Procurement #: 40536

CITY OF PROVIDENCE, RHODE ISLAND

Department: Providence Water

RFP Title: Removal and Disposal of Residuals from the South Sedimentation Basin (Exp. 12/31/25)

Opening Date: 08/15/2023

Addendum #: 6

Issue Date: 07/20/2023

The purpose of this addendum is:

Additional information with attached documents.

Providence City Hall
25 Dorrance Street
Providence, RI 02903

PROVIDENCE WATER

Tap Water Delivers

July 20, 2023

ADDENDUM NO. 6

PROVIDENCE WATER
REMOVAL AND DISPOSAL OF RESIDUALS FROM THE SOUTH SEDIMENTATION BASIN

SCHEDULED TO BE OPENED August 15, 2023

The following changes, revisions and/ or supplemental information, as hereby issued as Addendum No. 6 in connection with the Contract Documents issued for the above reference project.

The attached pages to this document are incorporated as Addendum No. 6.

Receipt of this Addendum shall be acknowledged by inserting a Cover Letter acknowledging all Addendums following all City Required Bid Forms. Failure to properly acknowledge this Addendum may subject the bidder to disqualification.

All other provision of the project shall remain as stated in the original Contract Documents.

Respectfully,
PROVIDENCE WATER SUPPLY BOARD

Peter D. DiLorenzo

Peter D. DiLorenzo
Division Manager

(401) 521-6300

125 Dupont Drive
Providence, RI 02907

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CITY OF PROVIDENCE, RHODE ISLAND

ADDENDUM No. 6

TO
CONTRACT DOCUMENTS
FOR

REMOVAL AND DISPOSAL OF RESIDUALS FROM THE SOUTH SEDIMENTATION BASIN PHILIP J. HOLTON PURIFICATION PLANT, 61 NORTH ROAD, SCITUATE, RI

Bidders are hereby notified of the following additions, deletions, and modifications to the Contract Documents for Removal and Disposal of Residuals from the South Sedimentation Basin at the Philip J. Holton Purification Plant.

Bidders shall acknowledge receipt of this Addendum in the space provided on the bid forms.

A. ADDITIONAL INFORMATION

Samples of the residuals in the South Sedimentation Basin were taken on May 3, 2023, and the design engineer performed a Bench-Scale Treatability Study. PFAS testing results are now available and will be provided to bidders if requested via return of the Non-Disclosure Agreement that is included with this addendum to Providence Water.

Removal of the sludge from the existing drying beds is no longer included in this contract. Revised Bid Items are included with this addendum.

As described within amended Specification Section 01300, successful bidder shall provide documentation to Providence Water that all products used for dewatering of the South Sedimentation Basin residuals shall be free of per and polyfluoroalkyl substances (PFAS).

B. SPECIFICATIONS

SECTION 00301 BID FORM

Delete pages 4 and 5 and replace them with the attached revised pages 4 and 5.

SECTION 01010 SUMMARY OF WORK

Delete Section 01010 Summary of Work in its entirety and replace it with the updated Section 01010 Summary of Work included with this addendum.

SECTION 01025 MEASUREMENT AND PAYMENT

Delete Section 01025 Measurement and Payment in its entirety and replace it with the updated Section 01025 Measurement and Payment included with this addendum.

SECTION 01300 SUBMITTALS

Add the following after paragraph 2.01.R

S. Evidence that any geotextile materials or other materials or equipment that may be utilized are free of per- and polyfluoroalkyl substances (PFAS). This includes at least one the following as lines of evidence:

(1) Safety data sheets as specified in 29 CFR 1910.1200(g) demonstrating that PFAS are not used in the manufacturing of geotextiles or other materials or equipment and or any of the assembly components, and, because PFAS reporting is relatively new, a statement from the component manufacturers confirming that PFAS are not part of the geotextiles or assembly components.

(2) Demonstration through chemical analysis that no organic fluorine is present in the material via commercial laboratory analysis of the geotextile materials or other materials or equipment and assembly components (e.g., glue) using USEPA Draft Method 1621 or the laboratory's internal equivalent.

(3) Demonstration through chemical analysis that measurable PFAS are not available to leach into the water or solids during the dewatering process. This might include commercial laboratory analysis of the materials and assembly components (e.g., glue) using USEPA Method 1633.

C. DRAWINGS

Delete Appendix D Site Plan and replace it with the updated Site Plan included with this addendum.

D. QUESTIONS

1. **Question:** The pricing is per dry-ton, and it will take time for the geotextile tubes to dry. Disposal may take several weeks or more to occur after dredging has removed sediment in the basin. Will the City make progress payments to the contractor based on a schedule of values separately for Dredging, Dewatering and Disposal? Meaning, will the

contractor be paid for dredging and dewatering while waiting for the solids to be disposed of?

Response: Providence Water will consider progress payments based on an approved schedule of values for dredging, dewatering and disposal for Item 4 of the Bid Items. The total final payment for the bid item will be based on the actual number of dry tons measured and removed from the site.

2. **Question:** The answer to Question 10 in Addendum #4 refers to the bench-scale treatability study that provides additional information to estimate quantities. This data only provides information for the geotextile tube dewatering methodology. In the response to question #6 in Addendum # 2, it clearly states that treatability study results for mechanical dewatering would also be provided, yet the only reference in the study to mechanical dewatering is… 'However, the use of centrifuges or presses may limit dredge productivity and several units would be required to match the hydraulic dredge discharge rate.'. How can you justify this study as being thorough when it has ignored a large portion of the treatability of the material, while also putting contractors that were considering these methods at a clear disadvantage to submit a competitive bid/proposal? By ignoring your own response to question #6 in addendum #2, the treatability study is either incomplete or bias to a select few contractors.

   Response: This project will be awarded to low bidder with a technically acceptable approach. As this is a performance based award, means and methods are not being specified and budget and schedule are the responsibility of the contractor. Specification Section 00200 requires a project management plan to be submitted with the bid to be considered as part of the bid evaluation.

   The objectives of this treatability study were to confirm the residuals could be sufficiently dewatered to pass a PFT and get a better understanding of the timeline for passing a PFT and not evaluate, compare and/or recommend means and methods. The objectives of the treatability tests included passive and mechanical dewatering efficacy, if necessary. As preliminary testing confirmed that passive strategies would sufficiently dewater the South Sedimentation Basin residuals to pass a PFT in a reasonable time, mechanical dewatering tests were not performed. Our conclusions indicated that mechanical dewatering was acceptable but may be a hinderance to productivity without sufficient dewatering units on site to manage larger dredge/pump flows. Based on our test results, a contractor proposing to use a belt filter press, centrifuge, plate and frame press or other mechanical dewatering system would be able to estimate their efficacy based on their equipment-specific process flow.

   The statement in the report that the question references was added for context and was not intended to dissuade any bidders from using any feasible dewatering technology. Bidders have the latitude to consider other approaches.

3. **Question:** Question 15's response states that Providence Water's intent is to start work as soon as the contract is awarded. Can Providence water give an estimate of when the award date would be? Secondly, has Providence Water considered the impact of awarding a contract that could potentially run through the heart of winter in New England? Winter conditions in this region pose a significant impact to the effectiveness

to any and all dredging and dewatering equipment, let alone the additional health and safety risks.

Response: The Notice of Award is anticipated to be issued within 8 weeks after the receipt of bids. A Notice to Proceed will be issued after contract execution. The project management plan required to be submitted with the bid should include a proposed project schedule for the Owner's review and consideration when evaluating the bids.

4. **Question:** One of the objectives of the treatability report was to determine "Water treatment needed to meet specified RIPDES discharge requirements." We have reviewed the treatability report, and it does not have any specifics on water treatment for the geotextile tube filtrate water. Treatability testing indicated that iron in the filtrate water may be as high as 100 times the RIPDES iron limit of 800 ug/L. TSS ranged from 184 mg/L to 333 mg/L with a TSS RIPDES limit is 5 mg/L. The report does not indicate how much iron is dissolved and how much is in solid form. Based on the information provided, water treatment following the geotextile tubes will be required to meet the RIPDES limit for iron & TSS (including chemical addition, clarification, and filtration processes). Should we base our bid on this assumption?

   Response: The filtrate generated from dewatering of the residuals is to be discharged to existing Lagoon 2. The filtrate will have to be treated so that the discharge from Lagoon 2 does not exceed the RIPDES permit limits for iron and TSS.

5. **Question:** The specifications show two sample locations in the pond with total solids concentrations of 5.0 % to 6.0% solids (weighted average). We assume those samples were used to determine the estimated 6,000 dry tons. There was one sample collected for treatability testing that had a total solids concentration of 3.0%. We calculated that 3% total solids in-situ correlates to ~3,300 dry tons. Please confirm the dry ton volume we should plan on. This is important for ordering polymer and geotextile tube quantities which must be ordered prior to the beginning of the project and likely can't be returned for a refund. Additionally, due to the large surface area of the pond and the relatively light solids, it will take roughly the same amount of time to remove the sludge whether it is 6,000 dry tons or 3,300 dry tons. Will there be a price adjustment for a significant total volume shortfall?

   Response: It is not expected that the mixed percent solids for the total volume will be as high as 5%. The percent solids of the residuals in the South Sedimentation Basin is highly variable throughout the depth of the basin. The bid item quantity of dry tons is an estimate based on the information available. Ultimately payment will be based on the total dry tons measured and disposed of.

6. **Question:** Item 4: Removal, dewatering and disposal of residuals from the south sedimentation basin, is paid by the dry ton, which will be determined during the load out of the material. Will there be estimated progress payments in the interim (during or after dredging), with a price reconciliation at the end of the project?

   Response: See the response to question 1 above.

Attachments:

Non-Disclosure Agreement
Site Plan
Section 00301 Bid Form updated pages 4 and 5
Updated Section 01010 Summary of Work
Updated Section 01025 Measurement and Payment

END OF ADDENDUM

CONFIDENTIALITY AND NON-DISCLOSURE AGREEMENT

This Agreement, executed by the undersigned on the date indicated, is entered into by the undersigned (hereinafter referred to as "Contractor") with the City of Providence and Providence Water (herein referred to as "Owner"), for the purposes of securing Documents or Digital Data (herein referred to as "Documents") for use by the Contractor in order to provide a proposal for work/services for the Owner.

The undersigned Contractor hereby acknowledges and agrees;

1. That the Documents received by the Contractor under their agreement remains the property of the Owner days after the completion of the project.

2. That the Documents and information received by the Contractor are confidential and shall be treated as such by the Contractor. Contractor shall hold in confidence and protect the documents and information contained therein, to prevent any unauthorized use and dissemination to others.

3. That the Documents and information shall be used solely for the purposes stated herein.

4. That the Documents and information shall only be distributed and discussed with persons directly involved in the work/services and shall not be discussed with or disclosed to anyone who does not have a need to know.

5. That the Contractor shall make the minimum number of copies of the Documents necessary to perform the work/services and shall maintain a record of copies made and to whom distributed, and provide the Owner with this record, and return all such copies made to the Owner as provided in Item No. 1 above. It is the responsibility of the Contractor to hold all parties whom copies have been given to the terms of this agreement.

6. That the Contractor shall advise all parties to whom the Documents are issued to, that all information is confidential, and they shall be obligated to the requirements of the protection of such.

7. That nothing herein shall obligate the Owner to the Contractor in any way, and that the sole purpose of this Agreement is to maintain the security and confidentiality of the Documents.

8. That the laws of the State of Rhode Island shall govern this Agreement, and that the Owner shall execute all rights provided by said laws in the event of a breach of this Agreement by the Contractor

9. That the obligations of this Agreement shall survive the completion of the project and return of the Documents and shall continue to remain intact with respect to the confidentially of the documents and information.

CONFIDENTIALITY AND NON-DISCLOSURE AGREEMENT

List of Documents Received*
PFAS Testing Results South Basin Residauls
*If additional space is required, attach as an appendix and note # of added pages here _____

Understood and Agreed:

BIDDER (Company Name):

BY (Signature):

NAME (Printed):

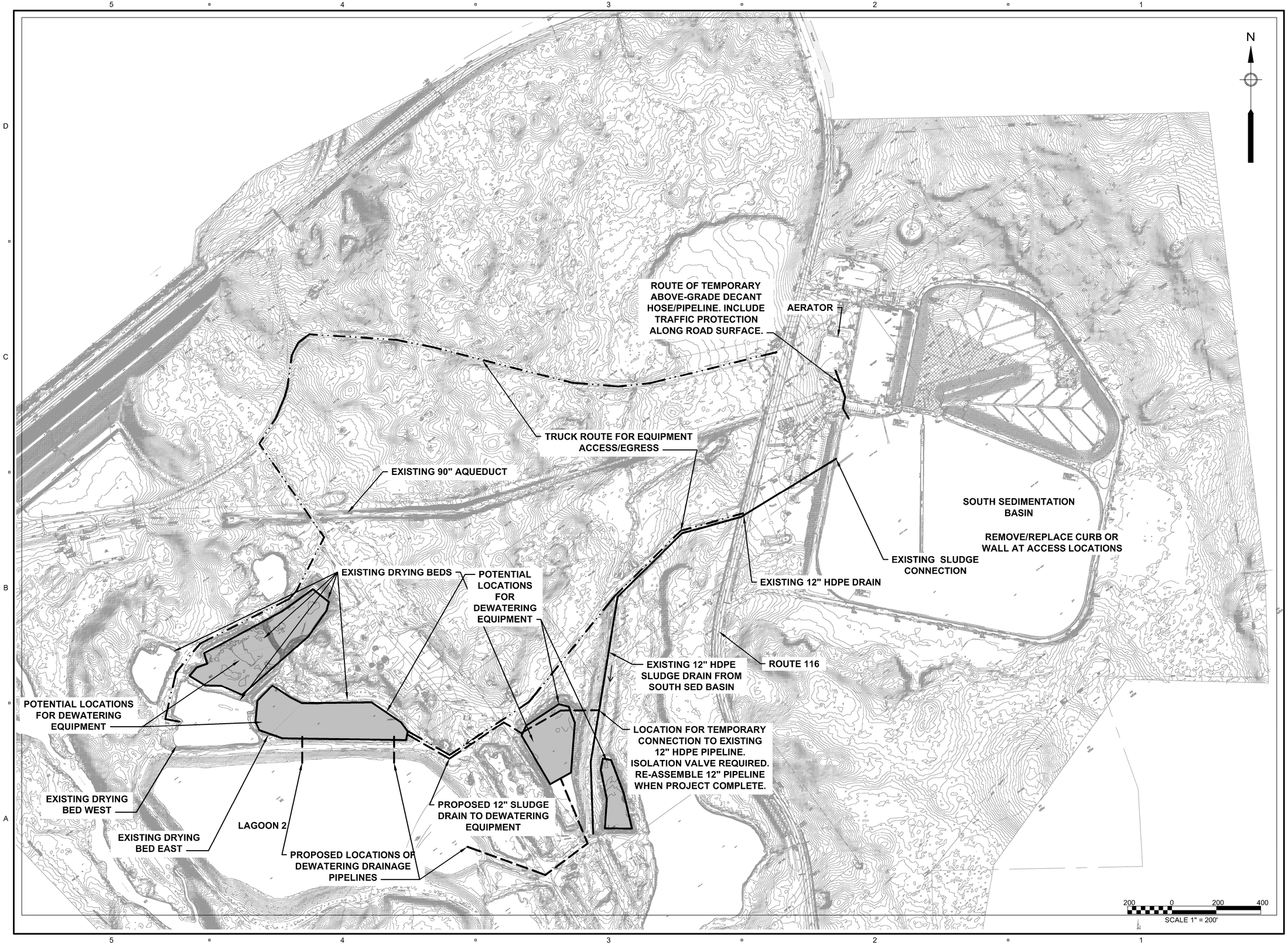
TITLE:

DATE:

WITNESSED BY:

NAME (Printed):

DATE:



AECOM

PROJECT

PROVIDENCE WATER RESIDUALS AND BACKWASH RECYCLE UPGRADES

OWNER

PROVIDENCE WATER
125 Dupont Drive
Providence, RI 02907

ENGINEER

AECOM TECHNICAL SERVICES, INC.
250 APOLLO DRIVE
CHELMSFORD, MA 01824
PHONE: (978) 905-2100
www.aecom.com

REGISTRATION

ISSUE/REVISION

I/R	DATE	DESCRIPTION
1	07/18/2023	Addendum No. 6

PROJECT NUMBER

60689058

Designed By:	B. SOULE
Drawn By:	A. FOOTE
Dept Check:	J. CORDARO
Proj Check:	R. POGODZIENSKI
Date:	JULY 2023
Scale:	AS NOTED

DISCIPLINE

CIVIL

SHEET TITLE

RESIDUALS REMOVAL AND DISPOSAL FROM SOUTH SEDIMENTATION BASIN

SHEET NUMBER

FIGURE 1

BID ITEMS

Bidder agrees to perform all Work, including all incidental labor, materials, and equipment necessary for the satisfactory completion of the Work and in full compliance with the contents and intent of the Contract Documents of the Work, for the following prices listed below.

All prices, except item totals, shall be stated in both words and figures. In the event of a discrepancy between the price in words and the price in figures, the words shall govern. In the event of a discrepancy between the total of the Items and the total stated, the total of the Items shall govern.

Interlineations, alteration, or erasure may void the Bid. All prices shall be typewritten or written by hand in ink.

Item		Quantity	Extended Total
1.	For Mobilization/Demobilization, (not to exceed five percent of the Total Bid Amount exclusive of Item 1) as specified, the sum of _____ Dollars ($) Lump Sum	1	
2.	For Office for Owner and Engineer, as specified, the sum of _____ Dollars ($) Lump Sum	1	
3.	For Decant of Coagulated Water from the South Sedimentation Basin, as specified, the sum of _____ Dollars ($) per 10,000 gallons	6,700	
4.	For the Removal, Dewatering and Disposal of Residuals from the South Sedimentation Basin as specified, the sum of _____ Dollars ($) per Dry Ton	6,000	
5.	For excavation of unsuitable material below finished grade and/or subgrade of structures and pipelines including replacement with suitable fill material, as specified, the sum of _____ Dollars ($) per cubic yard	1,000*	

Item		Quantity	Extended Total
6.	For experimental excavation as approved by the Engineer and as specified, the sum of _____ Dollars ($) per cubic yard	1,000*	
7.	For installation of five (5) slide gates provided by the Owner and as specified, the sum of _____ Dollars ($) lump sum	1	
8.	Allowance #1 Unknown Conditions, the sum of Two Hundred Thousand Dollars and Zero Cents	1	$200,000.00
9.	Allowance #2 Miscellaneous Landscaping Improvements, the sum of Two Hundred Thousand Dollars and Zero Cents	1	$200,000.00
10.	Dewatering Area Site Preparation, the sum of _____ Dollars ($) lump sum	1	

*Indeterminate; quantity is assumed for comparison of bids
**Bidder must insert minimum price or greater and insert extended item prices.

TOTAL AMOUNT OF BID BASED ON ENGINEER'S ESTIMATE OF QUANTITIES:
(Items 1 through 10, inclusive) - BASIS OF AWARD.

_____
Dollars ($)

The above unit prices shall include all labor, materials, bailing, shoring, removal, overhead, profit, insurance, etc., to cover the finished work of the several kinds called for.

The Bidder understands that the Owner reserves the right to reject any or all bids and to waive any informalities in the bidding.

The Bidder agrees that this bid shall be good and may not be withdrawn for a period of 60 days, Saturdays, Sundays, and legal holidays excluded, after the opening of bids.

The undersigned agrees that, if he is selected as general contractor, he will within 10 days, Saturdays, Sundays and legal holidays excluded, after presentation thereof by the awarding authority, execute a contract in accordance with the terms of this bid and furnish a performance bond and also a labor and materials or payment bond, each of a surety company qualified to do business under the laws of the commonwealth and satisfactory to the awarding authority and each in the sum of the contract price, the premiums for which are to be paid by the general contractor

SECTION 01010

SUMMARY OF WORK

PART 1 - GENERAL

1.01 SUMMARY:

A. Section Includes:

1. Work included in the Contract Documents.
2. Access to Project site.
3. Full Owner Occupancy.
4. Work Restrictions.
5. Constraints on Construction Operations

B. Related Requirements:

1. Refer to Section 01500, Temporary Facilities for requirements, limitations and procedures governing temporary facilities for this Project.

1.02 WORK INCLUDED IN THE CONTRACT DOCUMENTS:

A. The Work to be completed under this Contract is defined by the Contract Documents and all Work shall be performed in accordance with the Contract Documents as specified and/or as indicated on the Drawings. The Work of this Project consists of but is not limited to the following:

1. Project Overview

a. The purpose of this project is to remove the solids accumulated currently within the South Sedimentation Basin and return the basin to service as quickly as possible. The Owner's required timeline for draining, cleaning, and returning the basin to service is 105 days from issuance of a Notice To Proceed and the Contract Times commence. Final drying of the sludge that is removed from basin, dewatered and eventually removed from site at 25 percent solids by weight or greater can be up to 280 days from when Contract Times commence.

b. It is estimated that approximately 50 percent of the volume of liquid in the upper zone of the basin is clear enough to be decanted and recycled to the head of the plant. Decanting at a rate of 5 percent of the raw water inflow rate will be allowed until the measured 30-minute average turbidity reaches 5 NTU, or a maximum of 10 NTU for any sample taken during the decanting operation. Continuous monitoring of turbidity by the Contractor will be required.

c. The remaining residuals below the decant layer are to be removed from the basin with pumps or dredges, transported via the existing 12-inch HDPE pipeline to the area of the existing drying beds, and dewatered in the area of the drying beds. The existing 12-inch HDPE pipeline will have to be extended to the area of the dewatering operations. All solids removed from the basin shall be routed to the area of the dewatering equipment for processing.

d. Means of dredging and dewatering the solids that are removed are left to the contractor's discretion. Contractors shall propose the equipment and methods for dredging and dewatering for approval by the Engineer. The areas shown on the Site Plan are to be used to arrange geotubes or to locate belt filter presses or centrifuges.

2. The Contractor shall decant the clearer liquid from the surface of the South Sedimentation Basin prior to pumping residuals from the basin for dewatering and disposal. Contractor shall supply decanting equipment (decanter, pumps, hoses, piping, flow meters, turbidimenter, generators, and other ancillary equipment as required) and complete the decanting. Final elevation and volume of decanted liquid will be determined by drone survey following completion of decanting.

3. Decanted flow shall be pumped from the South Sedimentation Basin outlet area in the northwest corner of the Basin, into the Raw Water Aerator at a rate up to 5% of the raw water flow into the facility until the Owner or Engineer directs the contractor to stop. The Contractor shall consult with the Owner daily to determine the acceptable maximum rate of pumping. Decanting and pumping can be performed for 24 hrs per day. Contractor shall consult with the WTP operators during each day to determine the pumping rate allowed, up to the maximum of 5 percent of the plant influent flowrate.

4. Contractor shall determine the means and methods for removing residuals from the South Sedimentation Basin, dewatering residuals, hauling sludge, and final disposal methods and location. All sludge disposal off site must comply with all local, state and national environmental standards and regulations in Rhode Island as well as other impacted local and state jurisdictions. Contractor shall supply equipment (sludge dredge, pumps, hoses, piping, flow meters, generators, polymer feed system, polymer, dewatering materials and equipment, and other ancillary equipment) necessary to complete the sludge removal and dewatering. A thin layer of residuals remaining on the surface of the basin bottom and troughs is acceptable.

5. The Contractor shall measure and record the pumping rate and duration of discharge of all flows from the South Sedimentation Basin and make the information available to the Owner within 24 hours, upon request.

6. Residuals that are removed from the South Basin shall be transported through an existing 12" HDPE pipeline that presently terminates in the vicinity of the existing

drying beds. Residuals processing operations shall be located in areas defined by the existing drying beds as shown. Additional HDPE pipe shall be furnished and installed by the Contractor as required.

7. Residuals that are removed shall be processed in the area defined by the existing drying beds and as shown on the drawing. Means and methods of dewatering, hauling sludge, and final disposal shall be the responsibility of the contractor. No liquid or dried sludge is allowed to be discharged into the existing Lagoons 1A, 1B or 2. Berms and culverts to contain and route dewatering filtrate shall be constructed by the Contractor. Filtrate shall be directed to Lagoon 2.

8. The Contractor shall install and operate a portable, automated weigh scale suitable for weighing sludge hauling trucks loaded for removal of any sludge from the site. Weigh scales shall be certified by Rhode Island scale inspectors. The system shall be capable of producing weigh tickets for all sludge trucks arriving and departing with sludge, as approved by the Engineer.

9. Contractors are encouraged to conduct their own treatability tests prior to mobilizing equipment to the site, to determine proposed pretreatment methods, chemicals required, and use of process equipment.

1.03 SUMMARY OF THE SEQUENCE OF BASIN DRAINING AND DEWATERING

A. The recommended sequence of operations for contractors to follow for the removal and dewatering of liquid and residuals from the basin is as follows:

1. Contractor mobilization.

2. Coordinate isolation of the South Sedimentation Basin with the Owner.

3. Decant top layer of low solids liquid using floating decanter, simultaneously with site preparation of existing drying beds.

4. Install new slide gates provided by Owner.

5. Prepare site for dewatering equipment in the areas indicated on the site plan.

6. Setup dewatering equipment and temporary piping.

7. After decanting is complete, remove remaining solids from South Sedimentation Basin.

8. Dewater residuals to a minimum 25 percent solids before removal from site.

9. Flush and clean South Sedimentation Basin.

10. Dried sludge shall be removed from the site to a location selected by the Contractor. Documentation of all permitting shall be provided to the Owner by the

Contractor prior to hauling sludge from the site. Chain-of-custody documentation from the project site to the final disposal site shall be provided by the Contractor weekly to the Owner.

11. Site restoration and demobilization. Restore the site to existing conditions within the 280 calendar day contract limit.

1.04 DECANTING LIQUID AT TOP OF BASIN

A. The following decanting and discharge methods are recommended:

1. Contractor shall install a temporary floating decanter to allow top layer of basin liquid to be pumped and removed. Decanter shall be installed at north end of the South Sedimentation Basin. Liquid shall be removed only from the surface of the basin.

2. Decanted flow shall be discharged to the existing Aerator, or other location approved by the Owner and Engineer, at a recycle rate not to exceed 5 percent of the raw water inflow to the plant. A calibrated flow meter shall be installed on the decanting pump discharge line. Decanting and pumping can be performed for 24 hrs per day. Contractor shall consult with the WTP operators during each day to determine the pumping rate allowed, up to the 5 percent of the plant influent flowrate.

3. Contractor shall stop pumping the decant water when the average turbidity as measured over 30 minutes reaches 5 NTU, with a maximum sample measurement of 10 NTU. Sampling shall be continuous from a sample stream taken to a calibrated, in-line turbidimeter set up at the decanting pump prior to starting the work. Grab samples shall also be taken and analyzed by the Providence Water laboratory to confirm accuracy of the in-line turbidimeter.

4. Contractor shall remove decanting and pumping equipment upon completion of decanting operation and restore operating area to original condition.

1.05 SOLIDS REMOVAL FROM SOUTH SEDIMENTATION BASIN

A. The following outlines possible methods of basin draining and transport of sludge.

1. Once the basin liquid is decanted, the Contractor will be required to immediately begin residuals removal from the basin.

2. Contractor is to select the means and methods for removing the remaining residuals from the basin. Most probable methods include dredges or portable pumps. With either method, the contractor must connect the discharge to the existing hose connection on the west wall of the South Sedimentation Basin and discharge to the existing 12-inch HDPE pipeline which will carry the flow to the area of the existing drying beds.

3. Contractor is required to connect temporary piping from the end of the 12-inch HDPE to the area of the drying beds to connect to the selected dewatering equipment. Contractor will likely require a break/mixing tank to receive the flow to be used for chemical conditioning prior to dewatering.

1.06 DEWATERING OF SOLIDS FROM SOUTH SEDIMENTATION BASIN

A. Hydraulically, a minimum of 2000 gpm of solids shall be discharged from the South Sedimentation Basin to the area of the drying beds for dewatering via the existing 12 inch HDPE pipeline.

B. Operating time for dewatering is assumed to be up to 10 hours per day.

C. Chemical conditioning for all methods is expected to be required to achieve optimum dewatering.

D. Dewatering to occur in the area of the existing drying beds.

E. Filtrate from dewatering operations shall be contained within the existing drying beds area, and routed to the adjacent Lagoon 2. A silt curtain shall be installed in the area of filtrate discharge into the Lagoon.

1.07 SCHEDULE FOR BASIN DRAINING AND DEWATERING PHASES

A. The following is the proposed schedule for each phase of the project:

1. Mobilization, contractor treatability studies, all site preparation, decanting, sludge pumping, and basin draining and cleaning to be completed within 105 calendar days from when Contract Times commence.

2. Solids from the sedimentation basin shall be dewatered to a minimum of 25 percent solids that can safely be removed from site, solids from the area of the existing drying beds, dewatered basin solids and all equipment removed from site, site restoration and demobilization to be completed within 280 calendar days from when the Contract Times commence.

1.08 ACCESS TO PROJECT SITE:

A. General: Contractor will have limited use of the Project site for construction operations.

B. Use of Site: Limit use of Project site to areas within the Water Treatment Plant property lines as indicated on the Site Drawing. Do not disturb portions of Project site beyond areas in which Work is to be performed by Contractor.

1. Driveways, Walkways and Entrances: Keep driveways, loading areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.

a. Schedule deliveries to minimize use of driveways and entrances by construction operations.

b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

1.09 FULL OWNER OCCUPANCY:

A. Full Owner Occupancy: Owner will occupy Project site and existing building(s) during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits unless otherwise indicated, specified or approved by Owner.

1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner.

2. Notify Owner not less than 72 hours in advance, unless otherwise indicated in the Contract Documents, of activities that will affect Owner's operations.

1.10 WORK RESTRICTIONS:

A. General: Comply with restrictions on construction operations.

1. Comply with limitations on use of public right-of-ways and with other requirements of authorities having jurisdiction.

B. On-Site Work Hours: Limit Work to normal business working hours of 7:00 a.m. to 5:00 p.m., Monday through Friday, unless otherwise indicated.

1. Weekend Hours: Upon Owner Approval.

2. Early Morning Hours: Upon Owner Approval.

3. Hours for Utility Shutdowns: Upon Owner Approval.

C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated or specified:

1. Notify Engineer and Owner not less than fourteen (14) days in advance of proposed utility interruptions.

2. Obtain Engineer's written permission before proceeding with utility interruptions.

D. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.

1. Notify Engineer and Owner not less than three (3) days in advance of proposed disruptive operations.

2. Obtain Engineer's written permission before proceeding with disruptive operations.

E. Controlled Substances: Use of tobacco products and other controlled substances within existing building(s) or within 25 feet of entrances, operable windows, or outdoor-air intakes is not permitted.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01025

MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.01 SCOPE

A. The purpose of this section is to define the basis of measurement and payment for each of the unit price or lump sum items listed in Document 00301 Bid. If no quantity or Bid item appears in Document 00301, Bid for any of the following described items, no Work of that description is anticipated on the Project.

B. Contractor shall acquaint himself with all Work associated with each payment item and shall have no claim for additional compensation due to its unfamiliarity with the requirements of various items.

C. No payment will be made for any item until Contractor has submitted all required documentation as required by the Contract Documents and such documentation has been reviewed and approved by Engineer.

D. No payment will be made for additional materials that are not installed on the Project.

E. The unit price of an item of Unit Price Work shall be subject to re-evaluation and adjustment under the following conditions:

1. If there is no corresponding adjustment with respect to any other item of Work; and

2. If CONTRACTOR believes that CONTRACTOR has incurred additional expense as a result thereof; or if OWNER believes that the quantity variation entitles OWNER to an adjustment in the unit price, either OWNER or CONTRACTOR may make a claim for an adjustment in the Contract Price in accordance with Article 11 of the General Conditions if the parties are unable to agree as to the effect of any such variations in the quantity of Unit Price Work performed.

1.02 BID ITEMS (Basis of Award)

Item	Description
1.	Mobilization/Demobilization
2.	Office for Owner and Engineer
3.	Decant of Coagulated Water from the South Sedimentation Basin
4.	Removal, Dewatering and Disposal of Residuals from the South Sedimentation Basin
5.	Replacement of Unsuitable Material
6.	Experimental Excavation
7.	Installation of Slide Gates Provided by the Owner

8. Allowance #1 – Unknown Conditions
9. Allowance #2 – Miscellaneous Landscape Improvements
10. Dewatering Area Site Preparation

1.03 BASIS OF MEASUREMENT AND PAYMENT

ITEM 1 MOBILIZATION/DEMOBILIZATION

A. General. The price bid under this Bid Item for mobilization/demobilization shall be full compensation for all labor, equipment, tools, and materials necessary to complete the Work as specified, which shall include transporting, mobilization, demobilization, temporary utility connection fees, permits, licenses, bonds, and insurance, as specified and all other incidental Work relative thereto.

B. Method of Measurement. Measurement for mobilization/demobilization shall be lump sum as approved by Engineer.

C. Method of Payment. Payment for mobilization/demobilization shall be the lump sum price bid under this Bid Item, listed in Document 00301, Bid. **The lump sum amount bid under this Bid Item shall not exceed 10% of the total bid amount, excluding Bid Item 1, and no payment will be made in excess of this amount.** An amount of 80% of the amount bid under this Bid Item (exclusive of normal Contract retainage) will be made when Contractor has completed mobilization to the Project Site and is ready to start construction. The remaining 20% (exclusive of normal Contract retainage) will be made following demobilization from the Project Site.

ITEM 2 OFFICE FOR OWNER AND ENGINEER

A. General. The price bid under this Bid Item for the office for the Owner and Engineer shall be full compensation for all labor, equipment, tools, and materials necessary to provide and equip suitable office space as specified, which shall include transporting, utility connection fees, permits, sewer service, water service, electric power service, internet service, furniture, equipment and supplies, insurance coverage, enclosed offices, cubicles, printer area, conference room, interior bathroom, and parking area, as specified and all other incidental Work relative thereto, which is not included under another Bid Item.

B. Method of Measurement. Measurement of the office for the Owner and Engineer shall be lump sum as approved by the Owner and Engineer.

C. Method of Payment. Payment for the office for the Owner and Engineer shall be the lump sum price bid under this Bid Item, listed in Document 00301, Bid, based on the work completed as specified and approved by the Owner and Engineer.

ITEM 3 DECANT OF COAGULATED WATER FROM THE SOUTH SEDIMENTATION BASIN

A. General. Contractor to decant the clearer liquid at the surface of the South Sedimentation Basin. Contractor to supply decanting equipment (decanter, pumps, hoses, piping, generators, and other ancillary equipment) and complete the decanting as specified and/or shown on the Drawings and all other incidental Work relative thereto, which is not included under another Bid Item listed in Document 00301, Bid.

Decanted flow is to be pumped from the basin outlet area in the Northwest corner of the South Sedimentation Basin, into the adjacent WTP Aerator until the Owner or Engineer directs contractor to stop.

It is estimated that approximately 50 percent of the volume of liquid in the upper zone of the basin is clear enough to be decanted and recycled to the head of the plant. Decanting at a rate of 5 percent of the raw water inflow rate will be allowed until the measured 30-minute average turbidity reaches 5 NTU, or a maximum of 10 NTU for any sample taken during the decanting operation. Continuous monitoring of turbidity by the Contractor will be required. When the turbidity standards become unachievable, the decanting period shall be terminated regardless of the volume of decant water removed. However, Contractor may re-establish decanting after termination, providing the turbidity standards can be maintained and provided that the decanting can be completed.

B. Final volume of liquid to be determined by certified flow meter with totalizer, furnished by the Contractor, following completion of the pumping.

C. Method of Measurement. Measure volume of liquid decanted from top layer of basin using certified flow meter/totalizer after decanting is complete.

D. Method of Payment. Payment for decanting of coagulated water shall be made at the unit price bid per 10,000 gallons under this Bid Item, listed in Document 00301, Bid as approved by Engineer.

ITEM 4 REMOVAL, DEWATERING AND DISPOSAL OF RESIDUALS FROM THE SOUTH SEDIMENTATION BASIN

A. General. Contractor shall pump the residuals remaining in the South Sedimentation Basin to the existing drying beds or Contractors dewatering equipment after decanting is completed. Contractor to supply pumping equipment including, but not limited to, pumps, hoses, piping, generators, and other ancillary equipment necessary to complete the pumping as specified and/or shown on the Drawings and all other incidental Work relative thereto, which is not included under another Bid Item listed in Document 00301, Bid.

The price bid under this Bid Item for removal, dewatering and disposal of residuals shall be full compensation for all labor, equipment, tools, and materials necessary to complete the dewatering of residuals to a minimum 25 percent solids, removal from the site and disposal of the residuals as specified and all other incidental Work relative thereto, which is not included under another Bid Item listed in Document 00301, Bid.

B. Method of Measurement. Measure weight and number of trucks leaving site with dried sludge. Sludge must meet a minimum 25 percent solids or load will be rejected for

payment. Contractor to install portable, automated weigh scale at site and provide personnel to continuously monitor truck scale traffic and issue weight tickets for each sludge truck entering and leaving site as approved by Engineer.

C. Method of Payment. Payment will be per dry ton of 25 percent (or greater) dried sludge removed from dewatering operations leaving the site at the unit price bid under this Bid Item, listed in Document 00301, Bid, as approved by Engineer.

ITEM 5 REPLACEMENT OF UNSUITABLE MATERIAL

A. General. The prices bid under of this Bid Item shall be full compensation for all labor, tools, materials, and equipment necessary to complete the Work as specified which shall include excavation, sheeting or shoring not ordered left in place, dewatering, removal and legal disposal of unsuitable materials, filter cloth, furnishing and placing replacement materials, transportation, backfilling, and compaction, as specified and any other incidental Work relative thereto.

B. Method of Measurement. Measurement for replacement of unsuitable material above and below finished grade and/or subgrade shall be per cubic yard based on the volume removed and replaced as required and approved by Engineer.

C. Method of Payment. Payment for replacement of unsuitable material above and below finished grade and/or subgrade shall be made at the unit price bid per cubic yard this Bid Item, listed in Document 00301, Bid.

D. Exceptions

1. No payment will be made for replacement of unsuitable material above and below finished grade when suitable excess excavated material is available from other excavations made under this Project.

2. No payment will be made for unsuitable material replaced beyond the limits approved by Engineer.

ITEM 6 EXPERIMENTAL EXCAVATION

A. General. The price bid under this Bid Item shall be full compensation for all labor, tools, materials and equipment necessary to complete the Work as specified, which shall include notification of utility owners, machine and/or hand excavation to locate utilities, backfill, compaction, maintaining utility marking locations, repair to utilities damaged while performing experimental excavations at no cost to the Owner, furnishing assistance to Engineer, as specified, and all other incidental Work relative thereto.

B. Method of Measurement. Measurement of experimental excavation shall be per cubic yard based on the volume of materials excavated and backfilled, as approved by Engineer.

C. Method of Payment. Payment for experimental excavation shall be made at the unit price bid per cubic yard under this Bid Item, listed in Document 00301, Bid.

ITEM 7 INSTALLATION OF SLIDE GATES PROVIDED BY THE OWNER

A. General. The price bid under this Bid Item shall be full compensation for all labor, tools, materials, and equipment necessary to complete the Work as specified, which shall include installation of five (5) slide gates, provided by the Owner, for the settled water conduit and for the discharge of the tangential mixer, in accordance with manufacturer's instructions and as specified, and all other incidental Work relative thereto.

B. Method of Measurement. Measurement shall be lump sum as approved by Engineer.

C. Method of Payment. Payment for installation of slide gates shall be made at the lump sum unit price under this Bid Item, listed in Document 00301, Bid.

ITEM 8 ALLOWANCE #1 – UNKNOWN CONDITIONS

A. General. The purpose of this allowance is to pay for all labor, tools, materials, and equipment necessary to complete the Work associated with unknown conditions as required by the Owner and Engineer. This allowance shall be used at the discretion of PW for the benefit of PW.

B. Method of Measurement. Measurement shall be based on the actual cost of labor and materials furnished as approved by the Owner and Engineer.

C. Method of Payment. Payment for work associated with unknown conditions shall be reimbursed at the actual cost of labor and materials to complete the work as approved by the Owner and Engineer.

ITEM 9 ALLOWANCE #2 – MISCELLANEOUS LANDSCAPING IMPROVEMENTS

A. General. This allowance is to pay full compensation for all labor, tools, materials, and equipment necessary to complete miscellaneous landscape improvements as required by the Owner. This allowance shall be used at the discretion of PW for the benefit of PW.

B. Method of Measurement. Measurement shall be the actual cost of the work on a labor and materials basis as approved by the Owner and Engineer.

C. Method of Payment. Payment for work associated with miscellaneous landscaping improvements shall be reimbursed at the actual cost of labor and materials to complete the work as approved by the Owner and Engineer.

ITEM 10 DEWATERING AREA SITE PREPARATION

A. General. The price bid under this Bid Item for dewatering area site preparation shall be full compensation for all labor, equipment, tools, and materials necessary to complete the Work as required, which shall include transporting, excavation, backfill, compaction, grading, equipment installation and setup, and all other incidental Work relative thereto.

B. Method of Measurement. Measurement for dewatering area site preparation shall be lump sum as approved by the Engineer.

C. Method of Payment. Payment for dewatering area site preparation shall be the lump sum price bid under this Bid Item, listed in Document 00301, Bid.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION