

RESOLUTION NO. 2017 - 354

**A RESOLUTION BY THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA, AUTHORIZING THE COUNTY ADMINISTRATOR, OR DESIGNEE, TO AWARD RFP NO 17-81 AND TO EXECUTE AN AGREEMENT FOR DESIGN-BUILD SERVICES FOR BANNON LAKES 2.0 MG GROUND STORAGE TANK**

**RECITALS**

**WHEREAS**, the County desires to enter into a contract with Precon Corporation to provide services for the Design-Build Services for Bannon Lakes 2.0 MG Ground Storage Tank; and

**WHEREAS**, the scope of the project includes services to design, construct, and watertightness test one 2.0 million gallon circular wire wrapped pre-stressed concrete reclaimed water ground storage tank with concrete dome roof and rainfall captive system. The project shall generally include but may not be limited to preparing design drawings; permitting services; testing, restoration, and providing project documentation such as as-builts and other items necessary for the Design-Build services for the Bannon Lakes 2.0 MG Ground Storage Tank; and

**WHEREAS**, through the County's formal RFP process, Precon Corporation was selected as the most qualified respondent to enter into a contract with the County to perform the work referenced above; and

**WHEREAS**, the County has reviewed the terms, provisions, conditions and requirements of the proposed contract (attached hereto and incorporated herein), and finds that entering into the contract serves a public purpose.

**BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA:**

Section 1. The above Recitals are incorporated by reference into the body of this Resolution and such Recitals are adopted as finds of fact.

Section 2. The County Administrator, or designee, is hereby authorized to award RFP 17-81 Design-Build Services for Bannon Lakes 2.0 MG Ground Storage Tank to Precon Corporation and to execute a contract for the services set forth therein.

Section 3. Upon Board approval, the County Administrator, or designee, is authorized to execute an agreement in substantially the same form and format as attached draft on behalf of the County to provide the scope of services as specifically provided in RFP 17-81.

Section 4. To the extent that there are typographical or administrative errors that do not change the tone, tenor, or concept of this Resolution, then this Resolution may be revised without subsequent approval by the Board of County Commissioners.

**PASSED AND ADOPTED** by the Board of County Commissioners of St. Johns County, Florida, this 7<sup>th</sup> day of November, 2017.

**BOARD OF COUNTY COMMISSIONERS  
OF ST. JOHNS COUNTY, FLORIDA**

By: [Signature]  
James K. Johns, Chair

**ATTEST:**  
Hunter S. Conrad, Clerk  
By: [Signature]  
Deputy Clerk

**RENDITION DATE** 11/9/17





**STANDARD AGREEMENT  
BETWEEN  
OWNER AND CONTRACTOR**  
(1992 EDITION, REVISED 12/18/13)

This Contract Agreement (“Agreement”) is made as of \_\_\_\_\_, 2017 by and between **St. Johns County, FL** (“Owner”), a political subdivision of the State of Florida, whose principal offices are located at 500 San Sebastian View, St. Augustine, FL 32084, and **Precon Corporation** (“Contractor”), with offices located at: 115 SW 140<sup>th</sup> Terrace, Newberry, FL 32669, Phone: (352) 332-1200, Fax: (352) 332-1199, and E-mail: pjw@precontanks.com, under seal for Construction of **RFP NO: 17-81, Design-Build Services for Bannock Lakes 2.0 MG Ground Storage Tank**, hereinafter referred to as the “Project”.

The Owner and the Contractor hereby agree as follows:

**ARTICLE I  
THE CONTRACT AND THE CONTRACT DOCUMENTS**

**1.1 The Contract**

1.1.1 The Contract between the Owner and the Contractor, of which this Agreement is a part, consists of the Contract Documents. It shall be effective on the date this Agreement is executed by the last party to execute it.

**1.2 The Contract Documents**

1.2.1 The Contract Documents consist of this Agreement, the RFP Documents and RFP Forms, Specifications, all Change Orders and Field Orders issued hereafter and executed by the parties and the Engineers, any other amendments hereto executed by the parties hereafter, together with the following: RFP Documents, Addendum 1, Addendum 2, Addendum 3, Bonds and Insurance.

Documents not enumerated in this Paragraph 1.2.1 are not Contract Documents and do not form part of this Agreement.

**1.3 Entire Agreement**

1.3.1 The Contract, together with the Contractor’s Public Construction Bond for the Project, constitutes the entire and exclusive agreement between the Owner and the Contractor with reference to this Project. Specifically, but without limitation, this Agreement supersedes any Bid Documents not listed among the Contract Documents described above and all prior written or oral communications, representations and negotiations, if any, between the Owner and Contractor.

**1.4 No Privity with Others**

1.4.1 Nothing contained in this Agreement shall create, or be interpreted to create, privity or any other contractual agreement between the Owner and any person or entity other than the Contractor.

**1.5 Intent and Interpretation**

1.5.1 The intent of this Agreement is to require complete, correct and timely execution of the Work. Any work that may be required implied or inferred by the Contract Documents, or any one or more of them, as necessary to produce the intended result shall be provided by the Contractor for the Contract Price.

1.5.2 The Contract is intended to be an integral whole and shall be interpreted as internally consistent. What is required by any one Contract Document shall be considered as required by the Contract.

1.5.3 When a word, term or phrase is used in this Agreement, it shall be interpreted or construed, first, as defined herein; second, if not defined, according to its generally accepted meaning in the construction industry; and third, if there is no generally accepted meaning in the construction industry, according to its common and customary usage.

1.5.4 The words “include,” “includes” or “including,” as used in this Agreement, shall be deemed to be followed by the phrase “without limitation.”

1.5.5 The specification herein of any act, failure, refusal, omission, event, occurrence, or condition as constituting a

material breach of this Agreement shall not imply that any other, non-specified act, failure, refusal, omission, event, occurrence, or condition shall be deemed not to constitute a material breach of this Agreement.

1.5.6 Words or terms used as nouns in this Agreement shall be inclusive of their singular and plural forms, unless the context of their usage clearly requires a contrary meaning.

1.5.7 The Contractor shall have a continuing duty to read, carefully study and compare each of the Contract Documents, the Shop Drawings and the Product Data and shall give written notice to the Engineer and the Owner of any inconsistency, ambiguity, error or omission which the Contractor may discover with respect to these documents before proceeding with the affected Work. The issuance, or the express or implied approval by the Owner or the Engineer of the Contract Documents, Shop Drawings, or Product Data shall not relieve any such approval by evidence of the Contractor's compliance with the Contract. The Owner has requested the Engineer to only prepare documents for the Project, including the Drawings and Specifications for the Project, which are accurate, adequate, consistent, coordinated, and sufficient for construction. **HOWEVER, THE OWNER MAKES NO REPRESENTATION OR WARRANTY OF ANY NATURE WHATSOEVER TO THE CONTRACTOR CONCERNING SUCH DOCUMENTS.** By the execution hereof, the Contractor acknowledges and represents that it has received, reviewed and carefully examined such documents, has found them to be complete, accurate, adequate, consistent, coordinated and sufficient for construction, and that the Contractor has not, does not, and shall not rely upon any representation or warranties by the Owner concerning such documents as no such representation or warranties have been or are hereby made.

1.5.8 As between numbers and scaled measurements on the Drawings and in the Design, the numbers shall govern; as between larger scale and smaller scale drawings, the larger scale shall govern.

1.5.9 Neither the organization of any of the Contract Documents into divisions, sections, paragraphs, articles, (or other categories), nor the organization or arrangement of the Design, shall control the Contractor in dividing the Work or in establishing the extent or Scope of Work to be performed by Subcontractors.

### **1.6 Ownership of Contract Documents**

1.6.1 The Contract Documents, and each of them, shall remain the property of the Owner. The Contractor shall have the right to keep one record set of the Contract Documents upon completion of the Project; provided, however, that in no event shall Contractor use, or permit to be used, any or all of such Contract Documents on other projects without Owner's prior written authorization.

## **ARTICLE II THE WORK**

### **2.1 Scope of Work**

The Contractor shall perform all of the Work required, implied, or reasonably inferable from, this Agreement.

2.1.1 The term "Work" shall mean whatever is done by or required of the Contractor to perform and complete its duties under this Agreement, including the following: construction of the whole or a designated part of the Project in the manner set forth in the Contract Documents; furnishing of any required Surety Bonds and insurance; and the provision or furnishing of labor, supervision, services, materials, supplies, equipment, fixtures, appliances, facilities, tools, transportation, storage, power, permits and licenses required of the Contractor, fuel, heat, light, cooling and all other utilities as required by this Agreement. The Work to be performed by the Contractor is generally described as follows:

The project includes services to design, construct, and watertightness test one 2.0 million gallon circular wire wrapped pre-stressed concrete reclaimed water ground storage tank with concrete dome roof and rainfall captive system. The project shall generally include but may not be limited to preparing design drawings; permitting services; testing, restoration, and providing project documentation such as as-builts. All work shall be performed in accordance with the plans and specifications under RFP No. 17-81.

## **ARTICLE III CONTRACT TIME**

### **3.1 Time and Liquidated Damages**

3.1.1 The Contractor shall commence the Work within ten (10) days upon receipt of the Notice to Proceed and shall Substantially Complete all Work within **Two Hundred Seventy (270)** consecutive calendar days. Final Completion shall

be reached by or before **Thirty (30)** consecutive calendar days after Substantial Completion.

The number of calendar days from the date on which the Work is permitted to proceed, through the date set forth for Final Completion, shall constitute the "Contract Time."

3.1.2 The Contractor shall pay the Owner the sum of **\$1584.00** per day for each and every calendar day of unexcused delay in achieving Substantial Completion beyond the date set forth herein for Substantial Completion of the Work. Any sum's due and payable hereunder by the Contractor shall be payable, not as a penalty, but as liquidated damages representing an estimate of delay damages likely to be sustained by the Owner, estimated at or before the time of executing this Agreement. When the Owner reasonably believes that Substantial Completion shall be inexcusably delayed the Owner shall be entitled, but not required, to withhold from any amounts otherwise due the Contractor an amount then believed by the Owner to be adequate to recover liquidated damages applicable to such delays. If and when the Contractor overcomes the delay in achieving Substantial Completion, or any part thereof, for which the Owner has withheld payment, the Owner shall promptly release to the Contractor those funds withheld, but no longer applicable, as liquidated damages.

### **3.2 Substantial Completion**

3.2.1 "Substantial Completion" shall mean that stage in the progression of the Work when the Work is sufficiently complete in accordance with this Agreement that the Owner can enjoy beneficial use or occupancy of the Work and can utilize the Work for its intended purpose.

### **3.3 Time is of the Essence**

3.3.1 All limitations of time set forth in the Contract Documents are of the essence of this Agreement.

## **ARTICLE IV CONTRACT PRICE**

### **4.1 The Contract Price**

4.1.1 The Owner shall pay, and the Contractor shall accept, as full and complete payment for all the Work required herein a total Lump Sum price of **One Million Sixty-one Thousand dollars (\$1,061,000.00)**.

The sum set forth in the Paragraph 4.1 shall constitute the Contract Price, which shall not be modified except by Change Order as provided in this Agreement.

## **ARTICLE V PAYMENT OF THE CONTRACT PRICE**

### **5.1 Schedule of Values**

5.1.1 Within ten (10) calendar days of the effective date hereof, the Contractor shall submit to the Owner and to the Project Director a Schedule of Values allocating the Contract Price to the various portions of the Work. The Contractor's Schedule of Values shall be prepared in such form, with such detail, and supported by such data as the Project Director or the Owner may require to substantiate its accuracy. The Contractor shall not imbalance its Schedule of Values nor artificially inflate any element thereof. The violation of this provision by the Contractor shall constitute a material breach of this Agreement. The Schedule of Values shall be used only as a basis for the Contractor's Applications for Payment and shall only constitute such basis after it has been agreed upon in writing by the Project Director and the Owner. The Owner may terminate this Agreement without liability of any kind if the Schedule of Values is not agreed upon within fifteen (15) calendar days of the effective date hereof.

### **5.2 Payment Procedure**

5.2.1 The Owner shall pay the Contract Price to the Contractor as provided below.

5.2.2 Progress Payments - On or before the fifteen (15) day of each month after commencement of the Work, the Contractor shall submit an Application for Payment for the period ending the thirtieth (30th) day of the previous month to the Project Director in such form and manner, and with such supporting data and content, as the Project Director may require. Therein, the Contractor may request payment based upon the amount of work done or completed. All partial estimates and payments shall be subject to correction when submitted. Based upon the Contractor's Applications for Payment submitted to the Project Director and upon Certificates for Payment subsequently issued to the Owner by the Project Director, payments will be made in accordance with the Local Government Prompt Payment Act.

5.2.3 The amount of such payments shall be the total value of the Work done to the date of the estimate, based upon the quantities and the Contract unit and/or lump sum prices, less an amount retained and less payments previously made. The amount retained shall be determined in accordance with Section 255.078 of the Florida Statutes:

(a) Owner may withhold from each progress payment made to the Contractor an amount not to exceed ten (10) percent of the payment as retainage until fifty (50) percent completion of the Work.

(b) After fifty (50) percent completion of the Work is purchased pursuant to this Agreement, Owner will reduce to five (5) percent the amount of retainage withheld from each subsequent progress payment made to the Contractor. The term "fifty (50) percent completion" as used in this provision means the point at which Owner has expensed fifty (50) percent of the total cost of the Work purchased as provided herein, together with all costs associated with existing change orders and other additions or modifications to the Work described herein.

(c) After fifty (50) percent completion of the Work is purchased pursuant to this Agreement, the Contractor may present to the Owner a payment request for up one-half of the retainage held by the Owner. The Owner shall make prompt payment to the Contractor, unless in accordance with Section 255.078(6) of the Florida Statutes, such funds are the subject of a good faith dispute, claim or demand by the Owner or the Contractor.

5.2.4 Each Application for Payment shall be signed by the Contractor and shall constitute the Contractor's representation that the Work has progressed to the level for which payment is requested that the Work has been properly installed or performed in full accordance with this Agreement, and that the Contractor knows of no reason why payment should not be made as requested. Thereafter, the Project Director and Engineer shall review the Application for Payment and may also review the Work at the project site or elsewhere to determine whether the quantity and quality of the Work is as represented in the Application for Payment and is as required by this Agreement. The Project Director shall determine and certify to the Owner the amount properly owing to the Contractor. The Owner shall make partial payments on accounts of the Contract Price within thirty (30) days following the Project Director's receipt of each Application for Payment. The amount of each partial payment shall be the amount certified for payment by the Project Director less such amounts, if any, otherwise owing by the Contractor to the Owner or which the Owner shall have the right to withhold as authorized by this Agreement. The Project Director's certification of the Contractor's Application for Payment shall not preclude the Owner from the exercise of any of its rights as set forth in Paragraph 5.3 herein below.

5.2.5 The Contractor warrants that title to all Work covered by an Application shall pass to the Owner no later than time of payment. The Contractor further warrants that upon submittal of an Application for Payment, all Work for which payments have been received from the Owner shall be free and clear of liens, claims, security interest or other encumbrances in favor of the Contractor or any other person or entity whatsoever.

5.2.6 The Contractor shall promptly pay each Subcontractor out of the amount paid to the Contractor on account of such Subcontractor's Work, the amount to which such Subcontractor is entitled. In the event the Owner becomes informed that the Contractor has not paid a Subcontractor as herein provided, the Owner shall have the right, but not the duty, to issue future checks in payment to the Contractor of amounts otherwise due hereunder naming the Contractor and such Subcontractor as joint hereunder naming the Contractor and such Subcontractor as joint payees. Such joint check procedure, if employed by the Owner, shall create no rights in favor of any person or entity beyond the right of the named payees to payment of the check and shall not be deemed to commit the Owner to repeat the procedure in the future.

5.2.7 No progress payment, nor any use or occupancy of the Project by the Owner, shall be interpreted to constitute an acceptance of any Work not in strict accordance with this Agreement.

**5.3 Withheld Payment**

5.3.1 Owner may decline to make payment, may withhold funds and, if necessary, may demand the return of some or all of the amounts previously paid to the Contractor, to protect the Owner from loss because of:

- a) Defective Work not remedied by the Contractor and, in the opinion of the Owner, not likely to be remedied by the Contractor;
- b) claims of third parties against the Owner or the Owner's property;
- c) Failure by the Contractor to pay Subcontractors or others in a prompt and proper fashion;
- d) Evidence that the balance of the Work cannot be completed in accordance with the Contract for unpaid balance of the Contract Price;

- e) Evidence that the Work shall not be completed in the time required for Substantial or Final Completion;
- f) Persistent failure to carry out the Work in accordance with the Contract;
- g) Damage to the Owner or a third party to whom the Owner is, or may be, liable.

In the event that the Owner makes written demand upon the Contractor for amounts previously paid by the Owner as contemplated in this Subparagraph 5.3.1, the Contractor shall promptly comply with such demand.

#### **5.4 Unexcused Failure to Pay**

5.4.1 If within ten (10) days after the date established herein for payment to the Contractor by the Owner, the Owner, without cause or basis hereunder, fails to pay the Contractor any amount due and payable to the Contractor, then the Contractor may after seven (7) additional days, written notice to the Owner and the Project Director, and without prejudice to any other available rights or remedies it may have, stop the Work until payment of those amounts due from the Owner have been received. Any payment not made within ten (10) days after the date due shall bear interest at the rate of 12 percent (12%) per annum.

#### **5.5 Substantial Completion**

5.5.1 When the Contractor believes the Work is Substantially Complete, the Contractor shall submit to the Project Director a list of items to be completed or corrected. When the Project Director on the basis of an inspection determines that the Work is in fact Substantially Complete, he shall prepare a Certificate of Substantial Completion which shall establish the date of Substantial Completion, shall state the responsibilities of the Owner and the Contractor for Project security, maintenance, heat, utilities, damage to the Work, and insurance, and shall fix the time within which the Contractor shall complete the items listed therein. Guarantees required by the Contract shall commence on the date of Substantial Completion of the Work. The Certificate of Substantial Completion shall be submitted to the Owner and the Contractor for their written acceptance of the responsibilities assigned to them in such certificate.

Until Final Completion and acceptance of the Work by the Owner, the Owner shall pay the Contractor an amount equal to ninety percent (90%) of the Contract price. Ten Percent (10%) of the Contract Price shall be retained until Final Completion, acceptance of the Work by the Owner and Final Payment to the Contractor.

#### **5.6 Final Completion and Final Payment**

5.6.1 When all the Work is finally complete and the Contractor is ready for a Final Inspection, it shall notify the Owner and the Project Director thereof in writing. Thereupon, the Project Director shall make Final Inspection of the Work and, if the Work is complete in full accordance with this Agreement and this Agreement has been fully performed, the Project Director shall promptly issue a Final Certificate for Payment and if required to repeat its Final Inspection of the Work, the Contractor shall bear the cost of such repetition of the Work, the Contractor shall bear the cost of such repeat Final Inspection(s) which cost may be deducted by the Owner and all other Authorities having jurisdiction under Florida Laws or regulations.

5.6.1.1 If the Contractor fails to achieve Final Completion within the time fixed therefore by the Engineer in its Certificate of Substantial Completion, the Contractor shall pay the Owner liquidated damages at the sum shown in Paragraph 3.1.2. per day for each and every calendar day of unexcused delay in achieving Final Completion beyond the date set forth herein for Final Completion of the Work. Any sum's due and payable hereunder by the Contractor shall be payable, not as penalty, but as liquidated damages representing an estimate of delay damages likely to be sustained by the Owner, estimated at or before the time of executing the Contract. When the Owner reasonably believes that Final Completion shall be inexcusably delayed, the Owner shall be entitled, but not required, to withhold from any amounts otherwise due the Contractor an amount then believed by the Owner to be adequate to recover liquidated damages applicable to such delays. If and when the Contractor overcomes the delay in achieving Final Completion, or any part thereof, for which the Owner has withheld payment, the Owner shall promptly release to the Contractor those funds withheld, but no longer applicable, as liquidated damages.

5.6.2 The Contractor shall not be entitled to Final Payment unless and until it submits to the Project Director its affidavit that all payrolls, invoices for materials and equipment, and other liabilities connected with the Work for which the Owner, or the Owner's property might be responsible, have been fully paid or otherwise satisfied; releases and waivers of claims and lien from all Subcontractors of the Contractor and of any and all other parties required by the Project Director or the Owner; consent of Surety, if any, to Final Payment. If any third party fails or refuses to provide a release of claim or waiver of a lien as required by Owner the Contractor shall furnish a bond satisfactory to the Owner to

discharge any such lien or indemnify the Owner from liability.

5.6.3 The Owner shall make Final Payment of all sums, due the Contractor within thirty (30) days of the Project Director's execution of a Final Certificate for Payment.

5.6.4 Acceptance of Final Payment shall constitute a waiver of all claims against the Owner by the Contractor except for those claims previously made in writing against the Owner by the Contractor, pending at the time of Final Payment, and identified in writing by the Contractor as unsettled at the time of its request for Final Payment.

## **ARTICLE VI THE OWNER**

### **6.1 Information, Services and Things Required from Owner**

6.1.1 The Owner shall furnish to the Contractor, at the time of executing this Agreement, any and all written and tangible material in its possession concerning conditions below ground at the site of the Project. Such written and tangible material is furnished to the Contractor only in order to make complete disclosure of such material and for no other purpose. By furnishing such material, the Owner does not represent, warrant, or guarantee its accuracy either in whole, in part, implicitly, or at all, and shall have no liability therefore. The Owner shall also furnish surveys, legal limitations and utility locations (if known), and a legal description of the Project site. Copies may be provided instead of originals.

6.1.2 Excluding permits and fees normally the responsibility of the Contractor, the Owner shall obtain all approvals, easements, and the like required for construction.

6.1.3 The Owner shall furnish the Contractor, free of charge, 5 copies of the Contract Documents for execution of the Work. The Contractor shall be charged, and shall pay the Owner \$25.00 per additional set of Contract Documents which it may require.

### **6.2 Right to Stop Work**

6.2.1 If the Contractor persistently fails or refuses to perform the Work in accordance with this Agreement, the Owner may order the Contractor to stop the Work, or any described portion thereof, until the cause for stoppage has been corrected, no longer exists, or the Owner orders that Work be resumed. In such event, the Contractor shall immediately obey such order.

### **6.3 Owner's Right to Perform Work**

6.3.1 If the Contractor's Work is stopped by the Owner under Paragraph 6.2, and the Contractor fails within seven (7) days of such stoppage to provide adequate assurance to the Owner that the cause of such stoppage shall be eliminated or corrected, the Owner may, without prejudice to any other rights or remedies the Owner may have against the Contractor, proceed to carry out the subject Work.

In such a situation, an appropriate Change Order shall be issued deducting from the Contract Price the cost of correcting the subject deficiencies, and compensation for the Owner's additional services and expenses necessitated thereby, if any. If the unpaid portion of the Contract Price is insufficient to cover the amount due the Owner, the Contractor shall pay the difference to the Owner.

## **ARTICLE VII THE CONTRACTOR**

7.1 The Contractor is again reminded of its continuing duty set forth in Subparagraph 1.5.7. The Contractor shall perform no part of the Work at any time without adequate Contract Documents or, as appropriate, approved Shop Drawings, Product Data or Samples for such portion of the Work. If the Contractor performs any of the Work where Contractor knows or should know such work involves a recognized error, inconsistency or omission in the Contract Documents without such notice to the Project Director and the Owner, the Contractor shall bear responsibility for such performance and shall bear the cost of correction.

7.2 The Contractor shall perform the Work strictly in accordance with this Agreement.

7.3 The Contractor shall supervise and direct the Work using the Contractor's best skill, effort and attention. The

Contractor shall be responsible to the Owner for any and all acts or omissions of the Contractor, its employees and other engaged in the Work on behalf of the Contractor.

**7.4. Warranty**

7.4.1 The Contractor warrants to the Owner that all labor furnished to progress the Work under this Agreement shall be competent to perform the tasks undertaken, that the product of such labor shall yield only first-class results, that materials and equipment furnished shall be of good quality, free from faults and defects and in strict conformance with this Agreement. This warranty shall survive termination of this Agreement and shall not be affected by Final Payment hereunder. All Work not conforming to these requirements may be considered defective.

7.5 Contractor shall obtain and pay for all permits, fees and licenses necessary and ordinary for the Work. The Contractor shall comply with all lawful requirements applicable to the Work and shall give and maintain any and all notices required by applicable law pertaining to the Work.

**7.6 Supervision**

7.6.1 The Contractor shall employ and maintain at the Project site only competent supervisory personnel. Absent written instruction from the Contractor to the contrary, the superintendent shall be deemed the Contractor's authorized representative at the site and shall be authorized to receive and accept any and all communications from the Owner or Assignees.

7.6.2 Key supervisory personnel assigned by the Contractor to this Project are as follows:

<b>Name</b>	<b>Function</b>
_____	_____
_____	_____
_____	_____

So long as the individuals named above remain actively employed or retained by the Contractor, they shall perform the functions indicated next to their names unless the Owner agrees to the contrary in writing. In the event one or more individuals not listed above subsequently assume one or more of those functions listed above, the Contractor shall be bound by the provisions of this Subparagraph 7.6.2 as though such individuals have been listed above.

7.7 The Contractor, prior to commencing the Work, shall submit to the Project Director for his information, the Contractor's schedule for completing the Work. The Contractor's schedule shall be revised no less frequently than monthly (unless the parties otherwise agree in writing) and shall be revised to reflect conditions encountered from time to time and shall be related to the entire Project. Each sum revision shall be furnished to the Project Director. Failure by the Contractor to strictly comply with the provisions of this Paragraph 7.7 shall constitute a material breach of this Agreement.

7.8 The Contractor shall continuously maintain at the site, for the benefit of the Project Director, one record copy of this Agreement marked to record on a current basis changes, selections and modifications made during construction. Additionally, the Contractor shall maintain at the site for the Project Director the approved Product Data, Samples and other similar required submittals. Upon Final Completion of the Work, all of these record documents shall be delivered to the Owner.

**7.9 Product Data and Samples**

7.9.1 Product Data, Samples and other submittals from the Contractor do not constitute Contract Documents. Their purpose is merely to demonstrate the manner in which the Contractor intends to implement the Work in conformance with the information received from the Contract Documents. All Product Data, Samples and other submittals shall belong to the Owner and shall be delivered, or returned to Owner, as applicable, prior to Submittals shall belong to Owner and shall be delivered, or returned to Owner, as applicable, prior to Substantial Completion.

**7.10 Cleaning the Site and the Project**

7.10.1 The Contractor shall keep the site reasonably clean during performance of the Work. Upon Final Completion of

the Work, the Contractor shall clean the site and the Project and remove all waste, together with all of the Contractor's property therefrom.

#### **7.11 Access to Work**

7.11.1 The Owner and the Project Director shall have access to the Work at all times from commencement of the Work through Final Completion. The Contractor shall take whatever steps necessary to provide access when requested.

#### **7.12 Indemnity**

7.12.1 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, employees and officials from, and against, any, and all, administrative/legal/equitable liability, claims, damages, losses and expenses, including attorneys' fees, arising out of or resulting from performance of the work, noted in either the Scope of Work, or the Contract Documents, that are referenced and considered a part of this Agreement. It is specifically noted that such liability, claims, damages, loss or expense includes any of those referenced instances attributable to bodily injury, sickness, disease, or death, or to injury to, or destruction of, personal and/or real property, including the loss of use resulting therefrom or incident to, connected with, associated with or growing out of direct and/or indirect negligent or intentional acts or omissions by the Contractor, a Subcontractor, or anyone directly, or indirectly employed by them, or anyone for whose acts the Contractor or Subcontractor may be liable, regardless of whether or not such liability, claim, damage, loss or expense is caused in part by a party indemnified hereunder.

7.12.2 In claims against any person or entity indemnified under this Paragraph 7.12 by an employee of the Contractor, a Subcontractor, any one directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under this Paragraph 7.12 shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefits acts or other employee benefit acts.

#### **7.13 Safety**

7.13.1 The Contractor shall be responsible for supervising all safety precautions, including initiating and maintaining such programs in connection with the performance of the Contract and for adequate maintenance of traffic.

7.13.2 The Contractor shall designate a member of the on-site construction team whose duty shall be the prevention of accidents. Unless notified otherwise in writing by the Contractor to the Owner and the Engineer, this person shall be the Contractor's Superintendent.

### **ARTICLE VIII CONTRACT ADMINISTRATION**

#### **8.1 Project Director**

8.1.1 The Project Director, unless otherwise directed by the Owner shall perform those duties and discharge those responsibilities allocated to the Project Director as set forth in this Agreement. The Project Director shall be the Owner's representative from the effective date of this Agreement until Final Payment has been made. The Project Director shall be authorized to act on behalf of the Owner only to the extent provided in this Agreement.

8.1.2 The Owner and the Contractor shall communicate with each other in the first instance through the Project Director.

8.1.3 The Project Director shall be the initial interpreter of the requirements of the drawings and specifications and the judge of the performance there under by the Contractor. The Project Director shall render written or graphic interpretations necessary for the proper execution or progress of the Work with reasonable promptness on request of the Contractor.

8.1.4 The Project Director shall review the Contractor's Applications for Payment and shall certify to the Owner for payment to the Contractor, those amounts then due to the Contractor as provided in this Agreement.

8.1.5 The Project Director shall have authority to reject Work, which is defective or does not conform to the requirements of this Agreement. If the Project Director deems it necessary or advisable, the Project Director shall authority to require additional inspection or testing of the Work for compliance with Contract requirements at Contractor's expense.

8.1.6 The Project Director shall review and approve, or take other appropriate action as necessary, concerning the Contractor's submittals including Product Data and Samples. Such review, approval or other action shall be for the sole purpose of determining conformance with the design concept and information given through the Contract Documents.

8.1.7 The Project Director shall prepare Change Orders and may authorize minor changes in the Work by field order as provided elsewhere herein.

8.1.8 The Project Director shall, upon written request from the Contractor, conduct inspections to determine the date of Substantial Completion and the date of Final Completion, shall receive and forward to the Owner for the Owner's review and records, written warranties and related documents required by this Agreement and shall issue a Final Certificate for Payment upon compliance with the requirements of this Agreement.

8.1.9 The Project Director's decision in matters relating to aesthetic effect shall be final if consistent with the intent of this Agreement.

## **8.2 Claims by the Contractor**

8.2.1 All Contractor claims shall be initiated by written notice and claim to the Project Director. Such written notice and claims must be furnished within seven (7) days after occurrence of the event, or the first appearance of the condition, giving rise to the claim.

8.2.2 Pending final resolution of any claim of the Contractor, the Contractor shall diligently proceed with performance of this Agreement and the Owner shall continue to make payments to the Contractor in accordance with this Agreement. The resolution of any claim under this Paragraph 8.2 shall be reflected by a Change Order executed by the Project Director and the Contractor.

8.2.3 Claims for Concealed and Unknown Conditions - Should concealed and unknown conditions encountered in the performance of the Work (a) below the surface of the ground or (b) in an existing structure be at variance with the conditions indicated by this Agreement, or should unknown conditions of an usual nature differing materially from those ordinarily encountered in the area and generally recognized as inherent in Work of the character provided for in this Agreement, be encountered, wherein the Contract Documents or Standard Construction industry practices have not placed the responsibility of discovering such concealed and unknown conditions upon the Contractor prior to the Contractor submitting his Bid for the Work, the Contract Price shall be equitably adjusted by Change Order upon the written notice and claim by either party made within seven (7) days after the first observance of the condition. As a condition precedent to the Owner having any liability to the Contractor for concealed or unknown conditions, the Contract must give the Project Director written notice of, and an opportunity to observe, the condition prior to disturbing it. The failure by the Contractor to make the written notice and claim as provided in this Subparagraph shall constitute a waiver by the Contractor of any claim arising out of or relating to such concealed or unknown condition.

8.2.4 Claims for Additional Costs - If the Contractor wishes to make a claim for an increase in the Contract Price, as a condition precedent to any liability of the Owner therefore, the Contractor shall give the Project Director written notice of such claim within seven (7) days after the occurrence of the event, or the first appearance of the condition, giving rise to such claim. Such notice shall be given by the Contractor before proceeding to execute any additional or changed Work. The failure by the Contractor to give such notice prior to executing the Work shall constitute a waiver of any claim for additional compensation.

8.2.4.1 In connection with any claim by the Contractor against the Owner for compensation in excess of the Contract Price, any liability of the Owner for the Contractor's costs shall be strictly limited to direct costs incurred by the Contractor and shall in no event include indirect costs or consequential damages of the Contractor.

The Owner shall not be liable to the Contractor for claims of third parties, including Subcontractors, unless and until liability of the Contractor has been established therefore in a court of competent jurisdiction.

8.2.5 Claims for Additional Time - If the Contractor is delayed in progressing any task which at the time of the delay is then critical or which during the delay becomes critical, as the sole result of any act or neglect to act by the Owner or someone acting in the Owner's behalf, or by changes ordered in the Work, unusual delay in transportation, unusually adverse weather conditions not reasonably anticipated, fire or any causes beyond the Contractor's control, then the date for achieving Substantial Completion of the Work shall be extended upon the written notice and claim of the Contractor to the Project Director, for such reasonable time as the Project Director may determine.

Any notice and claims for an extension of time by the Contractor shall be made not more than seven (7) days after the occurrence of the event or the first appearance of the condition giving the rise to the claim and shall set forth in detail the Contractor's basis for requiring additional time in which to complete the Project. In the event the delay to the Contractor is continuing one, only one notice and claim for additional time shall be necessary. If the Contractor fails to make such claim for an extension shall be waived. This paragraph shall not be deemed to waive any damages for delay that are covered by insurance.

8.2.5.1 Delays and Extensions of Time - An extension of Contract Time shall not be given due to weather conditions unless such weather conditions more severe than average have caused a delay. In requesting extension of time for weather conditions; Contractor shall present complete records and such requests shall document how weather conditions delayed progress of Work.

### **8.3 Field Orders**

8.3.1 The Project Director shall have authority to order minor changes in the Work not involving a change in the Contract Price or in Contract Time and not inconsistent with the intent of the Contract. Such changes shall be effected by field order and shall be binding upon the Contractor. The Contractor shall carry out such field orders promptly.

## **ARTICLE IX SUBCONTRACTORS**

### **9.1 Definition**

9.1.1 A Subcontractor is an entity, which has a direct Contract with the Contractor to perform a portion of the Work.

### **9.2 Award of Subcontracts**

9.2.1 Upon execution of the Contract, the Contractor shall furnish the Project Director, in writing, the names of persons or entities proposed by the Contractor to act as a Subcontractor on the Project. The Project Director shall promptly reply to the Contractor, in writing, stating any objections the Project Director may have to such proposed Subcontractor. The Contractor shall not enter into a Subcontract with a proposed Subcontractor with reference to whom the Project Director has made a timely objection.

9.2.2 All subcontracts shall afford the Contractor rights against the Subcontractor, which correspond to those rights afforded to the Owner by Subparagraph 12.2.1 below.

## **ARTICLE X CHANGES IN THE WORK**

### **10.1 Changes Permitted**

10.1.1 Changes in the Work within the general scope of this Agreement, consisting of additions, deletions, revisions, or any combination thereof, may be ordered without invalidating this Agreement, by Change Order or by Field Order.

10.1.2 Changes in the Work shall be performed under applicable provisions of this Agreement and the Contractor shall proceed promptly with such changes.

### **10.2 Change Order Defined**

10.2.1 Change Order shall mean a written order to the Contractor executed by the Project Director, issued after execution of this Agreement, authorizing and directing a change in the Work or an adjustment in the Contract Price or the Contract Time, or any combination thereof. Only the Change Order may change the Contract Price and the Contract Time.

### **10.3 Changes in the Contract Price**

10.3.1 Any change in the Contract Price resulting from a Change Order shall be determined as follows: (a) by mutual agreement between the Owner and the Contractor as evidenced by (1) the change in the Contract Price being set forth in the Change Order, (2) such change in the Contract Price, together with any conditions or requirements related thereto, being initiated by both parties and (3) the Contractor's execution of the Change Order, or (b) if no mutual agreement occurs between the Owner and the Contractor, then, as provided in Subparagraph 10.3.2 below.

10.3.2 If no mutual agreement occurs between the Owner and the Contractor as contemplated in Subparagraph 10.3.1

above, the change in the Contract Price, if any, shall than be determined by the Project Director on the basis of the reasonable expenditures or savings of those performing, deleting or revising the Work attributable to the change, including, in the case of an increase or decrease in the Contract Price, a reasonable allowance for direct job site overhead and profit. In such case, the Contractor shall present, in such form and with such content as the Owner or the Project Director requires, an itemized accounting of such expenditures or savings shall be limited to the following: reasonable costs of materials, supplies, or equipment including delivery costs, reasonable costs of labor, including social security, old age and unemployment insurance, fringe benefits required by a pre-existing agreement or by custom, and workers' compensation insurance, reasonable costs of premiums for all Bonds and insurance, permit fees, and sales, use or other taxes related to the Work and paid by the Contractor, and reasonable costs of directly attributable to the change. In no event shall any expenditure or savings associated with the Contractor's home office or other non-jobsite overhead expenses be included in any change in the Contract Price. Pending final determination of reasonable expenditures or savings to the Owner, payments on account shall be made to the Contractor on the Owner's Certificate of Payment.

10.3.3 If Unit Prices are provided in the Contract, and if the quantities contemplated are so changed in proposed Change Order that application of such Unit Prices to the quantities of Work proposed shall cause substantial inequity to the Owner or to the Contractor, that applicable Unit Prices shall be equitable adjusted.

#### **10.4 Minor Changes**

10.4.1 The Project Director shall have authority to order minor changes in the Work not involving a change in the Contract Price or an extension of the Contract Time and not inconsistent with the intent of this Agreement. Such minor changes shall be made by written Field Order, and shall be binding upon the Owner and the Contractor. The Contractor shall promptly carry out such written Field Orders.

#### **10.5 Effect of Executed Change Order**

10.5.1 The execution of a Change Order by the Contractor shall constitute conclusive evidence of the Contractor's agreement to the ordered changes in the Work, this Agreement as thus amended, the Contract Price and the Contract Time. The Contractor, by executing the Change Order, waives and forever releases any claim against the Owner for additional time or compensation for matters relating to or arising out or resulting from the Work included within or affected by the executed Change Order.

#### **10.6 Notice to Surety; Consent**

10.6.1 The Contractor shall notify and obtain the timely consent and approval of the Contractor's surety with reference to all Change Orders if such notice, consent or approval is required by the Contractor's surety or by law. The Contractor's warranty to the Owner that the surety has been notified of and consents to, such Change Order and the surety shall be conclusively deemed to have been notified of such Change Order and to have expressly consented thereto.

### **ARTICLE XI UNCOVERING AND CORRECTING WORK**

#### **11.1 Uncovering Work**

11.1.1 If any of the Work is covered contrary to the Project Director's request or to any provision of this Agreement, it shall, if required by the Project Director, be uncovered for the Project Director's inspection and shall be properly replaced at the Contractor's expense without change in the Contract Time.

11.1.2 If any of the Work is covered in a manner not described in Subparagraph 11.1.1 above, it shall, if required by the by the Project Director or Owner, be uncovered for the Project Director's inspection. If such Work conforms strictly to this Agreement, costs of uncovering and proper replacement shall by Change Order be charged to the Owner. If such Work does not strictly conform to this Agreement, the Contractor shall pay the costs of uncovering and proper replacement.

#### **11.2 Correcting Work**

11.2.1 The Contractor shall immediately proceed to correct Work rejected by the Project Director as defective or failing to conform to this Agreement. The Contractor shall pay all costs and expenses associated with correcting such rejected Work, including any additional testing and inspections, and reimbursement to the Owner for the Project Director's services and expenses made necessary thereby.

11.2.2 If within one (1) year after Substantial Completion of the Work, if any of the Work is found to be defective or not in accordance with this Agreement, the Contractor shall correct it within seven (7) days at the Contractor's expense upon receipt of written notice from the Owner. This obligation shall survive Final Payment by the Owner and termination of this Agreement. With respect to Work first performed and completed after Substantial Completion, this one (1) year obligation to specifically correct defective and nonconforming Work shall be extended by the period of time which elapses between Substantial Completion and completion of the subject Work.

11.2.3 Nothing contained in this Paragraph 11.2 shall establish any period of limitation with respect to other obligations, which the Contractor has under this Agreement. Establishment of the one (1) year time period in Subparagraph 11.2.2 relates only to the duty of the Contractor to specifically correct the Work, and has no relationship to the time which the obligation to comply with the Contract Documents may be sought to be enforced.

### **11.3 Owner May Accept Defective or Nonconforming Work**

11.3.1 If the Owner chooses to accept defective or nonconforming Work, the Owner may do so. In such events, the Contract Price shall be reduced by the greater of (a) the reasonable cost of removing and correcting the defective or nonconforming Work, and (b) the difference between the fair market value of the Project had it not been constructed in such manner as to include defective or nonconforming Work. If the remaining portion of the unpaid Contract Price, if any, is insufficient to compensate the Owner for its acceptance or defective or nonconforming Work, the Contractor shall, upon written demand from the Owner, pay the Owner such remaining compensation for accepting defective or nonconforming Work.

## **ARTICLE XII CONTRACT TERMINATION**

### **12.1 Termination by the Contractor**

12.1.1 If the Work is stopped for a period of ninety (90) days by an order of any court or as a result of an act of the Government, through no fault of the Contractor or any person or entity working directly or indirectly for the Contractor, the Contractor may, upon ten (10) days written notice to the Owner, terminate performance under this Agreement and recover from the Owner payment for the actual reasonable expenditures of the Contractor (as limited in Subparagraph 10.3.2 above) for all Work executed and for materials, equipment, tools, construction equipment and machinery actually purchased or rented solely for the Work, less any salvage value of any such items.

12.1.2 If the Owner shall persistently or repeatedly fail to perform any material obligation to the Contractor for a period of fifteen (15) days after receiving written notice from the Contractor of its intent to terminate if such failure is not substantially corrected within fifteen (15) days, the Contractor may terminate performance under this Agreement by written notice to the Project Director. In such event, the Contractor shall be entitled to recover from the Owner as though the Owner had terminated the Contractor's performance under this Agreement for convenience pursuant to Subparagraph 12.2.1 hereunder.

### **12.2 Termination by the Owner**

#### **12.2.1 For Convenience**

12.2.1.1 The Owner may terminate this Agreement for convenience. In such instance, the Owner shall provide written notice of such termination to the Contractor specifying when termination shall become effective.

12.2.1.2 The Contractor shall incur no further obligations in connection with the Work and the Contractor shall stop Work when such termination becomes effective. The Contractor shall also terminate outstanding orders and subcontracts. The Contractor shall settle liabilities and claims arising out of the termination of subcontracts and orders. The Owner may direct the Contractor to assign the Contractor's right, title and interest under terminated orders or subcontracts to the Owner or its designee.

12.2.1.3 The Contractor shall transfer title and deliver to the Owner such completed or partially completed Work and materials, equipment, parts, fixtures, information and Contract rights as the Contractor has.

12.2.1.4 (a) The Contractor shall submit a termination claim to the Project Director specifying the amounts due because of the termination for convenience together with costs, pricing or other data required by the Project Director. If the Contractor fails to file a termination claim within one (1) year from the effective date of

termination, the Owner shall pay the Contractor, an amount derived in accordance with subparagraph (c) below.

- (b) The Owner and the Contractor may agree to compensation, if any, due to the Contractor hereunder.
- (c) Absent agreement to the amount due to the Contractor, the Owner shall pay the Contractor the following amounts;
- (d) Contract prices for labor, materials, equipment, and other services accepted under this Agreement;
- (e) Reasonable costs incurred in preparing to perform and in performing a portion of the Work prior to termination and not included in (d) or (e), and in terminating the Contractor's performance, plus a fair and reasonable allowance for overhead and profit thereon (such profit shall not include anticipated profit or consequential damages); provided, however, that if it appears that the Contractor would have not profited or would have sustained a loss if the entire Contract had been completed, no profit shall be allowed or included and the amount of compensation shall be reduced to reflect the anticipated rate of loss, if any;
- (f) Reasonable costs of settling and paying claims arising out of the termination of Subcontracts or orders pursuant to Subparagraph 12.2.1.2 of this Paragraph. These costs shall not include amounts paid in accordance with other provisions hereof.

The total sum to be paid the Contractor under this Subparagraph 12.2.1 shall not exceed the total Contract Price, as properly adjusted, reduced by the amount of payments otherwise made, and shall in no event include duplication of payment.

### **12.2.2 For Cause**

12.2.2.1 If the Contractor persistently or repeatedly refuses or fails to perform the Work in a timely manner, supply enough properly skilled Workers, supervisory personnel or proper equipment or materials, or if it fails to make prompt payment to Subcontractors, or for materials or labor, or persistently disregards laws, ordinances, rules, regulations or orders of any public authority having jurisdiction, or otherwise substantially violates a material provision of this Agreement, then the Owner may, by written notice to the Contractor, without prejudice to any other right or remedy, terminate the employment of the Contractor and take possession of the site and of all materials, equipment, tools, construction equipment and machinery thereon owned by the Contractor and may finish the Work by whatever methods it may deem expedient. In such case, the Contractor shall not be entitled to receive any further payment until the Work is finished.

12.2.2.2 If the unpaid balance of the Contract Price less any liquidated damages due under this Agreement, exceeds the cost of finishing the Work, including compensation for the Project Director's additional services and expenses made necessary thereby, such exceed the unpaid balance, the Contractor shall pay the difference to the Owner. This obligation for payment shall survive the termination of the Contract.

12.2.2.3 In the event the employment of the Contractor is terminated by the Owner for cause pursuant to Subparagraph 12.2.2 and it is subsequently determined by a Court of competent jurisdiction that such termination was without cause, such termination shall thereupon be deemed a Termination for Convenience under Subparagraph 12.2.1 and the provisions of Subparagraph 12.2.1 shall apply.

## **ARTICLE XIII INSURANCE**

### **13.1 Contractor's Insurance:**

The Contractor shall not commence work under this Agreement until he/she has obtained all insurance required under this section and such insurance has been approved by the County. All insurance policies shall be issued by companies authorized to do business under the laws of the State of Florida. The Contractor shall furnish proof of Insurance to the County prior to the commencement of operations. The Certificate(s) shall clearly indicate the Contractor has obtained insurance of the type, amount, and classification as required by contract and that no material change or cancellation of the insurance shall be effective without thirty (30) days prior written notice to the County. **Certificates shall specifically include the County as Additional Insured for all lines of coverage except Workers' Compensation and Professional Liability. A copy of the endorsement must accompany the certificate.** Compliance with the

foregoing requirements shall not relieve the Contractor of its liability and obligations under this Agreement.

Certificate Holder Address: St. Johns County, a political subdivision of the State of Florida  
500 San Sebastian View  
St. Augustine, FL 32084

The awarded Contractor shall maintain throughout the life of the awarded Agreement, Comprehensive General Liability Insurance with minimum limits of liability of \$1,000,000 per occurrence, \$2,000,000 aggregate, to protect the awarded Contractor from claims for bodily injury, including wrongful death, as well as from claims of property damage which may arise from any operations under the awarded Agreement, whether such operations be by the awarded Contractor, or anyone directly employed by or contracting with the awarded Contractor.

The awarded Contractor shall maintain throughout the life of the awarded Agreement, Comprehensive Automobile Liability Insurance with minimum limits of \$2,000,000 combined single limit for bodily injury and property damage liability to protect the awarded Contractor from claims for damages for bodily injury, including the ownership, use, or maintenance of owned and non-owned automobiles, including rented/hired automobiles whether such operations be by the awarded Contractor or by anyone directly or indirectly employed by the awarded Contractor.

The awarded Contractor shall maintain throughout the life of the awarded Agreement, Umbrella or Excess Liability Insurance covering workers' compensation, commercial general liability and business auto liability with minimum limits of liability of \$1,000,000.

The awarded Contractor shall maintain throughout the life of the awarded Agreement, adequate Workers' Compensation Insurance in at least such amounts as is required by the law for all of its employees per Florida Statute 440.02.

The awarded Contractor shall maintain throughout the life of the awarded Agreement, Builders Risk Insurance, Property Insurance written on an "all risk" policy form including coverage for Earthquake, Flood, Windstorm, Debris Removal, Hot and Cold Testing in the amount of the initial contract sum, plus the value of subsequent contract modifications and cost of material supplied or installed by others, comprising total value for the entire project at the site on replacement cost basis. The named insured shall include the County, General Contractor and Sub-contractors. The policy shall waive any co-insurance penalties. Covered Property to include Permanent Works: Materials, supplies, equipment, machinery, and property of others, if the insured is contractually responsible and the value is included in the total project, Temporary Work: scaffolding, form work, fences, shoring, falsework, temporary buildings, Offsite Locations, Offsite Storage and Transit.

The awarded Contractor shall be responsible for the deductible. Such property insurance shall be maintained until final acceptance and payment has been made. If the policy is terminated for any reason, notice shall be provided to the County within a minimum of thirty (30) days by the carrier. The County, awarded Contractor and any approved sub-contractors waive their rights of subrogation against one another.

In the event of unusual circumstances, the County Administrator, or his designee may adjust these insurance requirements.

#### **ARTICLE XIV MISCELLANEOUS**

##### **14.1 Governing Law & Venue**

14.1.1 The Contract shall be governed by the laws of the State of Florida. Venue for any administrative and/or legal action arising under the Contract shall be St. Johns County, Florida.

##### **14.2 Successors and Assigns**

14.2.1 The Owner and Contractor bind themselves, their successors, assigns and legal representatives to the other party hereto and to successors, assigns and legal representatives of such other party in respect to covenants, agreements and obligations contained in this Agreement. The Contractor shall not assign this Agreement without written consent of the

Owner.

### **14.3 Surety Bonds**

14.3.1 The Contractor shall furnish a separate Public Construction Bond to the Owner. Such Bonds shall set forth a penal sum in an amount not less than the Contract Price. The Bond furnished by the Contractor shall incorporate by reference the terms of this Agreement as fully as though they were set forth verbatim in such Bonds. The Public Construction Bond shall provide that in the event the Contract Price is adjusted by Change Order executed by the Contractor. The Public Construction Bond furnished by the Contractor shall be in form suitable to the Owner and shall be executed by a Surety, or Sureties, reasonably suitable to the Owner.

### **14.4. Safety of Persons and Property**

14.4.1 When existing utility lines shown on the Drawings are to be removed or relocated, the Contractor shall notify the Engineer in ample time for taking measures for prevention of the interruption of any required services prior to the beginning of operations. In the event that the Contractor damages any existing utility lines not shown on the Drawings, the location of which is not known to the Contractor report thereof shall be made immediately to the Engineer.

14.4.2 Locations of existing utility lines shown on the Drawings are based on the best information available to the Engineer, but shall not be considered exact either as to location or number of such lines.

14.4.3 Contractor shall protect utility lines constructed under terms of the agreement and those discovered or shown on Drawings to be existing. Damage occurring to utility lines due to Contractor's operations shall be repaired at no cost to the Owner.

## **ARTICLE XV EQUAL EMPLOYMENT OPPORTUNITY**

### **15.1 Contractor's Employment Opportunity**

15.1.1 The Contractor and all Subcontractors shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin or age.

The Contractor shall take affirmative action to insure that applicants are employed, and that employees are treated during employment without regard to their race, religion, color, sex, national origin or age. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertisement, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the policies of non-discrimination.

15.1.2 The Contractor and all Subcontractors shall, in all solicitations or advertisements for employees placed by them or on their behalf, state that all qualified applicants shall receive consideration for employment without regard to race, religion, color, sex, national origin or age.

## **ARTICLE XVI APPRENTICESHIP LAW REQUIREMENTS**

### **16.1 Apprenticeship Law (Chapter 446, Florida Statutes)**

16.1.1 The Contractor shall make a diligent effort to hire for Performance of the Contract a number of apprentices in each occupation which bears to the average number of journeyman in that occupation to be employed in the performance of the Contract, the ratio of at least one (1) apprentice or trainee to every five (5) journeymen.

16.1.2 The Contractor shall, when feasible and except when the number of apprentices or trainees to be hired is fewer than four (4), assure that twenty-five (25) percent of such apprentices or trainees are in their first year of training. Feasibility here involves a consideration of the availability of training opportunities for first year apprentices or trainees, the hazardous nature of the Work for beginning workers, and excessive unemployment of apprentices or trainees in their second or subsequent years of training.

16.1.3 The Contractor, during the performance of the Contract, shall make diligent efforts to employ the number of apprentices or trainees necessary to meet requirements of Subparagraphs a. and b. However, on-the-job training programs shall only be established in non-apprenticable trades or occupations to meet the requirements of this section.

16.1.4 The Contractor agrees to return records of employment, by trade, of the number of apprentices or trainees by first year of training, and the number of journeymen and the wages paid, and hours of work, of such persons on a form as prescribed by the Bureau of Apprenticeship of the Division of Labor at three (3) month intervals. Submission of duplicate copies of forms submitted to the United States Department of Labor shall be sufficient compliance with the provisions of the section.

16.1.5 The Contractor agrees to supply the Bureau of Apprenticeship of the Division of Labor, at three (3) months intervals, a statement describing steps taken toward making diligent effort and containing a breakdown by craft or hours worked and wages paid for first year apprentices or trainees, other apprentices or trainees and journeymen.

16.1.6 The Contractor agrees to insert in any Subcontract under this Agreement the requirements contained in this section. "The term Contractor" as used in such clauses and any Subcontract shall mean the Subcontractor.

16.1.7 Anything herein to the Contrary notwithstanding, Contractor agrees to comply with all of the provisions of Florida Statutes 446 and all regulations prescribed by the Bureau of Apprenticeship of the Division of Labor.

## **ARTICLE XVII PUBLIC RECORDS**

### **17.1 Public Records**

17.1.1 The cost of reproduction, access to, disclosure, non-disclosure, or exemption of records, data, documents, and/or materials, associated with this Agreement shall be subject to the applicable provisions of the Florida Public Records Law (Chapter 119, Florida Statutes), and other applicable State and Federal provisions. Access to such public records, may not be blocked, thwarted, and/or hindered by placing the public records in the possession of a third party, or an unaffiliated party.

17.1.2 In accordance with Florida law, to the extent that Contractor's performance under this Contract constitutes an act on behalf of the County, Contractor shall comply with all requirements of Florida's public records law. Specifically, if Contractor is expressly authorized, and acts on behalf of the County under this Agreement, Contractor shall:

- (1) Keep and maintain public records that ordinarily and necessarily would be required by the County in order to perform the Services;
- (2) Upon request from the County's custodian of public records, provide the County with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost as provided in Chapter 119, Florida Statutes, or as otherwise provided by law;
- (3) Ensure that public records related to this Agreement that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by applicable law for the duration of this Agreement and following completion of this Agreement if the Contractor does not transfer the records to the County; and
- (4) Upon completion of this Agreement, transfer, at no cost, to the County all public records in possession of the Contractor or keep and maintain public records required by the County to perform the Services.

17.1.3 If the Contractor transfers all public records to the County upon completion of this Agreement, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of this Agreement, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the County, upon request from the County's custodian of public records, in a format that is compatible with the County's information technology systems.

17.1.4 Failure by the Contractor to comply with the requirements of this section shall be grounds for immediate, unilateral termination of this Agreement by the County.

## **IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO ITS DUTY TO PROVIDE PUBLIC**

**RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT: OCA, ATTN: Public Records Manager, 500 San Sebastian View, St. Augustine, FL 32084, PH: (904) 209-0805, EMAIL: [publicrecords@sjcfl.us](mailto:publicrecords@sjcfl.us).**

**RFP NO: 17-81, Design-Build Services for Bannon Lakes 2.0 MG Ground Storage Tank**

**Owner**

St. Johns County, FL (Seal)  
(Typed Name)

By: \_\_\_\_\_  
Signature of Authorized Representative

Jaime T. Locklear, CPPB, FCCM  
Printed Name

Assistant Purchasing Manager  
Title

\_\_\_\_\_  
Date of Execution

**ATTEST:**  
**St. Johns County, FL**  
**Clerk of Courts**

By: \_\_\_\_\_  
Deputy Clerk

\_\_\_\_\_  
Date of Execution

**Legally Sufficient:**

\_\_\_\_\_  
Deputy County Attorney

\_\_\_\_\_  
Date of Execution

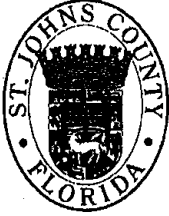
**Contractor**

Precon Corporation (Seal)  
(Typed Name)

By: \_\_\_\_\_  
Signature of Authorized Representative

\_\_\_\_\_  
Printed Name & Title

\_\_\_\_\_  
Date of Execution



## St. Johns County Board of County Commissioners

Purchasing Division

### NOTICE OF INTENT TO AWARD

October 9, 2017

**RE:** RFP No: 17-81 – Design Build Services for Bannan Lakes 2.0 MG Ground Storage Tank

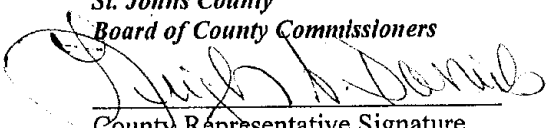
Please be advised that the Purchasing Department of St. Johns County is issuing this notice of its Intent to Award a contract to Precon Corporation as the lowest responsive, responsible bidder for RFP No: 17-81 – Design Build Services for Bannan Lakes 2.0 MG Ground Storage Tank. This notice will remain posted **St. Johns County Purchasing Department bulletin board** until 10:00 AM, Thursday, October 12, 2017.

Any person (including any bidder or proposer) who is, or claims to be, adversely affected by the County's decision or proposed decision shall file a written Notice of Protest with the Purchasing Department of St. Johns County within 72 hours after the posting of the notice of decision or proposed decision. Failure to file a Notice of Protest within the time prescribed in Section 304.10 of the St. Johns County Purchasing Manual (the Bid Protest Procedure), or failure to post the bond or other security required by the County within the time allowed for filing a bond, shall constitute a waiver of proceedings and a waiver of the right to protest. The protest procedures may be obtained from the Purchasing Department and are included in the County's Purchasing Manual. All of the terms and conditions of the County Purchasing Manual are incorporated herein by reference and are fully binding.

Should the Purchasing Department receive no protests in response to this notice, an agenda item will be submitted to the St. Johns County Board of County Commissioners for their consideration and subsequent approval to award a contract.

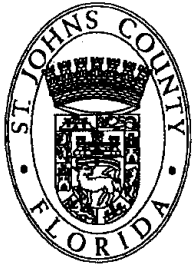
Please forward all correspondence, requests or inquiries directly to my attention at the information provided below.

Sincerely,  
St. Johns County  
Board of County Commissioners

  
County Representative Signature

Date: 10/9/17

Leigh A. Daniels, CPPB,  
Procurement Supervisor  
(904) 209-0154 – Direct  
(904) 209-0155 – Fax  
[ldaniels@sjcfl.us](mailto:ldaniels@sjcfl.us)



**ST. JOHNS COUNTY  
PURCHASING DEPARTMENT**

500 San Sebastian View  
St. Augustine, Florida 32084

---

**I N T E R O F F I C E M E M O R A N D U M**

---

**TO:** Scott Trigg, P.E., Chief Engineer – Capital Projects  
**FROM:** Leigh Daniels, CPPB, Procurement Supervisor  
**SUBJECT:** Department Approval for RFP No. 17-81, Design Build Services for Bannon Lakes 2.0  
MG Ground Storage Tank  
**DATE:** October 5, 2017

Attached is a copy of the technical proposal review summary sheet.

Please review, evaluate and make a written recommendation for this project. Also, indicate the budgeted amount for this item along with the appropriate charge code and return at your earliest convenience. We will prepare the agenda item and contract.

Please let me know if I can assist your department in any other way.

ST JOHNS COUNTY

Department Head Approval Scott Trigg

OCT 06 '17

Date 10/5/17

PURCHASING

Budget Amount \$ 1,100,000

Account Funding Title 2017 Bannon Lakes Reuse GST

Funding Charge Code 44184-56302-65010-56302

Award to Precon Corp.

Award Amount 1,061,000.00



**ST. JOHNS COUNTY  
BID TABULATION**

**BID TITLE** DESIGN BUILD SERVICES FOR BANNON LAKES  
2.0 MG GROUND STORAGE TANK

**RFP NUMBER** 17-81

**OPENING DATE/TIME** September 28, 2017 4:00 PM

**POSTING DATE/TIME** 09/28/17 4:30 PM

**FROM** UNTIL  
10/03/17 4:30 PM

ANY BIDDER AFFECTED ADVERSELY BY AN INTENDED DECISION WITH RESPECT TO THE AWARD OF ANY BID, SHALL FILE WITH THE PURCHASING DEPARTMENT FOR ST. JOHNS COUNTY, A WRITTEN NOTICE OF INTENT FILE A PROTEST NOT LATER THAN SEVENTY-TWO (72) HOURS (EXCLUDING SATURDAY, SUNDAY AND LEGAL HOLIDAYS) AFTER THE POSTING OF THE BID TABULATION. PROTEST PROCEDURES MAY BE OBTAINED IN THE PURCHASING DEPARTMENT.

**OPENED BY**  
**TABULATED BY**  
**VERIFIED BY**

JANIE LOCKLEAR  
BRYAN MATOS



PAGE (S) 1 of 1

BIDDERS	TOTAL BASE BID LUMP SUM PRICE	TESTING AND PERMIT ALLOWANCE	TOTAL BID PRICE	BID BOND	ADDENDUM # 1	ADDENDUM # 2	ADDENDUM # 3
PRECON CORPORATION	\$1,051,000.00	\$10,000.00	\$1,061,000.00	YES	YES	YES	YES
CROM, LLC	\$1,292,141.00	\$10,000.00	\$1,302,141.00	YES	YES	YES	YES

BID AWARD DATE - \_\_\_\_\_

RFP NO: 17-81 LOW BID TECHNICALLY ACCEPTABLE  
DESIGN BUILD SERVICES FOR BANNON LAKES 2.0 MG GROUND STORAGE TANK  
ATTACHMENT "E"

OFFICIAL COUNTY BID PRICE PROPOSAL FORM  
ST. JOHNS COUNTY, FLORIDA  
LUMP SUM PRICE PROPOSAL

PROJECT: Design Build Services for Bannan Lakes 2.0 MG Ground Storage Tank

TO: THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA

DATE SUBMITTED: 9/28/17

BID PRICE PROPOSAL OF

Precon Corporation 115 SW 140th Terrace, Newberry, FL 32669 352-332-1200  
FULL LEGAL Company Name Address Telephone Number

Having become familiar with site conditions of the project, and having carefully examined the proposal requirements, including the Advertisement, Project Requirements, Design and Construction Criteria, and Contract Documents, including the General Conditions, Supplementary Conditions, Specifications, and Drawing entitled Bannan Lakes 2.0 MG Ground Storage Tank, in St. Johns County, Florida. The undersigned proposes to furnish all materials, labor and equipment, supervision and all other requirements necessary to comply with the Request for Proposal Documents for the following dollar amount stated in this Price Proposal summarized as follows:

PRICE PROPOSAL:

BASE BID: Design-Build Services for Bannan Lakes 2.0 MG Ground Storage Tank per RFP document and specifications.

\$ 1,051,000 and / 00/100 Dollars  
Total Base Bid Lump Sum Price (Numerical)

One Million Fifty-one Thousand and Zero /100 Dollars  
(Amount written or typed in words)

Bidder will enter written (in words) and numerically by the Lump Sum Price in the space provided above. In the event of a conflict, the written Lump Sum Price shall be considered as the Bidder correct bid.

TESTING AND PERMIT ALLOWANCE\*

\$ 10,000.00  
Total Testing and Permit Allowance (Numerical)

Ten Thousand and Zero /100 Dollars  
(Amount written or typed in words)

*\*The allowance shown is an estimated unit price allowance and will be adjusted (+/-) upon receipt of an invoice for applicable testing.*

**TOTAL BID PRICE PROPOSAL:** Base Bid + Testing and Permit Allowance

\$ 1,061,000 and 00/100 Dollars  
Total Bid Price Proposal (Numerical)

One Million Sixty-one Thousand and Zero /100 Dollars  
(Amount written or typed in words)

Time of Substantial Completion shall be 270 consecutive calendar days from receipt of Notice to Proceed from Owner. An additional 30 consecutive calendar days will be allowed from Substantial Completion to Final Acceptance by the Owner.

Note: The listing order of bid items reflects a construction sequence in general terms for bidding purposes only and is not a specific construction schedule.

During the preparation of the Bid, the following addenda, if any, were received:

No.: 1 Date Received: 9/6/17

No.: 2 Date Received: 9/14/17

No.: 3 Date Received: 9/20/17

We, the undersigned, hereby declare that no person or persons, firm or corporation, other than the undersigned are interested, in this proposal, as principals, and that this proposal is made without collusion with any person, firm or corporation, and we have carefully and to our satisfaction examined the Project Specifications and form of Contract and Public Construction Bonds, together with the Plans.

We have made a full examination of the location of the proposed work and the sources of supply of materials, and we hereby agree to furnish all necessary labor, and equipment and materials, fully understanding that any quantities shown therewith are approximate only, and that we will fully complete all requirements therein as prepared by Architect, within the same time limit specified in the Contract Documents for the following total sum price as indicated above.

If the Undersigned is notified of the acceptance of this Proposal by the Board within ninety (90) calendar days for the time set for the receipt of proposal, the Undersigned further agrees, to execute a contract for the above work within ten (10) days after notice that his Bid has been accepted for the above stated compensation in the form of a Contract presented by the Owner. The Undersigned agrees, if awarded the Contract, to Substantially Complete all work within Two Hundred & Seventy (270) consecutive calendar days after receipt of NOTICE TO PROCEED. Undersigned further agrees that from the compensation otherwise to be paid, the Owner may retain the liquidated damages as provided in the Contract, which sum is agreed upon as the proper measure of liquidated damages which the Owner will sustain each day by the failure of the Undersigned to complete the work in the time stipulated, and this sum is not to be construed as penalty.

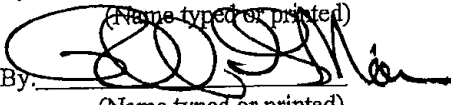
The Undersigned further agrees that security in the form of a Bid Bond, certified or cashier's check in the amount of not less than five percent (5%) total Bid Price, payable to the Owner, accompanies this Proposal; that the amount is not to be construed as a penalty, but as liquidated damages which said Owner will sustain by failure of the Undersigned to execute and deliver the Contract and Bond within ten (10) days of the written notification of the Award of the Contract to him; thereupon, the security shall become the property of the Owner, but if this Bid is not accepted within ninety (90) days of the time set for the submission of Bids, or if the Undersigned delivers the executed Contract and Public Construction Bond upon receipt, the Security shall be returned to the Bidder within seven (7) working days.

RFP NO: 17-81 LOW BID TECHNICALLY ACCEPTABLE  
DESIGN BUILD SERVICES FOR BANNON LAKES 2.0 MG GROUND STORAGE TANK

CORPORATE/COMPANY

Company Name: Precon Corporation \_\_\_\_\_ (Seal)

By: Richard G. Moore, PE \_\_\_\_\_

(Name typed or printed)  
By:  \_\_\_\_\_  
(Name typed or printed)

Address: 115 SW 140th Terrace, Newberry, FL 32669 \_\_\_\_\_

Telephone No.: (352) 332-1200 \_\_\_\_\_ Fax No.: (352) 332-1199 \_\_\_\_\_

Federal I.D. Tax Number: 59-2045133 \_\_\_\_\_ DUNS Number: \_\_\_\_\_

INDIVIDUAL

Name: \_\_\_\_\_  
(Name typed or printed) (Title)

\_\_\_\_\_  
(Signature)

Address: \_\_\_\_\_

Telephone No.: (\_\_\_\_) \_\_\_\_\_

Federal I.D. Tax Number: \_\_\_\_\_

- Attachments: Bid Price Proposal Attachment "C" - Affidavit  
Bid Price Proposal Attachment "H" - Certificates as to Corporate Principal  
Bid Price Proposal Attachment "I" - Certificate of Compliance with Florida Trench Safety Act

Bid Price Proposal Attachments "C", "H", "I", " Bid Bond must be completed and attached to the Bid Price Proposal along with a signed copy of each addendum issued for this RFP acknowledging receipt

**RFP NO: 17-81 LOW BID TECHNICALLY ACCEPTABLE  
DESIGN BUILD SERVICES FOR BANNON LAKES 2.0 MG GROUND STORAGE TANK  
ATTACHMENT "F"**

**CERTIFICATES OF INSURANCE**  
(Attach or insert copy here)



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
7/29/2017

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> Lassiter-Ware Insurance of Maitland 2701 Maitland Center Parkway Suite 125 Maitland FL 32751	<b>CONTACT NAME:</b> Anne Edwards <b>PHONE (A/C, No, Ext):</b> (800) 845-8437 <b>FAX (A/C, No):</b> (888) 883-8680 <b>E-MAIL ADDRESS:</b> AnneE@lassiter-ware.com																				
	<table border="1"> <tr> <th colspan="2">INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> <tr> <td>INSURER A: Amerisure Mutual Insurance Company</td> <td></td> <td>23396</td> </tr> <tr> <td>INSURER B: Amerisure Insurance Company</td> <td></td> <td>19488</td> </tr> <tr> <td>INSURER C: Crum &amp; Forster Specialty Insurance</td> <td></td> <td>44520</td> </tr> <tr> <td>INSURER D:</td> <td></td> <td></td> </tr> <tr> <td>INSURER E:</td> <td></td> <td></td> </tr> <tr> <td>INSURER F:</td> <td></td> <td></td> </tr> </table>	INSURER(S) AFFORDING COVERAGE		NAIC #	INSURER A: Amerisure Mutual Insurance Company		23396	INSURER B: Amerisure Insurance Company		19488	INSURER C: Crum & Forster Specialty Insurance		44520	INSURER D:			INSURER E:			INSURER F:	
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INSURER F:																					
<b>INSURED</b> Precon Corporation 115 S.W. 140 Terrace Newberry FL 32669																					

COVERAGES CERTIFICATE NUMBER: 17-18 Rev Ren Mast REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> Contractual Liability GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:		CPP20856700301	1/1/2017	1/1/2018	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COM/OP AGG \$ 2,000,000 \$
B	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS		CA20590690901	1/1/2017	1/1/2018	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ PIP \$ 10,000
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 0		CPP20856700301	1/1/2017	1/1/2018	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000 \$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory In NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N N/A	WC207400707	1/1/2017	1/1/2018	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
C	Pollution/Prof Liab \$10k Ded		PKC-105906	7/15/2017	7/15/2018	Commercial Aggregate \$5,000,000
A	Inland Marine		CPP20856700301	1/1/2017	1/1/2018	Rented/Leased Equipment \$250,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

<b>CERTIFICATE HOLDER</b> "For Illustrated Purposes Only"	<b>CANCELLATION</b> SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE Paul Ziccardi/ANNEE

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RFP NO: 17-81 LOW BID TECHNICALLY ACCEPTABLE  
DESIGN BUILD SERVICES FOR BANNON LAKES 2.0 MG GROUND STORAGE TANK  
ATTACHMENT "C"

AFFIDAVIT

TO: ST. JOHNS COUNTY BOARD OF COUNTY COMMISSIONERS  
ST. AUGUSTINE, FLORIDA

At the time the proposal is submitted, the Respondent shall attach to his proposal a sworn statement.

The sworn statement shall be an affidavit in the following form, executed by an officer of the firm, association or corporation submitting the proposal and shall be sworn to before a person who is authorized by law to administer oaths.

STATE OF FLORIDA COUNTY OF ALACHUA. Before me, the undersigned authority, personally appeared Richard G. Moore who, being duly sworn, deposes and says he is President (Title) of Precon Corporation (Firm) the respondent submitting the attached Pre-Qualification Package for the services covered by the RFP documents for RFP No: 17-81, Low Bid Technically Acceptable Design Build Services for Bannan Lakes 2.0 MG Ground Storage Tank.

The affiant further states that no more than one proposal for the above referenced project will be submitted from the individual, his firm or corporation under the same or different name and that such respondent has no financial interest in the firm of another respondent for the same work, that neither he, his firm, association nor corporation has either directly or indirectly entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this firm's proposal on the above described project. Furthermore, neither the firm nor any of its officers are debarred from participating in public contract lettings in any other state.

Precon Corporation

(Proposer)

By 

Richard G. Moore, PE  
President

(Title)

STATE OF FLORIDA

COUNTY OF ALACHUA

Subscribed and sworn to before me this 25th day of September, 2017, by Richard G. Moore, PE who personally appeared before me at the time of notarization, and who is personally known to me or who has produced \_\_\_\_\_ as identification.

  
Notary Public

My commission expires: \_\_\_\_\_



VENDOR ON ALL COUNTY PROJECTS MUST EXECUTE AND ATTACH THIS AFFIDAVIT TO EACH PROPOSAL.

**RFP NO: 17-81 LOW BID TECHNICALLY ACCEPTABLE  
DESIGN BUILD SERVICES FOR BANNON LAKES 2.0 MG GROUND STORAGE TANK  
ATTACHMENT "I"**

**CERTIFICATE OF COMPLIANCE WITH FLORIDA TRENCH SAFETY ACT**

Bidder acknowledges that he is solely responsible for complying with the Florida Trench Safety Act (ACT) and Occupational Safety and Health Administrations excavation safety standard 29 CFR 1926.650 (Subpart P as amended) and the St. Johns County Trenching and Excavation Safety Program. If there is a conflict between the ACT and the St. Johns County Trenching and Excavation Safety Program, the more stringent requirement would apply. Bidder further acknowledges that included in the various items of the proposal and in the Total Bid Price are costs for complying with the Florida Trench Safety Act (90-96, Laws of Florida) effective October 1, 1990 and the Occupational Safety and Health Administrations excavation safety standard.

By: Richard G. Moore, PE

Precon Corporation

Bidder



Authorized Signature

9/25/17

Date

RFP NO: 17-81 LOW BID TECHNICALLY ACCEPTABLE  
DESIGN BUILD SERVICES FOR BANNON LAKES 2.0 MG GROUND STORAGE TANK  
ATTACHMENT "H"

CERTIFICATES AS TO CORPORATE PRINCIPAL

I, Deborah A. Dupree, certify that I am the Secretary of the Corporation named as Principal in the attached bond; that Richard G. Moore who signed the said bond on behalf of the Principal, was then President of said Corporation; that I know his signature, and his signature hereto is genuine; and that said bond was duly signed, sealed, and attested for and in behalf of said Corporation by authority of its governing body.

Deborah A. Dupree  
Secretary                      Corporate Seal

(STATE OF FLORIDA  
COUNTY OF ~~ST. JOHNS~~) ALACHUA

Before me, a Notary Public duly commissioned, qualified and acting, personally appeared Richard G. Moore to me well known, who being by me first duly sworn upon oath, says that he is the Attorney-In-Fact, for the Precon Corporation and that he has been authorized by Precon Corporation to execute the foregoing bond on behalf of the surety named therein in favor of St. Johns County, Florida.

Subscribed and sworn to me this 25th day of September, 2017, A.D.

Terrill L. Matchett  
NOTARY PUBLIC  
State of Florida-at-large



My Commission Expires:

(Attach Power of Attorney to original Bid Bond and Financial Statement of Surety Company)

Executed in 3 Counterparts

**RFP NO: 17-81 LOW BID TECHNICALLY ACCEPTABLE  
DESIGN BUILD SERVICES FOR BANNON LAKES 2.0 MG GROUND STORAGE TANK**

**BID BOND**

STATE OF FLORIDA  
COUNTY OF ST. JOHNS

KNOW ALL MEN BY THESE PRESENTS, that Precon Corporation as Principal, and Great American Insurance Company as Surety, are held and firmly bound unto St. Johns County, Florida, in the penal sum of Five Percent \* Dollars (~~5%~~) lawful money of the United States, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATIONS IS SUCH that whereas the Principal has submitted the accompanying Bid, dated September 28th, 2017.

For  
**Low Bid Technically Acceptable**  
**Design Build Services for Bannon Lakes 2.0 MG Ground Storage Tank**  
St. Johns County, Florida

NOW THEREFORE,

- (a) If the Principal shall not withdraw said Bid within ninety (90) days after Bid Award date, and shall within ten (10) days after prescribed forms are presented to him for signature, enter into a written Contract with the County in accordance with the Bid as accepted, and give Bond with good and sufficient Surety or Sureties, as may be required, for the faithful performance and proper fulfillment of such Contract, then the above obligations shall be void and of no effect, otherwise to remain in full force and virtue.
- (b) In the event of the withdrawal of said Bid within the period specified, or the failure to enter into such Contract and give such Bond within the time specified, if the Principal shall pay the County the difference between the amount specified, in said Bid and the amount for which the County may procure the required Work and supplies, if the latter amount be in excess of the former, then the above obligations shall be void and of no effect, otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above bounded parties have executed this instrument under their several seals, this 28th day of September A.D., 2017, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

\* of Amount Bid

**RFP NO: 17-81 LOW BID TECHNICALLY ACCEPTABLE  
DESIGN BUILD SERVICES FOR BANNON LAKES 2.0 MG GROUND STORAGE TANK**

WITNESSES:

(If Sole Ownership or Partnership two (2) Witnesses required).  
(If Corporation, Secretary only will attest and affix seal).

WITNESSES:

Robert A. Dupree  
\_\_\_\_\_  
\_\_\_\_\_

Precon Corporation  
PRINCIPAL:

Precon Corporation  
NAME OF FIRM:

Richard G. Moore

SIGNATURE OF AUTHORIZED OFFICER (AFFIX SEAL) Richard G. Moore

President  
TITLE

115 SW 140th Terrace  
BUSINESS ADDRESS

Newberry Florida  
CITY STATE

Great American Insurance Company  
SURETY:

Great American Insurance Company  
CORPORATE SURETY

Gloria A. Richards

ATTORNEY-IN-FACT (AFFIX SEAL)  
& FL Licensed Resident Agent, Gloria A. Richards  
301 E. Fourth Street  
BUSINESS ADDRESS

Cincinnati Ohio  
CITY STATE

Florida Surety Bonds, Inc.  
NAME OF LOCAL INSURANCE AGENCY

WITNESS:

Whitney Quillin  
Whitney Quillin



301 East Fourth Street  
Cincinnati, OH 45202-4201

GreatAmericanInsuranceGroup.com

**GREAT AMERICAN INSURANCE COMPANY**

**STATEMENT OF ASSETS, LIABILITIES AND CAPITAL & SURPLUS  
AS OF DECEMBER 31, 2016**

ADMITTED ASSETS		LIABILITIES, CAPITAL AND SURPLUS	
Bonds.....	\$ 2,751,319,379	Unpaid losses and loss expenses.....	\$ 2,828,879,902
Stocks.....	1,480,974,043	Reserve for underwriting expenses.....	268,411,434
Mortgage loans on real estate.....	233,765,374	Federal and foreign income taxes.....	14,018,337
Real estate (net of encumbrances).....	58,240,298	Reserve for unearned premiums.....	1,104,230,382
Cash and short-term investments.....	484,223,036	Ceded reinsurance premiums payable.....	83,663,531
Other invested assets.....	315,981,849	Funds held under reinsurance treaties.....	463,201,443
Receivable for securities.....	1,910,942	Retroactive reinsurance ceded.....	(102,381,676)
Investment income due and accrued.....	24,045,947	Other liabilities.....	192,340,271
Agents' and premium balances.....	530,481,763	Total liabilities.....	4,852,363,624
Reinsurance recoverable on loss and loss expense payments.....	55,681,895		
Net deferred tax asset.....	233,731,204	Capital stock.....	\$ 15,440,600
Receivable from affiliates.....	7,663,444	Paid in surplus.....	638,362,982
Receivable from Federal Crop Insurance Corporation.....	430,736,055	Special surplus funds.....	102,381,676
Company owned life insurance.....	173,652,265	Unassigned funds.....	1,242,681,890
Funds held as collateral.....	21,883,445	Policyholders' surplus.....	1,998,867,148
Funded deductibles.....	22,187,733		
Other admitted assets.....	24,752,100		
Total.....	\$ 6,851,230,772	Total.....	\$ 6,851,230,772

Securities have been valued on the basis prescribed by the National Association of Insurance Commissioners

STATE OF OHIO

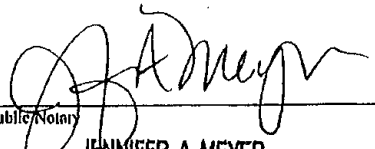
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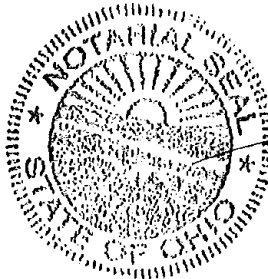
COUNTY OF HAMILTON

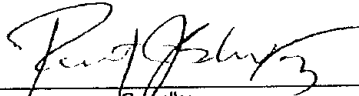
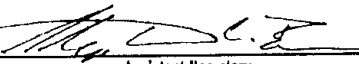
Robert J. Schwartz, Vice President and Controller, and Stephen Bernha, Assistant Vice President and Assistant Secretary, being duly sworn, each for himself deposes and says that they are the above described officers of the Great American Insurance Company of Cincinnati, Ohio; that said Company is a corporation duly organized, existing and engaged in business as a Surety by virtue of the laws of the State of Ohio and has duly complied with all the requirements of the laws of said state applicable to said Company and is duly qualified to act as Surety under such laws; that said Company has also complied with and is duly qualified to act as Surety under Public Law 97-258 enacted September 13, 1982 (96 Stat. 1047 as amended: 31 U.S.C. 9304-9308); that to the best of their knowledge and belief the above statement is a full, true and correct Statement of the Assets, Liabilities and Capital & Surplus of the said Company as of December 31, 2016.

Subscribed and sworn to before me

this 17th day of February, 2017.

  
Public Notary  
**JENNIFER A. MEYER**  
Notary Public, State of Ohio  
My Commission Expires 11-08-2021



  
Controller  
  
Assistant Secretary

**GREAT AMERICAN INSURANCE COMPANY®**

Administrative Office: 301 E 4TH STREET • CINCINNATI, OHIO 45202 • 513-369-5000 • FAX 513-723-2740

The number of persons authorized by this power of attorney is not more than SEVEN

No. 0 20377

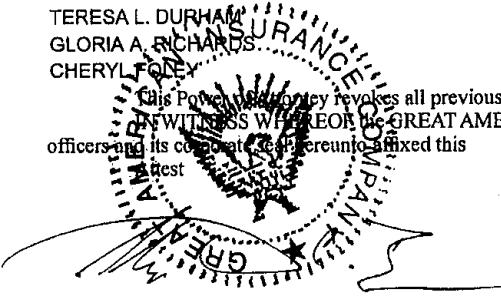
**POWER OF ATTORNEY**

**KNOW ALL MEN BY THESE PRESENTS:** That the GREAT AMERICAN INSURANCE COMPANY, a corporation organized and existing under and by virtue of the laws of the State of Ohio, does hereby nominate, constitute and appoint the person or persons named below, each individually if more than one is named, its true and lawful attorney-in-fact, for it and in its name, place and stead to execute on behalf of the said Company, as surety, any and all bonds, undertakings and contracts of suretyship, or other written obligations in the nature thereof; provided that the liability of the said Company on any such bond, undertaking or contract of suretyship executed under this authority shall not exceed the limit stated below.

Name	Address	Limit of Power
JEFFREY W. REICH	ALL OF	ALL
SUSAN L. REICH	MAITLAND, FLORIDA	\$100,000,000
KIM E. NIV		
TERESA L. DURHAM		
GLORIA A. RICHARDS		
CHERYL FOREY		

This Power of Attorney revokes all previous powers issued on behalf of the attorney(s)-in-fact named above.

IN WITNESS WHEREOF the GREAT AMERICAN INSURANCE COMPANY has caused these presents to be signed and attested by its appropriate officers and its corporate seal hereunto affixed this 17TH day of OCTOBER, 2016  
GREAT AMERICAN INSURANCE COMPANY



*David C. Kitchin*

DAVID C. KITCHIN (877-377-2405)

STATE OF OHIO, COUNTY OF HAMILTON - ss:

On this 17TH day of OCTOBER, 2016, before me personally appeared DAVID C. KITCHIN, to me known, being duly sworn, deposes and says that he resides in Cincinnati, Ohio, that he is a Divisional Senior Vice President of the Bond Division of Great American Insurance Company, the Company described in and which executed the above instrument; that he knows the seal of the said Company; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by authority of his office under the By-Laws of said Company, and that he signed his name thereto in his own handwriting.



Susan A. Kohorst  
Notary Public, State of Ohio  
My Commission Expires 05-18-2020

*Susan A. Kohorst*

This Power of Attorney is granted by authority of the following resolutions adopted by the Board of Directors of Great American Insurance Company by unanimous written consent dated June 9, 2008.

**RESOLVED:** That the Divisional President, the several Divisional Senior Vice Presidents, Divisional Vice Presidents and Divisional Assistant Vice Presidents, or any one of them, be and hereby is authorized, from time to time, to appoint one or more Attorneys-in-Fact to execute on behalf of the Company, as surety, any and all bonds, undertakings and contracts of suretyship, or other written obligations in the nature thereof; to prescribe their respective duties and the respective limits of their authority; and to revoke any such appointment at any time.

**RESOLVED FURTHER:** That the Company seal and the signature of any of the aforesaid officers and any Secretary or Assistant Secretary of the Company may be affixed by any officer to any power of attorney or certificate of either given for the execution of any bond, undertaking, contract of suretyship, or other written obligation in the nature thereof, such signature and seal when so used being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed.

**CERTIFICATION**

J. STEPHEN BERHAHA, Assistant Secretary of Great American Insurance Company, do hereby certify that the foregoing Power of Attorney and the Resolutions of the Board of Directors of June 9, 2008 have not been revoked and are now in full force and effect.

Signed and sealed this

28th

day of

September, 2017

*J. Stephen Berhaha*



St. Johns County Board of County Commissioners

Purchasing Division

September 6, 2017

ADDENDUM #1

To: Prospective Respondents  
From: St. Johns County Purchasing Department  
Subject: RFP No. 17-81, Design Build Services for Bannan Lakes 2.0 MG Ground Storage Tank

This Addendum #1 is issued for further respondent's information and is hereby incorporated into the RFP documents. Each respondent will ascertain before submitting a proposal that he/she has received all Addenda. Please return an original copy of this signed Addendum with proposal to the St. Johns County Purchasing Department, Leigh A. Daniels, CPPB; 500 San Sebastian View; St. Augustine, FL 32084.

Addition to Non-Mandatory Meeting:

St. Johns County is adding a conference call for the Non-Mandatory meeting for Thursday, September 7, 2017 at 9:30 a.m. Due to Hurricane Irma's impact on supplies of fuel in the State of Florida, St. Johns County will be doing a conference call for any vendors interested in the above referenced project.

Join by phone

- +1 (202) 800-9983, access code: 62806355 (United States) English (United States)
  - +1 (855) 466-5646 (US and Canada), access code: 62806355 (United States) English (United States)
  - +1 (855) 302-8655 (US and Canada) Alternative, access code: 62806355 (United States) English (United States)
- Conference ID: 62806355 (same as access code above)

**THE BID DUE DATE REMAINS September 28, 2017 AT 4:00 P.M.**

Acknowledgment

*Mort Vineyard* 9/27/17  
Signature and Date

Sincerely,

Leigh A. Daniels, CPPB  
Procurement Supervisor

**MORT VINEYARD** **ENG. DIRECTOR**  
Printed Name/Title

**PRE CON CORPORATION**  
Company Name (Print)

END OF ADDENDUM NO. 1



## St. Johns County Board of County Commissioners

Purchasing Division

September 14, 2017

### ADDENDUM #2

**To:** Prospective Bidders  
**From:** St. Johns County Purchasing Department  
**Subject:** Bid No. 17-81, Design Build Services for Bannan Lakes 2.0 MG Ground Storage Tank

This Addendum #2 is issued for further respondent's information and is hereby incorporated into the Bid documents. Each respondent will ascertain before submitting a proposal that he/she has received all Addenda. Please return an original copy of this signed Addendum with proposal to the St. Johns County Purchasing Department, Leigh A. Daniels, CPPB; 500 San Sebastian View; St. Augustine, FL 32084.

#### Changes to the Front-End/RFP Document

1. Section V.B.1.d. delete "Install a tapping saddle, temporary stub-out(s), and temporary piping" and replace with "Install any temporary fittings and piping"
2. Section V.B.1.d. add the following new sentence at the end: "All existing piping configurations shall be restored to existing conditions as shown on the drawings once tank testing and post-loading has been performed or as directed by the Engineer and Owner."

#### Changes to the Drawings

##### **Drawing C-3: Yard Piping Plan**

1. Modifications to the probe curb, hatch, and hatch hinge locations. See locations on updated C-2.

##### **Drawing MD-1: Miscellaneous Mechanical Details**

1. Replace the entire drawing with the attached drawing.

#### Changes to the Specifications

##### **Section 13216: Wire Wrapped Prestressed Concrete Tank**

1. Section 1.05.A.12.g. delete "thickened boss at exterior" and replace with "thickened boss centered on the exterior."
2. Section 1.05.A.19. delete "including walls, floor, and dome," and replace with "including walls (full height) and dome (excluding the floor)."
3. Section 1.05.A.19.a. add "and one (1) coat of Thoroseal." after "Rubbed concrete finish."
4. Section 1.05.A.19.b. add "Primer: Tnemec Mortarclad Series 218 (2.0 - 10.0 mils DFT) or equal" between "Surface Preparation" and "1<sup>st</sup> Coat..."

5. Section 2.02.B. delete this paragraph in its entirety. Re-letter the subsequent paragraphs accordingly.
6. Section 3.01.B.1.d. delete the entire sentence.
7. Section 3.01.F. delete "coating of each tank as per the RFP document" and replace with "coating of the tank as per Paragraph 1.05.A.19."

### Questions

1. Currently the bid documents in 13216 paragraph 1.05-19 and paragraph 2.02 require the tank concrete to contain 5% Xypex and the interior of the tank to receive 2 coats of Tnemec N69. Both of these systems are quite expensive and in our opinion not necessary. At a minimum, we suggest deleting the Xypex and installing the coatings alone. The Xypex may add over \$50,000.00 to the project cost.

**Answer: Xypex admixture will not be required. See this addendum for modifications.**

2. If the Xypex is required, can this be utilized on the concrete in contact with the water only? This would be the tank floor and interior shotcrete.

**Answer: Xypex admixture will not be required. See this addendum for modifications.**

3. Please confirm that the testing allowance in the project is to be considered for material testing on the tank structure?

**Answer: Yes, the materials testing allowance is intended to be used for the tank structure.**

4. Please clarify if the internal piping can be installed prior to preloading of the tank?

**Answer: Yes, internal piping may be installed before or after the three-week tank loading period.**

5. The specification calls for the use of C-1000 Xypex in the concrete mix. This typically adds 60 \$/ CY in cost to the mix. Please clarify if this is required since this has never been required for St. Johns County Projects in the past. Secondly, if it is required it is stated at 5% and the typical amount is 2.5%, please clarify if this can be reduced. Finally, if it is required, C-1000 has a high amount of retardant and will cause the concrete to require extensive non-required setup and curing time. Please clarify if C-500 can be used in lieu of C-1000 if xypex is required in the mix to eliminate the retardant concern.

**Answer: Xypex admixture will not be required. See this addendum for modifications.**

6. Please clarify if the coatings on the inside of the tank can be installed prior to hydrostatic testing and loading of the tank?

**Answer: No, the interior coating may not be installed prior to hydrostatic testing and loading.**

7. Please clarify if power will be provided by owner to the site?

**Answer: Power will not be provided. The bid shall include all costs associated with utilizing diesel generators or for obtaining temporary power from FPL.**

8. Please clarify the internal coating system to be installed on the tank to the extent of surfacer primer thickness and which sections of the tank interior should receive the coating and surfacer components.

**Answer: Coatings and the locations where they shall be installed are specified in Section 1.05.A.19 of the specification. See this addendum for modifications.**

#### ATTACHMENTS

1. Drawing C-3: Yard Piping Plan
2. Drawings MD-1: Miscellaneous Mechanical Details

**THE BID DUE DATE REMAINS September 28, 2017 AT 4:00 P.M.**

Acknowledgment

Sincerely,

 9/27/17  
Signature and Date

Leigh A. Daniels, CPPB  
Procurement Supervisor

**MORT VINOYARD ENL. DIRECTOR**  
Printed Name/Title

**DRECON CORPORATION**  
Company Name (Print)

END OF ADDENDUM NO. 2

**SECTION 1.**

**Proposing (Lead) Firm**



## PRECON CORPORATION

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Prestressed Concrete Tanks

115 S.W. 140th Terrace  
Newberry, Florida 32669  
(352) 332-1200

September 25, 2017

St. Johns County Purchasing Dept.  
500 San Sebastian View  
St. Augustine, FL 32084

ATTN: Leigh A. Daniels, CPPB  
Procurement Supervisor

Re: RFP 17-81  
Design Build Services for Bannan Lakes  
2.0 MG Ground Storage Tank

Dear Ms. Daniels:

Please accept this letter as an introduction to Precon Corporation. Following is our contact information.

Precon Corporation  
115 SW 140<sup>th</sup> Terrace  
Newberry, FL 32669  
[www.precontanks.com](http://www.precontanks.com)

Primary Contact: Mort Vineyard, PE  
Ph: 352-332-1200  
Fax: 352-332-1199  
Email: [mjv@precontanks.com](mailto:mjv@precontanks.com)

Precon Corporation was founded by Richard G. Moore, PE, President, in December 1980. Precon has specialized in the construction of circular prestressed concrete tanks for water and wastewater storage and treatment since 1983, and has constructed over 500 tanks ranging in size from 100,000 gallons to 21,000,000 gallons.

Precon designs and constructs the prestressed tanks to meet the individual requirements of each project. Our tanks are designed to meet AWWA industry standards.

It is Precon's commitment to construct a quality prestressed tank built to last with continuous services and minimal down time.

We thank you for the opportunity to bid this important project. Please contact us should there be any questions we can answer.

Very truly yours,

Richard G. Moore, PE  
President

RGM/tm

**RFP NO: 17-81 LOW BID TECHNICALLY ACCEPTABLE  
DESIGN BUILD SERVICES FOR BANNON LAKES 2.0 MG GROUND STORAGE TANK**

**SUBMIT ONE (1) ORIGINAL HARD-COPY AND THREE (3) EXACT  
COPIES TO:**

ST. JOHNS COUNTY, FL  
PURCHASING DEPARTMENT  
500 SAN SEBASTIAN VIEW  
ST. AUGUSTINE, FLORIDA 32084  
ATTN: Leigh A. Daniels, Procurement Supervisor

**FULL LEGAL COMPANY NAME:** Precon Corporation

**MAILING ADDRESS:** 115 SW 140th Terrace, Newberry, FL 32669

**DATE OF SUBMITTAL:** 9/28/17

RFP NO: 17-81 LOW BID TECHNICALLY ACCEPTABLE  
DESIGN BUILD SERVICES FOR BANNON LAKES 2.0 MG GROUND STORAGE TANK  
ATTACHMENT "A"

TECHNICAL PROPOSAL - STATEMENT OF QUALIFICATIONS

Company Name: Precon Corporation

I, Richard G. Moore, President hereby certify that  
(Print Name & Title of Authorized Company Representative)  
Precon Corporation  
(Full Legal Company Name)

As the Lead Proposer for this Request for Proposal (RFP) meets or exceeds the qualification requirements shown in this document. I also certify that the Design Build team is capable of providing a Public Construction Bond (Payment & Performance Bond) for 100% of the contract value and shall perform the scope of work in accordance with the specifications stated in the Bid and that all information being submitted in response to this request is true and accurate to the best of my knowledge.

By:  \_\_\_\_\_  
(Signature)

Date: 9/25/17

THIS FORM MUST BE COMPLETED AND SUBMITTED WITH TECHNICAL PROPOSAL

RFP NO: 17-81 LOW BID TECHNICALLY ACCEPTABLE  
DESIGN BUILD SERVICES FOR BANNON LAKES 2.0 MG GROUND STORAGE TANK  
ATTACHMENT "B"

AFFIDAVIT OF SOLVENCY

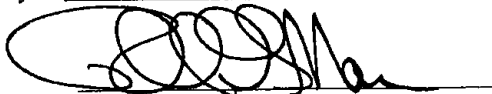
STATE OF FLORIDA )

COUNTY OF ALACHUA )

PERTAINING TO THE SOLVENCY OF Precon Corporation, being of lawful age and being duly sworn I, Richard G. Moore, as President (*ex. CEO, officer, president, duly authorized representative, etc.*) hereby certify under penalty of perjury that:

1. I have reviewed and am familiar with the financial status of above stated entity.
2. The above stated entity possesses adequate capital in relation to its business operations or any contemplated or undertaken transaction to timely pay its debts and liabilities (including, but not limited to, unliquidated liabilities, un-matured liabilities and contingent liabilities) as they become absolute and due.
3. The above stated entity has not, nor intends to, incur any debts and/or liabilities beyond its ability to timely pay such debts and/or liabilities as they become due.
4. I fully understand failure to make truthful disclosure of any fact or item of information contained herein may result in denial of the application, revocation of the Certificate of Public Necessity if granted and/or other action authorized by law.

The undersigned has executed this Affidavit of Solvency, in his/her capacity as a duly authorized representative of the above stated entity, and not individually, as of this 25th day of September, 2017.

  
Signature of Affiant

STATE OF FLORIDA )  
COUNTY OF ALACHUA )

Subscribed and sworn to before me this 25th day of September, 2017, by Richard G. Moore who personally appeared before me at the time of notarization, and who is personally known to me or who has produced \_\_\_\_\_ as identification.

  
Notary Public

My commission expires:  
\_\_\_\_\_





**RFP NO: 17-81 LOW BID TECHNICALLY ACCEPTABLE  
DESIGN BUILD SERVICES FOR BANNON LAKES 2.0 MG GROUND STORAGE TANK  
ATTACHMENT "G"**

**CLAIMS, LIENS, LITIGATION HISTORY**  
(Complete and Submit)

1. Within the past 7 years, has your organization filed suit or a formal claim against a project owner (as a prime or subcontractor) or been sued by or had a formal claim filed by an owner, subcontractor or supplier resulting from a construction dispute? Yes \_\_\_\_\_ No X If yes, please attach additional sheet(s) to include:

Description of every action Captions of the Litigation or Arbitration

Amount at issue: \_\_\_\_\_ Name (s) of the attorneys representing all parties:

Amount actually recovered, if any: \_\_\_\_\_

Name(s) of the project owner(s)/manager(s) to include address and phone number:

2. List all pending litigation and or arbitration. N/A
3. List and explain all litigation and arbitration within the past seven (7) years - pending, resolved, dismissed, etc. N/A
4. Within the past 7 years, please list all Liens, including Federal, State and Local, which have been filed against your Company. List in detail the type of Lien, date, amount and current status of each Lien.  
NONE

5. Have you ever abandoned a job, been terminated or had a performance/surety bond called to complete a job?  
Yes \_\_\_\_\_ No X If yes, please explain in detail:

6. For all claims filed against your company within the past five-(5) years, have all been resolved satisfactorily with final judgment in favor of your company within 90 days of the date the judgment became final? Yes \_\_\_\_\_ No \_\_\_\_\_  
If no, please explain why? N/A

7. List the status of all pending claims currently filed against your company:  
NONE

**Liquidated Damages**

Has a project owner ever withheld retainage, issued liquidated damages or made a claim against any Performance and Payment Bonds? Yes \_\_\_\_\_ No X If yes, please explain in detail: \_\_\_\_\_

(Use additional or supplemental pages as needed)

**SECTION 2**

**Key Personnel**

## **Design-Build Team**

Role of the design-build team: Design and Construction of 2.0 MG Prestressed Concrete Tank.

Precon Corporation  
115 SW 140<sup>th</sup> Terrace  
Newberry, FL 32669

Ph: 352-332-1200  
Fax: 352-332-1199

### **Project Manager:**

Pat Wheeler, PE  
Ph: 352-332-1200  
Cell: 352-215-1135  
[pjw@precontanks.com](mailto:pjw@precontanks.com)

### **Designer:**

Mort Vineyard, PE  
Ph: 352-332-1200  
Cell: 352-281-5452  
[mjv@precontanks.com](mailto:mjv@precontanks.com)

### **Key Personnel (resumes attached):**

Pat Wheeler, PE  
Mort Vineyard, PE  
Kurt Linebarger, PE  
Mike Pryor, Safety & Quality Control Administrator  
Tony Manie, Superintendent

PATRICK J. WHEELER, P.E.

- Project Manager
- Vice President, Precon Corporation

### Summary

EDUCATION: Bachelor of Science in Civil Engineering  
Rensselaer Polytechnic Institute, 1991

REGISTRATION: Professional Engineer  
FL, GA, NC, TN, VA

Mr. Wheeler has worked for Precon functioning as a Project Manager for over twenty years.

Mr. Wheeler completed four years in the U.S. Army Field Artillery upon graduation and was honorably discharged at the rank of Captain. In 1995 he started his employment with Precon and today holds the office of Vice President and serves as a Project Manager.

Typically, Mr. Wheeler manages those projects that are most complex and which involve extensive site preparation, piping, tank construction, and client relations.

Projects with applicability to the proposed project include:

- North Fulton County 4 MG Water Storage Tank, Fulton County, GA  
Project Manager responsible for the tank and project performance of tank and related work. Includes interaction with design engineer and owner.

Precon was the design, build lead on this project and contracted directly with the county. The project included a 4 MG reservoir along with interconnecting piping, valve vaults, extensive site work, landscaping, electrical, and paving at an undeveloped site. For the design phase of the project, Precon employed a local engineer and worked closely with him. The project involved a 4 MG reservoir 122' I.D. x 46' W.D. The project involved extensive excavation for the present tank and for a future tank in an environmentally sensitive area. The design involved working closely with the county and active citizen environmental groups. The project also included aesthetic fencing and interconnecting piping along with a valve vault with altitude valve controls and bypass piping. Much emphasis was placed on on-site landscaping to blend in and to hide the facility. All the work was self-performed with the exception of the electrical, instrumentation, and fencing. The project was finished timely with no disputes.

- Lanier Filter Plant Clearwell Improvements, Gwinnett County, GA  
Project Manager responsible for the tank and project performance of tank and related work. Includes interaction with design engineer and owner.

Precon constructed the 20 MG reservoir as a subcontract. The reservoir had dimensions of 290' I.D. and 41' W.D. The floor of the tank was cast in one pour. The walls were typical AWWA D-110 with wire prestressing and a diaphragm. The roof was a free span dome, 290' in diameter. The tank was finished timely with no disputes.

- Fiveash WTP Reservoir Addition, Ft. Lauderdale, FL  
Project Manager responsible for the tank and project performance of tank and related work. Includes interaction with design engineer and owner.

Precon was responsible for the entire project contracted as a general contractor directly with the city which included: 7,000,000 gallon reservoir, interconnecting piping, site work, landscaping, electrical, and paving at an existing water treatment plant.

The 7 MG reservoir had dimensions of 190' I.D. x 30' W.D. and was to match three others on the same site. The site preparation included dewatering, removal and replacement of 10' of excavated material. Piping included tying into existing lines and tanks, and consisted mostly of 30" D.I.P. but also included some up to 54". The work was self-performed except for landscape plants, electrical, asphalt paving, and some pipe installation. The project was finished timely with no disputes.

- Lithia WTP Expansion, Hillsborough County, FL  
Project Manager responsible for the tank and project performance of tank and related work. Includes interaction with design engineer and owner.

Precon was responsible for the entire project and functioned as a general contractor, contracting directly with the owner which included: 5,000,000 gallon reservoir, interconnecting piping, site work, landscaping, electrical, paving, instrumentation, valve and maintenance building, elevated aerator platforms at an existing water treatment plant.

The 5 MG reservoir had dimensions of 160' I.D. x 33' W.D. and was to match the two similar tanks on the same project. The site preparation was simple in that the tank was built close to the existing grade. The piping tie-ins involved reworking existing valve vaults, laying and tying in piping up to 54", steel and prestressed pipe. The work was self-performed except for the electrical and asphalt paving. The project was finished timely with no disputes.

MORT VINEYARD, P.E.  
- Chief Engineer

EDUCATION: Bachelor of Science in Civil Engineering  
University of Florida, 1998

REGISTRATION: Professional Engineer  
FL, GA, AL

Mr. Vineyard completed his education at the University of Florida and upon completion started his employment with Precon. Mr. Vineyard received his professional engineering certificate in 2002.

Below is a list of projects that Mr. Vineyard acted as project manager and/or the engineer in charge:

- Hillsborough County, FL: 2 - 5 MG Reclaimed Water Storage Tanks 150'-0" I.D. x 38'-0" W.H.  
Project Manager responsible for the tank and project performance of tank and related work. Includes interaction with design engineer and owner.
- Hillsborough County, FL: 2 - 1 MG Clarifiers, 110'-0" I.D. x 16'-2-1/2" W.H.
- Paulding County, GA: 2 MG Reject Water Storage Tank, 105'-0" I.D. x 33'-0" W.H.
- Rockdale County, GA: 0.95 MG Gallon Sludge Holding Tank, 90'-0" I.D. x 20'-3" W.H.
- Forsyth County, GA: 20 MG Raw Water Tank, 290'-0" I.D. x 40'-6" W.D.
- Pinellas County, FL: 5 MG Ground Storage Tank, 180'-0" I.D. x 26'-4" W.D.
- Orange County, FL: 3 MG Storage Tank, 120'-0" I.D. x 35'-6" W.D.
- Plant City, FL: 4 MG Water Storage Tank, 120'-0" I.D. x 47'-0" W.D.
- Sebring, FL: 0.25 MG Ground Storage Tank, 50'-0" I.D. x 17'-0" W.D.
- City of Valdosta, GA: 0.5 MG Gallon Ground Storage Tank 65'-0" I.D. x 20'-2" W.D.
- Orange County, FL: 3 MG Ground Storage Tank, 130'-0" I.D. x 30'-3" W.D.
- Key Largo WTD: 1 MG Digester, 78'-0" I.D. x 29'-8" W.D.
- City of Oxford, NC: 1 MG Equalization Tank, 85'-0" I.D. x 23'-7" W.D.

KURT LINEBARGER, P.E.  
- Project Engineer

EDUCATION: Bachelor of Science in Civil Engineering  
University of Florida, 1996

REGISTRATION: Professional Engineer  
FL, SC

Mr. Linebarger completed his education at the University of Florida and upon completion started his employment with Precon. Mr. Linebarger received his professional engineering certificate in 1996.

Below is a list of projects that Mr. Linebarger acted as project manager and/or the engineer in charge:

- Orange County, FL: 2.0 MG Finish Water Storage Tank 100'-0" I.D. x 34'-1" W.D.
- Dover, FL: 150,000 Gallon Reservoir with Aerator 30'-0" I.D. x 38'-0" W.H.
- Polk County, FL: 2.0 MG Ground Storage Tank 110'-0" I.D. x 28'-6" W.D.
- City of North Port, FL: 2.5 MG Reuse Water Storage Tank 115'-0" I.D. x 32'-2" W.D.
- Hernando County, FL: Three 2.0 MG Ground Storage Tanks 105'-0" I.D. x 30'-11" W.D.
- City of West Melbourne, FL: 3.0 MG Reuse Water Storage Tank 125'-0" I.D. x 32'-9" W.D.
- Indian River County, FL: 3.0 MG Ground Storage Tank 110'-0" I.D. x 43'-3" W.D.
- Greenville, SC: Two 2.5 MG Biosolids Storage Tanks 110'-0" I.D. x 37'-0" W.D.  
475,000 Gallon DBHT 68'-3" I.D. x 20'-6" W.D.
- City of Columbia, SC: 5.0 MG Clearwell 206'-0" I.D. x 20'-0" W.D.
- City of Cocoa, FL: 5.0 MG Ground Storage Tank 164'-0" I.D. x 31'-6" W.D.

**MICHAEL W. PRYOR**

- Safety & Quality Control

EDUCATION:       A.A. Degree  
                      Columbia College, Columbia, MO 1985

Mr. Pryor retired from the U.S. Navy in 1997. During his career in the Navy he received formal Instructor Training and was a certified Master Training Specialist. His assignments included Quality Assurance Inspector on aircraft emergency and survival systems.

Mr. Pryor began his career with Precon in 2000 as its Safety & Quality Control Administrator. He is responsible for teaching field personnel the skills and techniques of specialty tank construction as well as safety training.

## TONY MANIE

- Field Superintendent

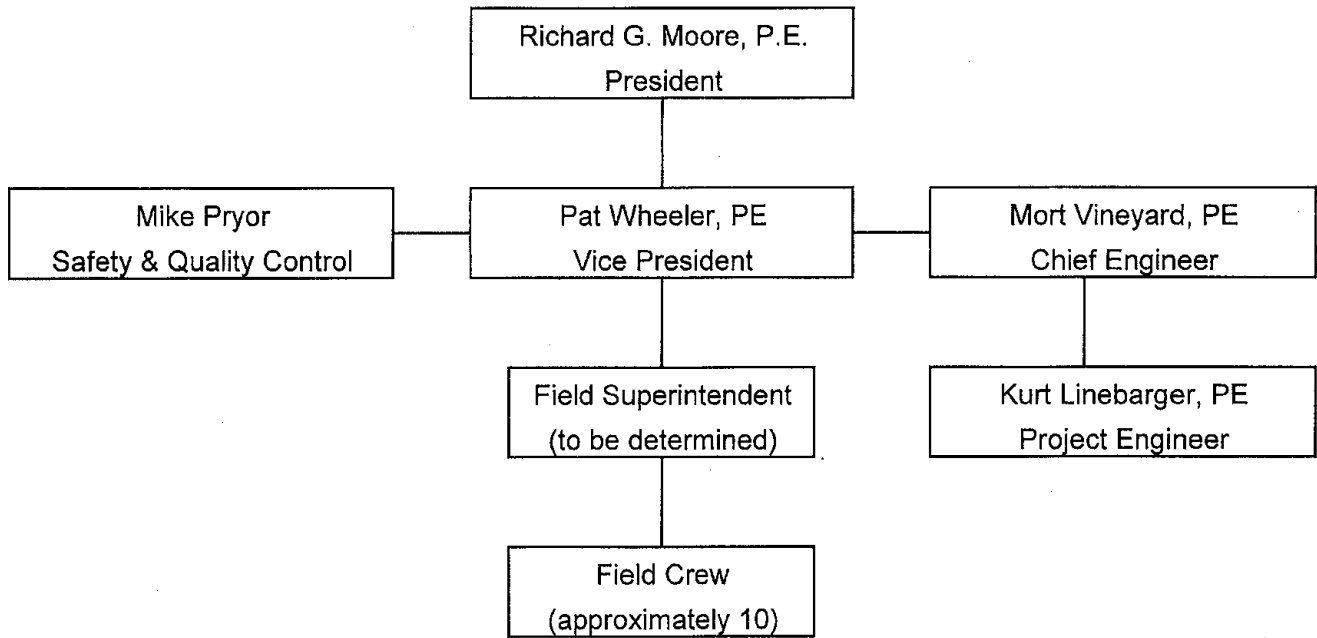
Mr. Manie has been with Precon since 1990. He has worked as a field superintendent for 27 years constructing prestressed tanks. He typically builds the biggest and most complex projects. Mr. Manie was the superintendent responsible for the field construction of the following tanks:

1. Kicklighter 1.5 MGD WRF, City of Lake City, FL (2017)  
1.121 MG Oxidation Ditch, 221'-0" L x 48'-0" W x 15'-0" H  
Two 0.423 MG Digesters, 56'-0" I.D. x 23'-0" W.H.  
Two 0.38 MG Clarifiers, 62'-0" I.D. x 16'-9" W.H.
2. CR 214 WTP, St. Johns County Utility Department, St. Johns County, FL (2016)  
2.0 MG Ground Storage Tank, 120'-0" I.D. x 23'-6" W.D.
3. Kicklighter 1.5 MGD WRF, City of Lake City, FL (2015)  
1.121 MG Oxidation Ditch, 221'-0" L x 48'-0" W x 15'-0" H  
Two 0.423 MG Digesters, 56'-0" I.D. x 23'-0" W.H.  
Two 0.38 MG Clarifiers, 62'-0" I.D. x 16'-9" W.H.
4. Roswell WTP, City of Roswell, GA (2014)  
10.0 MG Raw Water Tank, 185'-0" I.D x 51'-0" W.H  
.37 MG Clearwell, 60'-0" I.D. x 17'-6" W.H.
5. Peachtree Creek Pump Station, Atlanta, GA (2013)  
10.0 MG Equalization Tank  
185'-0" I.D. x 52'-0" W.H.

PRECON CORPORATION  
Organization Chart

RFP No. 17-81

Design Build Services for Bannon Lakes 2.0 MG Ground Storage Tank



**SECTION 3.**

**Team Credentials**

**Licenses/Certifications for Contractor and Design Consultant**

Florida General Contractor License (copy attached)

Florida Professional Engineer License (copies attached):

Richard G. Moore, PE

Patrick J. Wheeler, PE

Morton J. Vineyard, PE

Kurt A. Linebarger, PE

RICK SCOTT, GOVERNOR

KEN LAWSON, SECRETARY

STATE OF FLORIDA  
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION  
CONSTRUCTION INDUSTRY LICENSING BOARD



LICENSE NUMBER

CGC002671

The GENERAL CONTRACTOR  
Named below IS CERTIFIED  
Under the provisions of Chapter 489 FS.  
Expiration date: AUG 31, 2018

MOORE, RICHARD G.  
PRECON CORPORATION  
115 NW 140TH TER  
NEWBERRY FL 32669-9667



ISSUED: 08/21/2016

DISPLAY AS REQUIRED BY LAW

SEQ # L1608210003367

# State of Florida

## Board of Professional Engineers

Attests that

**Richard G. Moore , P.E.**



**FBPE**  
FLORIDA BOARD OF  
PROFESSIONAL ENGINEERS

**Is licensed as a Professional Engineer under Chapter 471, Florida Statutes**

**P.E. Lic. No:**

**13159**

**Expiration: 2/28/2019**

**Audit No: 228201921944 R**

# State of Florida

## Board of Professional Engineers

Attests that

**Patrick Jay Wheeler, P.E.**



**FBPE**  
FLORIDA BOARD OF  
PROFESSIONAL ENGINEERS

**Is licensed as a Professional Engineer under Chapter 471, Florida Statutes**

**Expiration: 2/28/2019**

**Audit No: 228201902610 R**

**P.E. Lic. No:**

**55554**

# State of Florida

## Board of Professional Engineers

Attests that

**Morton John Vineyard , P.E.**



**FBPE**  
FLORIDA BOARD OF  
PROFESSIONAL ENGINEERS

**Is licensed as a Professional Engineer under Chapter 471, Florida Statutes**

**Expiration: 2/28/2019**

**Audit No: 228201914112 R**

**P.E. Lic. No:**

**58798**

# State of Florida

## Board of Professional Engineers

Attests that

**Kurt Austin Linebarger , P.E.**



**Is licensed as a Professional Engineer under Chapter 471, Florida Statutes**

**Expiration: 2/28/2019**

**Audit No: 228201929395 R**

**P.E. Lic. No:**

**58095**

**Proof of Insurance**



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

7/29/2017

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

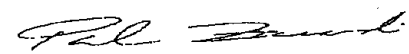
<b>PRODUCER</b> Lassiter-Ware Insurance of Maitland 2701 Maitland Center Parkway Suite 125 Maitland FL 32751	<b>CONTACT NAME:</b> Anne Edwards <b>PHONE (A/C No. Ext):</b> (800) 845-8437 <b>FAX (A/C No):</b> (888) 883-8680 <b>E-MAIL ADDRESS:</b> AnneE@lassiter-ware.com													
	<table border="1"> <thead> <tr> <th>INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> </thead> <tbody> <tr> <td>INSURER A: Amerisure Mutual Insurance Company</td> <td>23396</td> </tr> <tr> <td>INSURER B: Amerisure Insurance Company</td> <td>19488</td> </tr> <tr> <td>INSURER C: Crum &amp; Forster Specialty Insurance</td> <td>44520</td> </tr> <tr> <td>INSURER D:</td> <td></td> </tr> <tr> <td>INSURER E:</td> <td></td> </tr> <tr> <td>INSURER F:</td> <td></td> </tr> </tbody> </table>	INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A: Amerisure Mutual Insurance Company	23396	INSURER B: Amerisure Insurance Company	19488	INSURER C: Crum & Forster Specialty Insurance	44520	INSURER D:		INSURER E:		INSURER F:
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INSURER D:														
INSURER E:														
INSURER F:														
<b>INSURED</b> Precon Corporation 115 S.W. 140 Terrace Newberry FL 32669														

**COVERAGES**      **CERTIFICATE NUMBER:** 17-18 Rev Ren Mast      **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY			CPP20856700301	1/1/2017	1/1/2018	EACH OCCURRENCE \$ 1,000,000
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000
	<input checked="" type="checkbox"/> Contractual Liability						MED EXP (Any one person) \$ 10,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						PERSONAL & ADV INJURY \$ 1,000,000
	<input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC						GENERAL AGGREGATE \$ 2,000,000
	OTHER:						PRODUCTS - COMP/OP AGG \$ 2,000,000
B	AUTOMOBILE LIABILITY			CA20590690901	1/1/2017	1/1/2018	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000
	<input checked="" type="checkbox"/> ANY AUTO ALL OWNED AUTOS	<input type="checkbox"/> SCHEDULED AUTOS					BODILY INJURY (Per person) \$
	<input checked="" type="checkbox"/> HIRED AUTOS	<input checked="" type="checkbox"/> NON-OWNED AUTOS					BODILY INJURY (Per accident) \$
							PROPERTY DAMAGE (Per accident) \$
							PIP \$ 10,000
A	<input checked="" type="checkbox"/> UMBRELLA LIAB	<input checked="" type="checkbox"/> OCCUR		CPP20856700301	1/1/2017	1/1/2018	EACH OCCURRENCE \$ 5,000,000
	<input type="checkbox"/> EXCESS LIAB	<input type="checkbox"/> CLAIMS-MADE					AGGREGATE \$ 5,000,000
	DED <input checked="" type="checkbox"/> RETENTION \$ 0						\$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			WC207400707	1/1/2017	1/1/2018	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	N/A				E.L. EACH ACCIDENT \$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE \$ 1,000,000
							E.L. DISEASE - POLICY LIMIT \$ 1,000,000
C	Pollution/Prof Liab \$10k Ded			PKC-105906	7/15/2017	7/15/2018	Commercial Aggregate \$5,000,000
A	Inland Marine			CPP20856700301	1/1/2017	1/1/2018	Rented/Leased Equipment \$250,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

<b>CERTIFICATE HOLDER</b>  "For Illustrated Purposes Only"	<b>CANCELLATION</b> SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	<b>AUTHORIZED REPRESENTATIVE</b> Paul Ziccardi/ANNEE 

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**Evidence of Bonding Capability**



# FLORIDA SURETY BONDS, INC.

620 N. Wymore Road Suite 200  
Maitland FL 32751  
(407) 786-7770 Fax (407) 786-7766

August 23, 2016

Re: Precon Corporation

To Whom It May Concern:

We are pleased to be the surety agents for Precon Corporation. Bonds are currently written through Great American Insurance Company which is A.M. Best Rated "A+,XIV" and has a Treasury Listing of \$152,110,000.

We have investigated the financial capabilities, performance references, and think you'll be pleased with the quality of their work.

We usually anticipate no difficulties in providing surety bonds for Precon Corporation in the \$25,000,000 single, \$50,000,000 aggregate range. This letter is not a commitment to provide any bonds unless all underwriting requirements including contract, bond form and financing review are met prior to issuing any bonds. Neither our agency, nor the surety are liable for any damages relating to this letter or project.

Should you have any questions, please do not hesitate to contact us.

Sincerely,

Jeffrey W. Reich  
CPCU  
President

**SECTION 4.**

**Previous Project Experience**

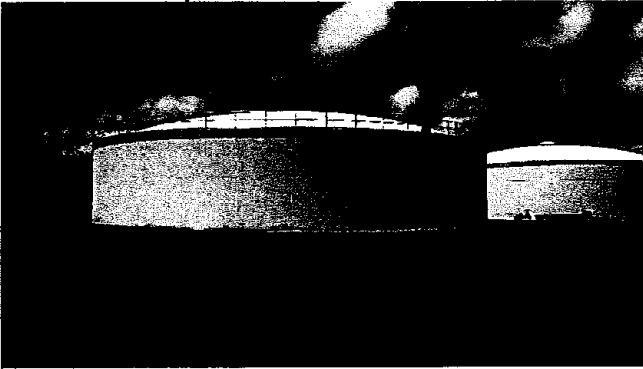
**Previous Project Experience:**

<u>Project Name/Description</u>	<u>Owner</u>	<u>Value</u>	<u>Completion Date</u>
St. Augustine, FL 2,000,000 Gallon Ground Storage Tank 120'-0" I.D. x 23'-6" W.D.	St. Johns County, FL Scott Trigg 904-209-2622	1.1M +/-	6/16
St. Augustine, FL 1,500,000 Gallon Reuse Ground Storage Tank 100'-0" I.D. x 25'-6" W.D.	St. Johns County, FL Scott Trigg 904-209-2622	.75M +/-	10/15
Clermont, FL 3,000,000 Gallon Reclaimed Storage Tank 160'-0" I.D. x 20'-2" W.H.	City of Clermont Clermont, FL James Kinzier Director of Utilities 352-241-0178	1.5M +/-	7/14
Alexandria, LA 1,000,000 Gallon Ground Storage Tank 75'-0" I.D. x 30'-4" W.D.	City of Alexandria Alexandria, LA Heath McGuffee, PE (Engineer) 318-448-0888	.6M +/-	12/14
LaFayette, GA 2,000,000 Gallon Ground Storage Tank 85'-0" I.D. x 47'-5" W.D.	City of LaFayette, GA Wally Meeks 706-639-1556	1.1M +/-	8/15
Nokomis, FL 7,500,000 Gallon Reclaimed Water 190'-0" I.D. x 35'-6" W.H.	City of Venice Venice, FL Tim Hochuli, PE 941-486-2788 x277	3.0M +/-	2/14
Alcoa, TN 2 - 6,000,000 Gallon Reservoirs 190'-0" I.D. x 28'-6" W.D.	City of Alcoa Alcoa, TN Simon deVente, PE Asst. Director 865-380-4810	4.5M +/-	8/12
Columbus, GA 2 - 4,000,000 Gal. Raw Water Storage Tanks 148'-0" I.D. x 34'-0" W.H.	Columbus Water Works Columbus, GA Lynn Campbell, V.P. 706-649-3459	2.0M +/-	6/10
Ellijay, GA 6,000,000 Gallon Ground Storage Tank 150'-0" I.D. x 45'-5" W.D.	Ellijay/Gilmer County WSA Ellijay, GA Emory Debord, Utilities Dir. 706-276-2202	1.8M +/-	12/09
Macon, GA 1,500,000 Gallon Ground Storage Tank 110'-0" I.D. x 21'-1" W.D.	Macon Water Authority Randy Smith, Utilities Director 478-464-5635	.7M +/-	10/08

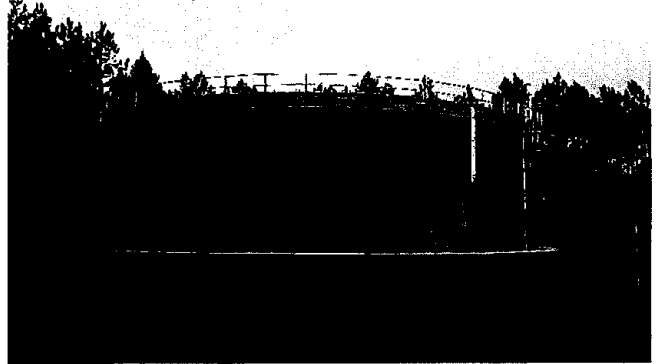
(see photos next page)

**Photos**

St. Johns County, FL



St. Johns County, FL



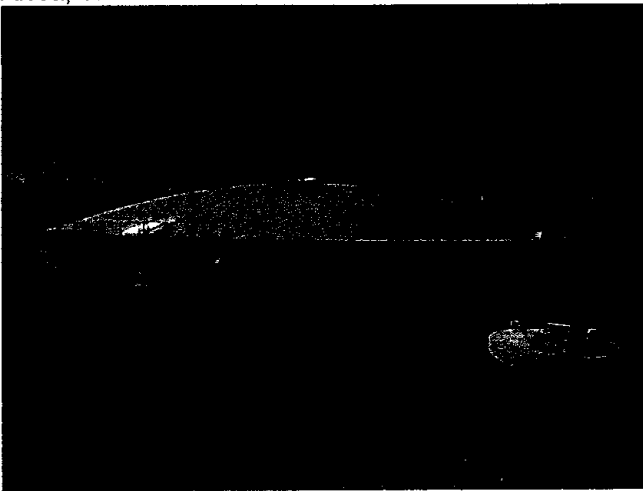
Alexandria, LA



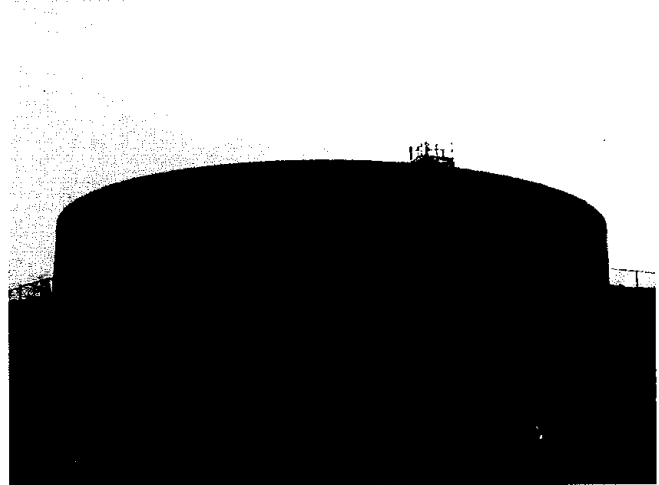
LaFayette, GA



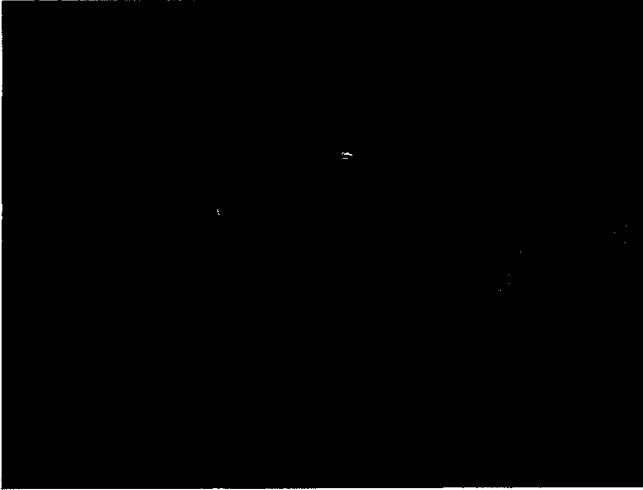
Alcoa, TN



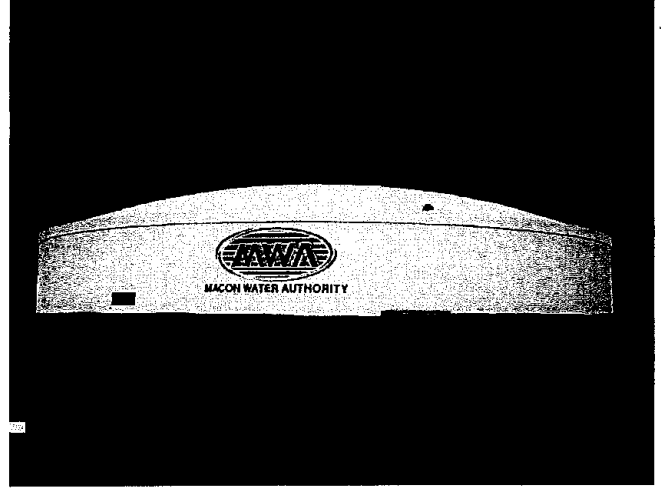
Columbus, GA



Ellijay, GA



Macon, GA



## Tank Designer/Manufacturer:

<u>YEAR</u>	<u>STRUCTURE</u>	<u>ENGINEER</u>	<u>OWNER</u>
2011	5,000,000 Gallon Reclaimed Water GST 160'-0" I.D. x 33'-3 -1/4" W.D. 4,000,000 Gallon GST 156'-0" I.D. x 28'-4" W.D.	Baskerville-Donovan, Inc. Panama City Beach, FL Scott Jernigan, PE 850-438-9661	City of Panama City Beach Panama City Beach, FL Al Shortt, PE 850-233-5054
2011	2,000,000 Gallon Reservoir 100'-0" I.D. x 34'-10" W.D.	Kellahan & Associates Kingstree, SC Myron Kellahan 843-355-9285	Alligator Rural Water & Sewer Co. McBee, SC Glen Odom 843-335-6464
2011	1,000,000 Gallon EQ Tank 2 75'-0" I.D. x 34'-1" W.D.	CH2MHill Dallas, TX James Nagel 972-663-2286	Town of Mooresville Mooresville, NC Chad Jarrell 704-663-2840
2012	Two - 6,000,000 Gallon Reservoirs 190'-0" I.D. x 28'-6" W.D.	Smith Seckman Reid, Inc. Knoxville, TN Brent Fowler, PE 615-383-1113	City of Alcoa Alcoa, TN Simon deVente, PE 865-380-4810
2012	Two - 80,000 Gallon Storage Tanks 36'-0" I.D. x 12'-0" W.D.	Beeson-Rosier Group Easley, SC Troy Rosier, PE 864-859-6900	Blue Ridge Rural Water Company, Inc. Greer, SC Brad Poweres 864-895-1719
2012	2,000,000 Gallon Storage Tank 105'-0" I.D. x 30'-11" W.D.	Jacobs Knoxville, TN David Kiefer, PE 865-966-1000	Knox Chapman Utility District Knoxville, TN Jerry Mason 865-577-4497
2012	3,000,000 Gallon EQ Tank 126'-0" I.D. x 36'-0" W.D. 7,000,000 Gallon EQ Tank 190'-0" I.D. x 34'-6" W.D.	Brown & Caldwell Columbia, SC Jay Mazzei 803-873-9701	City of Columbia Columbia, SC Michael Sheu 803-545-3327
2012	1,000,000 Gallon Clearwell 96'-0" I.D. x 18'-6" W.D.	Cannon & Cannon, Inc. Knoxville, TN Ted Armstrong 813-810-7839	Northeast Knox Utility District Corryton, TN M.C. Deck, Jr. 931-484-6987
2012	1,000,000 Gallon Equalization Tank 90'-0" I.D. x 21'-0" W.D.	McGill Associates Knoxville, TN Keith Webb, PE 828-252-0575	City of Gatlinburg Gatlinburg, TN Bill Ehrenbeck 865-436-6226
2012	350,000 Gallon Storage Tank 65'-3" I.D. x 14'-0" W.D.	McKim & Creed Palm Coast, FL Ryan Popko, PE 386-246-6300	City of Bunnell Bunnell, FL Bill Green 386-586-5191
2013	400,000 Gallon Sludge Holding Tank 70'-0" I.D. x 16'-0" W.D.	Marziano & McGougan, PA Conway, SC Joe McCougan 843-488-0124	Grand Strand Water & Sewer Authority Conway, SC Tim Brown 843-443-8248
2013	Two - 2,700,000 Gallon Clarifiers 147'-4" I.D. x 22'-0" W.D.	Constantine Engineering Warner Robins, GA Jim Kizer 478-225-4674	City of Warner Robins Warner Robins, GA Charlie Beauchea 478-302-5443

<u>YEAR</u>	<u>STRUCTURE</u>	<u>ENGINEER</u>	<u>OWNER</u>
2013	3,000,000 Gallon Reclaimed Water Storage Tank 160'-0" I.D. x 20'-2" W.D.	Tetra Tech Orlando, FL Jon Fox, PE 407-839-3955	City of Clermont Clermont, FL Bob Reed 352-394-4081
2013	Two - 3,000,000 Gallon Clearwell 120'-0" I.D. x 35'-6" W.D.	CDM Smith Tampa, FL Gina Cashon, PE 813-281-2900	City of Clearwater Clearwater, FL Fred Hemrick 727-224-7993
2013	2,000,000 Gallon Reclaimed Storage Tank 100'-0" I.D. x 34'-1" W.D. 500,000 Gallon Sludge Holding Tank 65'-0" I.D. x 18'-9" W.D. Two - 600,000 Gallon Clarifiers 75'-0" I.D. x 18'-1" W.H.	CDM Smith Jacksonville, FL Cecile Toupiol, PE 904-527-6720	St. Johns County Utility Department St. Augustine, FL Scott Trigg 904-209-2622
2014	7,500,000 Gallon Reclaimed Water Storage Tank 190'-0" I.D. x 35'-6" W.D.	Atkins North America, Inc. Sarasota, FL John Eash, PE 941-378-0272	City of Venice Venice, FL Tim Hochuli, PE 941-486-2788
2014	1,000,000 Gallon Clearwell 120'-0" I.D. x 12'-0" W.D.	Engineering Strategies, Inc. Marietta, GA Pedro Rossello 770-429-0001	City of Griffin Griffin, GA Mike Melton 678-692-0407
2014	4,000,000 Gallon Equalization Tank 175'-0" I.D. x 22'-0" W.D.	CH2MHill Atlanta, GA Chris Carr 678-327-3936	Forsyth County Dept. of Water & Sewer Cumming, GA Curtis Bokey 678-618-1127
2014	1,000,000 Gallon Digester 78'-0" I.D. x 29'-8" W.D.	Weiler Engineering Marathon, FL Ed Castile, PE 305-289-4161	KLWTD Key Largo, FL Daniel Saus 305-451-4019 x308
2014	1,000,000 Gallon Ground Storage Tank 75'-0" I.D. x 30'-4" W.D.	Meyer, Meyer, La Croix & Hixson Alexandria, LA Heath McGuffee, PE 318-448-0888	City of Alexandria Alexandria, LA Harlan Bass 318-441-6062
2014	3,000,000 Gallon Reclaimed Water Storage Tank 145'-0" I.D. x 24'-3" W.D.		City of Apopka Apopka, FL
2014	2,000,000 Gallon Ground Storage Tank 85'-0" I.D. x 47'-5" W.D.	Sweitzer Engineering, Inc. Cartersville, GA John Sweitzer 678-569-4290	City of Lafayette LaFayette, GA Wally Meeks 706-639-1556
2014	3,000,000 Gallon Ground Storage Tank 110'-0" I.D. x 49'-3" W.D.	CDM Smith Mt. Pleasant, SC Walter Lagarenne, Jr., PE 843-972-4548	Charleston Water System Charleston, SC James Wilson, PE 843-727-6878
2014	15,000,000 Gallon Reject Water Storage Tank 225'-0" I.D. x 51'-6" W.D.	URS Tampa, FL Rebecca Avalos 813-286-1711	City of St. Petersburg St. Petersburg, FL Michael Ryle, PE 727-893-7400

<u>YEAR</u>	<u>STRUCTURE</u>	<u>ENGINEER</u>	<u>OWNER</u>
2015	750,000 Gallon Ground Storage Tank 75'-0" I.D. x 22'-8" W.D.	Watkins & Associates, LLC Tifton, GA Stacy Watkins, PE 229-388-8823	City of Cairo Cairo, GA Raymond Stokes 229-377-1722 x140

# Certificate of Completion

*This verifies that*

**Tony Manie**

is certified as a

**Shotcrete Nozzlemann**

In Substantial Accordance with ACI 506R-05 and CP-60(09)



*We're here for you*

**UNITED CONSULTING**

United Consulting  
625 Holcomb Bridge Road  
Norcross, GA 30071  
(770) 209-0029

August 16, 2013

Exam Date

August 16, 2016

Expiration Date

Patrick J. Carr, P.E.  
Proctor

Timothy J. Beck, P.G.  
Proctor

**SECTION 5.**

**Project Understanding and Approach**

## Project Understanding and Approach

The St. Johns County Bannon Lakes ground storage tank project involves three components. The approach to each is outlined below:

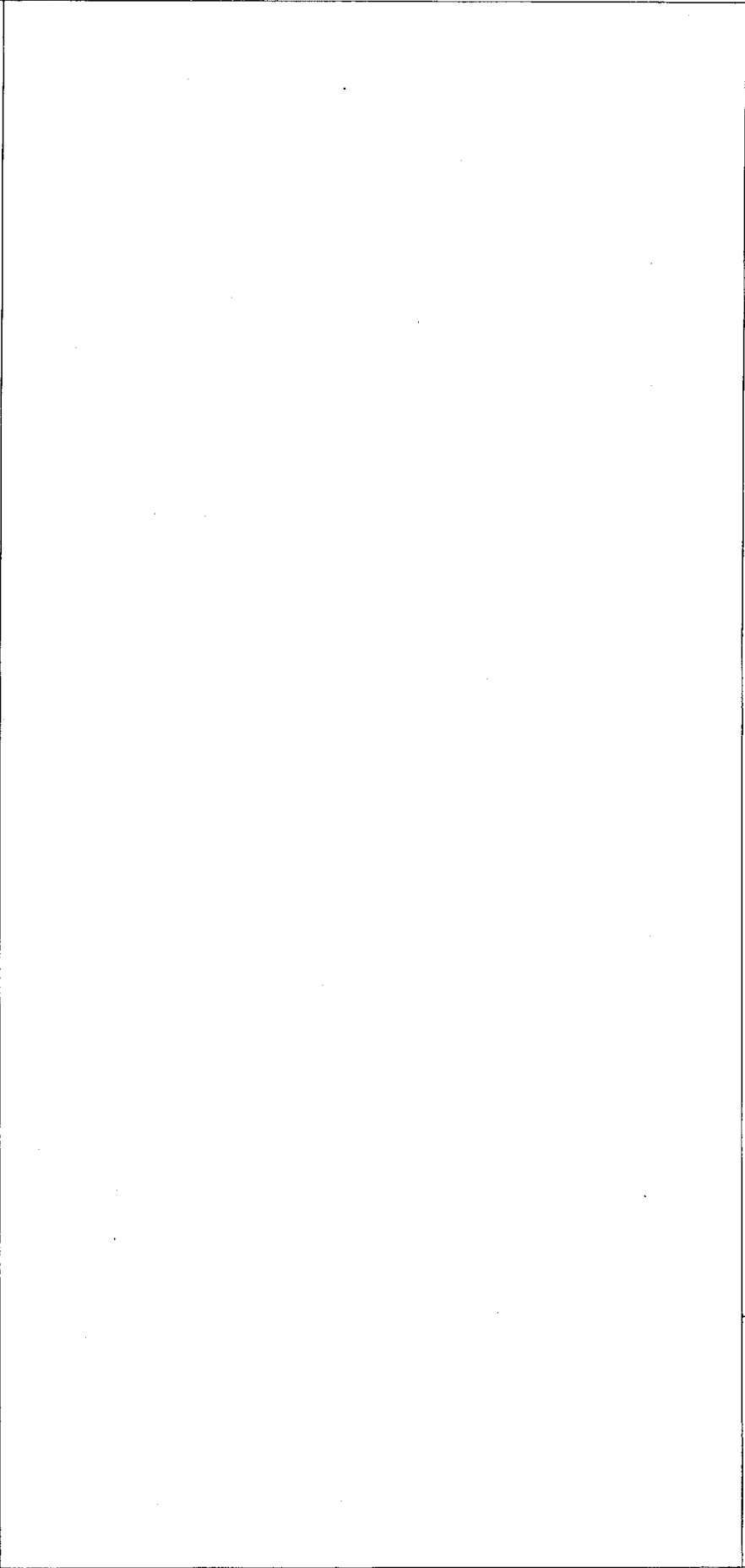
### Components

1. Site work – The site work for the project consists of excavating approximately 4" of soil to achieve the subgrade of the tank. The excavated material will remain to backfill the tank upon completion. The subgrade following preparation will be verified for compaction with use of proof rolling and soils engineer observation.
2. Piping – The piping is minor in nature but will require close supervision during installation for quality control. The piping after installation will be pressure tested to insure proper installation. The piping will be designed and installed per industry standards and St. Johns County construction standards.
3. Tank – The tank is of standard size. This tank as all of our tanks will be designed by an engineer with more than 10 years of experience in prestressed concrete tank design. This design will be reviewed by a fellow engineer for quality control. Upon construction, all tank reinforcing installation will be inspected by a professional engineer prior to concrete encasement. A professional engineer will visit the field crew installing the tank at every critical point of construction and at a minimum once a week to insure the tank is of the highest quality. The tank will be designed and constructed per AWWA D-110 and ACI 372 standards.

**SECTION 6.**

**Proposed Project Schedule**

Act ID	Description	Orig Dur	Rem Dur	Early Start	Early Finish	2018														
						NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT			
1000	Notice of Award	5d	5d	24NOV17	30NOV17															
1010	Execution of Contract	5d	5d	24NOV17	30NOV17															
1020	Preconstruction Meeting	1d	1d	01DEC17	01DEC17															
1030	Submittals	20d	20d	01DEC17	29DEC17															
1040	Construction Schedule prepared	20d	20d	01DEC17	29DEC17															
1050	Site Work	5d	5d	02JAN18	08JAN18															
1060	Piping	10d	10d	09JAN18	22JAN18															
1070	Tank Construction	110d	110d	23JAN18	25JUN18															
1080	Final Site Work and Closeout	10d	10d	26JUN18	10JUL18															



**Precon Corporation**  
**Bannon Lakes Ground Storage Tank**

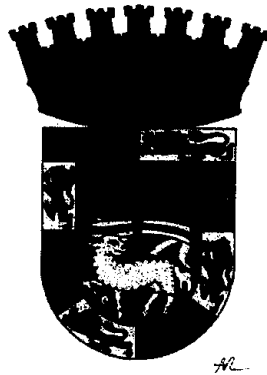
Start date	24NOV17
Finish date	10JUL18
Data date	24NOV17
Run date	22SEP17
Page number	1A
© Primavera Systems, Inc.	

**SECTION 7.**

**References**

## Design-Build Projects

<u>Project</u>	<u>Owner</u>	<u>Contract Value</u>	<u>Completion Date</u>
2.0 MG Ground Storage Tank 85'-0" I.D. x 47'-5" W.D.	City of LaFayette, GA Wally Meeks 706-639-1556	1.05M +/-	2/14
7.5 MG Reclaimed Water GST 190'-0" I.D. x 35'-6" W.H.	City of Venice, FL Tim Hochuli, PE 941-486-2788x227	2.8M +/-	11/13
1.5 MG Reuse Storage Tank 100'-0" I.D. x 25'-6" W.D.	St. Johns County Utility Dept. Scott Trigg 904-209-2622	.76M +/-	10/15



**ST. JOHNS COUNTY  
BOARD OF COUNTY COMMISSIONERS**

**RFP NO: 17-81**

**LOW BID TECHNICALLY ACCEPTABLE**

**DESIGN BUILD SERVICES FOR BANNON LAKES  
2.0 MG GROUND STORAGE TANK**

**St. Johns County Purchasing Department  
500 San Sebastian View  
St. Augustine, FL 32084  
(904) 209-0150**

**Final: 08/28/17**

**RFP NO: 17-81 LOW BID TECHNICALLY ACCEPTABLE  
DESIGN BUILD SERVICES FOR BANNON LAKES 2.0 MG GROUND STORAGE TANK**

**TABLE OF CONTENTS**

- I. ADVERTISEMENT**
- II. INTRODUCTION**
- III. GENERAL INFORMATION**
- IV. PROJECT REQUIREMENTS**
- V. DESIGN/CONSTRUCTION CRITERIA**
- VI. COUNTY RESPONSIBILITIES**
- VII. TECHNICAL PROPOSAL REQUIREMENT**
- VIII. BID PRICE PROPOSAL REQUIREMENTS**
- IX. FORMS AND ATTACHMENTS**
- X. APPENDICES**

- A. Appendix A - Geotechnical Exploration for Bannon Lakes 2.0 MG Ground Storage Tank dated July 19, 2017
- B. Appendix B – Drawing Sheets C-3, CD-1, and MD-1.
- C. Appendix C – Specification Section 13216 – Wire Wrapped Prestressed Concrete Tank**

**Note:** St. Johns County Utility Department Manual of Water, Wastewater and Reuse Design Standards and Specifications are available on line at: <http://www.sjcfll.us/Utilities/media/DevGroup/WaterStds&SpecsManual.pdf>

The Appendices listed herein are by this reference and are hereby incorporated into and made a part of this Request for Proposal (RFP) as though fully set forth herein.

**RFP NO: 17-81 LOW BID TECHNICALLY ACCEPTABLE  
DESIGN BUILD SERVICES FOR BANNON LAKES 2.0 MG GROUND STORAGE TANK**

**I. ADVERTISEMENT**

Notice is hereby given that the St. Johns County Board of County Commissioners Purchasing Department is soliciting Request for Proposal packages for **RFP: 17-81 LOW BID TECHNICALLY ACCEPTABLE DESIGN BUILD SERVICES FOR BANNON LAKES 2.0 MG GROUND STORAGE TANK**. Interested and qualified respondents may submit Proposal Packages, in accordance with the requirements provided herein, to the St. Johns County Purchasing Department located at 500 San Sebastian View, St. Augustine, FL 32084. All Proposal Packages are due by or before 4:00PM (EST) on **Thursday, September 28, 2017**. Any packages delivered to or received after the 4:00PM deadline will not be considered and shall be returned unopened to the addressee.

The purpose of this Request for Proposal (RFP) is to solicit competitive bids and technical proposals for Design-Build services for the Bannan Lakes Ground Storage Tank project. The project includes services to design, construct, and test water-tightness of one 2.0 million gallon circular wire wrapped pre-stressed concrete reclaimed water ground storage tank with concrete dome roof and rainfall captive system. The project shall generally include but may not be limited to preparing design drawings; permitting services; testing, restoration, and providing project documentation such as as-built drawings.

Documents related to this Request for Proposals (RFP) may be obtained from Onvia DemandStar, Inc., at the following web address: [www.demandstar.com](http://www.demandstar.com) by requesting St. Johns County RFP Document #17-81. For technical assistance with this Website please contact Onvia Supplier Services at 1-800-711-1712. A link to the Onvia DemandStar website is available through the St. Johns County Purchasing Website by clicking on the following link: [www.sjcfl.us/Purchasing/OpenBids.aspx](http://www.sjcfl.us/Purchasing/OpenBids.aspx). Check the County's site for download availability and any applicable fees. RFP Documents may also be requested, *in writing*, from the St. Johns County Purchasing Department Point of Contact, Leigh Daniels, via email: [ldaniels@sjcfl.us](mailto:ldaniels@sjcfl.us) or fax:(904) 209-0154.

**Minimum Qualifications**

The Design-Build team shall consist of a qualified Prime Contractor and Licensed Design Professionals. The Design Build primary team members shall have each successfully completed a minimum of three (3) Design Build projects of the scope and dollar value of that being proposed in the past seven (7) years and meet the minimum qualifications as outlined in the Request for Proposal (RFP). The tank manufacturer, whether a team member or Prime Design Build Contractor, shall have designed, constructed, and put into operation a minimum of 10 wire and strand wrapped prestressed concrete tanks with domes roofs conforming to AWWA D110 with Type II core walls in the last 10 years of similar size to this project. The tank construction superintendent and nozzleman shall have constructed in the past 5 years a minimum of five AWWA D110, Type II, wire-wound, circular dome-covered prestressed composite tanks of equal or greater size of this project.

There will be a Non-Mandatory Pre-Submittal meeting on **Thursday, September 7, 2017 at 9:30 a.m.** at the **St. Johns County Utility Department**, located at **1205 State Road 16, St. Augustine, FL 32084**. All firms interested in submitting a Request for Proposal Package are invited to attend this meeting. A site visit will be available following the Pre-Submittal meeting (weather permitting). Attendance at this meeting is not required, but encouraged to ensure a full understanding of the requirements provided in this RFP document, and associated project.

All questions/inquiries related to this RFP must be submitted *in writing*, and directed to the County's Designated Point of Contact: Leigh A. Daniels, CPPB, Procurement Supervisor, via email to [ldaniels@sjcfl.us](mailto:ldaniels@sjcfl.us) or fax to (904) 209-0154. The deadline for submitting **ALL** questions/inquiries related to this RFP shall be **4:00 PM (EST), Monday, September 18, 2017**. Any questions/inquiries received after the specified deadline will not be considered for response.

**Vendors shall not contact, lobby, or otherwise communicate with any SJC employee, including any member of the Board of County Commissioners, other than the above referenced individual from the point of advertisement of the solicitation, until contract(s) are executed by all parties, per SJC Purchasing Code 304.6.5 "Procedures Concerning Lobbying". According to SJC Policy, any such communication shall disqualify the vendor, contractor, or consultant from responding to the subject invitation to negotiate or request for qualifications.**

RFP Packages must be submitted to the SJC Purchasing Department, located at 500 San Sebastian View, St. Augustine, FL 32084 in a sealed envelope or container, and labeled with the Respondent's full legal company name and mailing address, as well as "**RFP No: 17-81; Low Bid Technically Acceptable Design Build Services for Bannan Lakes 2.0 MG Ground Storage Tank**" on the exterior of the package. Each submitted RFP package shall contain one (1) original hard-copy document,

and three (3) exact copies. All hard copies of the submitted RFP Package shall include any and all required documentation along with any and all supplemental information.

**Bid Price Proposal** - 1 original and three (3) exact copies in **one envelope** clearly marked "**Bid Price Proposal**" identified with the RFP Number, RFP Name, and submitting Company Name on the outside.

**Technical Proposal** - 1 original and three (3) exact copies in **one envelope/box** (separate from the Bid Price Proposal) clearly marked "**Technical Proposal**" identified with the RFP Number, RFP Name, and submitting Company Name on the outside. The Technical Proposal shall be formatted with tabs labeled Section 1 through Section 7 in the exact order and format requirement in the RFP document.

**Selection Procedure:**

Firms shall submit a Bid Price Proposal and a Technical Proposal. Bid Price proposals will be opened and the Technical Proposal of the lowest bidder shall be evaluated by the St. Johns County Technical Review Committee to determine if the submitted Technical Proposal provides adequate proof and evidence that the proposed Design-Build team is technically acceptable to perform the requirements of the project. If the proposal is deemed non-responsive or non-responsible, the Technical Proposal of the next lowest bidder will be evaluated.

Any bidder, proposer or person substantially and adversely affected by an intended decision or by a term, condition, procedure or specification with respect to any bid, invitation, solicitation of proposals or requests for qualifications, shall file with the Purchasing Department for St. Johns County, a written notice of intent to protest no later than 72 hours (excluding Saturdays, Sundays and legal holidays for employees of St. Johns County) after the posting either electronically or by other means of the notice of intended action, not of intended award, bid tabulation, publication by posting electronically or by other means of a procedure, specification, term or condition which the person intends to protest, or the right to protest such matter shall be waived. The protest procedures may be obtained from the Purchasing Department and are included in the County's Purchasing Manual. All of the terms and conditions of the County Purchasing Manual are incorporated by reference and are fully binding.

**The St. Johns County Board of County Commissioners reserves the right to reject any or all proposals, waive minor formalities or award to/negotiate with the firm whose proposal best serves the interest of St. Johns County.**

BOARD OF COUNTY COMMISSIONERS  
OF ST. JOHNS COUNTY, FLORIDA  
HUNTER S. CONRAD, CLERK

BY: \_\_\_\_\_  
Deputy Clerk

**RFP NO: 17-81 LOW BID TECHNICALLY ACCEPTABLE  
DESIGN BUILD SERVICES FOR BANNON LAKES 2.0 MG GROUND STORAGE TANK**

**II. INTRODUCTION**

**A. PURPOSE**

The St. Johns County Board of County Commissioners has issued this Request for Proposal (RFP) to solicit competitive bids and proposals for Design-Build services under Low Bid Technically Acceptable procurement method.

**B. SCOPE OF SERVICES**

Furnish all labor, material, and services to design, construct, and test one 2.0 million gallon circular wire wrapped prestressed concrete reuse water ground storage tank with concrete dome roof with integral rainfall capture system. Also included in the Contract is site work, excavation, backfill, foundation design and preparation, pipelines through the foundation, valves, and fittings as described herein and shown in Appendix B.

**C. DESIGN-BUILD QUALIFICATIONS**

The Design-Build team shall consist of design and construction professionals with the following qualifications:

The technical qualification requirements of Florida Statue 287.055 (2) (h) Design-Build 1. contractor services and 2. for engineering services, based on the applicable category of the project, must be satisfied.

The Design Build primary team members (Design Firm & Contractor) shall have **each** successfully completed a minimum of three (3) Design Build projects of the scope and dollar value of that being proposed in the past seven (7) years and meet the minimum qualifications as stated above. The tank manufacturer, whether a team member or Prime Design Build Contractor, shall have designed, constructed, and put into operation a minimum of 10 wire and strand wrapped prestressed concrete tanks with domes roofs conforming to AWWA D110 with Type II core walls in the last 10 years of similar size as this project. The tank construction superintendent and nozzleman shall have constructed in the past 5 years from the bid date a minimum of five AWWA D110, Type II, wire-wound, circular dome-covered prestressed composite tanks of equal or greater size than that required for this project.

The Contractor and the Design Professionals cannot be a member of more than one team responding to this Bid. The secondary members of the design build team cannot change, after contract award, without written approval of the designated County Project Manager.

A professional firm shall not submit a proposal for any contract administration services, either as a Prime or a Sub, for a Design Build contract for which the same firm or its affiliate is the Engineer of Record (EOR) or is Sub to the EOR.

If the Proposer is a joint venture, the individual empowered by a properly executed Declaration of Joint Venture and Power of Attorney Form shall execute the proposal. The proposal shall clearly identify who will be responsible for the engineering, quality control, geotechnical and construction portions of the Work.

**D. DESIGNATED POINT OF CONTACT**

Any and all questions or requests for information related to this RFP must be directed, *in writing*, to the following Designated Point of Contact: Ms. Leigh A. Daniels, CPPB, Procurement Supervisor, at [ldaniels@sjcfl.us](mailto:ldaniels@sjcfl.us).

In the event the Designated Point of Contact provided above is absent, or not available, interested firms may contact Jaime Locklear, CPPB, FCCM, Assistant Purchasing Manager, at [jlocklear@sjcfl.us](mailto:jlocklear@sjcfl.us).

**Interested firms shall not contact any staff member of St. Johns County, including members of the Board of County Commissioners, except the above referenced individual, with regard to this RFP as stated in SJC Purchasing Code 304.6.5 "Procedures Concerning Lobbying".** Any such communication shall result in disqualification from consideration for award of a contract for these services.

**E. TENTATIVE SCHEDULE OF EVENTS**

The County proposes the tentative schedule of events below. The dates provided may change at the discretion of the County. If any modifications impact the schedule of this RFP, through and until the deadline for submitted RFP Packages, the County will notify all interested respondents via Addendum.

Advertisement of Request for Proposals	August 29, 2017
Pre-Submittal Meeting	September 7, 2017
Issuance of Final Addendum	September 20, 2017
Request for Proposal Package Submission Deadline	September 28, 2017
Low Bid Price Proposal Opening	September 28, 2017
Evaluation of Technical Review RFP Packages	October 5, 2017
Department Recommendation	October 5, 2017
Award Recommendation to SJC BOCC	November 7, 2017
Notice of Award/Contract	November 24, 2017
Notice to Proceed	December 1, 2017

**F. DUE DATE & LOCATION**

Proposals Packages submitted in response to this Request for Proposals (RFP) must be delivered to, and received by the SJC Purchasing Department by or before four o'clock (4:00PM) on **Thursday, September 28, 2017**. Any packages received by the SJC Purchasing Department after this deadline will be deemed non-responsive, and shall be returned to the Respondent, unopened.

Request for Proposals must be submitted to: SJC Purchasing Department  
500 San Sebastian View  
St. Augustine, FL 32084

RFP Packages must be submitted to the SJC Purchasing Department, located at 500 San Sebastian View, St. Augustine, FL 32084 in a sealed envelope or container, and labeled with the Respondent's full legal company name and mailing address, as well as "**RFP No: 17-81; Low Bid Technically Acceptable Design Build Services for Bannan Lakes 2.0 MG Ground Storage Tank**" on the exterior of the package. Each submitted RFP package shall contain one (1) original hard-copy document, and three (3) exact copies. All hard copies of the submitted RFP Package shall include any and all required documentation along with any and all supplemental information.

**Bid Price Proposal** - 1 original and three (3) exact copies in **one envelope** clearly marked "**Bid Price Proposal**" identified with the RFP Number, RFP Name, and submitting Company Name on the outside.

**Technical Proposal** - 1 original and three (3) exact copies in **one envelope/box** (separate from the Bid Price Proposal) clearly marked "**Technical Proposal**" identified with the RFP Number, RFP Name, and submitting Company Name on the outside. The Technical Proposal shall be bound with tabs labeled Section 1 through Section 7 in the exact order and format with the information listed below.

**G. PRE-SUBMITTAL MEETING**

There will be a Non-Mandatory Pre-Submittal meeting on **Thursday, September 7, 2017 at 9:30 a.m.** at the **St. Johns County Utility Department**, located at **1205 State Road 16, FL 32084**. All firms interested in submitting a Request for Proposal Package are invited to attend this meeting. A site visit will be available following the Pre-Submittal meeting (weather permitting). Attendance at this meeting is not required, but encouraged to ensure a full understanding of the requirements provided in this RFP document, and associated project.

**H. SUBMITTAL OF QUESTIONS/INQUIRIES**

Any and all questions and/or inquiries related to this RFP shall be directed *in writing* to the Designated Point of Contact as provided above, by or before **4:00 P.M. (EST), Monday, September 18, 2017**.

**I. ADDENDA**

Any and all clarifications, answers to questions, or changes to this RFP shall be provided through a County issued Addendum, posted on [www.demandstar.com](http://www.demandstar.com). Any clarifications, answers, or changes provided in any manner other than a formally issued addendum, are to be considered "unofficial" and shall not bind the County to any requirements, terms or conditions not stated herein.

The County shall make every possible, good faith effort to issue any and all addenda no later than seven (7) days prior to the due date for proposals. Any addenda issued after this date, shall be for material, necessary clarifications to the Request for Proposal.

Any and all issued Addenda must be included with all copies of each Respondent's submitted RFP Package. Failure to include all issued addenda with the submitted RFP Package may result in the Respondent being deemed non-responsive, and being removed from consideration for award. The County reserves the right to request from any Respondent, copies of any missing addenda, if the content included in the Addenda is not of a material nature to the merit of the submitted Pre-Qualifications Package.

**J. COSTS INCURRED BY RESPONDENTS**

Respondents are responsible for any and all costs associated with developing and submitting a Pre-Qualification Package in response to this RFP. Respondents are also solely responsible for any and all costs associated with interviews and/or presentations requested by the County. It is expressly understood that no Respondent may seek or claim any award and/or reimbursement from the County for any expenses, costs, and/or fees (including attorneys' fees) borne by any Respondent, during the entire RFP Process. Such expenses, costs, and/or fees (including attorneys' fees) are the sole responsibility of the Respondent.

**K. DETERMINATION OF RESPONSIVENESS**

The County shall make a determination for each respondent, as to the responsiveness of the submitted RFP Package to the requirements provided herein. Any respondent who is not responsive to the requirements of the Request for Qualifications may be determined non-responsive, and may be removed from consideration by the Evaluation Committee. Only those respondents who are fully responsive to the requirements herein will be evaluated for consideration of award.

The County reserves the right to waive any minor formality or irregularity in any submitted Proposals Package. However, any missing information or document(s) that are material to the purpose of the RFP shall not be waived as a minor formality.

**L. EQUAL EMPLOYMENT OPPORTUNITY**

In accordance with Federal, State and Local law, the submitting firm shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, or handicap. The submitting firm shall be required to comply with all aspects of the Americans with Disabilities Act (ADA) during the performance of the work.

**M. PUBLIC RECORDS**

The access to, disclosure, non-disclosure, or exemption of records, data, documents, and/or materials associated with this RFP shall be subject to the applicable provisions of the Florida Public Records Law (Chapter 119, Florida Statutes), and other applicable State or Federal Law. Access to such public records, may not be blocked, thwarted, and/or hindered by placing the public records in the possession of a third party, or an unaffiliated party.

**III. GENERAL INFORMATION**

**A. MINIMUM QUALIFICATIONS OF CONTRACTORS**

In order to be considered for the Project, Respondents must meet the following minimum qualifications:

The Design-Build team shall consist of a qualified Prime Contractor and Licensed Design Professionals. The Design Build primary team members shall have each successfully completed a minimum of three (3) Design Build projects of the scope and dollar value of that being proposed in the past seven (7) years and meet the minimum qualifications as outlined in the Request for Proposal (RFP). The tank manufacturer, whether a team member or Prime Design Build Contractor, shall have designed, constructed, and put into operation a minimum of 10 wire and strand wrapped prestressed concrete tanks with domes roofs conforming to AWWA D110 with Type II core walls in the last 10 years of similar size to this project. The tank construction superintendent and nozzleman shall have constructed in the past 5 years a minimum of five AWWA D110, Type II, wire-wound, circular dome-covered prestressed composite tanks of equal or greater size of this project.

**B. PROOF OF LIABILITY INSURANCE COVERAGE**

Each Respondent shall be required to demonstrate the minimum insurance coverage, stated below, which shall be

required throughout the duration of the awarded contract. If any Respondent does not currently carry insurance coverage(s) at the minimum levels provided below, the Respondent shall be required to provide a Certification Letter from an Insurance Provider, stating that the Respondent is eligible for coverage in at least the amounts, as provided herein.

The awarded Contractor shall not commence work under the awarded Agreement until he/she has obtained all insurance required under this section and such insurance has been approved by the County. All insurance policies shall be issued by companies authorized to do business under the laws of the State of Florida. The awarded Contractor shall furnish proof of insurance to the County prior to the commencement of operations. The Certificate(s) shall clearly indicate the awarded Contractor has obtained insurance of the type, amount, and classification as required by contract and that no material change or cancellation of the insurance shall be effective without thirty (30) days prior written notice to the County. The County shall specifically be named as Additional Insured for all lines of coverage except Workers' Compensation and Professional Liability. A copy of the endorsement must be provided along with the Certificate of Insurance.

Certificate Holder Address: St. Johns County, FL  
500 San Sebastian View  
St. Augustine, FL 32084

The awarded Contractor shall maintain throughout the life of the awarded Agreement, Comprehensive General Liability Insurance with minimum limits of liability of \$1,000,000 per occurrence, \$2,000,000 aggregate, to protect the awarded Contractor from claims for bodily injury, including wrongful death, as well as from claims of property damage which may arise from any operations under the awarded Agreement, whether such operations be by the awarded Contractor, or anyone directly employed by or contracting with the awarded Contractor.

The awarded Contractor shall maintain throughout the life of the awarded Agreement, Comprehensive Automobile Liability Insurance with minimum limits of \$2,000,000 combined single limit for bodily injury and property damage liability to protect the awarded Contractor from claims for damages for bodily injury, including the ownership, use, or maintenance of owned and non-owned automobiles, including rented/hired automobiles whether such operations be by the awarded Contractor or by anyone directly or indirectly employed by the awarded Contractor.

The awarded Contractor shall maintain throughout the life of the awarded Agreement, Umbrella or Excess Liability Insurance covering workers' compensation, commercial general liability and business auto liability with minimum limits of liability of \$1,000,000.

The awarded Contractor shall maintain throughout the life of the awarded Agreement, adequate Workers' Compensation Insurance in at least such amounts as is required by the law for all of its employees per Florida Statute 440.02.

The awarded Contractor shall maintain throughout the life of the awarded Agreement, Builders Risk Insurance, Property Insurance written on an "all risk" policy form including coverage for Earthquake, Flood, Windstorm, Debris Removal, Hot and Cold Testing in the amount of the initial contract sum, plus the value of subsequent contract modifications and cost of material supplied or installed by others, comprising total value for the entire project at the site on replacement cost basis. The named insured shall include the County, General Contractor and Sub-contractors. The policy shall waive any co-insurance penalties. Covered Property to include Permanent Works: Materials, supplies, equipment, machinery, and property of others, if the insured is contractually responsible and the value is included in the total project, Temporary Work: scaffolding, form work, fences, shoring, falsework, temporary buildings, Offsite Locations, Offsite Storage and Transit.

The awarded Contractor shall be responsible for the deductible. Such property insurance shall be maintained until final acceptance and payment has been made. If the policy is terminated for any reason, notice shall be provided to the County within a minimum of thirty (30) days by the carrier. The County, awarded Contractor and any approved sub-contractors waive their rights of subrogation against one another.

In the event of unusual circumstances, the County Administrator, or his designee may adjust these insurance requirements.

### C. USE OF COUNTY LOGO

Pursuant to, and consistent with, County Ordinance 92-2 and County Administrative Policy 101.3, Respondents may

not manufacture, display, or otherwise use any facsimile or reproduction of the County Seal/Logo without express written approval of the Board of County Commissioners of St. Johns County, Florida.

Respondents shall not include the County Seal/Logo in any part of the submitted Pre-Qualification Package. Any packages received by the SJC Purchasing Department, which contain the County Seal/Logo may be deemed nonresponsive to this requirement. The County reserves the right to request the submitting firm to resubmit a package with the County Seal/Logo removed, within twenty four (24) hours of the submittal deadline provided herein, or as necessary to serve the needs of the County.

**D. TRADE SECRETS**

All material marked as a trade secret must be separated from all non-trade secret material, such as being submitted in a separate envelope clearly marked as "trade secret". If the office of department receives a public records request for a document or information that is marked and certified as a trade secret, the office or department shall promptly notify the person that certified the document as a trade secret.

To invoke the provisions of Florida Statute 812.081, Trade Secrets, or other applicable law, the requesting firm must complete an Affidavit of Trade Secret Confidentiality, signed by an officer of the company, and submit the affidavit with the information classified as "Trade Secret" with other proposed documents. The affidavit must reference the applicable law or laws under which trade secret status is to be granted.

**E. EVALUATION OF REQUEST FOR PROPOSALS PACKAGES**

Request for Proposal (RFP) packages received by the stated deadline for receipt shall have the Bid Price Proposals opened and recorded at a public opening on the date found in Section II – Schedule (Calendar) of Events of this document. The County's Technical Review Committee will review the Technical Proposal of the lowest bidder. The Technical Review Committee will then establish if the Technical Proposal is responsive and technically acceptable or non-responsive and non-technically acceptable based on the criteria described in this document. If the proposal is responsive and technically acceptable, that Design-Build team will be recommended to the Board of County Commissioners for award of the project. If the proposal is found to be non-responsive and/or non-technically acceptable, the County Technical Review Committee will review the Technical Proposal of the next lowest bidder and establish if the Technical Proposal is responsive and/or technically acceptable or non-responsive and non-technically acceptable based on the criteria described in this Bid and so on.

The County desires to avoid the expense to all parties of unnecessary presentations; however, the County may elect to conduct oral interviews or presentations from one or more of the respondents. If the County elects to conduct oral presentations or interviews selected firms will be notified if presentations and/or interviews are required.

**F. SELECTION PROCESS/AWARD**

It is the intent of the County to enter into a Lump Sum contract with the successful Design-Build team. The terms and conditions of this contract are fixed price and fixed time. The Design-Build team's submitted RFP (time and cost) is to be a lump sum proposal for completing the scope of work detailed in the Request for Proposal.

The project shall be awarded to the firm who was evaluated to be responsive and technically acceptable with the lowest Bid Price proposal. All awards are based upon approval by the St. Johns County Board of County Commissioners and the availability of funds.

ACTUAL COMMITMENT AND FINAL EXECUTION OF A CONTRACT IS CONTINGENT UPON AN APPROVAL OF THE ST. JOHNS COUNTY BOARD OF COUNTY COMMISSIONERS AND AVAILABILITY OF FUNDS.

**G. NON-RESPONSIVE PROPOSALS**

Proposals found to be non-responsive shall not be considered. Proposals may be rejected if found to be in nonconformance with the requirements and instructions herein contained. A proposal may be found to be non-responsive by reasons, including, but not limited to, failure to utilize or complete prescribed forms, conditional proposals, incomplete proposals, indefinite or ambiguous proposals, failure to meet deadlines and improper and/or undated signatures.

Other conditions which may cause rejection of proposals include evidence of collusion among Proposers, obvious lack of experience or expertise to perform the required work, submission of more than one proposal for the same work from an individual, firm, joint venture, or corporation under the same or a different name (also included for Design-Build projects are those proposals wherein the same Design Firm is identified in more than one proposal), failure to perform

or meet financial obligations on previous contracts, employment of unauthorized aliens in violation of Section 274A (e) of the Immigration and Nationalization Act, or in the event an individual, firm, partnership, or corporation is on the United States Comptroller General's List of Ineligible Design-Build teams for Federally Financed or Assisted Projects.

Proposals will also be rejected if not delivered or received on or before the date and time specified as the due date for submission.

#### **H. WAIVER OF IRREGULARITIES**

The County may waive minor informalities or irregularities in proposals received where such is merely a matter of form and not substance, and the correction or waiver of which is not prejudicial to other Proposers. Minor irregularities are defined as those that will not have an adverse effect on the County's interest and will not affect the price of the Proposals by giving a Proposer an advantage or benefit not enjoyed by other Proposers.

1. Any design submittals that are part of a proposal shall be deemed preliminary only.
2. Preliminary design submittals may vary from the requirements of the Design and Construction Criteria. The County, at their discretion, may elect to consider those variations rather than rejecting the proposal.
3. In no event will any such elections by the County be deemed to be a waiving of the Design and Construction Criteria.
4. The Proposer who is selected for the project will be required to fully comply with the Design and Construction Criteria for the price bid, regardless that the proposal may have been based on a variation from the Design and Construction Criteria.
5. Proposers shall identify separately all innovative aspects as such in the Technical Proposal. An innovative aspect does not include revisions to specifications or established County policies. Innovation should be limited to Design-Build team's means and methods, approach to project, use of new products, new uses for established products, etc.
6. The Proposer shall obtain any necessary permits or permit modifications not already provided.

#### **I. MODIFICATION OR WITHDRAWAL OF PROPOSAL**

Proposers may modify or withdraw previously submitted proposals at any time prior to the designated due date. Requests for modification or withdrawal of a submitted proposal shall be in writing and shall be signed in the same manner as the proposal. Upon receipt and acceptance of such a request, the entire proposal will be returned to the Proposer and not considered unless resubmitted by the due date and time. Proposers may also send a change in sealed envelope to be opened at the same time as the proposal provided the change is submitted prior to the proposal due date.

#### **J. DESIGN ISSUE ESCALATION**

The County has established the issue escalation process for design questions and conflict resolution that the Design-Build team shall follow unless revised by the designated County Project Manager. All issues are to be directed to the County Project Manager. If the issue cannot be resolved at this level the County Project Manager shall forward the issue to the next level in the process. The escalation process begins with the Utility Department Director, followed by the Assistant County Administrator, and finally to the County Administrator. Each level shall have a maximum of three working days to answer, resolve or address the issue. This three day window is a response time and does not infer resolution. Questions may be expressed verbally and followed up in writing. The County Project Manager will respond in a timely manner but not to exceed three working days. The Design-Build team shall provide any available supporting documentation.

The Design-Build team shall provide a similar issue escalation process for his organization with personnel of similar levels of responsibility.

The County Administrator will have the final authority on design decisions.

#### **K. CONSTRUCTION CLARIFICATION, CONFLICT RESOLUTION, AND ISSUE ESCALATION**

In the event that construction problems occur, the resolution of those problems will be processed in one of the following two ways unless revised by a Partnering agreement:

- If the resolution does not change the original intent of the technical proposal, then the Design-Build team Engineer of Record (EOR) will be responsible for developing the design solution to the construction problem and the County

Project Manager will be responsible for review and response within ten (10) working days. The County Project Manager will either concur with the proposed solution or, if the County Project Manager has concerns, the issue will be escalated as described in the process below.

- If the resolution does alter the original intent of the technical proposal then the EOR will develop the proposed solution and forward a copy to the County Project Manager. The County Project Manager will be responsible for review and response within ten (10) working days. The County Project Manager will either concur with the proposed solution or, if the County Project Manager has concerns, the issue will be escalated as described in the process below. Changes to the original intent of the technical proposal will require a contract change order.
- The County has established the issue escalation process for design questions and conflict resolution that the Design-Build team shall follow unless revised by the designated County Project Manager. All issues are to be directed to the County Project Manager. If the issue cannot be resolved at this level the County Project Manager shall forward the issue to the next level in the process. The escalation process begins with the Utility Department Director, followed by the Assistant County Administrator, and finally to the County Administrator. Each level shall have a maximum of three working days to answer, resolve or address the issue. This three day window is a response time and does not infer resolution. Questions may be expressed verbally and followed up in writing. The County Project Manager will respond in a timely manner but not to exceed three working days. The Design-Build team shall provide any available supporting documentation.

The Design-Build team shall establish a similar escalation process for their organization with personnel of similar levels of responsibility.

#### **IV. PROJECT REQUIREMENTS**

##### **A. Governing Regulations:**

The services performed by the Design-Build team shall be in compliance with all applicable manuals and standards. The tank and foundation shall be designed and constructed in accordance with the latest applicable standards by ASTM, ACI, AWWA, US ACOE, Florida Building Code, OSHA, CRSI, and 62-555 F.A.C. All site, civil, and utility work shall be in accordance with the St. Johns County Utility Department Water, Wastewater, and Reuse Design Standards and Specifications and all applicable environmental protection laws and regulations for the construction operations under this Contract. Latest applicable standard is defined as the edition in place at the date of advertisement of this contract. It shall be the Design-Build team's responsibility to acquire and utilize the necessary manuals and standards that apply to the work required to complete this project whether listed herein or not. The services will include preparation of all documents necessary to complete the project as described in Section I of this document.

**Note:** Project shall also be required to comply with the St. Johns County Utility Department Manual of Water, Wastewater and Reuse Design Standards and Specifications are available on line at:

<http://www.sjcfll.us/Utilities/media/DevGroup/WaterStds&SpecsManual.pdf>

##### **B. Key Personnel/Staffing**

The Design-Build team's work shall be performed and directed by key personnel identified in the Technical Proposal by the Design-Build team. Any changes in the indicated personnel shall be subject to review and approval by the County's Project Manager.

##### **C. Insurance/Bonds – See Part III Section B for Insurance requirements and Part IV Section F for Bond requirements. Submit Attachment “F” and Bid Bond**

##### **D. Contract Time/Liquidated Damages**

The Contractor shall have ten (10) days to return Contract originals from the time the Contractor receives a “Notice of Award”. St. Johns County will return a “fully executed” Contract to the Contractor no later than seven (7) days after the return of the executed Contract originals (but no later than seventeen (17) days from the Notice of Award).

The Contractor will furnish a recorded original of the Public Construction Bond three (3) business days after receipt of the fully executed Contract (the Public Construction Bond must be recorded after the Contract is fully executed by all parties including the County Clerk). Upon receipt of the recorded Public Construction Bond, the County will issue a Notice to Proceed. If the Contractor fails to meet any of the dates and timeframes set forth in this section, or fails to execute the Contract, or to provide a Public Construction Bond, the County may elect at its option to consider the

Contractor non-responsive and Contract with the next best Bidder.

“The work to be performed per under this Agreement shall be commenced within **ten (10)** days of the date of the Notice to Proceed, in writing. Construction of the project shall be substantially complete within **Two Hundred and Seventy (270)** consecutive calendar days from the date of the Notice to Proceed. Final completion shall be attained within **Thirty (30)** consecutive calendar days from the date of substantial completion”.

**Conditions under which Liquidated Damages are Imposed:**

Should the Contractor or, in case of his default, the Surety fail to complete the work within the time stipulated in the contract, or within such extra time as may have been granted by the Owner, the Contractor or, in case of his default, the Surety shall pay to the Owner, not as a penalty but as liquidated damages, the amount so due as determined by the following schedule:

<b><u>Original Contract Amount</u></b>	<b><u>Daily Charge Per Calendar Day</u></b>
\$50,000 and under .....	\$ 763.00
Over \$50,000 but less than \$250,000 .....	\$ 958.00
\$250,000 or more but less than \$500,000 .....	\$1,099.00
\$500,000 or more but less than \$2,500,000 .....	\$1,584.00
\$2,500,000 but less than \$5,000,000 .....	\$2,811.00
\$5,000,000 but less than \$10,000,000 .....	\$3,645.00
\$10,000,000 but less than \$15,000,000 .....	\$4,217.00
\$15,000,000 but less than \$20,000,000 .....	\$4,698.00
\$20,000,000 and over .....	\$6,323.00 plus
plus.....	0.00005 of any amount over \$20 Million

**E. Change Orders**

In the event that changes to the scope of the project occur or additional services are required all requests for change orders shall be submitted and approved **PRIOR** to implementation of any work. All requests for change orders shall be reviewed and approved by the designated County Project Manager.

**F. Bond Requirements**

Each submitted Bid shall be accompanied by a Bid Security, submitted on the Bid Bond Form provided herein, or in the form of a certified or cashier’s check, in the amount of five percent (5%) of the Total Lump Sum Bid amount submitted on the Official County Bid Form, pledging that the Bidder will enter into a contract with the Owner on the terms stated in the Bid and will, if required, furnish bonds as described hereunder covering the faithful performance of the Contract and the payment of all obligations arising thereunder. Should the Bidder refuse to enter into such Contract or fail to furnish such bonds to the Owner, if required, the amount of the Bid Security shall be forfeited, not as penalty, but as liquidated damages.

A Bid Security in the form of a certified or cashier’s check must be made payable to the Board of County Commissioners of St. Johns County. Bidders submitting a certified or cashier’s check as the bid security are not required to submit Attachment “H” – Certificate as to Corporate Principal, or the Bid Bond forms provided herein.

A Bid Security in the form of a Bid Bond shall be written on the form provided herein, with an acceptable surety, and the Attorney-in-Fact who executes the bond on behalf of the surety shall affix to the bond a certified and current copy of his Power of Attorney. Acceptable surety companies are defined herein under “Surety Bond”. The Surety Company shall be licensed to do business in the State of Florida and shall be listed by the U.S. Treasury Department. Any Bidder submitting a Bid Security in the form of a Bid Bond must also submit Attachment “H” – Certificate as to Corporate Principal.

The Owner shall have the right to retain the Bid Security of Bidders until either: (a) the Contract is executed and bonds, if required, have been furnished, or (b) the specified time has elapsed so that Bids may be withdrawn, or (c) all Bids have been rejected.

**Surety Bond (Public Construction Bond)** – The Prime or Lead firm of the Design-Build team shall be required to provide a Public Construction Bond for 100% of the Proposal dollar value as follows:

Bonds must be obtained from companies holding certificates of authority as acceptable sureties under Department of

Treasury regulations "Surety Companies Doing Business with the United States," 31 CFR Part 223. For listing of approved sureties please see Dept. of Treasury's Listing (Dept. Circular 570) <http://fms.treas.gov/c570/c570.html>.

Surety must be licensed to do business in Florida and have been in business and have a record of successful continuous operations for at least three years.

Surety shall not have exposed itself to any loss on any one risk in an amount exceeding twenty percent of its surplus to policyholders.

Surety must have fulfilled all of its obligations on all other bonds given to the Owner.

Surety must have good underwriting, economic management, adequate reserves for undisclosed liabilities, and net resources for unusual stock and sound investment.

**Time of Delivery and Form of Bonds:** The Public Construction Bond form will be forwarded to the Bidder with his copy of the fully executed contract. **The Public Construction Bond must be recorded after the contract is signed by all parties.** The bidder will have three (3) days from receipt of fully executed contract to have the Public Construction Bond recorded. The bidder shall have the Public Construction Bond recorded in the County Clerk's Recording Office, St. Johns County, Florida. After the book and page number have been assigned to the bond by the recording person, the Bidder is to obtain from the recording person a certified copy of the recorded bond, and deliver the certified copy to the Owner's Contract Administrator. No work can commence until the required bond and Insurance Certificates have been delivered to the Owner. Upon receipt of the certified copy of the recorded bond, the Owner may issue a Notice to Proceed.

Unless specified in the Bidding Documents, the bonds shall be written in the form of those bound in this Project Manual.

The Bidder shall require the Attorney-in-Fact who executes the required bonds on behalf of the Surety to affix thereto a certified and current copy of his Power of Attorney authorizing his firm to act as agent for the Surety in issuing the bonds.

#### **G. Bid Bond Instructions**

If a Bidder chooses to submit a Bid Bond on the form provided herein, he must submit the bond as follows:

1. Prepare and submit one (1) original and two (2) copies of the required Bid Bond Forms as shown above
2. Type or print Bidder's and Surety's names in the same language as in the Advertisement, or Invitation to Bid.
3. Affix the Corporate Seal, and type or print the name of the Surety on the line provided and affix its corporate seal.
4. Attach a copy of Surety agent's Power of Attorney, unless the Power of Attorney has been recorded in St. Johns County. If it has been recorded, give the record book and page. If not recorded, the copy of the Power of Attorney must have an original signature of the Secretary or Assistant Secretary of Surety certifying the copy. The Surety's corporate seal must be affixed.

### **V. DESIGN/CONSTRUCTION CRITERIA**

#### **A. General**

The Design-Build team shall be responsible for all labor, material, and services to design, construct, and test one 2.0 million gallon circular wire wrapped pre-stressed concrete reclaimed water ground storage tank with concrete dome roof and rainfall capture system. Also included in the Contract is all site work, excavation, backfill, grading, foundation design and preparation, pipelines through the foundation, valves, and fittings as described herein and shown on Appendix B.

The complete Design and Construction Criteria sets forth requirements regarding survey, design, and construction requirements relative to project management, scheduling, and coordination with other agencies and entities such as state and local government, utilities and environmental permitting agencies, and the public.

The Design-Build team shall demonstrate good project management practices while working on this project. These include communication with the designated County representatives and others as necessary, management of time and

resources, safety and documentation.

## **B. Design and Construction Criteria**

Refer to Appendix C: Specification 13216 – Wire Wrapped Pre-Stressed Concrete Tank for specific information related to the tank's design criteria.

1. Site Work
  - a. Maintain erosion and sedimentation control measures during all work.
  - b. Dewatering
    - i. Secure and maintain FDEP Generic Permit for the Discharge of Produced Ground Water from any Non-Contaminated Site Activity
    - ii. Design, furnish, install, operate, monitor, maintain and remove temporary dewatering and drainage systems as required to lower and control groundwater levels at least 2-ft below subgrades of excavations and to permit construction to proceed in-the-dry.
    - iii. Furnish, maintain and remove temporary surface water control measures adequate to drain and remove surface water entering excavations.
    - iv. Collect and properly dispose of all discharge water from dewatering and drainage systems in accordance with State and local requirements and permits. Under no circumstances shall water from dewatering systems be discharged into the existing or new sanitary sewer systems.
    - v. Remove temporary dewatering and drainage systems when no longer needed. Restore all disturbed areas.
  - c. Installation of inlet and outlet piping and valves as shown and described herein and on the drawings. Piping shall be installed a minimum of 4 feet from the exterior edge of tank.
  - d. Install a tapping saddle, temporary stub-out(s), and temporary piping as required to utilize the reclaimed water available at the site entrance for construction, water-tightness testing, and any other non-potable demands during construction.
2. As-built and Settlement Survey
  - a. Retain the services of a registered land surveyor licensed in the state of Florida to identify existing control points and proposed structure locations. Verify and record all existing structure locations in the vicinity of or adjacent to the proposed work.
  - b. Maintain accurate records of proposed structure location and locations of all new above grade and buried piping.
  - c. Provide surveying as required by the Tank Settlement Monitoring and Water-tightness Plan Submittals and Appendix C: Specification 13216 – Wire Wrapped Pre-Stressed Concrete Tank.
  - d. Retain the services of a registered land surveyor licensed in the state of Florida to provide a final as-built site survey that identifies control points, site elevations, structure, structure accessories, and piping locations.
3. Geotechnical Investigation
  - a. Contractor shall examine the site and review the available geotechnical reports prior to submitting proposal, taking into consideration all conditions that may affect the work. The Owner assumes no responsibility for variations in subsurface conditions at locations other than those shown and at the time that the investigations were made. Contractor is responsible for any additional geotechnical investigation that would be necessary to complete the work.
4. General Requirements
  - a. The Contractor shall employ any additional temporary fencing, gates, and/or watchmen on the work when necessary and shall erect and maintain strong and suitable barriers and lights as necessary to prevent the happening of any accident to a person, to the property, to the work, and to any materials stored onsite. The Contractor shall be responsible for protecting all stored materials and the project site safe from theft and vandalism.
  - b. Store and protect products in accordance with the manufacturer's instructions, with seals and labels intact and legible. Storage instruction from the manufacturers shall be reviewed and carefully followed by the

Contractor. Instructions shall be carefully followed and a written record of the storage requirements and procedures shall be kept by the Contractor onsite and made available to Owner upon request.

### **C. Warranty**

The tank manufacturer shall warranty the tank structure against any defective materials or workmanship for a period of 5 years from the date of tank acceptance. If any materials or workmanship prove to be defective within that period, they shall be replaced or repaired by the tank manufacturer at no additional cost to the OWNER.

If any leakage or other defects appear within the warranty period, the tank manufacturer shall promptly repair the tank at its own expense upon written notification by the Owner that such defects have been found. This warranty shall not apply to any accessory, equipment or other product that is not a structural part of the tank or manufactured by a company other than the tank company. Leakage is defined as a stream flow of liquid appearing on the exterior of the tank, the source of which is from inside the tank.

The Design-Build Team shall warranty all other work for a period of 1 year from the date of acceptance. If any materials or workmanship prove to be defective within that period, they shall be replaced or repaired by the tank manufacturer at no additional cost to the OWNER.

### **D. Project Management**

#### **1. Schedule**

- a. The Design-Build team shall prepare a construction schedule as a time scale logic diagram and bar chart. Each major and minor portion of work or operation shall be clearly identified and tied by logical sequence to the submittal schedule and schedule of values. The Design-Build team shall show the complete sequence of construction by activity, with dates for beginning and completion of each element of construction and provide sub-schedules to define critical path and float time for the entire schedule. Schedule shall include contractual milestones such as Notice to Proceed, Testing activities, Substantial Completion, and Final Completion.
- b. The Design-Build team shall update the schedule monthly showing accumulated percentage of completion of each item and total percentage of work completed. Revised schedules shall identify activities modified since previous submittal, major changes in scope, and other identifiable changes. The Design-Build team shall also report corrective action taken or proposed and its effect, including the effect of schedule changes on other contractors as necessary.
- c. The Design-Build team shall maintain accurate daily weather data on site. Owner will obtain weather data during construction from a reputable source and determine the Design-Build's entitlement to an extension of the Contract time as a result of weather delays. Any weather-related extension of Contract time shall be non-compensable. Weather related time extension will be granted in the following conditions:
  - i. Precipitation day may be granted if rainfall is greater than 1-inch in a single work day
  - ii. Precipitation day may be granted for days with greater than 0.10 inches of rainfall within a 24 hour period if both the average monthly rainfall is exceeded and the average number of days in the month with threshold precipitation of 0.10 inches is also exceeded.
  - iii. One-half of a temperature day may be granted if temperature is below 10 degrees F or above 105 degrees F.
  - iv. Extensions of time will be granted at the discretion of the Owner for circumstances not covered herein.

#### **2. Schedule of Values/Invoicing**

- a. The Design-Build team will be responsible for invoicing the County based on current invoicing policy and procedure. Invoicing will be based on the completion or percentage of completion of major, well defined tasks as defined in the schedule of values. Final payment will be made upon final acceptance by the County of the Design-Build project.
- b. Upon receipt of the invoice, the County's Project Manager will make judgment on whether or not work of sufficient quality and quantity has been accomplished by comparing the reported percent complete against actual work accomplished.

#### **3. Meetings**

- a. The Owner will organize and conduct progress meeting at least once a month to discuss the progress of the Work, starting with a Pre-Construction Meeting prior to construction. The Design-Build team and any subcontractors the Design-Build team deems necessary shall attend these meetings.

**E. Geotechnical Services**

The County has included a 'Report of Geotechnical Exploration Bannon Lakes Ground Storage Tank' performed by Universal Engineering Sciences dated July 19, 2017 (see Appendix A).

The Design-Build team will be responsible for identifying and performing any additional geotechnical investigation, analysis, design, and testing dictated by the project needs. All geotechnical work necessary shall be performed in accordance with the governing regulations.

The Design-Build team shall provide the County signed and sealed design and construction reports of any additional Geotechnical Services. The reports shall be a record set of all geotechnical information, including relevant support data. Any testing required by the governing agencies shall be at the expense of the Design Build team and shall be subject to review and approval of the County.

**F. Permitting**

The Design-Build team shall be responsible for securing and maintaining FDEP Generic Permit for the Discharge of Produced Ground Water from Any Non-Contaminated Site Activity and Building Permit.

The County will be responsible for providing the permits listed below in Section VI. B.

**G. Surveying**

The Design-Build team shall be responsible for retaining the services of a registered land surveyor licensed in the state of Florida to complete the work described in Section V.B.15.

**H. Verification of Existing Conditions**

The Design-Build team shall be responsible for verification of existing conditions, including research of all existing County records and other information.

By execution of the contract, the Design-Build team specifically acknowledges and agrees that the Design Build team is contracting and being compensated for performing adequate investigations of existing site conditions sufficient to support the design developed by the Design-Build team and that any information is being provided merely to assist the Design-Build team in completing adequate site investigations. Notwithstanding any other provision in the contract documents to the contrary, no additional compensation will be paid in the event of any inaccuracies in the preliminary information.

**I. Deliverables**

Plans must meet the minimum contents of a particular phase submittal prior to submission for review. The particular phase of each submittal shall be clearly indicated on the cover sheet. Component submittals must be accompanied by sufficient information for adjoining components or areas of work to allow for proper evaluation of the component under review.

The Design-Build team shall provide copies of required review documents as listed below:

**GENERAL PROJECT:**

- 2 - Copies of Schedule of Values
- 2 - Copies of Contract Schedule
- 2 - Copies of Shop Drawings and Required Submittals (approved by the Design-Build team EOR)
- 1 - Set Pre-Construction Video and Digital Photographs

**CONSTRUCTION DOCUMENTS:**

**Record Set (As-Builts):**

- 2 - sets of original 22" X 34" signed and sealed plans

**J. Testing**

1. Refer to Appendix C: Specification 13216 – Wire Wrapped Pre-Stressed Concrete Tank for tank testing requirements.
2. Pipeline cleaning, pressure and leakage tests shall be completed per St. Johns County Utility Department Manual of Water, Wastewater and Reuse Design Standards and Specifications

**K. Adjoining Construction Projects**

The Design-Build team shall be responsible for coordinating construction activities with other construction projects that are impacted by or impact this project. This includes projects under the jurisdiction of local governments, the County, or other regional and state agencies.

**L. Utility Coordination**

The Design-Build team shall insure County standards, policies, procedures, and design criteria are followed concerning utility coordination.

**M. Design Documentation, Computations, and Quantities**

The Design-Build team shall submit to the County design notes and computations to document the design conclusions reached during the development of the construction plans.

The design notes and computation sheets shall be fully titled, numbered, dated, indexed, and signed by the designer and the checker. Computer output forms and other oversized sheets shall be folded to a standard size 8½" x 11". The data shall be in a hard-back folder for submittal to the County. At the project completion, a final set of design notes and computations, signed by the Design-Build team, shall be submitted with the record set of plans.

**N. Shop Drawings/Submittals**

The Design-Build team shall be responsible for the preparation and approval of all Shop Drawings. Shop Drawings shall be submitted to the County and shall bear the stamp and signature of the Design-Build team's Contractor Engineer of Record (EOR), and Specialty Engineer and signed and sealed by the Contractor's EOR (in the State of Florida) or the Specialty Engineer as appropriate. The County shall review the Shop Drawing(s) to evaluate compliance with project requirements and provide any findings to the Design-Build team. The County's procedural review of shop drawings is to assure that the Design-Build team and the EOR have both accepted and signed the drawing, the drawing has been independently reviewed and is in general conformance with the plans. The County's review is not meant to be a complete and detailed review. Upon review of the shop drawing, the County will stamp "Released for Construction" or "Released for Construction as noted" and initialed and dated by the reviewer.

Component submittals must be accompanied by sufficient information for adjoining components or areas of work to allow for proper evaluation of the component submitted for review. The following Shop Drawings are required for the project:

- 1) Pre-construction video shall be submitted prior to any construction activity.
- 2) Shop drawings for piping, valves, and appurtenances.
- 3) All shop drawings required by Appendix C: Specification 13216 – Wire Wrapped Pre-Stressed Concrete Tank
- 4) Tank Settlement Monitoring and Water tightness Plan Submittal: Submit detailed plans prior to construction as a separate submittal for tank settlement (differential and total) monitoring and water tightness testing in accordance with the recommendations provided in the Appendix C and the geotechnical report for ENGINEER's review and approval. Indicate all required survey locations and times required by the plan.

**VI. COUNTY RESPONSIBILITY**

**A. General**

This proposal does not commit the County to make studies or designs for the preparation of any proposal, nor to procure or contract for any articles or services. Proposers shall examine the Contract Documents and the site of the



**TOTAL BID PRICE PROPOSAL:** Base Bid + Testing and Permit Allowance

\$ \_\_\_\_\_  
Total Bid Price Proposal (Numerical)

\_\_\_\_\_/100 Dollars  
(Amount written or typed in words)

Time of Substantial Completion shall be 270 consecutive calendar days from receipt of Notice to Proceed from Owner. An additional 30 consecutive calendar days will be allowed from Substantial Completion to Final Acceptance by the Owner.

Note: The listing order of bid items reflects a construction sequence in general terms for bidding purposes only and is not a specific construction schedule.

During the preparation of the Bid, the following addenda, if any, were received:

No.: \_\_\_\_\_ Date Received:

No.: \_\_\_\_\_ Date Received:

No.: \_\_\_\_\_ Date Received:

We, the undersigned, hereby declare that no person or persons, firm or corporation, other than the undersigned are interested, in this proposal, as principals, and that this proposal is made without collusion with any person, firm or corporation, and we have carefully and to our satisfaction examined the Project Specifications and form of Contract and Public Construction Bonds, together with the Plans.

We have made a full examination of the location of the proposed work and the sources of supply of materials, and we hereby agree to furnish all necessary labor, and equipment and materials, fully understanding that any quantities shown therewith are approximate only, and that we will fully complete all requirements therein as prepared by Architect, within the same time limit specified in the Contract Documents for the following total sum price as indicated above.

If the Undersigned is notified of the acceptance of this Proposal by the Board within ninety (90) calendar days for the time set for the receipt of proposal, the Undersigned further agrees, to execute a contract for the above work within ten (10) days after notice that his Bid has been accepted for the above stated compensation in the form of a Contract presented by the Owner. The Undersigned agrees, if awarded the Contract, to Substantially Complete all work within Two Hundred & Seventy (270) consecutive calendar days after receipt of NOTICE TO PROCEED. Undersigned further agrees that from the compensation otherwise to be paid, the Owner may retain the liquidated damages as provided in the Contract, which sum is agreed upon as the proper measure of liquidated damages which the Owner will sustain each day by the failure of the Undersigned to complete the work in the time stipulated, and this sum is not to be construed as penalty.

The Undersigned further agrees that security in the form of a Bid Bond, certified or cashier's check in the amount of not less than five percent (5%) total Bid Price, payable to the Owner, accompanies this Proposal; that the amount is not to be construed as a penalty, but as liquidated damages which said Owner will sustain by failure of the Undersigned to execute and deliver the Contract and Bond within ten (10) days of the written notification of the Award of the Contract to him; thereupon, the security shall become the property of the Owner, but if this Bid is not accepted within ninety (90) days of the time set for the submission of Bids, or if the Undersigned delivers the executed Contract and Public Construction Bond upon receipt, the Security shall be returned to the Bidder within seven (7) working days.

**RFP NO: 17-81 LOW BID TECHNICALLY ACCEPTABLE  
DESIGN BUILD SERVICES FOR BANNON LAKES 2.0 MG GROUND STORAGE TANK**

**CORPORATE/COMPANY**

Company Name: \_\_\_\_\_ (Seal)

By: \_\_\_\_\_  
(Name typed or printed)

By: \_\_\_\_\_  
(Name typed or printed)

Address: \_\_\_\_\_

Telephone No.: (\_\_\_\_) \_\_\_\_\_ Fax No.: (\_\_\_\_) \_\_\_\_\_

Federal I.D. Tax Number: \_\_\_\_\_ DUNS Number: \_\_\_\_\_

**INDIVIDUAL**

Name: \_\_\_\_\_  
(Name typed or printed) (Title)

\_\_\_\_\_  
(Signature)

Address: \_\_\_\_\_

Telephone No.: (\_\_\_\_) \_\_\_\_\_

Federal I.D. Tax Number: \_\_\_\_\_

- Attachments: Bid Price Proposal Attachment "C" - Affidavit  
Bid Price Proposal Attachment "H" – Certificates as to Corporate Principal  
Bid Price Proposal Attachment "I" – Certificate of Compliance with Florida Trench Safety Act

Bid Price Proposal Attachments "C", "H", "I", " Bid Bond must be completed and attached to the Bid Price Proposal along with a signed copy of each addendum issued for this RFP acknowledging receipt

**RFP NO: 17-81 LOW BID TECHNICALLY ACCEPTABLE  
DESIGN BUILD SERVICES FOR BANNON LAKES 2.0 MG GROUND STORAGE TANK  
ATTACHMENT "F"**

**CERTIFICATES OF INSURANCE**  
(Attach or insert copy here)

**RFP NO: 17-81 LOW BID TECHNICALLY ACCEPTABLE  
DESIGN BUILD SERVICES FOR BANNON LAKES 2.0 MG GROUND STORAGE TANK  
ATTACHMENT "G"**

**CLAIMS, LIENS, LITIGATION HISTORY**

(Complete and Submit)

1. Within the past 7 years, has your organization filed suit or a formal claim against a project owner (as a prime or subcontractor) or been sued by or had a formal claim filed by an owner, subcontractor or supplier resulting from a construction dispute? Yes \_\_\_\_\_ No \_\_\_\_\_ If yes, please attach additional sheet(s) to include:

Description of every action Captions of the Litigation or Arbitration

Amount at issue: \_\_\_\_\_ Name (s) of the attorneys representing all parties:

Amount actually recovered, if any: \_\_\_\_\_

Name(s) of the project owner(s)/manager(s) to include address and phone number:

2. List all pending litigation and or arbitration.
3. List and explain all litigation and arbitration within the past seven (7) years - pending, resolved, dismissed, etc.
4. Within the past 7 years, please list all Liens, including Federal, State and Local, which have been filed against your Company. List in detail the type of Lien, date, amount and current status of each Lien.

5. Have you ever abandoned a job, been terminated or had a performance/surety bond called to complete a job?  
Yes \_\_\_\_\_ No \_\_\_\_\_ If yes, please explain in detail:

6. For all claims filed against your company within the past five-(5) years, have all been resolved satisfactorily with final judgment in favor of your company within 90 days of the date the judgment became final? Yes \_\_\_\_\_ No \_\_\_\_\_  
If no, please explain why? \_\_\_\_\_

7. List the status of all pending claims currently filed against your company:

**Liquidated Damages**

Has a project owner ever withheld retainage, issued liquidated damages or made a claim against any Performance and Payment Bonds? Yes \_\_\_\_\_ No \_\_\_\_\_ If yes, please explain in detail: \_\_\_\_\_

(Use additional or supplemental pages as needed)

**RFP NO: 17-81 LOW BID TECHNICALLY ACCEPTABLE  
DESIGN BUILD SERVICES FOR BANNON LAKES 2.0 MG GROUND STORAGE TANK  
ATTACHMENT "H"**

**CERTIFICATES AS TO CORPORATE PRINCIPAL**

I, \_\_\_\_\_, certify that I am the Secretary of the Corporation named as Principal in the attached bond; that \_\_\_\_\_ who signed the said bond on behalf of the Principal, was then \_\_\_\_\_ of said Corporation; that I know his signature, and his signature hereto is genuine; and that said bond was duly signed, sealed, and attested for and in behalf of said Corporation by authority of its governing body.

\_\_\_\_\_  
Secretary

\_\_\_\_\_  
Corporate Seal

(STATE OF FLORIDA  
COUNTY OF ST. JOHNS)

Before me, a Notary Public duly commissioned, qualified and acting, personally appeared \_\_\_\_\_ to me well known, who being by me first duly sworn upon oath, says that he is the Attorney-In-Fact, for the \_\_\_\_\_ and that he has been authorized by \_\_\_\_\_ to execute the foregoing bond on behalf of the surety named therein in favor of St. Johns County, Florida.

Subscribed and sworn to me this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_, A.D.

NOTARY PUBLIC  
State of Florida-at-large

My Commission Expires:

(Attach Power of Attorney to original Bid Bond and Financial Statement of Surety Company)

**RFP NO: 17-81 LOW BID TECHNICALLY ACCEPTABLE  
DESIGN BUILD SERVICES FOR BANNON LAKES 2.0 MG GROUND STORAGE TANK  
ATTACHMENT "I"**

**CERTIFICATE OF COMPLIANCE WITH FLORIDA TRENCH SAFETY ACT**

Bidder acknowledges that he is solely responsible for complying with the Florida Trench Safety Act (ACT) and Occupational Safety and Health Administrations excavation safety standard 29 CFR 1926.650 (Subpart P as amended) and the St. Johns County Trenching and Excavation Safety Program. If there is a conflict between the ACT and the St. Johns County Trenching and Excavation Safety Program, the more stringent requirement would apply. Bidder further acknowledges that included in the various items of the proposal and in the Total Bid Price are costs for complying with the Florida Trench Safety Act (90-96, Laws of Florida) effective October 1, 1990 and the Occupational Safety and Health Administrations excavation safety standard.

By: \_\_\_\_\_

\_\_\_\_\_  
Bidder

\_\_\_\_\_  
Date

\_\_\_\_\_  
Authorized Signature

**RFP NO: 17-81 LOW BID TECHNICALLY ACCEPTABLE  
DESIGN BUILD SERVICES FOR BANNON LAKES 2.0 MG GROUND STORAGE TANK**

**BID BOND**

STATE OF FLORIDA  
COUNTY OF ST. JOHNS

KNOW ALL MEN BY THESE PRESENTS, that \_\_\_\_\_ as Principal, and \_\_\_\_\_ as Surety, are held and firmly bound unto St. Johns County, Florida, in the penal sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) lawful money of the United States, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATIONS IS SUCH that whereas the Principal has submitted the accompanying Bid, dated \_\_\_\_\_, 20\_\_\_\_.

For  
**Low Bid Technically Acceptable**  
**Design Build Services for Bannan Lakes 2.0 MG Ground Storage Tank**  
St. Johns County, Florida

NOW THEREFORE,

- (a) If the Principal shall not withdraw said Bid within ninety (90) days after Bid Award date, and shall within ten (10) days after prescribed forms are presented to him for signature, enter into a written Contract with the County in accordance with the Bid as accepted, and give Bond with good and sufficient Surety or Sureties, as may be required, for the faithful performance and proper fulfillment of such Contract, then the above obligations shall be void and of no effect, otherwise to remain in full force and virtue.
- (b) In the event of the withdrawal of said Bid within the period specified, or the failure to enter into such Contract and give such Bond within the time specified, if the Principal shall pay the County the difference between the amount specified, in said Bid and the amount for which the County may procure the required Work and supplies, if the latter amount be in excess of the former, then the above obligations shall be void and of no effect, otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above bounded parties have executed this instrument under their several seals, this \_\_\_\_\_ day of \_\_\_\_\_ A.D., 20\_\_\_\_, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

**RFP NO: 17-81 LOW BID TECHNICALLY ACCEPTABLE  
DESIGN BUILD SERVICES FOR BANNON LAKES 2.0 MG GROUND STORAGE TANK**

WITNESSES:

(If Sole Ownership or Partnership two (2) Witnesses required).  
(If Corporation, Secretary only will attest and affix seal).

WITNESSES:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
PRINCIPAL:

\_\_\_\_\_  
NAME OF FIRM:

\_\_\_\_\_  
SIGNATURE OF AUTHORIZED  
OFFICER (AFFIX SEAL)

\_\_\_\_\_  
TITLE

\_\_\_\_\_  
BUSINESS ADDRESS

\_\_\_\_\_  
CITY STATE

WITNESS:

\_\_\_\_\_

\_\_\_\_\_  
SURETY:

\_\_\_\_\_  
CORPORATE SURETY

\_\_\_\_\_  
ATTORNEY-IN-FACT (AFFIX SEAL)

\_\_\_\_\_  
BUSINESS ADDRESS

\_\_\_\_\_  
CITY STATE

\_\_\_\_\_  
NAME OF LOCAL INSURANCE AGENCY


**RFP NO: 17-81 LOW BID TECHNICALLY ACCEPTABLE  
DESIGN BUILD SERVICES FOR BANNON LAKES 2.0 MG GROUND STORAGE TANK  
REQUEST FOR PROPOSAL (RFP) 17-81 CHECKLIST**

	DOCUMENT/ATTACHMENT NAME	CHECK BOX	<b>For St. Johns Co. Use Only</b>
<b>1. TECHNICAL PROPOSAL</b>			
<b>SECTION 1</b>	Letter of Introduction		
	Attachment "A" - Statement of Qualifications		
	Attachment "B" – Affidavit of Solvency		
	Attachment "D" – Conflict of Interest Disclosure Form		
	Attachment "G" – Claims , Liens, Litigation History		
<b>SECTION 2</b>	<b>Key Personnel</b>		
	Contractor		
	Design Consultant		
	Organization Chart		
<b>SECTION 3</b>	<b>Team Credentials</b>		
	Contractor Licenses		
	Design Firm Licenses		
	Contractor Certificate of Insurance – Attachment "F"		
	Design Firm Certificate of Insurance		
	Joint Venture Declaration (if applicable)		
<b>SECTION 4</b>	<b>Previous Project Experience</b>		
	Contractor Previous Project Experience		
	Design Firm Previous Project Experience		
	Superintendent and Nozzelman Experience		
<b>SECTION 5</b>	Project Understanding/Approach Narrative		
<b>SECTION 6</b>	Proposed Project Schedule		
<b>SECTION 7</b>	<b>References</b>		
	Prime/Lead Firm References		
	Secondary Firm References		
<b>2. BID PRICE PROPOSAL</b>			
	Official County Bid Price Proposal		
	Attachment "C" – SJC BOCC Affidavit		
	Attachment "I" – Certificate of Compliance with Florida Trench Safety Act		
	Attachment "H" – Certificates as to Corporate Principal		
	Attachment - Bid Bond		
	Attachment – Addenda Acknowledgements		

**RFP NO: 17-81 LOW BID TECHNICALLY ACCEPTABLE  
DESIGN BUILD SERVICES FOR BANNON LAKES 2.0 MG GROUND STORAGE TANK**

**Cut along the outer border and affix label to  
your submitted envelope/container to identify it as a  
Pre-Qualification Package**

<b>RFP Package • DO NOT OPEN</b>	
SEALED BID NO.:	<u>RFP 17-81</u>
BID TITLE:	<u>Low Bid Technically Acceptable Design Build Services for Bannon Lakes 2.0 MG Ground Storage tank</u>
DUE DATE/TIME:	<u>By 4:00PM – September 28, 2017</u>
SUBMITTED BY:	<u>Company Name</u>
	<u>Company Address</u>
	<u>Company Address</u>
DELIVER TO:	SJC Purchasing Department ATTN: Leigh A. Daniels, CPPB Procurement Supervisor 500 San Sebastian View St. Augustine FL 32084





# **UNIVERSAL**

## **ENGINEERING SCIENCES**

### **REPORT OF A GEOTECHNICAL EXPLORATION**

**Bannon Lakes Ground Storage Tank  
St. Johns County, Florida**

**July 19, 2017**

**PROJECT NO. 0930.1700088.0000  
REPORT NO. 1452505**

#### **Prepared For:**

**Mott MacDonald**  
10245 Centurion Parkway North – Suite 320  
Jacksonville, Florida 32256

#### **Prepared By:**

**UNIVERSAL ENGINEERING SCIENCES**  
5561 Florida Mining Boulevard South  
Jacksonville, Florida 32257-3648  
(904) 296-0757

#### **CONSULTANTS:**

**Geotechnical Engineering ▪ Environmental Engineering ▪ Construction Materials Testing  
Threshold Inspection ▪ Private Provider Inspection ▪ Geophysical Studies**

**OFFICES:** Daytona Beach, FL ▪ Fort Myers, FL ▪ Fort Pierce, FL ▪ Gainesville, FL ▪ Jacksonville, FL ▪ Leesburg, FL ▪ Miami, FL ▪ Norcross, GA ▪ Ocala, FL  
Orlando, FL ▪ Palm Coast, FL ▪ Panama City, FL ▪ Pensacola, FL ▪ Rockledge, FL ▪ Sarasota, FL ▪ St. Augustine, FL ▪ Tampa, FL ▪ West Palm Beach, FL



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- St. Petersburg
- Tampa
- Tifton
- West Palm Beach

July 19, 2017

Mott MacDonald  
10245 Centurion Parkway North – Suite 320  
Jacksonville, Florida 32256

Attention: Mr. Jacob Wadkins, EI

Reference: **REPORT OF A GEOTECHNICAL EXPLORATION**  
Bannon Lakes Ground Storage Tank  
St. Johns County, Florida  
UES Project No. 0930.1700088.0000 and Report No. 1452505

Dear Mr. Wadkins:

Universal Engineering Sciences, Inc. has completed a subsurface exploration at the site of the proposed project located in St. Johns County, Florida. This report contains the results of our exploration, an engineering evaluation with respect to the project characteristics described to us, and recommendations for groundwater considerations, foundation design, and site preparation. A summary of our findings is as follows:

- The borings generally encountered loose to medium dense fine sand (SP), slightly silty fine sand (SP-SM), and slightly clayey fine sand (SP-SC) in the upper 9 to 12.5 feet underlain with loose to very loose slightly silty fine sand (SP-SM) to depths of 20 to 22.5 feet. The borings then encountered medium dense fine sand (SP) and slightly silty fine sand (SP-SM) to depths of 32.5 to 42.5 feet underlain with dense to very dense fine sand (SP) to depths of 47.5 to 57.5 feet. The borings then encountered medium dense fine sand (SP) to depths of 60 to 67.5 feet. Boring B-2 then encountered weathered limestone to a depth of 72.5 feet underlain with loose clayey fine sand - marl (SC) to a depth of 82.5 feet. Boring B-2 then encountered dense to very dense clayey fine sand with cemented sand - marl (SC) to a depth of 92.5 underlain with loose to medium dense clayey silt - marl (MH) to a depth of 102.5 feet. Boring B-2 then encountered medium dense clayey fine sand - marl (SC) to the 125-foot boring termination depth.
- We measured the groundwater level at the boring locations between depths of 6.8 to 7.3 feet below the existing grade. We estimate the seasonal high groundwater level will occur at a depth of 3.5 to 4 feet below the ground surface.

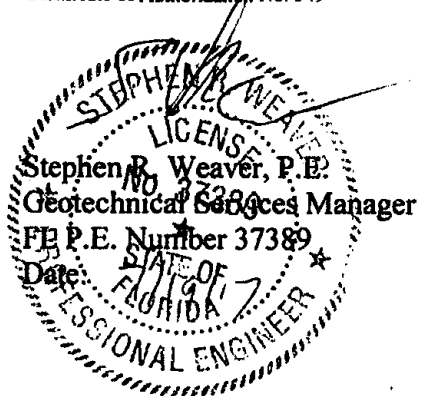
- Assuming the structure areas will be constructed in accordance with our Site Preparation Recommendations, we have recommended the proposed tank and building structures be supported on conventional, shallow spread foundations with an allowable soil bearing pressure of 2,500 pounds per square foot for foundations.
- **Based on the anticipated excessive settlements, after construction of the tank, we recommend the tank be filled with water to preload the site to generate settlements prior to making piping connections. We recommend a waiting period of three weeks prior to making the final connections.**
- We recommend only normal, good practice site preparation techniques to prepare the existing subgrade to support the proposed structure. These techniques include clearing the construction areas of existing construction and utilities, dewatering as required, stripping topsoils and vegetation, overexcavation of organic soils, if warranted, compacting the subgrade and placing engineered fill to the desired grades.


We trust this report meets your needs and addresses the geotechnical issues associated with the proposed construction. We appreciate the opportunity to have worked with you on this project and look forward to a continued association. Please do not hesitate to contact us if you should have any questions, or if we may further assist you as your plans proceed.

Respectfully submitted,

**UNIVERSAL ENGINEERING SCIENCES, INC.**

Certificate of Authorization No. 549



  
Johnathan T. Miller, E.I.  
Staff Geotechnical Engineer  
FL E.I. Number 1100019370



## TABLE OF CONTENTS

1.0 INTRODUCTION .....	1
2.0 SCOPE OF SERVICES .....	1
2.1 PROJECT DESCRIPTION .....	1
2.2 PURPOSE .....	1
2.3 FIELD EXPLORATION .....	2
2.4 LABORATORY TESTING .....	2
3.0 FINDINGS .....	3
3.1 SOIL SURVEY .....	3
3.2 SURFACE CONDITIONS .....	3
3.3 SUBSURFACE CONDITIONS .....	3
4.0 RECOMMENDATIONS .....	4
4.1 GENERAL .....	4
4.2 GROUNDWATER CONSIDERATIONS .....	5
4.3 FOUNDATION RECOMMENDATIONS .....	5
4.3.1 Bearing Pressure .....	5
4.3.2 Bearing Depth .....	6
4.3.3 Bearing Material .....	6
4.3.4 Settlement Estimates .....	6
4.3.5 Floor Slab .....	7
4.4 SITE PREPARATION .....	7
4.5 CONSTRUCTION RELATED SERVICES .....	9
5.0 LIMITATIONS .....	9



## 1.0 INTRODUCTION

In this report, we present the results of the subsurface exploration of the site for the proposed project located in St. Johns County, Florida. We have divided this report into the following sections:

- SCOPE OF SERVICES - Defines what we did
- FINDINGS - Describes what we encountered
- RECOMMENDATIONS - Describes what we encourage you to do
- LIMITATIONS - Describes the restrictions inherent in this report
- APPENDICES - Presents support materials referenced in this report

## 2.0 SCOPE OF SERVICES

### 2.1 PROJECT DESCRIPTION

Project information was provided to us in a recent correspondence with you. We understand the project consists of construction of a new ground storage tank, a booster pump station building, and a generator and pad. The tank will be a circular pre-stressed concrete tank with a diameter of 120 feet and a volume of approximately 2,000,000 gallons. Detailed grading information has not been provided, therefore we have assumed elevating fill heights will not exceed 2 feet. Based on the project information, we have assumed the bearing pressure of the tank to be 1,600 psf.

We note that the applicability of geotechnical recommendations is very dependent upon project characteristics, most specifically: improvement locations, grade alterations, and actual structural loads applied. UES must review any revised site and grading plans, and any revised structural design loads to validate all recommendations rendered herein. Without such review our recommendations should not be relied upon for final design or construction of any site improvements.

### 2.2 PURPOSE

The purposes of this exploration were:

- to explore the general subsurface conditions at the site for the proposed construction;
- to interpret and evaluate the subsurface conditions with respect to the proposed construction; and
- to provide geotechnical engineering recommendations for groundwater considerations, foundation design, and site preparation.



This report presents an evaluation of site conditions on the basis of traditional geotechnical procedures for site characterization. The recovered samples were not examined, either visually or analytically, for chemical composition or environmental hazards. Universal Engineering Sciences would be pleased to perform these services, if you desire.

Our exploration was confined to the zone of soil likely to be stressed by the proposed construction. Our work did not address the potential for surface expression of deep geological conditions. This evaluation requires a more extensive range of field services than performed in this study. We will be pleased to conduct an investigation to evaluate the probable effect of the regional geology upon the proposed construction, if you desire.

### **2.3 FIELD EXPLORATION**

A field exploration was performed on May 15-16, 2017. The approximate boring locations are shown on the attached Boring Location Plan in Appendix A. The approximate boring locations were determined in the field by our personnel using taped measurements from existing features at the site, and should be considered accurate only to the degree implied by the method of measurement used. Samples of the soils encountered will be held in our laboratory for your inspection for 60 days unless we are notified otherwise.

To explore the subsurface conditions within the area of the proposed tank, we located and drilled six (6) Standard Penetration Test (SPT) borings to depths of 60 to 125 feet. To explore the subsurface conditions within the area of the building and generator pad, we located and drilled two (2) SPT borings to depths of 20 to 25 feet below the existing ground surface, in general accordance with the methodology outlined in ASTM D 1586. A summary of this field procedure is included in Appendix A. Split-spoon soil samples recovered during performance of the boring were visually classified in the field and representative portions of the samples were transported to our laboratory for further evaluation.

### **2.4 LABORATORY TESTING**

Representative soil samples obtained during our field exploration were returned to our office and classified by a geotechnical engineer. The samples were visually classified in general accordance with ASTM D 2488 (Unified Soil Classification System).

Nine (9) fines content tests, nine (9) moisture content tests, and one (1) Atterberg Limits test were conducted in the laboratory on representative soil samples obtained from the borings. These tests were performed to aid in classifying the soils and to help quantify and correlate engineering properties. The results of these tests are presented on the Boring Logs in Appendix A. A brief description of the laboratory procedures used is also provided in Appendix A.



### 3.0 FINDINGS

#### 3.1 SOIL SURVEY

Based on the Soil Survey for St. Johns County, Florida, as prepared by the US Department of Agriculture Soil Conservation Service, the predominant predevelopment soil type at the site is identified as Floridana fine sand (62).

A summary of characteristics of these soil series were obtained from the Soil Survey and is included in Table 1.

TABLE 1 Summary of Soil Survey Information						
Soil Type	Constituents	Hydrologic Group	Natural Drainage	Soil Permeability (Inches/Hr)		Seasonal High Water Table
Floridana fine sand (62)	0-30" Fine sand 30-80" Sandy clay loam, fine sandy loam	C/D	Poorly Drained	0-30" 6.0 - 20 30-80" < 0.2		0-1.0

#### 3.2 SURFACE CONDITIONS

The site of the proposed construction is located at to the northeast of the intersection of Parkland Trail and Golfway Drive in St. Johns County, Florida. The property has been cleared of trees and the ground cover consists of sand. The site is visually level and there was no standing water observed at the time of our exploration. There are wet retention ponds located to the east and west of the proposed construction on adjacent properties.

#### 3.3 SUBSURFACE CONDITIONS

The boring locations and detailed subsurface conditions are illustrated in Appendix A: Boring Location Plan and Boring Logs. It should be noted that soil conditions will vary away from and between boring locations. The classifications and descriptions shown on the logs are generally based upon visual characterizations of the recovered soil samples and a limited number of laboratory tests. Also, see Appendix A: Key to Boring Logs, for further explanation of the symbols and placement of data on the Boring Logs. Table 2: General Soil Profile, summarizes the soil conditions encountered.



TABLE 2 General Soil Profile		
Typical depth (ft)		Soil Descriptions
From	To	
0	9 to 12.5	Loose to medium dense fine sand (SP), slightly silty fine sand (SP-SM), and slightly clayey fine sand (SP-SC)
9 to 12.5	20 to 22.5	Loose to very loose slightly silty fine sand (SP-SM)
20 to 22.5	32.5 to 42.5	Medium dense fine sand (SP) and slightly silty fine sand (SP-SM)
32.5 to 42.5	47.5 to 57.5	Dense to very dense fine sand (SP)
47.5 to 57.5	60 to 67.5	Medium dense fine sand (SP)
60 to 67.5	72.5	Weathered limestone (B-2)
72.5	82.5	Loose clayey fine sand - marl (SC) (B-2)
82.5	92.5	Dense to very dense clayey fine sand with cemented sand - marl (SC) (B-2)
92.5	102.5	Loose to medium dense clayey silt - marl (MH) (B-2)
102.5	125*	Medium dense clayey fine sand - marl (SC) (B-2)
* Termination Depth of Deepest Boring ( ) Indicates Unified Soil Classification		

We measured the groundwater level at the boring locations between depths of 6.8 to 7.3 feet below the existing grade.

#### 4.0 RECOMMENDATIONS

##### 4.1 GENERAL

In this section of the report, we present our detailed recommendations for groundwater control, structure foundation, site preparation, and construction related services. The following recommendations are made based upon a review of the attached soil test data, our understanding of the proposed construction, and experience with similar projects and subsurface conditions. We recommend that we be provided the opportunity to review the project plans and specifications to confirm that our recommendations have been properly interpreted and implemented. If the structural loadings or the tank location change significantly from those discussed previously, we request the opportunity to review and possibly amend our recommendations with respect to those changes. The discovery of any subsurface conditions during construction which deviate from those encountered in the borings should be reported to us immediately for observation, evaluation and recommendations.



**Based on the anticipated excessive settlements, after construction of the tank, we recommend the tank be filled with water to preload the site to generate settlements prior to making piping connections. We recommend a waiting period of three weeks prior to making the final connections.**

## **4.2 GROUNDWATER CONSIDERATIONS**

The groundwater table will fluctuate seasonally depending upon local rainfall. The rainy season in Northeast Florida is normally between June and September. Based upon our review of U.S.G.S. data, St. Johns County Soils Survey, and regional hydrogeology, we estimate the seasonal high groundwater level will occur at a depth of 3.5 to 4 feet below the ground surface.

Note, it is possible the estimated seasonal high groundwater levels will temporarily exceed these estimated levels during any given year in the future. Should impediments to surface water drainage exist on the site, or should rainfall intensity and duration, or total rainfall quantities exceed the normally anticipated rainfall quantities, groundwater levels may exceed our seasonal high estimates. We recommend positive drainage be established and maintained on the site during construction. We further recommend permanent measures be constructed to maintain positive drainage from the site throughout the life of the project. We recommend all foundation and pavement grade designs be based on the seasonal high groundwater conditions. It should be noted that significantly disturbed surficial organic material can become unstable and therefore may result in the need of overexcavation of depths greater than what was encountered during the initial geotechnical exploration. The project budget should account for these operations.

## **4.3 FOUNDATION RECOMMENDATIONS**

Based on the results of our exploration, we consider the subsurface conditions at the site adaptable for support of the proposed structures when constructed on a properly designed conventional shallow foundation system. Provided the site preparation and earthwork construction recommendations outlined in Section 4.4 of this report are performed, the following parameters may be used for foundation design.

### **4.3.1 Bearing Pressure**

The maximum allowable net soil bearing pressure for use in shallow foundation design for the building and generator pad should not exceed 2,500 psf. Net bearing pressure is defined as the soil bearing pressure at the foundation bearing level in excess of the natural overburden pressure at that level. The foundations should be designed based on the maximum load which could be imposed by all loading conditions.

Based on the project information provided to us, we estimate the bearing pressure of the slab supporting the proposed tank and contents to be approximately 1,600 psf. Our recommendations relating to the tank are based on this estimation.



#### **4.3.2 Bearing Depth**

The exterior foundations should bear at a depth of at least 18 inches below the finished exterior grades and the interior foundations should bear at a depth of at least 12 inches below the finish floor elevation to provide confinement to the bearing level soils. It is recommended that stormwater be diverted away from the building exteriors to reduce the possibility of erosion beneath the exterior footings.

#### **4.3.3 Bearing Material**

The foundations may bear in either the compacted suitable natural soils or compacted structural fill. The bearing level soils, after compaction, should exhibit densities equivalent to at least 95 percent of the Modified Proctor maximum dry density (ASTM D 1557) to a depth of at least two feet below the foundation bearing level.

#### **4.3.4 Settlement Estimates**

Post-construction settlements of the structures will be influenced by several interrelated factors, such as (1) subsurface stratification and strength/compressibility characteristics; (2) footing size, bearing level, applied loads, and resulting bearing pressures beneath the foundations; and (3) site preparation and earthwork construction techniques used by the contractor. Our settlement estimates for the structures are based on the use of site preparation/earthwork construction techniques as recommended in Section 4.4 of this report. Any deviation from these recommendations could result in an increase in the estimated post-construction settlements of the structures.

Using the estimated net contact pressure of the tank slab and contents, the assumed maximum structural loads and the field data which we have correlated to geotechnical strength and compressibility characteristics of the subsurface soils, we estimate that total settlements of the tank structure and contents will be on the order of 3 to 4 inches. A preloading program could be implemented prior to making final piping connections to reduce total settlements of the tank (after preloading) to less than 1 inch. We estimate that total settlements of the building and generator pad will be on the order of 1 inch or less. Therefore, it is our opinion that a waiting period in the building and generator areas is not needed.

Differential settlements result from differences in applied contact pressures and variations in the compressibility characteristics of the subsurface soils. Because of the general uniformity of the subsurface conditions and the recommended site preparation and earthwork construction techniques outlined in Section 4.4, we anticipate that differential settlements of the structures should be within tolerable magnitudes ( $\frac{1}{2}$  inch or less).



#### 4.3.5 Floor Slab

The floor slab can be constructed as a slab-on-grade member using a modulus of subgrade reaction (K) of 100 pci provided the subgrade materials are compacted as outlined in Section 4.4. If required the floor slab bearing soils can be covered with an impervious membrane. A 10-mil thick plastic membrane is commonly used for this purpose. Care should be exercised not to tear the membrane during placement of reinforcing steel and concrete.

#### 4.4 SITE PREPARATION

We recommend normal, good practice site preparation procedures. These procedures include: stripping the site of vegetation and topsoil, removing any debris, compacting the subgrade, and placing necessary fill or backfill to grade with engineered fill. A more detailed synopsis of this work is as follows:

1. Prior to construction, the location of any existing underground utility lines within the construction area should be established. Provisions should then be made to relocate interfering utilities to appropriate locations. It should be noted that if underground pipes are not properly removed or plugged, they may serve as conduits for subsurface erosion which may subsequently lead to excessive settlement of overlying structure(s).
2. Strip the proposed construction limits of surface vegetation and topsoil within and 5 feet beyond the perimeter of the proposed tank and building areas. Expect typical stripping at this site to depths of 12 inches. Some isolated areas may require deeper stripping or undercutting to remove the root systems of large trees.
3. The groundwater level was encountered at a depth range of 6.8 to 7.3 feet below the existing ground surface at the time of our exploration. We estimate the seasonal high groundwater level will occur at a depth of 3.5 to 4 feet below the ground surface. The groundwater level should be maintained at least 2 feet below the surface of any clearing, stripping, and vibratory compaction procedures. If required, temporary groundwater control can probably be achieved by pumping from sumps located in perimeter ditches. Each sump should be located outside the bearing area to avoid loosening of the fine sandy bearing soils. We anticipate that surface water management could be needed if the construction occurs during a relatively wet climatic period. If construction begins during wet weather, it is recommended the subgrade material not be disturbed other than to strip vegetation. Fill and grading operations should be performed with minimum disturbance to the surficial soils.
4. Compact the subgrade from the surface with a medium weight vibratory roller (a 3- to 4-ton roller, static weight and 3- to 4-foot drum diameter) operating until you obtain a minimum density of at least 95 percent of the Modified Proctor maximum dry density (ASTM D-1557), to a depth of 2 feet below the compacted surface. A minimum of eight (8) complete coverages (in perpendicular directions) should be made in the structure construction area with the roller to improve the uniformity and increase the density of the underlying sandy soils



Should the bearing level soils experience pumping and soil strength loss during the compaction operations, compaction work should be immediately terminated and (1) the disturbed soils removed and backfilled with dry structural fill soils which are then compacted, or (2) the excess pore pressures within the disturbed soils allowed to dissipate before recompacting.

5. Care should be exercised to avoid damaging any nearby structures while the compaction operation is underway. Prior to commencing compaction, occupants of adjacent structures should be notified and the existing conditions of the structures be documented with photographs and survey (if deemed necessary). Compaction should cease if deemed detrimental to adjacent structures. Universal Engineering Sciences can provide vibration monitoring services to help document and evaluate the effects of the surface compaction operation on existing structures. In the absence of vibration monitoring it is recommended the vibratory roller remain a minimum of 50 feet from existing structures. Within this zone, use of a bulldozer or a vibratory roller operating in the static mode is recommended.
6. Place fill material, as required. The fill should consist of "clean," fine sand with less than 5 percent soil fines. You may use fill materials with soil fines between 5 and 12 percent, but strict moisture control may be required. Typically, the soils should exhibit moisture contents within  $\pm 2$  percent of the Modified Proctor optimum moisture content during compaction. Place fill in uniform 10- to 12-inch loose lifts and compact each lift to a minimum density of 95 percent of the Modified Proctor maximum dry density.
7. Once the proposed tank has been constructed we recommend it be filled with water. We then recommend a waiting period of three weeks to allow for anticipated settlements to occur prior to making final piping connections such that total estimated settlements less than 1 inch will occur after making final connections.
8. Perform compliance tests within the fill/backfill at a frequency of not less than one test per 2,500 square feet per lift in the structure area, or at a minimum of three tests, whichever is greater.
9. Test all footing cuts for compaction to a depth of 2 feet. We recommend you conduct density testing in every column footing, and every 100 linear feet in wall footings. We recommend a minimum of 3 density tests in the tank pad area at each test level. Recompanction of the foundation excavation bearing level soils, if loosened by the excavation process, can probably be achieved by making several coverages with a light weight walk-behind vibratory sled or roller.



#### **4.5 CONSTRUCTION RELATED SERVICES**

We recommend the owner retain Universal Engineering Sciences to perform construction materials tests and observations on this project. Field tests and observations include verification of foundation and pavement subgrades by performing quality assurance tests on the placement of compacted structural fill and pavement courses. We can also provide concrete testing, pavement section testing, structural steel testing, and general construction observation services.

The geotechnical engineering design does not end with the advertisement of the construction documents. The design is an on-going process throughout construction. Because of our familiarity with the site conditions and the intent of the engineering design, we are most qualified to address problems that might arise during construction in a timely and cost-effective manner.

#### **5.0 LIMITATIONS**


During the early stages of most construction projects, geotechnical issues not addressed in this report may arise. Because of the natural limitations inherent in working with the subsurface, it is not possible for a geotechnical engineer to predict and address all possible problems. A Geotechnical Business Council (GBC) publication, "Important Information About This Geotechnical Engineering Report" appears in Appendix B, and will help explain the nature of geotechnical issues.

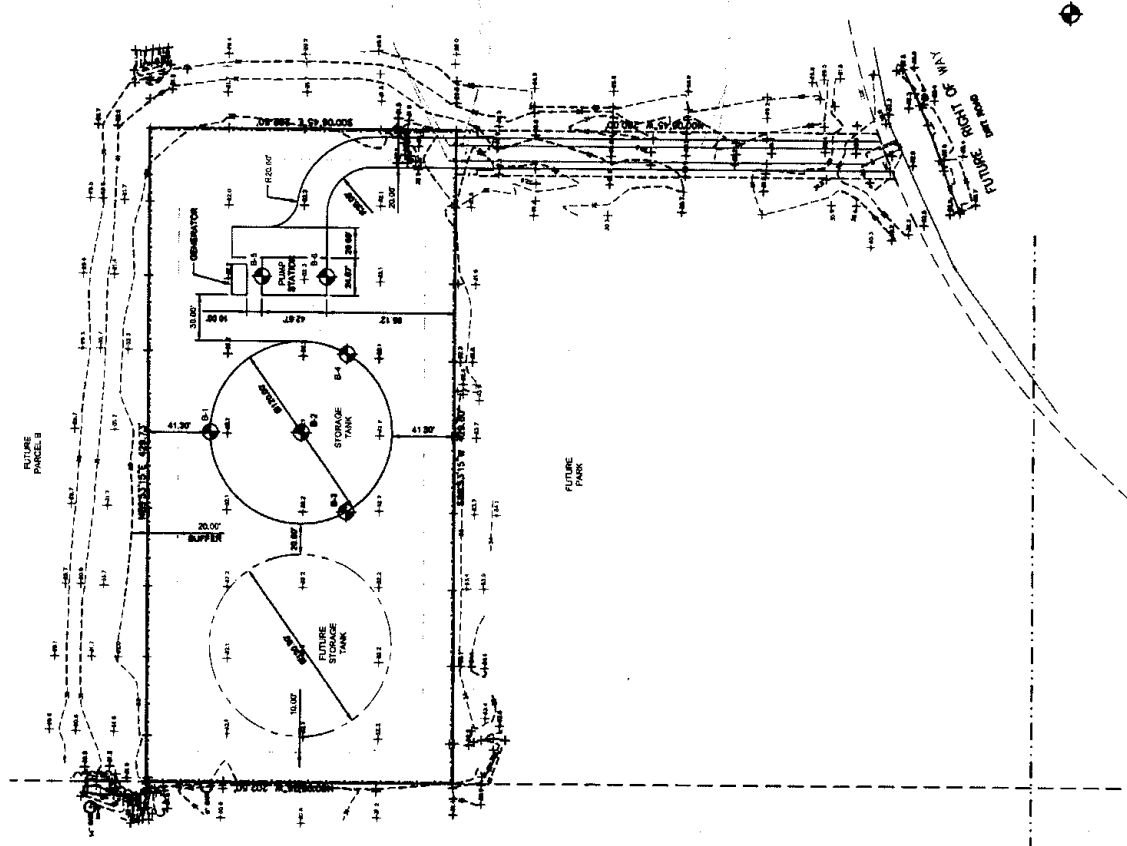
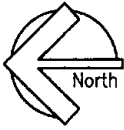
Further, we present documents in Appendix B: Constraints and Restrictions, to bring to your attention the potential concerns and the basic limitations of a typical geotechnical report.



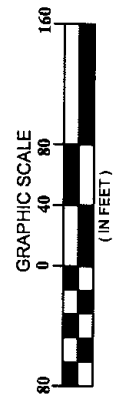
**APPENDIX A**

**BORING LOCATION PLAN  
BORING LOGS  
KEY TO BORING LOGS  
FIELD EXPLORATION PROCEDURES  
LABORATORY TESTING PROCEDURES**

<b>CLIENT:</b> MATT MACDONALD		<b>DRAWN BY:</b> JW <b>DATE:</b> 5/22/17		<b>CHECKED BY:</b> JM <b>DATE:</b> 5/22/17		<b>SCALE:</b> 1"=80' <b>PROJECT NO:</b> 0930.170088.0000 <b>REPORT NO:</b>	
<b>BORING LOCATION PLAN</b>				<b>GEOTECHNICAL EXPLORATION</b> <b>BANNON LAKES GROUND STORAGE TANK</b> <b>ST. JOHNS COUNTY, FLORIDA</b>			
				<b>UNIVERSAL</b> <b>ENGINEERING SCIENCES</b>			
PAGE NO:				<b>FIGURE 1</b>			



**LEGEND**  
 ◆ SPT BORING LOCATIONS





# UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 0930.1700088.0000

REPORT NO.:

PAGE: A-1

PROJECT: GEOTECHNICAL EXPLORATION  
BANNON LAKES GROUND STORAGE TANK  
ST. JOHNS COUNTY, FLORIDA

BORING DESIGNATION: **B-1**  
SECTION: TOWNSHIP:

SHEET: **1 of 2**  
RANGE:

CLIENT: MOTT MACDONALD FLORIDA, LLC

G.S. ELEVATION (ft):

DATE STARTED: 5/15/17

LOCATION: SEE BORING LOCATION MAP

WATER TABLE (ft): 7.3

DATE FINISHED: 5/15/17

REMARKS:

DATE OF READING: 5/16/17

DRILLED BY: BT/MICHAEL

EST. W.S.W.T. (ft):

TYPE OF SAMPLING: ASTM D 1586

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
0						Medium dense brown fine SAND (SP)						
		1-5-6	11									
		6-7-7	14									
		5-6-7	13			Medium dense dark brown slightly Silty fine SAND (SP-SM)						
5		5-6-5	11			Medium dense orangish-brown slightly Clayey fine SAND (SP-SC)	8.3	20.9				
		6-8-11	19	▼		Medium dense brown fine SAND (SP)						
		9-9-12	21									
10		8-7-7	14									
15		2-1-1	2			Very loose to loose grayish-brown slightly Silty fine SAND (SP-SM)						
20		1-1-6	7									
25		5-7-10	17			Medium dense gray fine SAND (SP)						
30		6-6-5	11			Medium dense gray slightly Silty fine SAND (SP-SM)						
35		6-8-10	18			Medium dense to very dense light brown fine SAND (SP)						

BORING LOG 0930.1700088.0000-BANNON LAKES.GPJ UNIENGS.C.GDT 5/22/17



# UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 0930.1700088.0000

REPORT NO.:

PAGE: A-2

PROJECT: GEOTECHNICAL EXPLORATION  
BANNON LAKES GROUND STORAGE TANK  
ST. JOHNS COUNTY, FLORIDA

BORING DESIGNATION: **B-1**  
SECTION: TOWNSHIP:

SHEET: **2 of 2**  
RANGE:

DEPTH (FT.)	S A M P L E	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	S Y M B O L	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
35												
40	X	8-9-9	18									
45	X	15-19-22	41									
50	X	20-25-28	53									
55	X	14-17-23	40									
60	X	9-12-16	28									

BORING LOG 0930.1700088.0000-BANNON LAKES.GPJ UNIENGS.C GDT 5/22/17



# UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 0930.1700088.0000

REPORT NO.:

PAGE: A-3

PROJECT: GEOTECHNICAL EXPLORATION  
BANNON LAKES GROUND STORAGE TANK  
ST. JOHNS COUNTY, FLORIDA

BORING DESIGNATION: **B-2**  
SECTION: TOWNSHIP:

SHEET: **1 of 4**  
RANGE:

CLIENT: MOTT MACDONALD FLORIDA, LLC

G.S. ELEVATION (ft):

DATE STARTED: 5/16/17

LOCATION: SEE BORING LOCATION MAP

WATER TABLE (ft): 7.1

DATE FINISHED: 5/16/17

REMARKS:

DATE OF READING: 5/16/17

DRILLED BY: BT/MICHAEL

EST. W.S.W.T. (ft):

TYPE OF SAMPLING: ASTM D 1586

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
0												
		2-3-5	8			Loose to medium dense brown to grayish-brown fine SAND (SP)						
		7-8-11	19									
		9-6-9	15									
5		6-6-5	11			Medium dense dark brown slightly Silty fine SAND (SP-SM)						
		6-9-10	19	▼		Medium dense light gray to brown slightly Silty fine SAND (SP-SM)						
		7-7-8	15			Medium dense brown fine SAND (SP)						
10		8-8-9	17									
15		2-1-1	2			Very loose grayish-brown slightly Silty fine SAND (SP-SM)						
20		1-1-2	3				7.7	26.2				
25		8-9-9	18			Medium dense gray fine SAND (SP)						
30		9-9-11	20			Medium dense dark gray slightly Silty fine SAND (SP-SM)						
35		9-17-25	42			Dense to very dense gray fine SAND (SP)						

BORING LOG 0930.1700088.0000-BANNON LAKES GFJ UNENGS.GDT 5/22/17



# UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 0930.1700088.0000

REPORT NO.:

PAGE: A-4

PROJECT: GEOTECHNICAL EXPLORATION  
BANNON LAKES GROUND STORAGE TANK  
ST. JOHNS COUNTY, FLORIDA

BORING DESIGNATION: **B-2**  
SECTION:  
TOWNSHIP:

SHEET: **2 of 4**  
RANGE:

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
35												
40		9-13-20	33									
45		12-19-22	41									
50		15-24-40	64									
55		6-8-11	19			Medium dense gray fine SAND with Shell (SP)						
60		4-7-11	18									
65		8-11-6	17									
70		27-27-38	65			Gray weathered LIMESTONE						

BORING LOG 0930.1700088.0000-BANNON LAKES.GPJ UMIENG8C.GDT 5/22/17



# UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 0930.1700088.0000

REPORT NO.:

PAGE: A-5

PROJECT: GEOTECHNICAL EXPLORATION  
BANNON LAKES GROUND STORAGE TANK  
ST. JOHNS COUNTY, FLORIDA

BORING DESIGNATION: **B-2**  
SECTION: TOWNSHIP:

SHEET: **3 of 4**  
RANGE:

DEPTH (FT.)	SAMPLE	BLOWS PER 8" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
70												
75		5-4-5	9			Loose to dense greenish-gray Clayey fine SAND with Phosphate - Marl (SC)						
80		3-3-3	6				20.3	34.0				
85		12-21-22	43									
90		16-50/4"	50/4"			Very dense greenish-gray Clayey fine SAND with cemented Sand layers - Marl (SC)						
95		4-4-6	10			Loose to medium dense dark greenish-gray Clayey SILT - Marl (MH)	66.1	99.7	85	42		
100		3-5-7	12									
105		4-5-7	12			Medium dense dark greenish-gray Clayey fine SAND - Marl (SC)						

BORING LOG 0930.1700088.0000-BANNON LAKES.GPJ UNENGS.GDT 523417



# UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 0930.1700088.0000

REPORT NO.:

PAGE: A-6

PROJECT: GEOTECHNICAL EXPLORATION  
BANNON LAKES GROUND STORAGE TANK  
ST. JOHNS COUNTY, FLORIDA

BORING DESIGNATION: **B-2**  
SECTION: TOWNSHIP:

SHEET: **4 of 4**  
RANGE:

DEPTH (FT.)	S A M P L E	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	S Y M B O L	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
105												
110	X	5-5-8	13									
115	X	6-5-7	12									
120	X	8-10-10	20									
125	X	6-7-8	15									

BORING LOG 0930.1700088.0000-BANNON LAKES.GPJ UNIEGSC.GDT 5/22/17



# UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 0930.1700088.0000

REPORT NO.:

PAGE: A-7

PROJECT: GEOTECHNICAL EXPLORATION  
BANNON LAKES GROUND STORAGE TANK  
ST. JOHNS COUNTY, FLORIDA

BORING DESIGNATION: **B-3**  
SECTION: TOWNSHIP:

SHEET: **1 of 2**  
RANGE:

CLIENT: MOTT MACDONALD FLORIDA, LLC

G.S. ELEVATION (ft):

DATE STARTED: 5/15/17

LOCATION: SEE BORING LOCATION MAP

WATER TABLE (ft): 6.7

DATE FINISHED: 5/15/17

REMARKS:

DATE OF READING: 5/18/17

DRILLED BY: BT/MICHAEL

EST. W.S.W.T. (ft):

TYPE OF SAMPLING: ASTM D 1586

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
0						Medium dense brown fine SAND (SP)						
		1-5-6	11									
		7-8-9	17									
		7-7-8	15									
5		7-7-6	13			Medium dense dark gray slightly Silty fine SAND (SP-SM)						
		7-9-12	21			Medium dense brown fine SAND (SP)						
		8-10-11	21									
10		4-4-2	6			Loose to very loose brown slightly Silty fine SAND (SP-SM)	8.2	27.9				
		2-1-1	2									
15												
		1-1-1	2									
20												
						Medium dense grayish-brown fine SAND (SP)						
25		5-6-7	13									
30		8-10-10	20			Medium dense gray slightly Silty fine SAND (SP-SM)						
35		10-13-16	29			Medium dense to very dense light gray fine SAND (SP)						

BORING LOG 0930.1700088.0000-BANNON LAKES.GPJ UNIENGS.GDT 5/22/17



# UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 0930.1700088.0000

REPORT NO.:

PAGE: A-8

PROJECT: GEOTECHNICAL EXPLORATION  
BANNON LAKES GROUND STORAGE TANK  
ST. JOHNS COUNTY, FLORIDA

BORING DESIGNATION: **B-3**  
SECTION: TOWNSHIP:

SHEET: **2 of 2**  
RANGE:

DEPTH (FT.)	S A M P L E	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	S Y M B O L	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
35												
40	X	10-11-12	23									
45	X	15-24-31	55									
50	X	19-24-31	55									
55	X	15-22-26	48									
60	X											

BORING LOG 0930.1700088.0000-BANNON LAKES.GPJ UNIENGSC.GDT 5/22/17





# UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 0930.1700088.0000

REPORT NO.:

PAGE: A-10

PROJECT: GEOTECHNICAL EXPLORATION  
BANNON LAKES GROUND STORAGE TANK  
ST. JOHNS COUNTY, FLORIDA

BORING DESIGNATION: **B-4**  
SECTION: TOWNSHIP:

SHEET: **2 of 2**  
RANGE:

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)	
									LL	PI			
35													
40	X	12-24-26	50			Very dense to medium dense light gray fine SAND (SP)							
45	X	20-37-33	70										
50	X	8-12-10	22										
55	X	9-8-8	16					3.9	25.6				
60	X	10-15-28	43										

BORING LOG 0930.1700088.0000-BANNON LAKES.GPJ UNENGS.C.GDT 5/22/17



# UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 0930.1700088.0000

REPORT NO.:

PAGE: A-11

PROJECT: GEOTECHNICAL EXPLORATION  
BANNON LAKES GROUND STORAGE TANK  
ST. JOHNS COUNTY, FLORIDA

BORING DESIGNATION: **B-5**  
SECTION: TOWNSHIP:

SHEET: **1 of 1**  
RANGE:

CLIENT: MOTT MACDONALD FLORIDA, LLC

G.S. ELEVATION (ft):

DATE STARTED: 5/16/17

LOCATION: SEE BORING LOCATION MAP

WATER TABLE (ft): 6.8

DATE FINISHED: 5/16/17

REMARKS:

DATE OF READING: 5/16/17

DRILLED BY: BT/MICHAEL

EST. W.S.W.T. (ft):

TYPE OF SAMPLING: ASTM D 1586

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
0						Loose to medium dense brown fine SAND (SP)						
		1-1-3	4									
		3-6-6	12									
		6-4-3	7			Loose dark brown slightly Silty fine SAND (SP-SM)						
5		1-3-5	8			Loose brown fine SAND (SP)						
		4-5-7	12	▼		Loose orangish-brown fine SAND (SP)						
		5-9-10	19			Medium dense brown fine SAND (SP)						
10		6-7-5	12									
						Very loose grayish-brown slightly Silty fine SAND (SP-SM)						
15		1-1-1	2									
20		1-1-1	2									

BORING LOG 0930.1700088.0000-BANNON LAKES.GPJ UNENESSC.GDT 5/22/17



# UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 0930.1700088.0000

REPORT NO.:

PAGE: A-12

PROJECT: GEOTECHNICAL EXPLORATION  
BANNON LAKES GROUND STORAGE TANK  
ST. JOHNS COUNTY, FLORIDA

BORING DESIGNATION: **B-6**  
SECTION: TOWNSHIP:

SHEET: **1 of 1**  
RANGE:

CLIENT: MOTT MACDONALD FLORIDA, LLC

G.S. ELEVATION (ft):

DATE STARTED: 5/15/17

LOCATION: SEE BORING LOCATION MAP

WATER TABLE (ft): 7.0

DATE FINISHED: 5/15/17

REMARKS:

DATE OF READING: 5/18/17

DRILLED BY: BT/MICHAEL

EST. W.S.W.T. (ft):

TYPE OF SAMPLING: ASTM D 1586

DEPTH (FT.)	S A M P L E	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	S Y M B O L	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
0						Loose brown fine SAND (SP)						
		1-1-3	4									
		3-4-4	8									
		4-4-5	9			Loose dark gray slightly Silty fine SAND (SP-SM)	9.9	18.3				
5		5-6-6	12			Medium dense brown fine SAND (SP)						
		5-5-8	13	▼		Medium dense orangish-brown slightly Clayey fine SAND (SP-SC)	11.4	23.8				
		7-10-9	19			Medium dense to loose brown fine SAND (SP)						
10		6-5-5	10									
						Very loose grayish-brown slightly Silty fine SAND (SP-SM)						
15		2-1-1	2									
20		1-1-1	2									
						Loose grayish-brown fine SAND (SP)						
25		6-5-4	9									

BORING LOG 0930.1700088.0000-BANNON LAKES.GPJ UNIENGS.C.GDT 5/22/17



**SYMBOLS**

SYMBOL	DESCRIPTION
N	No. of blows of a 140-lb weight falling 30 inches required to drive standard spoon 1 foot.
WOR	Weight of Drill Rods
WOH	Weight of Drill Rods and Hammer
% REC	Percent Core Recovery from Rock Core Drilling
RQD	Rock Quality Designation
EOB	End Of Boring
BT	Boring Terminated
-200	Fines Content or % Passing NO. 200 Sieve
MC	Moisture Content
LL	Liquid Limit
PI	Plasticity Index
K	Coefficient of Permeability
O.C.	Organic Content
∇	Estimated seasonal high groundwater level
▼	Measured groundwater level at time of drilling

**UNIFIED CLASSIFICATION SYSTEM**

MAJOR DIVISIONS		GROUP SYMBOLS	TYPICAL NAMES
COARSE-GRAINED SOILS More than 50% retained on No. 200 sieve*	GRAVELS 50% or more of coarse fraction retained on No. 4 sieve	CLEAN GRAVELS	GW Well-graded gravels and gravel-sand mixtures, little or no fines
		GRAVELS WITH FINES	GP Well-graded gravels and gravel-sand mixtures, little or no fines
	SANDS More than 50% of coarse fraction passes No. 4 sieve	CLEAN SANDS	GM Silty gravels, gravel-sand-silt mixtures
			GC Clayey gravels, gravel-sand-clay mixtures
		SANDS WITH FINES	SW** Well-graded sands and gravelly sands, little or no fines
			SP** Well-graded sands and gravelly sands, little or no fines
FINE-GRAINED SOILS 50% or more passes No. 200 sieve*	SILTS AND CLAYS Liquid limit 50% or less	SM** Silty sands, sand-silt mixtures	
		SC** Clayey sands, sand-clay mixtures	
		ML Inorganic silts, very fine sands, rock flour, silty or clayey fine sands	
	SILTS AND CLAYS Liquid limit greater than 50%	CL Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays	
		OL Organic silts and organic silty clays of low plasticity	
		MH Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts	
		CH Organic clays or high plasticity, fat clays	
		OH Organic clays of medium to high plasticity	
PT Peel, muck and other highly organic soils			

\* Based on the material passing the 3-in. (75 mm) sieve.  
\*\* Use dual symbol (such as, SP-SM and SP-SC) for soil with more than 5% but less than 12% passing through No. 200 sieve.

**RELATIVE DENSITY  
(sand-silt)**

- Very Loose - Less Than 4 Blows/Ft.
- Loose - 4 to 10 Blows/Ft.
- Medium - 11 to 30 Blows/Ft.
- Dense - 31 to 50 Blows/Ft.
- Very Dense - More Than 50 Blows/Ft.

**CONSISTENCY  
(clay)**

- Very Soft - Less than 2 Blows/Ft.
- Soft - 2 to 4 Blows/Ft.
- Medium - 5 to 8 Blows/Ft.
- Stiff - 9 to 15 Blows/Ft.
- Very Stiff - 16 to 30 Blows/Ft.
- Hard - More Than 30 Blows/Ft.

**RELATIVE HARDNESS  
(Limestone)**

- Soft - 100 Blows for more than 2"
- Hard - 100 Blows for less than 2"

**MODIFIERS**

These modifiers provide our estimate of the amount of minor constituents (SILT or CLAY sized particles) in the soil sample.

- Trace - 5% or less
- With SILT or with CLAY - 6% to 11%
- SILTY or CLAYEY - 12% to 30%
- Very SILTY or Very CLAYEY - 31% to 50%

These modifiers provide our estimate of the amount of organic components in the soil sample.

- Trace - 1% to 2%
- Few - 3% to 4%
- Some - 5% to 8%
- Many - Greater than 8%

These modifiers provide our estimate of the amount of other components (Shell, Gravel, Etc.) in the soil sample

- Trace - 5% or less
- Few - 6% to 12%
- Some - 13% to 30%
- Many - 31% to 50%

## **FIELD EXPLORATION PROCEDURES**

### **Standard Penetration Test Boring**

The penetration boring was made in general accordance with the latest revision of ASTM D 1586, "Penetration Test and Split-Barrel Sampling of Soils". The boring was advanced by rotary drilling techniques using a circulating bentonite fluid for borehole flushing and stability. At 2 ½ to 5 foot intervals, the drilling tools were removed from the borehole and a split-barrel sampler inserted to the borehole bottom and driven 18 inches into the soil using a 140 pound hammer falling on the average 30 inches per hammer blow. The number of blows for the final 12 inches of penetration is termed the "penetration resistance, blow count, or N-value". This value is an index to several in-place geotechnical properties of the material tested, such as relative density and Young's Modulus.

After driving the sampler 18 inches (or less if in hard rock-like material), the sampler was retrieved from the borehole and representative samples of the material within the split-barrel were placed in glass jars and sealed. After completing the drilling operations, the samples for each boring were transported to our laboratory where they were examined by our engineer in order to verify the driller's field classification.

## **LABORATORY TESTING PROCEDURES**

### **Natural Moisture Content**

The water content of the sample tested was determined in general accordance with the latest revision of ASTM D 2216. The water content is defined as the ratio of "pore" or "free" water in a given mass of material to the mass of solid material particles.

### **Percent Fines Content**

The percent fines or material passing the No. 200 mesh sieve of the sample tested was determined in general accordance with the latest revision of ASTM D 1140. The percent fines are the soil particles in the silt and clay size range.

### **Atterberg Limits**

The Atterberg Limits consist of the Liquid Limit (LL) and the Plastic Limit (PL). The LL and PL were determined in general accordance with the latest revision of ASTM D 4318. The LL is the water content of the material denoting the boundary between the liquid and plastic states. The PL is the water content denoting the boundary between the plastic and semi-solid states. The Plasticity Index (PI) is the range of water content over which a soil behaves plastically and is denoted numerically by as the difference between the LL and the PL. The water content of the sample tested was determined in general accordance with the latest revision of ASTM D 2216. The water content is defined as the ratio of "pore" or "free" water in a given mass of material to the mass of solid material particles.

**APPENDIX B**

**IMPORTANT INFORMATION ABOUT THIS  
GEOTECHNICAL ENGINEERING REPORT**

**CONSTRAINTS AND RESTRICTIONS**

## Important Information about This

# Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

### Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical-engineering study conducted for a civil engineer may not fulfill the needs of a constructor — a construction contractor — or even another civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client. No one except you should rely on this geotechnical-engineering report without first conferring with the geotechnical engineer who prepared it. *And no one — not even you — should apply this report for any purpose or project except the one originally contemplated.*

### Read the Full Report

Serious problems have occurred because those relying on a geotechnical-engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

### Geotechnical Engineers Base Each Report on a Unique Set of Project-Specific Factors

Geotechnical engineers consider many unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk-management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical-engineering report that was:

- not prepared for you;
- not prepared for your project;
- not prepared for the specific site explored; or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical-engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light-industrial plant to a refrigerated warehouse;
- the elevation, configuration, location, orientation, or weight of the proposed structure;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an

assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

### Subsurface Conditions Can Change

A geotechnical-engineering report is based on conditions that existed at the time the geotechnical engineer performed the study. *Do not rely on a geotechnical-engineering report whose adequacy may have been affected by: the passage of time; man-made events, such as construction on or adjacent to the site; or natural events, such as floods, droughts, earthquakes, or groundwater fluctuations. Contact the geotechnical engineer before applying this report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.*

### Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ — sometimes significantly — from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide geotechnical-construction observation is the most effective method of managing the risks associated with unanticipated conditions.

### A Report's Recommendations Are Not Final

Do not overrely on the confirmation-dependent recommendations included in your report. *Confirmation-dependent recommendations are not final*, because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations *only* by observing actual subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's confirmation-dependent recommendations if that engineer does not perform the geotechnical-construction observation required to confirm the recommendations' applicability.*

### A Geotechnical-Engineering Report Is Subject to Misinterpretation

Other design-team members' misinterpretation of geotechnical-engineering reports has resulted in costly

problems. Confront that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Constructors can also misinterpret a geotechnical-engineering report. Confront that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing geotechnical construction observation.

### **Do Not Redraw the Engineer's Logs**

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical-engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

### **Give Constructors a Complete Report and Guidance**

Some owners and design professionals mistakenly believe they can make constructors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give constructors the complete geotechnical-engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise constructors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure constructors have sufficient time to perform additional study.* Only then might you be in a position to give constructors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

### **Read Responsibility Provisions Closely**

Some clients, design professionals, and constructors fail to recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help

others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

### **Environmental Concerns Are Not Covered**

The equipment, techniques, and personnel used to perform an *environmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical-engineering report does not usually relate any environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own environmental information, ask your geotechnical consultant for risk-management guidance. *Do not rely on an environmental report prepared for someone else.*

### **Obtain Professional Assistance To Deal with Mold**

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold-prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, many mold-prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical-engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; *none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention.* Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.

### **Rely, on Your GBC-Member Geotechnical Engineer for Additional Assistance**

Membership in the Geotechnical Business Council of the Geoprofessional Business Association exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project. Confer with you GBC-Member geotechnical engineer for more information.



8811 Colesville Road/Suite G106, Silver Spring, MD 20910  
Telephone: 301/565-2733 Facsimile: 301/589-2017  
e-mail: [info@geoprofessional.org](mailto:info@geoprofessional.org) [www.geoprofessional.org](http://www.geoprofessional.org)

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## **CONSTRAINTS AND RESTRICTIONS**

### **WARRANTY**

Universal Engineering Sciences has prepared this report for our client for his exclusive use, in accordance with generally accepted soil and foundation engineering practices, and makes no other warranty either expressed or implied as to the professional advice provided in the report.

### **UNANTICIPATED SOIL CONDITIONS**

The analysis and recommendations submitted in this report are based upon the data obtained from soil borings performed at the locations indicated on the Boring Location Plan. This report does not reflect any variations which may occur between these borings.

The nature and extent of variations between borings may not become known until excavation begins. If variations appear, we may have to re-evaluate our recommendations after performing on-site observations and noting the characteristics of any variations.

### **CHANGED CONDITIONS**

We recommend that the specifications for the project require that the contractor immediately notify Universal Engineering Sciences, as well as the owner, when subsurface conditions are encountered that are different from those present in this report.

No claim by the contractor for any conditions differing from those anticipated in the plans, specifications, and those found in this report, should be allowed unless the contractor notifies the owner and Universal Engineering Sciences of such changed conditions. Further, we recommend that all foundation work and site improvements be observed by a representative of Universal Engineering Sciences to monitor field conditions and changes, to verify design assumptions and to evaluate and recommend any appropriate modifications to this report.

### **MISINTERPRETATION OF SOIL ENGINEERING REPORT**

Universal Engineering Sciences is responsible for the conclusions and opinions contained within this report based upon the data relating only to the specific project and location discussed herein. If the conclusions or recommendations based upon the data presented are made by others, those conclusions or recommendations are not the responsibility of Universal Engineering Sciences.

### **CHANGED STRUCTURE OR LOCATION**

This report was prepared in order to aid in the evaluation of this project and to assist the architect or engineer in the design of this project. If any changes in the design or location of the structure as outlined in this report are planned, or if any structures are included or added that are not discussed in the report, the conclusions and recommendations contained in this report shall not

be considered valid unless the changes are reviewed and the conclusions modified or approved by Universal Engineering Sciences.

### **USE OF REPORT BY BIDDERS**

Bidders who are examining the report prior to submission of a bid are cautioned that this report was prepared as an aid to the designers of the project and it may affect actual construction operations.

Bidders are urged to make their own soil borings, test pits, test caissons or other investigations to determine those conditions that may affect construction operations. Universal Engineering Sciences cannot be responsible for any interpretations made from this report or the attached boring logs with regard to their adequacy in reflecting subsurface conditions which will affect construction operations.

### **STRATA CHANGES**

Strata changes are indicated by a definite line on the boring logs which accompany this report. However, the actual change in the ground may be more gradual. Where changes occur between soil samples, the location of the change must necessarily be estimated using all available information and may not be shown at the exact depth.

### **OBSERVATIONS DURING DRILLING**

Attempts are made to detect and/or identify occurrences during drilling and sampling, such as: water level, boulders, zones of lost circulation, relative ease or resistance to drilling progress, unusual sample recovery, variation of driving resistance, obstructions, etc.; however, lack of mention does not preclude their presence.

### **WATER LEVELS**

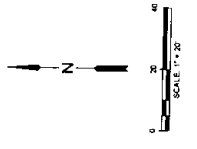
Water level readings have been made in the drill holes during drilling and they indicate normally occurring conditions. Water levels may not have been stabilized at the last reading. This data has been reviewed and interpretations made in this report. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall, temperature, tides, and other factors not evident at the time measurements were made and reported. Since the probability of such variations is anticipated, design drawings and specifications should accommodate such possibilities and construction planning should be based upon such assumptions of variations.

## **LOCATION OF BURIED OBJECTS**

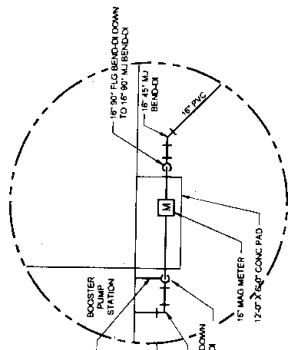
All users of this report are cautioned that there was no requirement for Universal Engineering Sciences to attempt to locate any man-made buried objects during the course of this exploration and that no attempt was made by Universal Engineering Sciences to locate any such buried objects. Universal Engineering Sciences cannot be responsible for any buried man-made objects which are subsequently encountered during construction that are not discussed within the text of this report.

## **TIME**

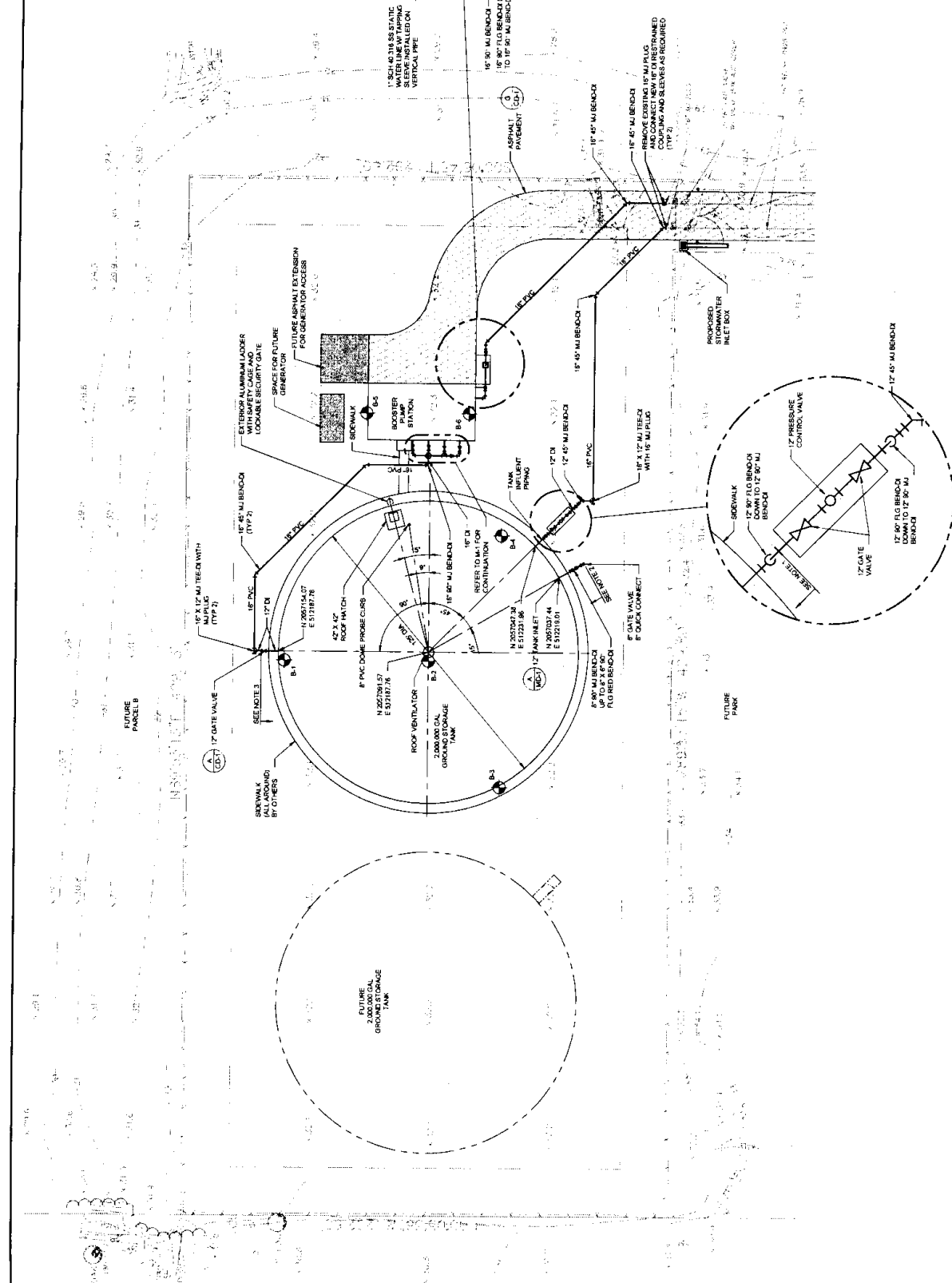
This report reflects the soil conditions at the time of investigation. If the report is not used in a reasonable amount of time, significant changes to the site may occur and additional reviews may be required.



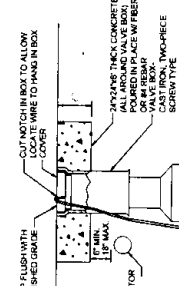
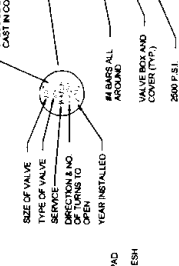
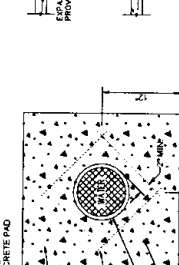
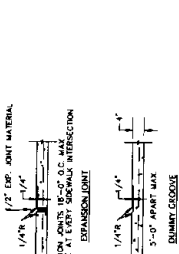
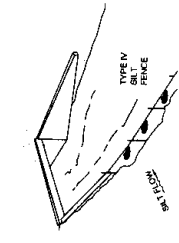
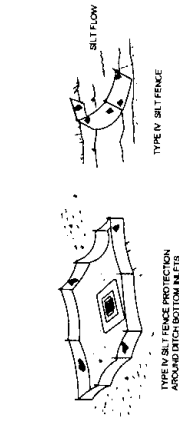
SOIL BORING LOCATION	
NO.	EASTING
B-1	202715.56
B-2	202715.56
B-3	202716.15
B-4	202716.55
B-5	202717.37
B-6	202717.56



- NOTES**
- THE PRE-STRESSED CONCRETE PIPE MANUFACTURER SHALL INSTALL 12\"/>
  - THE PRE-STRESSED CONCRETE PIPE MANUFACTURER SHALL INSTALL 12\"/>
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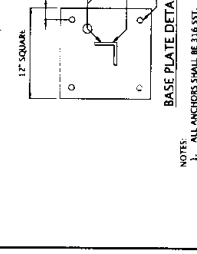
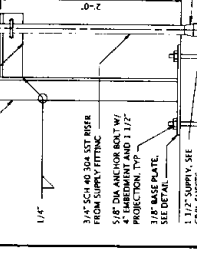
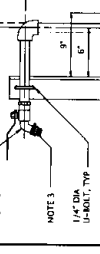
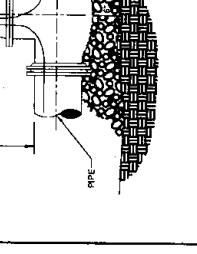
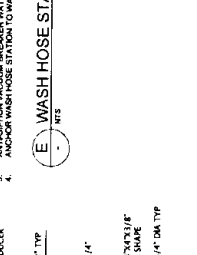
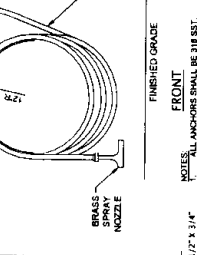
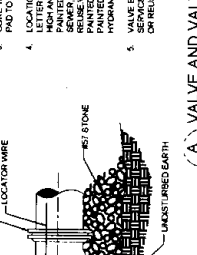
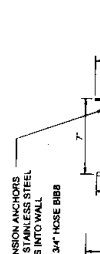
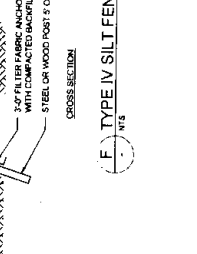
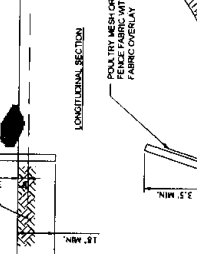
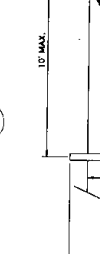
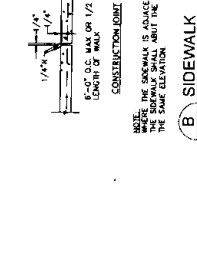
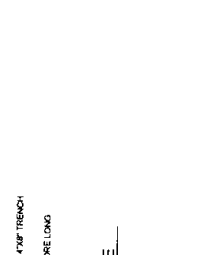
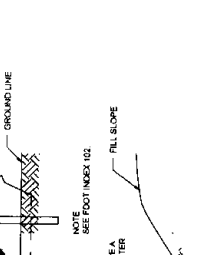
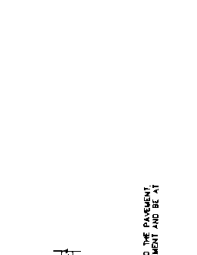
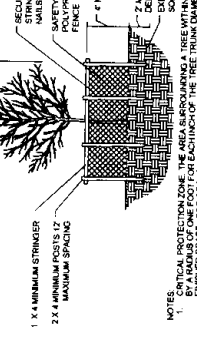
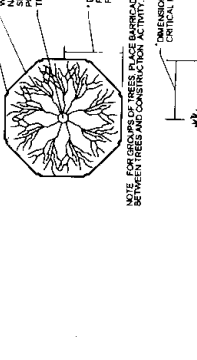
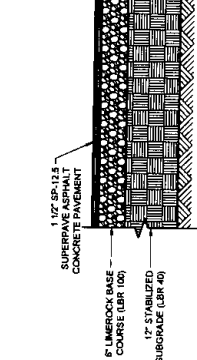


NO. 01		DATE	REVISED	PROJECT		BANNION LAKES GROUND STORAGE TANK AND BOOSTER PUMP STATION	
1				M M ENGINEERS		YARD PIPING PLAN	
2				St. Johns County Utility Department		GROUND STORAGE TANK AND BOOSTER PUMP STATION	
3				ARCHITECTS		DESIGNER	
4				SURVEYORS		DATE	
5				DATE		DATE	
6				DATE		DATE	
7				DATE		DATE	
8				DATE		DATE	



**C SILT FENCE APPLICATIONS**

NOTES:  
 1. DO NOT LAY OUT IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS FLOWING WATER.  
 2. FENCES ARE TO BE USED AT LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.



**NOTES:**

1. CRITICAL PROTECTION ZONE: THE AREA SURROUNDING A TREE WITH A TRUNK DIAMETER AS DESCRIBED ABOVE.
2. TREE PROTECTION BARRICADES SHALL BE LOCATED TO PROTECT A MINIMUM OF 75% OF THE CRITICAL PROTECTION ZONE.

**NOTES:**

1. POLYTYL MESH OR TYPE A FENCE FABRIC WITH FILTER FABRIC OVERLAY.
2. 24" BRASS BALL VALVE WITH EQUAL WEIGHTS BELOW EQUAL WEIGHTS.
3. ANTI-SPIRON VACUUM BREAKER WITH 88 OR EQUAL.

**NOTES:**

1. ALL ANCHORS SHALL BE 3/4" DIA. STEEL WITH 1/2" DIA. PROJECTION.
2. 1/2" DIA. ANCHOR BOLT W/ 1/2" DIA. PROJECTION.
3. 1/2" DIA. ANCHOR BOLT W/ 1/2" DIA. PROJECTION.

**NOTES:**

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2. 1/2" DIA. ANCHOR BOLT W/ 1/2" DIA. PROJECTION.
3. 1/2" DIA. ANCHOR BOLT W/ 1/2" DIA. PROJECTION.

NO.	DATE	BY	CHKD.	REVISION
1				
2				
3				
4				
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6				
7				
8				
9				
10				

**St. Johns County Utility Department**  
 1205 STATE ROAD 16  
 PALM BEACH, FLORIDA 33480  
 PHONE: (888) 286-2628 FAX: (888) 286-2627

**CIVIL DETAILS**

**BANNON LAKES**  
**GROUND STORAGE TANK AND**  
**BOOSTER PUMP STATION**

**Address: Engineers Surveyors**  
**AM - 10000 Colquhoun Pkwy. N. Suite 200**  
 Jacksonville, Florida 32256  
 Telephone: (904) 200-1000

**Scale: 1" = 10'-0"**  
**DATE: 02/25/2017**  
**PROJECT NO: 1700000001**  
**DESIGNER: LESLIE S. SAMUEL, P.E., BOEE**  
**FLORIDA REGISTRATION NO: 68763**

**PROJECT NO: 1700000001**  
**DATE: 02/25/2017**  
**SCALE: 1" = 10'-0"**

**PROJECT NO: 1700000001**  
**DATE: 02/25/2017**  
**SCALE: 1" = 10'-0"**



## SECTION 13216

### WIRE WRAPPED PRESTRESSED CONCRETE TANK

#### PART 1 – GENERAL

##### 1.01 SCOPE OF WORK

- A. Furnish all labor, materials, and incidentals required to completely design, construct, and test the one (1) circular 2.0 MG reclaimed water storage tank wire wrapped pre-stressed concrete tank with rainfall capture system, as shown on the Drawings.
- B. CONTRACTOR shall furnish and install all piping and fittings within the perimeter of the tank and extending to the first pipe joint or valve outside the tank perimeter, and as shown on the Drawings and in other Sections.
- C. The reclaimed water storage tank will require post-loading of the area with water for three weeks after construction and prior to making any piping connections as described in the geotechnical report.

##### 1.02 SUBMITTALS

- A. Submit shop drawings, design calculations, and product data, showing materials of construction and details of installation for construction of the new reclaimed water storage tank:
  - 1. Product Data: Manufacturer's information, specifications, and installation instructions for the tank appurtenances. This submittal will be reviewed for operational requirements only. Appurtenances may include the following:
    - a. Inlet, outlet, overflow, subdrains and drain pipes
    - b. Ladders, walkways, platforms, stairs and railings, sumps, manholes, and pipe sleeves
    - c. Wall manways and dome sleeves
    - d. Settlement monuments
    - e. Liquid level indicators
    - f. Perimeter concrete ventilators
    - g. Roof ventilators and curbs
    - h. And other appurtenances
  - 2. Shop Drawings: Detailed erection shop drawings and construction procedures stamped by a professional ENGINEER licensed in the State of Florida. Provide complete details for the foundation, floor slab, walls, piping, and all other details and accessories necessary to build the tank. The submittal will be reviewed for operational requirements only and will be used in the field by the OWNER's representative during construction.
- B. Design Data
  - 1. Submit design calculations of the tank stamped by a professional ENGINEER licensed in the State of Florida for the project records. These

## SECTION 13216

### WIRE WRAPPED PRESTRESSED CONCRETE TANK

calculations shall be provided at the time of initial shop drawing review. If changes occur during construction, the Tank MANUFACTURER will also provide the "as-built tank" design calculations for re-submittal upon completion of construction.

2. Rainfall capture system calculations shall be provided.

#### C. Certification

1. The tank MANUFACTURER shall be responsible for the design and construction of the prestressed concrete tanks. The tank MANUFACTURER shall submit written certification prepared, sealed, and signed by a professional ENGINEER licensed State of Florida that the design, details, and construction conform to the requirements of AWWA D110, this Section, and applicable city and state building codes.
2. Tank MANUFACTURER shall submit results of the concrete strength test following 28 days.

#### D. Statement of Qualification

1. Submit experience record in the design and construction of wire wrapped prestressed concrete tanks as specified herein.
2. Submit ACI CP-60 certification for each nozzleman and foreman to be employed on the project as specified herein.

### 1.03 REFERENCE STANDARDS AND DOCUMENTS

#### A. American Society for Testing and Materials (ASTM)

1. ASTM A1008 - Standard Specification for Commercial Steel, Sheet, Carbon, Cold-Rolled
2. ASTM A 185 - Standard Specification for Steel Welded Wire Reinforcement, Plain, for Concrete.
3. ASTM A416/A416M - Standard Specification for Steel Strand, Uncoated Seven-Wire for Prestressed Concrete
4. ASTM A615 - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement.
5. ASTM A722 - Standard Specification for Uncoated High-Strength Steel Bars for Prestressing Concrete
6. ASTM A821/A821M - Standard Specification for Steel Wire, Hard Drawn for Prestressing Concrete Tanks.
7. ASTM A884/A884M - Standard Specification for Epoxy Coated Steel Wire and Welded Wire Reinforcement.
8. ASTM A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability.

## SECTION 13216

### WIRE WRAPPED PRESTRESSED CONCRETE TANK

9. ASTM C31/C31M – Test Methods for Making and Curing Concrete Test Specimens in the Field.
  10. ASTM C33/C33M – Specification for Concrete Aggregates.
  11. ASTM C39/C39M – Test Method for Compressive Strength of Cylindrical Concrete Specimens.
  12. ASTM C143 – Standard Test Method for Slump of Hydraulic-Cement
  13. ASTM C172 – Standard Practice for Sampling Freshly Mixed Concrete.
  14. ASTM C231 – Standard Test Method for Air Content of Freshly Mixed Concrete by Pressure Method.
  15. ASTM C881/C881M – Standard Specification for Epoxy-Resin-Base Bonding Systems for Concrete
  16. ASTM C1140/C1140M – 11 – Standard Practice for Preparing and Testing Specimens from Shotcrete Test Panels.
  17. ASTM D1056 – Standard Specification for Flexible Cellular Materials- Sponge or Expanded Rubber
  18. ASTM D1752 – Standard Specification for Preformed Sponge Rubber and Cork Expansion Joint Filler for Concrete Paving and Structural Construction
  19. ASTM D412 – Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers - Tension
  20. ASTM E1745 – Standard Specifications for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill Under Concrete Slabs
- B. American Concrete Institute (ACI)
1. ACI 305R – Hot Weather Concreting.
  2. ACI 306R – Cold Weather Concreting.
  3. ACI 318 - Building Code Requirements for Structural Concrete
  4. ACI 350 - Environmental Engineering Concrete Structures
  5. ACI 506R - Guide to Shotcrete
  6. ACI CP-60 Shotcrete Nozzlemen Certification Publication
  7. ACI 372R-03 – Design and Construction of Circular Wire and Strand Wrapped Prestressed Concrete Structures
- C. American Water Works Association (AWWA)
1. AWWA D110-04 – Wire- and Strand- Wound Circular-Prestressed Concrete Water Tanks.
- D. U.S. Army Corps of ENGINEERs Spec. CRD-C572 - Specification for PVC Waterstop
- E. Florida Building Code, 2014, 5<sup>th</sup> edition
- F. Occupational Safety and Health Administration (OSHA)

## SECTION 13216

### WIRE WRAPPED PRESTRESSED CONCRETE TANK

- G. Concrete Reinforcing Steel Institute (CRSI) – Code of Standard Practice
- H. Where reference is made to one of the above standards, the revision in effect at the time of bid opening shall apply

#### 1.04 QUALITY ASSURANCE

- A. The tank shall be wire wrapped prestressed concrete tank with a Type II core wall as manufactured by Crom Corp. Gainesville, FL or Precon Corp. Newberry, FL. No other tank MANUFACTURER shall be acceptable.
- B. The tank design and construction shall be performed by an established manufacturer of recognized ability, having at least 10 years of experience in the design and construction of wire wrapped circular prestressed concrete tanks as specified herein. The design and construction of all aspects of the floor slab, walls, prestressing, and shotcrete of the wire wound circular prestressed concrete tank shall be performed by the tank MANUFACTURER and shall not be subcontracted or otherwise assigned.
  - 1. If the tank manufacturer is the Design-Builder, then they shall have successfully completed a minimum of three (3) Design Build projects of the scope and dollar value of that being proposed in the past seven (7) years.
- C. All excavation, backfill, grading, underslab piping, and concrete encasement shall be performed by the Design Builder or tank MANUFACTURER. All concrete work shall be under the responsibility of the tank MANUFACTURER including the base slab and foundation.
- D. The MANUFACTURER shall have designed and constructed at least 10 wire wrapped prestressed concrete tanks conforming to AWWA D110 with Type II core wall(s) that have been put into service within the last 10 years. The tanks shall have a diameter and capacity of not less than 75 percent nor more than 150 percent of the diameter and capacity of the proposed tank.
- E. The Design Builder and tank MANUFACTURER shall refer to the geotechnical engineering report prepared by Universal in preparation of their design.
- F. Foreman supervising the placing of the shotcrete shall have a minimum of five (5) years' experience as a nozzleman. Each shotcrete nozzleman shall have a minimum of five (5) years' experience on similar applications and shall be able to demonstrate by tests, if required, his/her ability to satisfactorily gun shotcrete of the required quality. All shotcrete nozzleman shall be certified by the American Concrete Institute (ACI) as outlined in the ACI certification publication CP-60.

## SECTION 13216

### WIRE WRAPPED PRESTRESSED CONCRETE TANK

#### 1.05 DESIGN CRITERIA FOR THE RECLAIMED WATER TANK

- A. Tank construction for the one (1) circular wire wrapped prestressed concrete domed reclaimed water tank.
1. Inside diameter: 125 feet
  2. Tank finished floor elevation: 32.0 feet at bottom of sidewall (NAVD 88)
  3. Finished grade around tank exterior perimeter: 32.1 feet.
  4. Nominal Liquid Capacity – 2.0 Million Gallons
    - a. Water elevation levels
    - b. Maximum water elevation level: 53.80 feet
    - c. Minimum water elevation level: 33.00 feet
    - d. Maintenance water elevation level: 32.0 (Empty) feet
  5. Maximum Height of Structure – 35.0 feet
  6. Maximum Water Level – Assumed to be +/- 21.8 feet from Finished Floor Elevation
  7. Maximum Influent/Effluent Flow Rate – 2,000 gpm
  8. Floor – Reinforced Concrete with 6mil polyethylene film moisture barrier under concrete floor slab
  9. Wall – Bonded wire-prestressed wall consisting of Type II shotcrete corewall encasing a continuous steel diaphragm
  10. Roof – 1/12 rise free span concrete dome
  11. Connections to the tank and piping requirements including tank penetrations, watertight appurtenances and concrete encasement below tank for the following:
    - a. 12-inch diameter influent ductile iron pipe up to location shown and described on Drawing C-3: Yard Piping Plan. Inside the tank, an influent stand-pipe should be installed. The pipe should penetrate the floor and rise to high water level with a 12-inch tee, pipe, and a 12-inch 90 degree bend down to a 90 degree bend installed on the effluent of the pipe. The effluent 90 bend centerline shall be 2'6" above the floor. Pipe supports shall be provided on the wall and floor as required.
    - b. 12-inch diameter effluent ductile iron pipe up to location shown and described on Drawing C-3: Yard Piping Plan.
      - 1) Provide outlet pipe with fiberglass vortex plate
    - c. 8-inch diameter drain pipe up to location shown and described on Drawing C-3: Yard Piping Plan.
      - 1) Provide drain pipe with 4-foot by 3-inches deep dish sump
      - 2) Pipe shall extend below grade to outside tank diameter. Install an 8-inch 90 degree mechanical joint bend, 8-inch ductile iron pipe to bring pipe approximately 3 feet above grade, 8-inch by 6-inch reducing 90 degree flanged bend, 6-inch gate valve, and 6-inch 316 SST Camlock connection suitable for connection to a portable pump. Provide pipe supports as necessary.

SECTION 13216

WIRE WRAPPED PRESTRESSED CONCRETE TANK

- d. 8-inch diameter flanged pipe sleeve for conduit installed in the dome of the tank.
12. Tank accessories furnished and installed to include:
  - a. Tank access hatch curb and cover
  - b. Exterior ladder with safety cage and lockable security gate
  - c. Interior fiberglass ladder with fiberglass cage and cable for fall prevention
  - d. Wall manhole(s)
  - e. Fiberglass liquid level indicator
  - f. Provisions for mounting conduit for a level transducer, level sensor and float switches including conduit mounting brackets and a dome probe opening/curb
  - g. Provide a 6-foot wide thickened boss at exterior ladder for the full height of the wall.
13. Provisions for light pole and light switches located at exterior ladder
14. Precast concrete overflows in the dome of the roof
15. Guardrail and toe guard around entire tank
16. Dome ventilators as required
17. Rain capture system with parapet wall and sloped edge of dome with grout so that runoff from dome drains to the precast concrete overflows or other proposed method of rainfall capture. The 25 year, 24-hour storm event of 9.5-inches should be used for the design of the rain capture system.
18. A tank placard shall be installed on the exterior of the tank. Information shall include tank contractor, year of construction, job number, dates of warranty, depth, diameter, and type of interior coating.
19. Exposed surfaces of tank, including walls, floor, and dome, shall be coated with an epoxy approved for contact with reclaimed water. Tank coatings furnished and installed to include:
  - a. Exterior - Rubbed concrete finish
  - b. Interior -  
Surface Preparation: SSPC-SP13  
1st Coat: Tnemec Series N69 (6.0 – 8.0 mils DFT) or equal  
2nd Coat: Tnemec Series N69 (6.0 – 8.0 mils DFT) or equal  
Minimum total DFT for 2 Coats: 14.0 mils
20. Floor – Non-prestressed cast-in-place reinforced concrete
  - a. The minimum thickness of the floor slab is 6-inch. Provide thicker floor slab as necessary to resist buoyant forces with the groundwater table at existing (approximate elevation 28.6 feet) elevation. The floor system shall have a thickened edge for the exterior wall footing. Slabs greater than 6-inch shall have top and bottom reinforcement in each direction. The transition from the bottom of the footings and pipe encasements to the underside of the floor slab shall not be steeper than 2 horizontal to 1 vertical. The pipe encasements shall not be less than 6-inch for pipes less than 12-inch in diameter and not less than 12-inch for pipes greater than or equal to 12-inch in diameter. All pipe encasements shall be flared

## SECTION 13216

### WIRE WRAPPED PRESTRESSED CONCRETE TANK

- at tank wall. The clearance in all directions shall not be less than 12-inch.
- b. The new grade elevations for the use in the calculations are as follows:  
Water Storage Tank – 32.0 feet (Note: existing grade is currently at approximate elevation 32.1 feet).
21. Hydrostatic Floor/Wall Joint – Fixed, non-hydrostatic, rotating, or translating
22. Wall - Type II Shotcrete core wall with metal diaphragm.
23. Horizontal prestressing shall be continuous. Discontinuous prestressing tendons or strands will not be allowed.
24. All vertical and horizontal joints shall be designed to minimize leakage. Joints with gaps shall not be allowed.
25. Equipment /Structural Dead and Dynamic Loads
- a. Ventilators
- b. Miscellaneous (Walkways, Piping, valves, etc.)
26. Tank MANUFACTURER should thicken areas in the floor or walls where additional loadings or reinforcement is needed.
27. Core Wall
- a. The wire-wound, prestressed concrete tank core wall shall be designed as a thin shell cylindrical element using shotcrete and an embedded, mechanically bonded, steel shell diaphragm.
- b. The design of the core wall shall take into account appropriate edge restraint.
- c. The minimum core wall thickness shall be 3½-inch.
28. Roof - Concrete dome
- a. Roof shall be a prestressed cast-in-place concrete dome with a minimum thickness of 3-in except at the edge, where it shall be 8-in.
- b. Dome shell reinforcement shall consist of reinforcing bars or welded wire fabric meeting ASTM A 185, not galvanized. Bolsters for wire fabric and reinforcing bars shall be plastic. Steel reinforcement shall meet the requirements of AWWA D110-04. Wire ties shall be galvanized.
- c. The dome ring girder shall be prestressed with sufficient wire to withstand the dome dead load and design live loads. The ring girder shall have cross section suitable to accept the applied prestressing forces.
- d. The high water level in the tank shall be permitted to encroach on the dome shell so that the tank may overflow out of the eight (8) precast concrete overflows.
- e. The dome shall be designed as a free-span, spherical thin shell with one-tenth rise.

SECTION 13216

WIRE WRAPPED PRESTRESSED CONCRETE TANK

- f. Dome Edge Design: The dome edge and upper wall shall be designed to resist the moments, thrusts, and shears that occur in this region due to dome and wall prestressing and loading conditions.
  - g. All surfaces in the wall/dome ring girder joint shall be coated with an approved bonding epoxy.
  - h. The tank shall incorporate a rainfall capture system. The system shall include a 1'-0" tall (above top of wall at tank dome edge) parapet wall with a high point 180 degrees from the low point. The low point of the rainfall capture system shall coincide with one of the #675 precast concrete overflows to allow captured rainfall to flow into the tank. The parapet wall shall be reinforced with drilled and epoxied anchors in the perimeter of the tank wall. Parapet wall shall be chamfered on each side.
  - i. The tank shall include aluminum guardrail around the perimeter of the tank installed adjacent to the inside face of the parapet wall.
- B. The tank MANUFACTURER shall use the following minimum information in the design of the tank and tank appurtenances:
- 1. Unit Weights:
    - a. Concrete and Shotcrete - 150 pcf
    - b. Soil - 120 pcf
    - c. Water - 62.4 pcf
    - d. Steel - 490 pcf
  - 2. Live Load:
    - a. Floor - 62.4 pcf times the height of water to overflow plus 6-inch
    - b. Assume ground water level at elevation 28.6 feet.
    - c. Buoyant forces shall be offset with dead weight.
    - d. Roof - 20 psf horizontal projection to tank roof but the roof live load is reducible as allowed by the building code.
  - 3. Wind Load:
    - a. Shall be calculated using ASCE 7-10 based on an ultimate wind load of 142 mph.
    - b. Building Risk Category III
    - c. Exposure C
  - 4. Earth Pressure:
    - a. Equivalent fluid pressure above groundwater level - 60 pcf
    - b. Equivalent fluid pressure below groundwater level - 90 pcf
    - c. Live Load surcharge equivalent to 2-ft earth
  - 5. Seismic Load:
    - a. Importance Factor: 1.25
    - b. Spectral Response Accelerations:(S<sub>s</sub>,S<sub>1</sub>):0.102, 0.053
    - c. Site Class: D

## SECTION 13216

### WIRE WRAPPED PRESTRESSED CONCRETE TANK

- d. Spectral Response Coefficients:(Sds,Sd1):0.109, 0.085
- e. Seismic Design Category: B
- f. Seismic Force Resisting System:Flat Bottom Ground Supported Tanks Reinforced or Prestressed Concrete Reinforced Non-Sliding Base
- g. Seismic Response Modification Factor: 2
- h. Seismic Response Coefficient: 0.0681
6. Allowable Bearing Pressure: 2,500 psf
7. Applied Bearing Pressure: Refer to Geotechnical Report for expected applied bearing pressures with correlating settlements.
8. Ventilator(s) Capacity Requirements
  - a. Fill rate at PHF of 5.75 mgd - 540 cfm
9. Overflow Capacity Requirements for Precast Concrete Overflows
  - a. Overflow Rate at maximum pump capacity = 5.75 mgd
  - b. There will be eight (8) #675 overflows on the reclaimed GST, each placed at 3 inches above the high water level.
  - c. Discharge from overflows shall not erode the storage tank subgrade. The discharge will be allowed to flow over the perimeter sidewalk to the yard.

#### 1.06 WARRANTY

- A. The tank MANUFACTURER shall warrant the tank structure against any defective materials or workmanship for a period of 5 years from the date of tank acceptance. If any materials or workmanship proves to be defective within that period, they shall be replaced or repaired by the tank MANUFACTURER at no additional cost to the OWNER.
- B. If any leakage or other defects appear within the warranty period, the Tank Manufacturer shall promptly repair the tank at its own expense upon written notification by the Owner that such defects have been found. This warranty shall not apply to any accessory, equipment or other product that is not a structural part of the tank or manufactured by a company other than the tank construction company. Leakage is liquid appearing on the exterior of the tank, the source of which is from inside the tank.

#### PART 2 – PRODUCTS

##### 2.01 GENERAL

- A. Materials shall be new and shall conform to the material specified in AWWA D110 and the following material standards.

## SECTION 13216

### WIRE WRAPPED PRESTRESSED CONCRETE TANK

- B. Products listed in this section shall be applicable to locations shown in drawings or otherwise specified in the design criteria of this specification.

#### 2.02 MATERIALS

- A. Concrete and reinforcing steel for the tank core wall and roof dome shall conform to the requirements of AWWA D110. Concrete and reinforcing steel for all other structural elements shall conform to the requirements of Division 3. Admixtures causing accelerated or retarded set of the concrete shall not be used unless approved in writing by the ENGINEER. Crystalline waterproofing (Xypex) shall be provided for the tank as outlined below:
1. Concrete Strength: Minimum concrete strength at 28 days.
    - a. Pipe encasement  $f_c = 3000$  psi
    - b. Footing and floors  $f_c = 4000$  psi
    - c. Shotcrete  $f_c = 4000$  psi
    - d. Dome roof  $f_c = 4000$  psi
- B. Xypex Chemical Corporation, Richmond, B.C., Canada. Technical information may be obtained from the following:
1. TNEMEC Company SteelCon Coating Systems, Inc.  
2100 3<sup>rd</sup> Avenue South  
Irondale, Alabama 35210  
Phone: 205-951-2086
  2. Equivalent materials as approved by the OWNER 14 days prior to the bid.
  3. Xypex Admix C-1000R
  4. Xypex Admix C-1000R/dye shall be added to the concrete during the batching operation to provide chemical resistance and water proofing. The Xypex Admix C-1000R shall be added at 5 percent, including dye, of the same weight of Portland Cement. The amount of cement shall remain the same and shall not be reduced. The colorant/dye shall be added at the Xypex Manufacturing Plant.
  5. For precast concrete manufacturers, this usually means adding the Xypex into their pan-type mixers.
  6. Retardation of set may occur when using Xypex Admix C-1000 R. The amount of retardation will depend upon the concrete mix design and the dosage rate of the admixture. Consult with the manufacturer regarding the proper dosage rate.
  7. Concrete that contains Xypex Admix C-1000 R shall be cured as per "Standard for Curing Concrete" (ACI 308).

## SECTION 13216

### WIRE WRAPPED PRESTRESSED CONCRETE TANK

- C. Prestressed Wire (if utilized)
  - 1. Unless otherwise approved in writing by the ENGINEER, prestressed wire shall conform to ASTM A821, suitable for redrawing and having a minimum ultimate strength of 231,000 psi.
  
- D. Prestressed Strand (if utilized)
  - 1. Unless otherwise approved in writing by the ENGINEER, prestressing strand shall be galvanized seven-wire stress-relieved strand conforming to ASTM A416, Grade 250 prior to galvanizing and ASTM A603 after galvanizing.
  - 2. Zinc coating shall meet the requirements of ASTM A475, Table 4, Class H.
  - 3. The use of single wire prestressing strands will not be allowed.
  
- E. Shotcrete
  - 1. Shotcrete shall be in accordance with AWWA D110.
  - 2. Shotcrete shall conform to the requirements of ACI 506.2 except as modified herein.
  - 3. All shotcrete mixes shall utilize Type I/II cement.
  - 4. A maximum of 25 percent cementitious material may be flyash.
  - 5. All shotcrete in contact with diaphragm or prestressing wire shall be proportioned to consist of not more than three parts sand to one part Portland cement by weight. All other shotcrete shall be proportioned to consist of not more than four parts sand to one part Portland cement by weight.
  - 6. Admixtures shall not contain more than trace amounts of chlorides, fluorides, sulfides or nitrates.
  - 7. Shotcrete mixes used in the tank construction shall conform to the following.
    - a.  $f'_c = 4000$  psi
    - b. Maximum w/c ratio = 0.42
    - c. Slump = 4"  $\pm$  1"
  
- F. Steel Diaphragm
  - 1. Steel diaphragm shall conform to ASTM A1008 steel, shall be a minimum of 26-gauge thickness and shall be vertically ribbed with reentrant angles providing a mechanical interlock between inside and outside shotcrete corewalls.
  
- G. Elastomeric Materials
  - 1. Waterstops
    - a. Waterstops shall be extruded from an elastomeric plastic compound with virgin polyvinyl chloride as the basic resins. The

## SECTION 13216

### WIRE WRAPPED PRESTRESSED CONCRETE TANK

waterstop shall meet the performance criteria in the Corps of Engineers Specifications CRD-C572.

2. Elastomeric Bearing Pad
  - a. Elastomeric Bearings Pads shall be a neoprene or natural rubber pad conforming to ASTM D2000, line call-outs 2BC415A14B14 and 4AA420AB respectively.
- H. Moisture Barrier
  1. The moisture barrier shall be polyethylene Class A conforming to ASTM D4397. The thickness shall not be less than 6 mil.
- I. Epoxy
  1. Epoxy Sealants
    - a. Epoxy used for sealing the steel shell shall conform to the requirements of ASTM C 881.
    - b. Epoxy used for sealing the steel shall be Type III, Grade 1, and shall be a 100 percent solids, moisture insensitive, low modulus epoxy system.
    - c. When pumped, maximum viscosity of the epoxy shall be 10 poises at 77 degree F.
    - d. The epoxy sealants used in the tank construction shall be suitable for bonding to concrete, shotcrete, PVC, and steel.
  2. Bonding Epoxy
    - a. Epoxy resins used for enhancing the bond between fresh concrete and hardened concrete shall conform to the requirements of ASTM C 881.
    - b. Epoxy resins shall be a two-component, 100% solids, moisture-insensitive epoxy and shall be Type II, Grade 2.
- J. Appurtenances
  1. Wall Manway
    - a. The wall manway shall be a watertight rectangular, made of Type 316 stainless steel construction. The manway shall have clear opening minimum dimension of 17" x 52". The manway cover plate with a stainless steel hinge shall be mounted on the inside. A gasket shall be provided between manway cover and the wall sleeve and attached to the manway cover. The manway shall be capable of being "dogged" tight from the exterior of the tank.
    - b. Manway locations shall be coordinated with the Owner prior to shop drawing submittal.
  2. Liquid Level Indicator and/or Transmitter
    - a. Refer to the RFP document for the required mounting bosses sufficient for supporting electrical/instrumentation attachments as

## SECTION 13216

### WIRE WRAPPED PRESTRESSED CONCRETE TANK

required in addition to any bosses required for the mechanical liquid level indicator; this shall be coordinated and provided by the collective team (i.e. tank supplier, and Design Build team).

3. Settlement Monument
  - a. Provide settlement monuments on the perimeter of each tank (four) at 90-deg increments, 31.25 feet from the center of tank (four) at the same 90-deg increments as those on the perimeter, and at the center of the tank (one) to survey and monitor total, differential, and angular settlement for compliance with ACI 372R and settlement estimates.
4. Roof hatch
  - a. Roof hatch shall be an aluminum or fiberglass hatch. The hatch shall be designed for a 300 psf live load. The hatch shall have a 42-in square minimum opening. The door shall be equipped with a hold open device that shall automatically lock when the door is in the fully opened position. Springs, where required, shall be of stainless steel. Hatch shall be provided with spring latch and padlock hasp. Hatch shall be furnished with stainless steel hardware throughout. A suitable stainless steel anchor system for attachment to concrete curb on roof shall be provided. Provide continuous 1/4-in thick, 60 durometer neoprene sheet gasket under hatch flange and fasten flange through gasket. Hatch shall be watertight.
5. Roof Ventilator
  - a. Roof ventilator shall be of aluminum or fiberglass construction. The ventilators shall be provided with a 24 mesh stainless steel fail safe pop out insect screen in case of blocked up screens. A suitable anchor system for attachment to roof dome shall be provided. Ventilators shall be designed for operational and rapid draw down events. The minimum vent size shall be a 50-in diameter opening. A suitable stainless steel anchor system for attachment to concrete curb on roof shall be provided. Provide continuous 1/4-in thick, 60 durometer neoprene sheet gasket under ventilator flange and fasten flange through gasket.
6. Precast Concrete Overflows
  - a. The precast concrete overflows shall serve for ventilation and overflow purposes. They shall be precast concrete and located 45-degrees apart from one another on the dome near the edge. The overflows shall be provided with a 24 mesh, non-corrodible, stainless steel, fail safe, pop out insect screen in case of blocked up screens.

## SECTION 13216

### WIRE WRAPPED PRESTRESSED CONCRETE TANK

7. Guardrail
  - a. Guardrail shall be of aluminum conforming to OSHA. Railing shall be around the entire perimeter of the tank. The guardrail shall consist of vertical posts, mid rail, and a top rail 42-inches in height. Two stainless steel safety chains with hooks shall be installed at the ladder. The chains shall be installed at the top and mid rail.
8. Ladders
  - a. The exterior ladders shall be aluminum. Interior ladders shall be fiberglass. Ladders shall be installed at locations shown on the Drawings. Ladders, ladder accessories, and ladder clearances shall conform to the requirements of OSHA.
  - b. Exterior ladders shall be aluminum with safety cage and lockable security gate. The lockable security gate shall be an overhead rotating gate style to prevent unauthorized access.
  - c. Exterior ladders shall be provided with walk-through rail extension, and shall extend no less than 42-in above the landing. Rail extensions shall conform to the requirements of OSHA. Rail extensions shall provide not less than 18-in of walk through space between the rail and a fall prevention device.
  - d. Provide stainless steel hardware and fasteners, accessories, and all other materials required for the complete installation.
  - e. The ladders shall be fitted with a fall prevention device and removable extension conforming to OSHA requirements. Two climbing belts shall be provided to the OWNER.
9. Liquid Level Indicator and Transmitter
  - a. The liquid level indicator shall have a half travel gauge with an interior float. The glass shall be fiberglass with 4-in black numbers on a white board. The level indicator shall be a red fiberglass target. The zero mark shall be set even with the top of the tank wall. The interior float shall be fiberglass or PVC and shall be guided vertically true.
  - b. A pressure transmitter will be added on the tank as part of a future project.

#### 2.03 STRUCTURAL DESIGN

1. Construct the tank from prestressed concrete.
2. Design, fabricate, erect, inspect, and test the structures in accordance with ACI 318, ACI 350, and ACI 372.
3. The tanks shall be free of abrupt changes in the meridional profile throughout the operating liquid depth.
4. Include the effects of localized stresses in the design of the tank and structural attachments and connections.

## SECTION 13216

### WIRE WRAPPED PRESTRESSED CONCRETE TANK

5. Design each prestressed concrete tank in accordance with ACI 372 and AWWA D-110 and follow the recommendations for environmental engineering concrete structures in ACI 350.
6. Maximum initial prestress shall not exceed 0.55 of the concrete compressive strength at time of tensioning.
7. Provide a minimum 200 psi compressive residual stress under operating conditions circumferentially at any point in the tank wall.
8. Tank design shall include the following basic loads that act upon the structure:
  - a. Full hydrostatic load.
  - b. Partial hydrostatic load.
  - c. No hydrostatic load.
  - d. Loads from access platforms and walkways.
  - e. Wind load.
  - f. Wind vortex shedding
  - g. Pressure loads.
  - h. Unbalanced backfill loads.
  - i. Vehicle load GVWR 12,000 on the backfill.
  - j. Construction loads.
  - k. Buoyancy loads
  - l. Minimum roof live load or snowload
9. Consider loads listed herein to act in combinations, whichever produces the most unfavorable effects.
10. It is not necessary to combine wind and earthquake loads but the maximum stress produced by either condition with other applicable loads shall be considered.
11. In addition to these loads, the design shall provide for the effects on the structure from the following stresses:
  - a. Losses from shrinkage, plastic flow, wire creep, anchorage loss, maximum friction loss, and allowance for residual compression in concrete.
  - b. In no case shall the losses used for design (exclusive of residual compression requirements) be less than 25,000 psi, regardless of calculations.
  - c. Support stresses at the junction with the vessel support structure.
  - d. Prestressing during and after tensioning.
  - e. Calculate differential drying stresses and the required reinforcement.
12. The stresses for concrete shall not exceed ACI 318 except as recommended in ACI 372 and unless otherwise specified herein.
13. Under no combination of conditions due to specified load conditions, prestressing, backfilling, and temperature or dryness differential shall

## SECTION 13216

### WIRE WRAPPED PRESTRESSED CONCRETE TANK

- maximum extreme fiber tensile stresses under severe load conditions in the wall exceed  $3f'_c$  during construction or after the tanks are in service.
14. The maximum effective steel prestress, after deducting losses due to shrinkage, plastic flow, reinforcement creep, and an allowance for residual compression, shall not exceed 62 percent of the ultimate strength of the prestressed reinforcement.
  15. The maximum initial prestress, in any single wire or strand, shall not exceed 75 percent of the minimum ultimate strength of the prestressed reinforcement.
  16. Any ladders or platforms connecting to or on the tank shall be coordinated with the Design Builder or equipment Manufacturer for support and connection details. Loads resulting from these appurtenances shall be taken into account in the tank's design.
  17. Nonprestressed Reinforcement
    - a. Shall meet the requirements of ACI 318.
    - b. Shall have a maximum allowable tensile stress of 18,000 psi, exclusive of shrinkage and temperature effects.
    - c. Shall not be credited for resisting any portion of primary circumferential tension resulting from fluid pressure.

### PART 3 – EXECUTION

#### 3.01 INSTALLATION

- A. Reinforcing Steel
  1. Reinforcing steel shall be installed in accordance with the CRSI, Code of Standard Practice.
- B. Placing Concrete
  1. General Placement
    - a. Cast-in-place concrete floor and dome roof shall be installed in accordance with ACI 318 and ACI 350 except as specified herein.
    - b. No concrete shall be mixed or placed during freezing weather without explicit permission. When placing concrete when air temperature is below 40 degrees F, the water, sand and gravel shall be heated so that the temperature of the concrete will be at least 50 degrees F. This temperature shall be maintained for 72 hours after placing. No concrete shall be placed on frozen ground.
    - c. In hot weather, concrete, when deposited, shall have a placing temperature that will not cause difficulty from loss of slump, flash set, or formation of cold joints. In no case shall the temperature of concrete being placed exceed 95 degrees F.
    - d. All rebound concrete shall be completely removed after construction.

## SECTION 13216

### WIRE WRAPPED PRESTRESSED CONCRETE TANK

2. Floor Slab
    - a. Prior to placement of the floor slab, a 6 mil polyethylene moisture barrier shall be placed over the subbase. Joints in the polyethylene shall be overlapped a minimum of 6-inch.
    - b. The floor slab including the thickened portion for the wall footing shall be placed in one continuous concrete placement. Construction joints between the floor slab and footings shall not be allowed. Where a construction joint is approved in writing by the ENGINEER, the joint shall have 6-inch wide, 3/8-inch thick PVC waterstop conforming to the same requirements as the wall - base slab waterstop.
    - c. The tank floor shall be wood/bull float finished first. The tank shall have a grout coating with broom finish. No water shall be added to the slab during finishing. Curing of the tank floor shall be accomplished by ponding the entire area within the waterstops with 2-inch minimum of water within 24 hours after concrete placement. The floor shall be kept ponded for a minimum of 7 days.
  3. Roof Slab
    - a. The roof shall be wood/bull float finished and then receive a light broomed surface finish. No water shall be added during the finishing of the roof. Precast dome panels, if used, shall have a surface designed to receive a cementitious coating.
- C. Core Walls
1. Prestressed Core wall(s)
    - a. Exterior wall details including the steel diaphragm, PVC waterstops, elastomeric bearing pads, sponge rubber fillers, prestressing steel, prestressing earthquake cables, and shotcrete shall conform to the requirements of AWWA D110.
    - b. A PVC waterstop shall be installed in the wall to base joint. Field splices shall be in accordance with the MANUFACTURER's specifications. The waterstops shall be installed so as to form a continuous watertight dam. Adequate provisions shall be made to support and protect the waterstop during the progress of the work. Where the waterstop is placed in a concrete cove attached to the inner face of the wall, the cove shall attain 60 percent of its 28-day strength prior to the start of prestressing the wall.
    - c. Circumferential Prestressing
      - 1). Stress readings on a calibrated stressometer, furnished by the tank MANUFACTURER, shall be made on each prestressing wire. A running log shall be maintained by the tank manufacturer of the stress readings and used to determine the final number of wires required.

## SECTION 13216

### WIRE WRAPPED PRESTRESSED CONCRETE TANK

- 2). In computing the final tension in the wires, an allowance for prestress loss due to creep, shrinkage, elastic deformation, and residual compression shall be provided for. The tank manufacturer shall submit an "as-built" revision to the design diagram showing the location and number of wires actually used for the project records only.

#### d. Shotcreting

- 1). All shotcrete shall be applied by an experienced nozzleman certified by the American Concrete Institute (ACI) as outlined in ACI certification publication CP-60.
- 2). Each shotcrete layer shall be broomed prior to final set to effect satisfactory bonding of subsequent layers.
- 3). No shotcrete shall be applied to reinforcing steel or diaphragm which is encrusted with shotcrete overspray.
- 4). A minimum of 1/8-inch thick shotcrete shall separate reinforcing steel and prestressing wire.
- 5). No prestressing wire shall remain exposed during inclement weather over a holiday or weekend; it shall be covered with shotcrete and subsequently wet cure.
- 6). Vertical shooting wires shall be installed to establish uniform and correct thickness of shotcrete. Shooting wires shall be at 2-ft on center around the circumference of the tank. The final coat shall be applied true to shooting wires so as to form a cylindrical surface.
- 7). At the end of the day's work, or similar stoppage period, the shotcrete shall be sloped off at an angle of approximately 45 degrees. Before placing adjacent sections, the sloped portions shall be thoroughly cleaned and wetted by means of air and water blast. Shotcrete with a strength lower than specified due to cold weather shall be removed and replaced with sound material.
- 8). The shotcrete shall be cured by keeping the shotcrete continuously wet for 7 days. No natural curing allowed.
- 9). Dry mix/wet mix shotcrete shall have a sliced trowel finish free from ridges or other defects on the outside of the tank. Shotcrete on the inside of the tank shall receive a light broom finish.

#### D. Wall Manway(s)

1. The centerline of the manhole shall be 2.75 ft above the finished grade of 32.1 feet.

## SECTION 13216

### WIRE WRAPPED PRESTRESSED CONCRETE TANK

- E. Roof hatch
  - 1. Roof hatch shall be installed at locations shown on the Drawings. The hatch shall be installed on a concrete curb with a minimum height of 6-inch and a minimum of 6-inch wide. The hatch shall be installed with a watertight gasket and stainless steel expansion bolts.
  
- F. Interior Tank Coating
  - 1. Provide interior coating of each tank as per the RFP document. The coatings shall be applied after hydrostatic watertightness test.
  
- G. Ladders
  - 1. Ladders, exterior and interior, shall be installed at locations shown on the Drawings. Ladders, ladder accessories and ladder clearances shall be installed to conform to the requirements of OSHA.
  - 2. Ladder supports shall be installed by stainless steel expansion bolts or stainless steel bolts with cast-in-place threaded inserts. Prior to installing expansion bolts, the reinforcing bars shall be located with a "rebar locator" supplied by the tank manufacturer. The location of the reinforcing bars shall be marked on the concrete surface indicating the spacing and direction of the bars.
  - 3. Where interference occurs, adjust anchor locations to clear reinforcing bars and alter supports at no additional cost to the Owner.
  
- H. Guardrail
  - 1. Guardrail shall be installed as described herein and shall conform to the requirements of OSHA.
  - 2. Platform supports shall be either by stainless steel expansion bolts or cast-in-place threaded inserts. Prior to installing expansion bolts, the reinforcing bars shall be located with a "rebar locator". The location of the reinforcing bars shall be marked on the concrete surface indicating the spacing and direction of the bars.
  - 3. Where interference occurs, adjust anchor locations to clear reinforcing bars and alter supports at no additional cost to the OWNER.
  
- I. Liquid Level Indicators and Transmitters
  - 1. Liquid level indicators and transmitters shall be installed at locations shown on the Drawings.

#### 3.02 TANK SETTLEMENT BY OPERATIONAL-LEVEL POST-LOADING

- A. The tank must be allowed to settle following satisfactory testing and prior to attaching pipes. The settlement will be achieved by loading the tank to operating

SECTION 13216

WIRE WRAPPED PRESTRESSED CONCRETE TANK

level. The hydraulic watertightness test may be conducted concurrently with the operational-level tank settlement.

- B. CONTRACTOR and tank MANUFACTURER shall coordinate to provide a detailed plan for monitoring total and differential tank settlement, including the settlement monuments, means and frequency of monitoring both total and differential tank settlement, and log of settlement at each monument and cumulative settlement, as shown in total settlement and differential settlement. Submit a proposed monitoring plan for review and approval by the ENGINEER.
- C. The tank settlement must last at least three weeks and will continue until the majority of expected settlement has occurred, as determined by ENGINEER.
- D. During operational-level loading of the tank, the changes in elevation to the outside edge of the tank foundation, midpoint settlement monuments, and center of the tank must be surveyed weekly to monitor differential and total tank settlement. The tank MANUFACTURER shall hire a surveyor certified in the State of Florida to implement the tank settlement monitoring plan.
- E. Results from monitoring tank settlement data shall be submitted every week to the ENGINEER.
- F. At the end of the minimum four-week tank settlement period, ENGINEER shall review final monitoring data to determine whether majority of expected settlement has occurred. More time shall be allowed for tank settlement if deemed necessary by ENGINEER.
- G. Review Report of Geotechnical Exploration (dated July 19, 2017) for the anticipated post loading settlement and settlement after post loading. Refer to geotechnical report for required post loading requirements. Refer to geotechnical report for required waiting time period before piping connections are completed after the post loading sequence of construction.

Estimated Settlement	
Post Loading Settlement	Settlement After Post Loading
3" to 4"	< 1"

- H. If operational settlement testing is successful and after the results are approved by the ENGINEER, CONTRACTOR can proceed with connecting the inlet and outlet piping.

## SECTION 13216

### WIRE WRAPPED PRESTRESSED CONCRETE TANK

#### 3.04 TESTING

- A. Compression Tests
1. Compression test specimens shall be taken during construction from the first placement of shotcrete. At least one set of test specimens shall be made for each 50 cubic yards of shotcrete placed. Additional tests shall be made if deemed necessary by the ENGINEER to ensure continued compliance with these Specifications. Each set of specimens shall be a minimum of 5 cylinders.
  2. Compression test specimens for shotcrete shall conform to ASTM C 172 for sampling and ASTM C 31 for making and curing test cylinders. Test specimens shall be 6-inch diameter by 12-inch high or 4-inch diameter by 8-inch high cylinders.
  3. Compression test shall be performed in accordance with ASTM C 39. Two test cylinders will be tested at 7 days and two at 28 days. The remaining cylinder will be held to verify test results, if needed.
- B. Air Content Tests
1. Air content tests shall conform to ASTM C 231 (Pressure Method for Air Content).
  2. Test for air content shall be made prior to concrete placement and whenever compression test specimens are made.
- C. Slump Test
1. Slump tests shall be made in accordance with ASTM C 143.
  2. Slump tests shall be made whenever compression test specimens are made.
- D. Shotcrete testing shall follow ASTM C1140/C1140M – 11 and shall be performed at no additional cost to the OWNER.
- E. Hydraulic Watertightness Testing
1. After the tank has been completed, but before any backfill is placed, the tank shall be filled slowly in the presence of the ENGINEER. Careful observation for leaks shall be made and any leaks that occur shall be immediately repaired. The tanks shall not be filled any higher than 8 feet over a 24-hour period.
  2. The tank shall be kept full of water until the ENGINEER is satisfied that all defects have been discovered and repaired. There shall be no flowing water allowed through the walls or floor slab. Damp spots that glisten on the surface of the tank and spots where moisture can be picked up on a dry hand will not be allowed. Damp spots on the top of footing projections that are not from flowing water shall not be considered to be leakage.

## SECTION 13216

### WIRE WRAPPED PRESTRESSED CONCRETE TANK

3. The maximum allowable leakage for a 24-hour period, after a 48-hour period, in which the entire tank interior surface has been wetted, shall not exceed 0.05 percent of the tank volume. If the liquid volume loss exceeds this amount, leakage shall be considered excessive and the tank shall be repaired and retested.
4. The reuse water required for leakage tests shall be provided by the OWNER at no cost. However, the Design Builder shall be responsible for supplying the water to the tank at a rate and means acceptable to the OWNER. If additional piping, valves, or pumps are needed Design Builder shall supply and install for testing.

END OF SECTION 13216



**St. Johns County Board of County Commissioners**

Purchasing Division

September 6, 2017

**ADDENDUM #1**

**To: Prospective Respondents**  
**From: St. Johns County Purchasing Department**  
**Subject: RFP No. 17-81, Design Build Services for Bannan Lakes 2.0 MG Ground Storage Tank**

This Addendum #1 is issued for further respondent's information and is hereby incorporated into the RFP documents. Each respondent will ascertain before submitting a proposal that he/she has received all Addenda. **Please return an original copy of this signed Addendum with proposal to the St. Johns County Purchasing Department, Leigh A. Daniels, CPPB; 500 San Sebastian View; St. Augustine, FL 32084.**

**Addition to Non-Mandatory Meeting:**

St. Johns County is adding a conference call for the Non-Mandatory meeting for Thursday, September 7, 2017 at 9:30 a.m. Due to Hurricane Irma's impact on supplies of fuel in the State of Florida, St. Johns County will be doing a conference call for any vendors interested in the above referenced project.

Join by phone

+1 (202) 800-9983, access code: 62806355 (United States) English (United States)  
+1 (855) 466-5646 (US and Canada), access code: 62806355 (United States) English (United States)  
+1 (855) 302-8655 (US and Canada) Alternative, access code: 62806355 (United States) English (United States)

Conference ID: 62806355 (same as access code above)

**THE BID DUE DATE REMAINS September 28, 2017 AT 4:00 P.M.**

**Acknowledgment**

**Sincerely,**

\_\_\_\_\_  
Signature and Date

Leigh A. Daniels, CPPB  
Procurement Supervisor

\_\_\_\_\_  
Printed Name/Title

\_\_\_\_\_  
Company Name (Print)

**END OF ADDENDUM NO. 1**



## St. Johns County Board of County Commissioners

Purchasing Division

September 14, 2017

### ADDENDUM #2

**To: Prospective Bidders**

**From: St. Johns County Purchasing Department**

**Subject: Bid No. 17-81, Design Build Services for Bannon Lakes 2.0 MG Ground Storage Tank**

This Addendum #2 is issued for further respondent's information and is hereby incorporated into the Bid documents. Each respondent will ascertain before submitting a proposal that he/she has received all Addenda. **Please return an original copy of this signed Addendum with proposal to the St. Johns County Purchasing Department, Leigh A. Daniels, CPPB; 500 San Sebastian View; St. Augustine, FL 32084.**

### Changes to the Front-End/RFP Document

1. Section V.B.1.d. delete "Install a tapping saddle, temporary stub-out(s), and temporary piping" and replace with "Install any temporary fittings and piping"
2. Section V.B.1.d. add the following new sentence at the end: "All existing piping configurations shall be restored to existing conditions as shown on the drawings once tank testing and post-loading has been performed or as directed by the Engineer and Owner."

### Changes to the Drawings

#### **Drawing C-3: Yard Piping Plan**

1. Modifications to the probe curb, hatch, and hatch hinge locations. See locations on updated C-2.

#### **Drawing MD-1: Miscellaneous Mechanical Details**

1. Replace the entire drawing with the attached drawing.

### Changes to the Specifications

#### **Section 13216: Wire Wrapped Prestressed Concrete Tank**

1. Section 1.05.A.12.g. delete "thickened boss at exterior" and replace with "thickened boss centered on the exterior."
2. Section 1.05.A.19. delete "including walls, floor, and dome," and replace with "including walls (full height) and dome (excluding the floor)."
3. Section 1.05.A.19.a. add "and one (1) coat of Thoroseal." after "Rubbed concrete finish."
4. Section 1.05.A.19.b. add "Primer: Tnemec Mortarclad Series 218 (2.0 - 10.0 mils DFT) or equal" between "Surface Preparation" and "1<sup>st</sup> Coat..."

5. Section 2.02.B. delete this paragraph in its entirety. Re-letter the subsequent paragraphs accordingly.
6. Section 3.01.B.1.d. delete the entire sentence.
7. Section 3.01.F. delete "coating of each tank as per the RFP document" and replace with "coating of the tank as per Paragraph 1.05.A.19."

### **Questions**

1. Currently the bid documents in 13216 paragraph 1.05-19 and paragraph 2.02 require the tank concrete to contain 5% Xypex and the interior of the tank to receive 2 coats of Tnemec N69. Both of these systems are quite expensive and in our opinion not necessary. At a minimum, we suggest deleting the Xypex and installing the coatings alone. The Xypex may add over \$50,000.00 to the project cost.

**Answer: Xypex admixture will not be required. See this addendum for modifications.**

2. If the Xypex is required, can this be utilized on the concrete in contact with the water only? This would be the tank floor and interior shotcrete.

**Answer: Xypex admixture will not be required. See this addendum for modifications.**

3. Please confirm that the testing allowance in the project is to be considered for material testing on the tank structure?

**Answer: Yes, the materials testing allowance is intended to be used for the tank structure.**

4. Please clarify if the internal piping can be installed prior to preloading of the tank?

**Answer: Yes, internal piping may be installed before or after the three-week tank loading period.**

5. The specification calls for the use of C-1000 Xypex in the concrete mix. This typically adds 60 \$/ CY in cost to the mix. Please clarify if this is required since this has never been required for St. Johns County Projects in the past. Secondly, if it is required it is stated at 5% and the typical amount is 2.5%, please clarify if this can be reduced. Finally, if it is required, C-1000 has a high amount of retardant and will cause the concrete to require extensive non-required setup and curing time. Please clarify if C-500 can be used in lieu of C-1000 if xypex is required in the mix to eliminate the retardant concern.

**Answer: Xypex admixture will not be required. See this addendum for modifications.**

6. Please clarify if the coatings on the inside of the tank can be installed prior to hydrostatic testing and loading of the tank?

**Answer: No, the interior coating may not be installed prior to hydrostatic testing and loading.**

7. Please clarify if power will be provided by owner to the site?

**Answer: Power will not be provided. The bid shall include all costs associated with utilizing diesel generators or for obtaining temporary power from FPL.**

8. Please clarify the internal coating system to be installed on the tank to the extent of surfacer primer thickness and which sections of the tank interior should receive the coating and surfacer components.

**Answer: Coatings and the locations where they shall be installed are specified in Section 1.05.A.19 of the specification. See this addendum for modifications.**

**ATTACHMENTS**

1. Drawing C-3: Yard Piping Plan
2. Drawings MD-1: Miscellaneous Mechanical Details

**THE BID DUE DATE REMAINS September 28, 2017 AT 4:00 P.M.**

**Acknowledgment**

**Sincerely,**

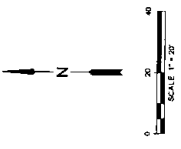
\_\_\_\_\_  
Signature and Date

Leigh A. Daniels, CPPB  
Procurement Supervisor

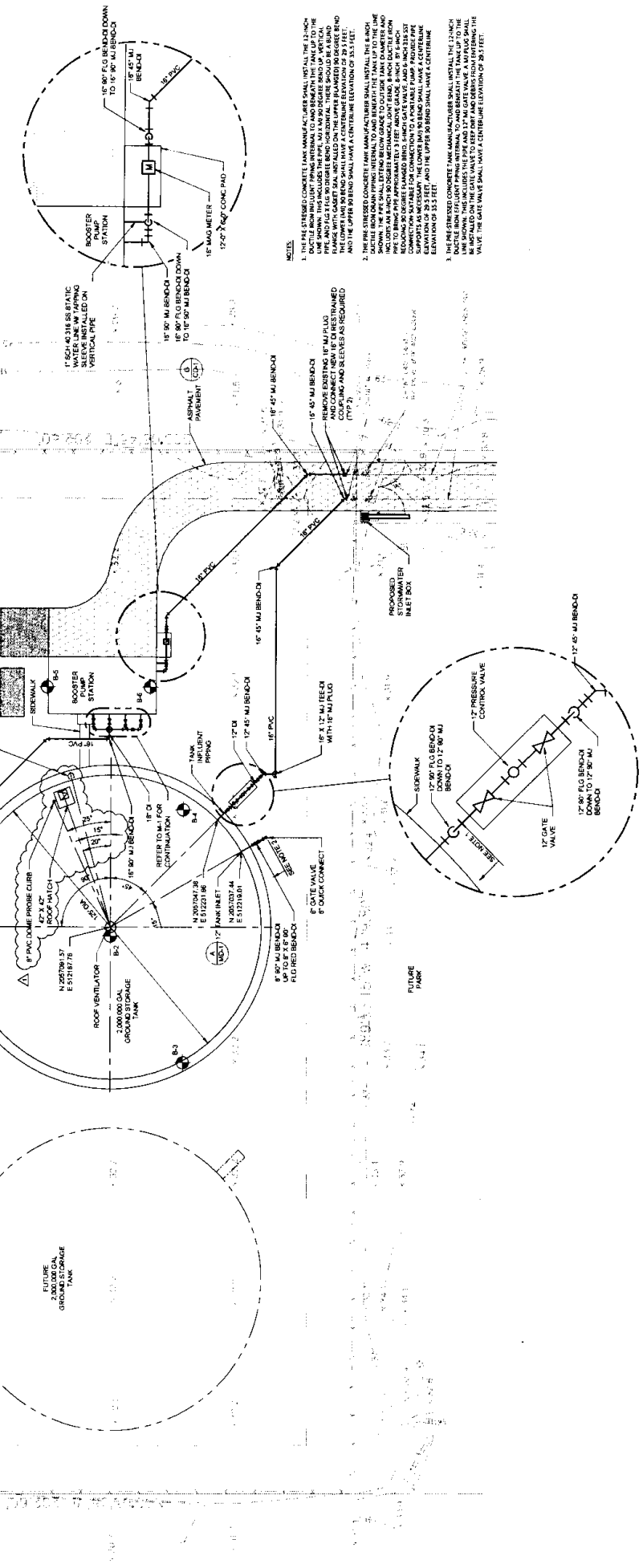
\_\_\_\_\_  
Printed Name/Title

\_\_\_\_\_  
Company Name (Print)

**END OF ADDENDUM NO. 2**



SOIL BORING LOCATION	DATE	DEPTH (FEET)	TESTING
B-1	2007/11/14	10	ASTM D 1586
B-2	2007/11/14	10	ASTM D 1586
B-3	2007/06/16	5.12184.03	ASTM D 1586
B-4	2007/06/16	5.12183.07	ASTM D 1586
B-5	2007/06/16	5.12183.07	ASTM D 1586
B-6	2007/11/14	10	ASTM D 1586
B-7	2007/11/14	10	ASTM D 1586
B-8	2007/11/14	10	ASTM D 1586



- NOTES:**
1. THE PRESTRESSED CONCRETE TANK MANUFACTURER SHALL INSTALL THE 13\"/>

NO.	BY	DATE	REVISION
1			
2			
3			
4			

**Architects** Engineers Surveyors  
**M M**  
 MONTMARC CONSULTING ENGINEERS, LLC  
 10000 Old Columbia Road, Suite 200  
 Jacksonville, Florida 32209  
 Telephone: (904) 233-1388

**St. Johns County**  
 Utility Department  
 200 STATE ROAD 18  
 SUITE 200  
 PALM BEACH, FLORIDA 33480  
 PHONE: (888) 298-8306 FAX: (888) 298-2427

**DESIGNERS**  
 DESIGN ENGINEERS  
 LESLIE S. SAMUEL, P.E., DCEE  
 14001 WILSON ROAD  
 PALM BEACH, FLORIDA 33418  
 PHONE: (561) 845-1100

**DATE** 08/01/2017  
**BY** [Signature]  
**CHECKED** [Signature]  
**DATE** 08/01/2017

**PROJECT** BANNON LAKES GROUND STORAGE TANK AND BOOSTER PUMP STATION  
**SHEET NO.** 03  
**DATE** 08/01/2017  
**SCALE** AS SHOWN





**St. Johns County Board of County Commissioners**

Purchasing Division

September 20, 2017

**ADDENDUM #3**

**To: Prospective Bidders**

**From: St. Johns County Purchasing Department**

**Subject: Bid No. 17-81, Design Build Services for Bannan Lakes 2.0 MG Ground Storage Tank**

This Addendum #3 is issued for further respondent's information and is hereby incorporated into the Bid documents. Each respondent will ascertain before submitting a proposal that he/she has received all Addenda. **Please return an original copy of this signed Addendum with proposal to the St. Johns County Purchasing Department, Leigh A. Daniels, CPPB; 500 San Sebastian View; St. Augustine, FL 32084.**

**Questions**

1. I reviewed the ITB for the Bannan Lakes Tank project. Are there any alternate tank designs allowed for this project? Our preferred design is an AWWA D115 Prestressed Tank. D115 tanks are similar to the D110 specified. They are 100% cast in place and utilize prestressing systems in the floor, walls and roof. The design also eliminate the need for joints in the floor and roof for superior crack control. We would be happy to provide additional information and details at your request.

**Answer: No, an alternate tank will not be reviewed or allowed.**

**THE BID DUE DATE REMAINS September 28, 2017 AT 4:00 P.M.**

**Acknowledgment**

**Sincerely,**

\_\_\_\_\_  
Signature and Date

Leigh A. Daniels, CPPB  
Procurement Supervisor

\_\_\_\_\_  
Printed Name/Title

\_\_\_\_\_  
Company Name (Print)

**END OF ADDENDUM NO. 3**