaluation
- Performance, evaluation and verification of integrity testing
- Evaluation of fouling
- Water quality monitoring protocol and evaluation of results
- Evaluation of water treatment plant chemicals and membrane efficiency

General Piloting Requirements

- Provide a UF pilot test unit for a minimum operating period of 3 months (4 months including installation) at the LMWTP site. The County will be responsible for providing an adequate site and required utilities. It is assumed that day-to-day operation and sampling associated with the pilot plants will be managed by the County operations staff.
- Provide the UF pilot system to be fully functional and skid-mounted for use in the pilot test program, complete with all pumps, tanks, compressors, strainers, and other ancillary systems needed for full operation during the pilot testing. Provide all equipment necessary for performing 'Clean in Place' (CIPs), intermittent chemical cleans, and direct integrity monitoring. A holding tank shall be provided into which feed water can be introduced. Provide an Operations and Maintenance (O&M) Manual for the specific pilot plant delivered to the testing site.

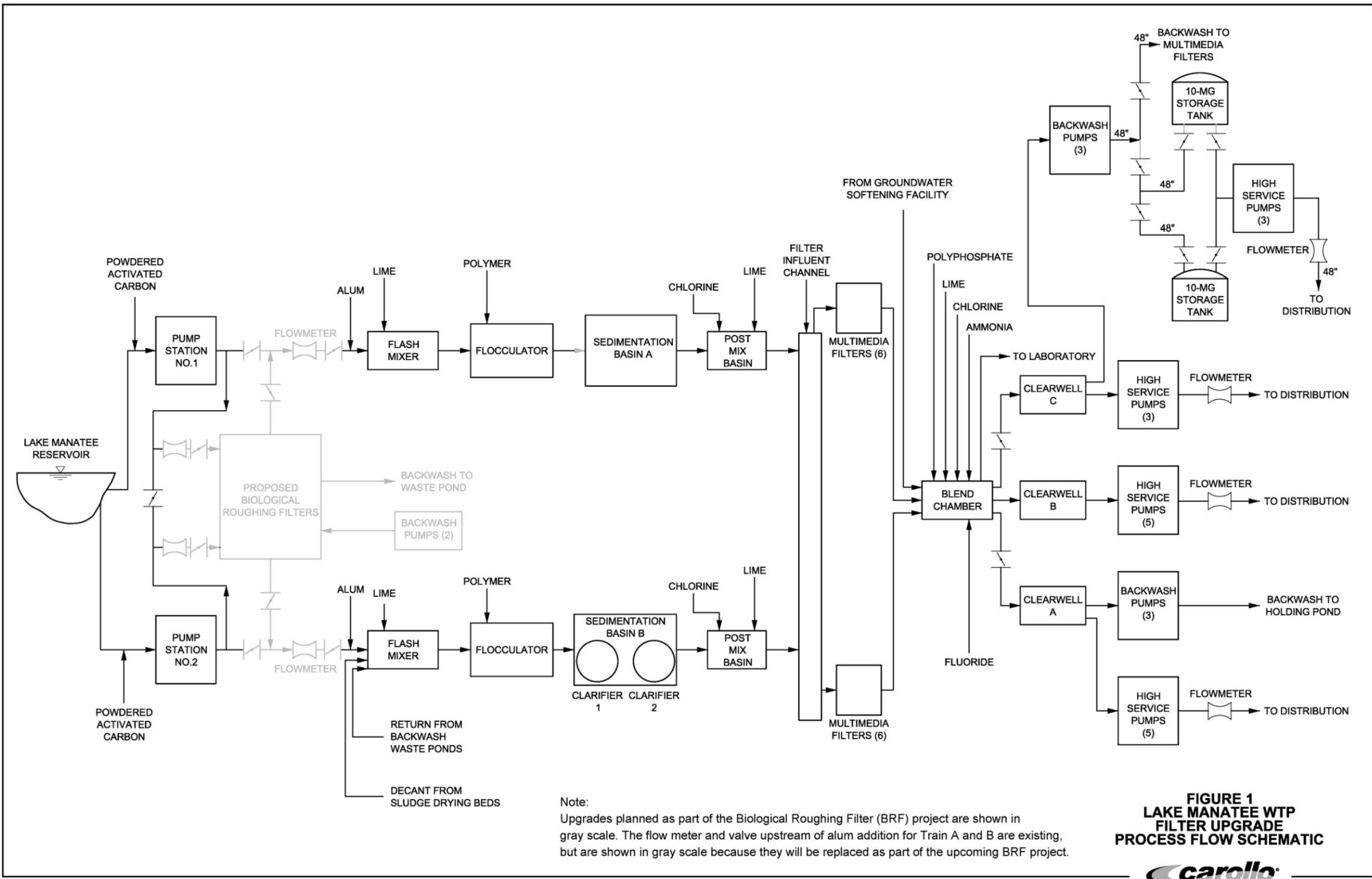
- The pilot system shall operate on 480V, 3-Phase power (provide transformer if necessary to meet this requirement).
- The pilot test unit shall be equipped with a membrane module(s) representative of the proposed full-scale module. At a minimum, the testing module shall be identical to the membrane configuration, chemistry, and size (including length of module, fiber diameter, module diameter, and hydraulic configuration) as the associated full-scale module.
- The pilot unit shall be equipped with feed and permeate turbidimeters and particle counters as well as electronic flow and pressure measurement equipment to allow for remote data logging of system performance.
- Deliver the pilot testing equipment to the site, unload, and coordinate arrival and installation with the County.
- Provide on-site supervision of installation and startup (5 days, minimum). The Supplier will respond to requests for technical assistance within one business day during the pilot study.
- Provide at least one site visit per month throughout pilot study duration.
- Provide timely (24-hour response by phone, and if necessary 48 hour on-site representation) on-site technical support to the pilot test program.
- Provide complete real-time access to electronic operating data from the pilot systems. The County will not be restricted in its use of the data collected in this study. Raw performance data shall be remotely downloadable and able to be imported into Microsoft Excel.
- If any necessary repairs to the pilot plant cannot be made with over the phone guidance from the Supplier within 48 hours, it is the Supplier's responsibility to perform the repairs. Any pilot plant out of service for a total of 2 weeks over the course of the pilot study may be considered unsuitable for use in the pilot study and the Supplier may be asked to remove it from the site.

5.0 SCHEDULE

COMPLETION SCHEDULE (SUBJECT TO CHANGE WITHOUT NOTIFICATION)

Deadline for Clarification Requests (for the Request for Qualifications)	December 2, 2014 3:00 p.m. Eastern Time
Statements of Qualifications Due	December 9, 2014 3:00 p.m. Eastern Time
Notification of Prequalified Suppliers	January 2015
Procurement Documents Issued	April 2015
Technical Response & Price Offer Due	July 2015
Scope Negotiation Meetings	July 2015
Proof Pilot testing	August 2015 – November 2015
Final Membrane Supplier Selection	February 2016

**ATTACHMENT A – PROCESS FLOW DIAGRAM OF THE
LMWTP SURFACE WATER TREATMENT TRAIN**

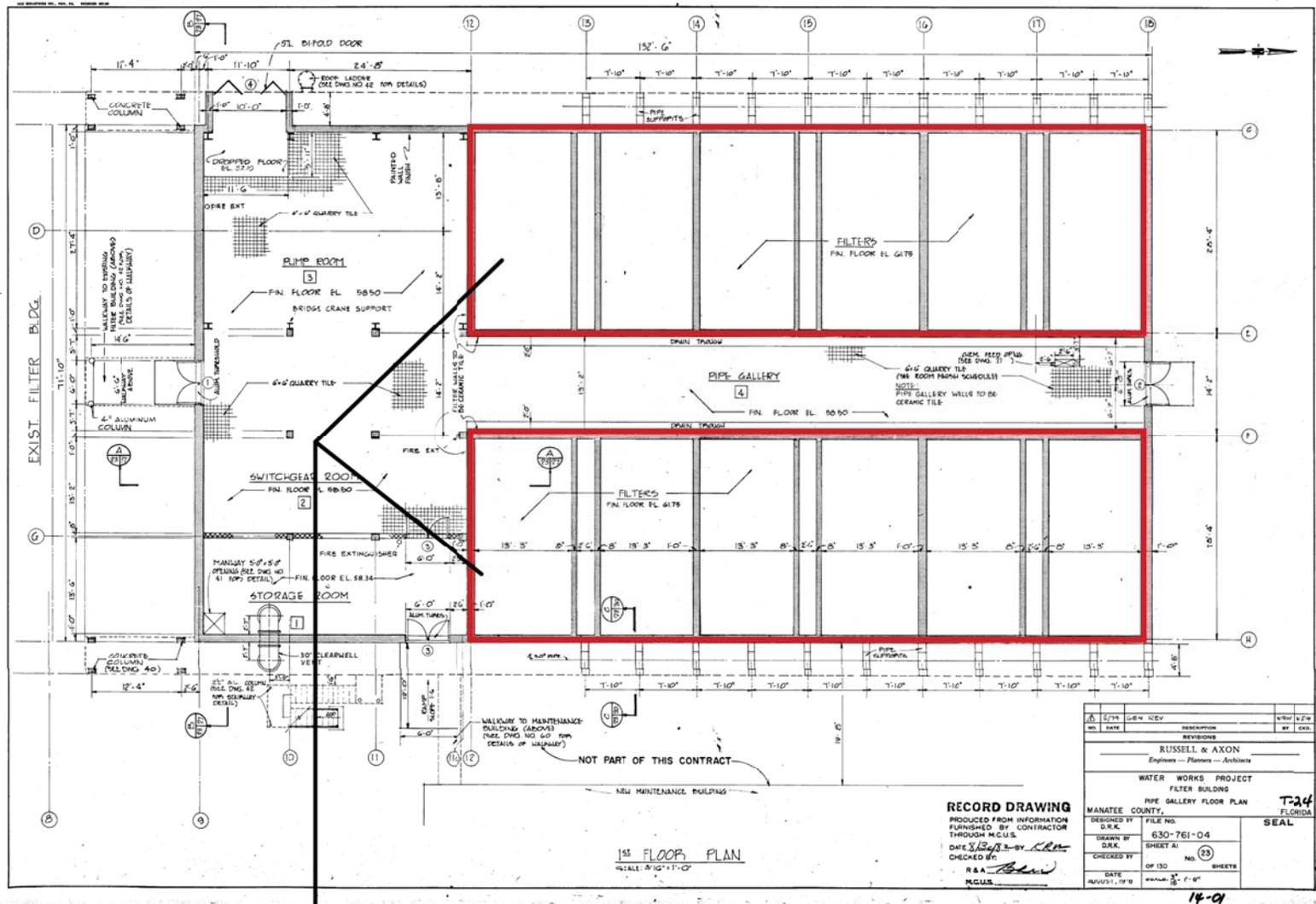


Note:
 Upgrades planned as part of the Biological Roughing Filter (BRF) project are shown in gray scale. The flow meter and valve upstream of alum addition for Train A and B are existing, but are shown in gray scale because they will be replaced as part of the upcoming BRF project.

**FIGURE 1
 LAKE MANATEE WTP
 FILTER UPGRADE
 PROCESS FLOW SCHEMATIC**



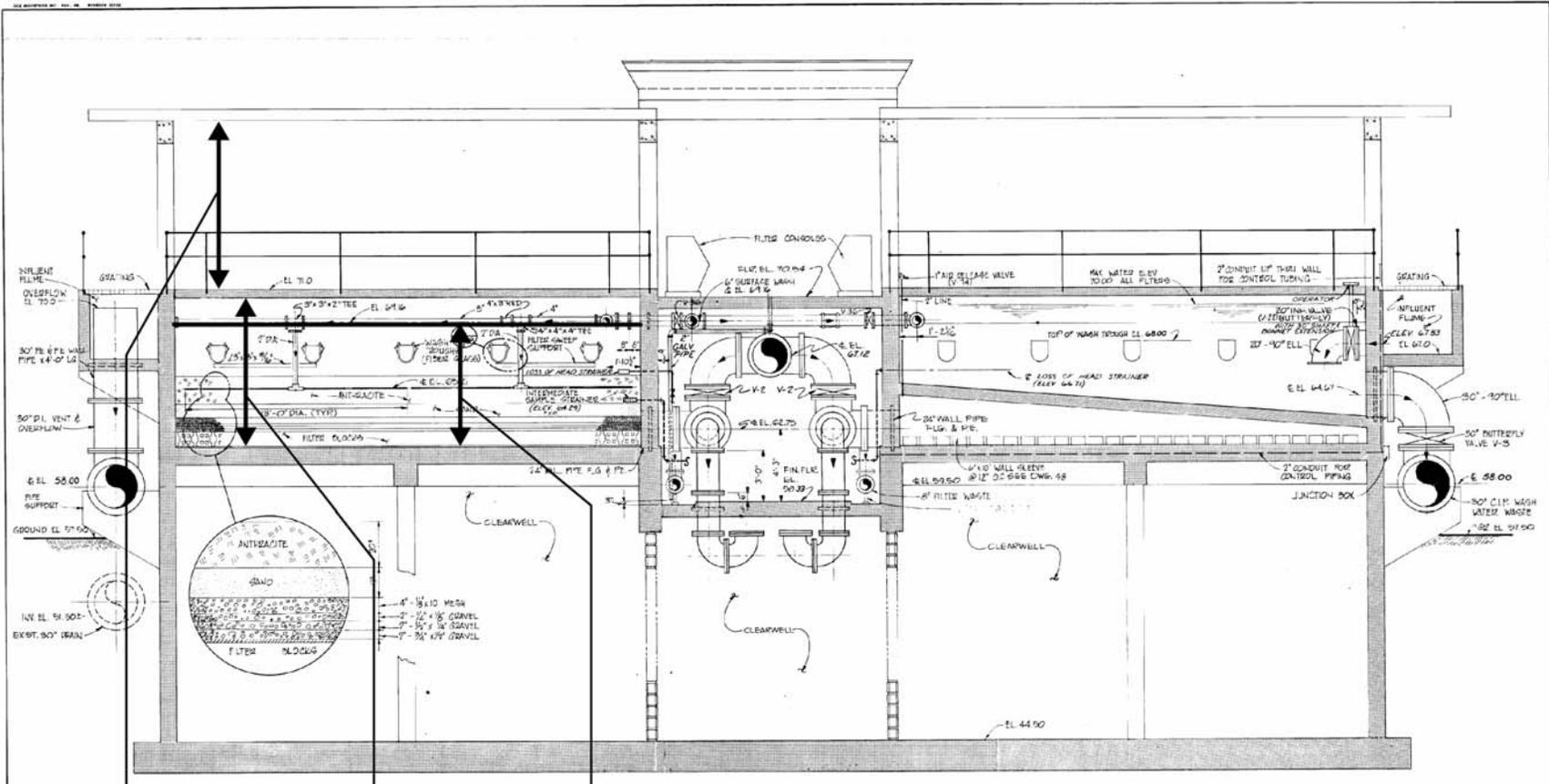
ATTACHMENT B – FILTER BAY B PLAN AND SECTION



Each side of filter Bay B is 97 feet by 27.5 feet.

NO.	DATE	BY	CHKD.
1/78	GEN. REV.		
REVISIONS			
RUSSELL & AXON Engineers - Planners - Architects			
WATER WORKS PROJECT FILTER BUILDING			
PIPE GALLERY FLOOR PLAN			
MANATEE COUNTY, FLORIDA			T-24
DESIGNED BY			SEAL
D.R.K.			
DRAWN BY			
D.R.K.			
CHECKED BY			
DATE 8/26/78 BY R&A			
CHECKED BY			
R & A			
M.C.L.S.			
DATE AUGUST 1978			
SHEET 25			
OF 130 SHEETS			
SCALE 1/8" = 1'-0"			

1st FLOOR PLAN
SCALE: 1/8" = 1'-0"



Head space above operating level is approximately 8 feet.

Operating water depth is approximately 7 feet.

Filter box depth is approximately 9 feet.

ATTACHMENT C – ANTICIPATED MEMBRANE FEED WATER QUALITY DATA

Anticipated Membrane Feed Water Quality Data Submerged Membrane System Prequalification Manatee County Government				
Parameter	Units	Value		
		5th Percentile	95th Percentile	Average
Turbidity	NTU	0.7	1.7	1.2
pH	Standard Units	6.0	6.4	6.2
Total Organic Carbon	mg/L	3.9	7.9	6.0
Specific UV Absorbance	m.L/mg	1.4	2.5	1.8
Free Chlorine	mg/L as Cl ₂	0.5	1.5	0.9
Dissolved Aluminum	ug/L	24	115	87
Dissolved Manganese	ug/L	2	35	12
Dissolved Iron	mg/L	<0.003	0.04	0.01
Alkalinity	mg/L as CaCO ₃	5	30	14
Hardness	mg/L as CaCO ₃	84	173	123
Notes:				
(1) Data based on existing settled water quality; from regular sampling events from 2010 to 2013.				

ATTACHMENT D – MINIMUM BONDING REQUIREMENTS

The successful Supplier selected for the Full-Scale Membrane System Supply will be required to meet the following minimum bonding requirements upon Notice of Intent to Award the Full-Scale Membrane System Supply.

Performance and Payment Bonds

The successful Supplier will be required to furnish surety bonds using the Public Construction Bond form prescribed in Florida Statute § 255.05, as security for faithful performance of the Contract awarded for the Full-Scale Membrane System Supply and for the payment of all persons performing labor and/or furnishing material in connection therewith. Failure to provide the required bonds on the prescribed form may result in the successful Supplier being deemed unresponsive. Bonds must be in the form prescribed by Florida Statute § 255.05, and must not contain notice, demand or other terms and conditions, including informal pre-claim meetings, not provided for in Florida Statute § 255.05.

Surety of such bonds shall be in amount equal to 100% of the Contract Award issued by a duly authorized and nationally recognized surety company, authorized to do business in the State of Florida, satisfactory to the County. Surety shall be rated as "A-" or better as to general policy holders rating and Class V or higher rating as to financial size category and the amount required shall not exceed 5% of the reported policy holders' surplus, all as reported in the most current Best Key Rating Guide, published by A.M. Best Company, Inc. of 75 Fulton Street, New York, New York, 10038. The attorney-in-fact who signs the bonds must file with the bonds, a certificate and effective dated copy of power-of-attorney. Performance and payment bonds shall be issued to Manatee County, a political subdivision of the State of Florida, within ten (10) calendar days after Notice of Intent to Award.

In addition, pursuant to Florida Statute § 255.05(1)(b), prior to commencing work, the successful Supplier shall be responsible and bear all costs associated to record the performance and payment bond with the Manatee County Clerk of the Circuit Court. A certified copy of said recording shall be furnished to the Purchasing Division upon filing. Pursuant to Florida Statute § 255.05(1)(b), the County will make no payment to the Supplier until the Supplier has complied with this paragraph.

Furnishing performance and payment bonds shall be requisite to execution of a Contract with the County. Said performance and payment bonds will remain in force for the duration of the Contract with the premiums paid by the Supplier. Failure of the Supplier to execute such Contract and to supply the required bonds shall be just cause for cancellation of the Award for the Full-Scale Membrane System Supply. The County may then contract with another acceptable Supplier or re-advertise the Membrane System Procurement Documents. If another Supplier is accepted and notice given within ninety (90) days after the original Notice of Intent to Award the Full-Scale Membrane System Supply, this acceptance shall bind the Supplier as though they were originally the successful Supplier.

Failure of the County at any time to require performance by the Supplier of any provisions set out in the resulting Contract will in no way affect the right of the County, thereafter, to enforce those provisions.

When activity occurs within the resulting Contract that increases the amount of the Contract by either an approved Administrative Contract Adjustment (ACA) or an approved Change Order, a recorded bond rider shall be provided before the additional work can proceed. All premiums shall be paid by the Supplier.

ATTACHMENT E – MINIMUM INSURANCE REQUIREMENTS

The Supplier shall obtain a letter from their insurance broker and/or carrier(s), which must be submitted with the Supplier's SOQ, and which states the Supplier currently meets the insurance requirements stated herein.

The Suppliers who are determined to be prequalified in response to this Request for Qualifications will not commence work under any resulting Pilot Test Contract until all insurance under this section, and such insurance coverage as might be required by the County, has been obtained. Each prequalified Supplier will be required to submit to the Purchasing Division within ten (10) calendar days from the date of Notification of Prequalified Suppliers, at its own expense, the following minimum amounts of insurance (inclusive of any amounts provided by an umbrella or excess policy).

Additionally, the successful Supplier selected for the Full-Scale Membrane System Supply will not commence work under the resulting Full-Scale Membrane System Supply Contract until all insurance under this section, and such insurance coverage as might be required by the County, has been obtained. The successful Supplier will be required to submit to the Purchasing Division within ten (10) calendar days from the date of Notice of Intent to Award Full-Scale Membrane System Supply, the following minimum amounts of insurance (inclusive of any amounts provided by an umbrella or excess policy).

1. Workers' Compensation and Employers' Liability:

a. Part One – There shall be no maximum limit (other than as limited by the applicable statute) for liability imposed by Florida Workers' Compensation Act or any other coverage required by the resulting Contract Documents which are customarily insured under Part One of the standard Workers' Compensation Policy.

b. Part Two – The minimum amount of coverage required by the resulting Contract Document which are customarily insured under Part Two of the standard Workers' Compensation Policy shall be:

(Each Accident)	\$100,000
(Disease-Policy Limit)	\$500,000
(Disease-Each Employee)	\$100,000

2. Commercial General Liability:

The liability limits are to be applicable to work performed under the resulting Contract and shall be those that would be provided with the attachment of the Amendment of Limits of Insurance (Designated Project or Premises) endorsement (ISO Form CG 25 03) a Commercial General Liability Policy with the following minimum limits:

General Aggregate:

Products/Completed Operations Aggregate:	\$2,000,000
Personal and Advertising Injury	\$1,000,000
Each Occurrence	\$1,000,000
Fire Damage (Any One Fire)	\$Nil
Medical Expense (Any One Person)	\$Nil

ADDITIONAL INSURED: Manatee County, a political subdivision of the State of Florida, shall be specifically named as additional insured on the Commercial General Liability Policy.

3. Comprehensive Automobile Liability:

The liability limits shall be not less than:

Each Occurrence Bodily injury and Property Damage Liability Combined	\$300,000
Annual Aggregate (if applicable)	\$1,000,000

ADDITIONAL INSURED: Manatee County, a political subdivision of the State of Florida, shall be specifically named as additional insured on the Comprehensive Automobile Liability Policy.

4. Property Insurance:

If the resulting Contract includes construction of or additions to above ground buildings or structures, Supplier shall purchase and maintain property insurance coverage for the Work at the site in the amount of the full replacement cost thereof. This insurance shall be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, Work in transit including ocean transit, and Work in storage at the project site or at another location acceptable to County, and shall insure against at least the following perils: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, and damage caused by frost and freezing.

5. Installation Floater

If the resulting Contract does not include construction of or additions to above ground building or structures, but does involve the installation of machinery or equipment, Supplier shall provide an "Installation Floater" with the minimum amount of insurance to be 100% of the value of such addition(s), building(s), or structure(s).

6. Certificates of Insurance and Copies of Policies

Certificates of Insurance in triplicate evidencing the insurance coverage specified herein shall be filed with the Purchasing Official before operations begin. The required certificates of insurance shall name the types of policy, policy number, date of expiration, amount of coverage, companies affording coverage, and also shall refer specifically to the title of the Project. All insurance policies required herein shall be issued by companies that are authorized to do business under the laws of the State of Florida and hold an A.M. Best rating of A- or better. Insurance, as specified herein, shall remain in force and effect for the duration of the Project including any warranty periods.

7. Complete Policies: The entire and complete insurance policies required herein shall be provided to the County on request.

Nothing herein shall in any manner create any liability of the County in connection with any claim against the Supplier for labor, services, or materials, or of subcontractors; and nothing herein shall limit the liability of the Supplier or Supplier's sureties to the County or to any workers, suppliers, material men or employees in relation to the resulting Contract.

8. By way of its submission of an SOQ, Supplier:

- a. Represents that Supplier maintains, and will maintain during the term of any Contract arising from this Request for Qualifications or subsequent issuance of Full-Scale Membrane System Procurement Documents, insurance coverage from responsible companies duly authorized to do business in the State of Florida and deemed acceptable to the County, as set forth in this Request for Qualifications; and
- b. Agrees that, insurance should not be cancelled without thirty (30) days notice to the County and must be endorsed to provide same. Failure of Supplier to obtain and maintain proper amounts of insurance at all times as called for herein shall constitute a material breach of the resulting Contract, which may result in immediate termination.

9. Subcontractors:

It shall be the responsibility of the Supplier to ensure that all subcontractors carry General Liability Insurance, Automobile Liability, and Workers' Compensation in compliance with statutory limits.

10. Certification Requirements:

In order for the certificate of insurance to be accepted it must comply with the following:

- a. The certificate holder shall be:

Manatee County Board of Commissioners,
a political subdivision of the State of Florida
P.O. Box 1000

Bradenton, FL 34206-1000

Project: Supply of a Submerged Membrane Filtration System for a Drinking Water Application

- b. Certificate shall be mailed to:

Manatee County Purchasing Division

1112 Manatee Avenue West, Suite 803

Bradenton, FL 34205

Attn: Dennis Wallace, Procurement Contracts & Buyer Manager

ATTACHMENT F – PUBLIC ENTITY CRIMES STATEMENT

PUBLIC CONTRACTING AND ENVIRONMENTAL CRIMES CERTIFICATION

SWORN STATEMENT PURSUANT TO ARTICLE V, MANATEE COUNTY CODE OF LAWS

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS.

This sworn statement is submitted to the Manatee County Board of County Commissioners by _____
[print individual's name and title]

_____ For _____
[name of entity submitting sworn statement]

whose business address is: _____

and (if applicable) its Federal Employer Identification Number (FEIN) is _____. If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement:

I understand that no person or entity shall be awarded or receive a county contract for public improvements, procurement of goods or services (including professional services) or a county lease, franchise, concession or management agreement, or shall receive a grant of county monies unless such person or entity has submitted a written certification to the County that it has not:

(1) been convicted of bribery or attempting to bribe a public officer or employee of Manatee County, the State of Florida, or any other public entity, including, but not limited to the Government of the United States, any state, or any local government authority in the United States, in that officer's or employee's official capacity; or

(2) been convicted of an agreement or collusion among bidders or prospective bidders in restraint of freedom of competition, by agreement to bid a fixed price, or otherwise; or

(3) been convicted of a violation of an environmental law that, in the sole opinion of the County's Purchasing Director, reflects negatively upon the ability of the person or entity to conduct business in a responsible manner; or

(4) made an admission of guilt of such conduct described in items (1), (2) or (3) above, which is a matter of record, but has not been prosecuted for such conduct, or has made an admission of guilt of such conduct, which is a matter of record, pursuant to formal prosecution. An admission of guilt shall be construed to include a plea of nolo contendere; or

(5) where an officer, official, agent or employee of a business entity has been convicted of or has admitted guilt to any of the crimes set forth above on behalf of such and entity and pursuant to the direction or authorization of an official thereof (including the person committing the offense, if he is an official of the business entity), the business shall be chargeable with the conduct herein above set forth. A business entity shall be chargeable with the conduct of an affiliated entity, whether wholly owned, partially owned, or one which has common ownership or a common Board of Directors.

For purposes of this Form, business entities are affiliated if, directly or indirectly, one business entity controls or has the power to control another business entity, or if an individual or group of individuals controls or has the power to control both entities. Indicia of control shall include, without limitation, interlocking management or ownership, identity of interests amount family members, shared organization of a business entity following the ineligibility of a business entity under this Article, or using substantially the same management, ownership or principles as the ineligible entity.

Any person or entity who claims that this Article is inapplicable to him/her/it because a conviction or judgment has been reversed by a court of competent jurisdiction, shall prove the same with documentation satisfactory to the County's Purchasing Director. Upon presentation of such satisfactory proof, the person or entity shall be allowed to contract with the County.

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR MANATEE COUNTY IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT ANY CONTRACT OR BUSINESS TRANSACTION SHALL PROVIDE FOR SUSPENSION OF PAYMENTS, OR TERMINATION, OR BOTH, IF THE CONTRACTING OFFICER OR THE COUNTY ADMINISTRATOR DETERMINES THAT **SUCH PERSON OR ENTITY HAS MADE FALSE CERTIFICATION.**

[Signature]

STATE OF FLORIDA
COUNTY OF _____

Sworn to and subscribed before me this _____ day of _____, 200____ by _____.

Personally known _____ OR Produced identification _____
[Type of identification]

Notary Public Signature My commission expires _____

[Print, type or stamp Commissioned name of Notary Public]

Signatory Requirement - In the case of a business entity other than a partnership or a corporation, this affidavit shall be executed by an authorized agent of the entity. In the case of a partnership, this affidavit shall be executed by the general partner(s). In the case of a corporation, this affidavit shall be executed by the corporate president.