Section 703 Capital Modification Submittal / Main Lift Pumping Station Structure Build-Out

LIST OF EXHIBITS

**** Please note this Agreement, and the obligations contained therein, shall not be binding nor take effect until the Parties have reached mutual agreement on the scope of work and all terms, Veolia has received requisite internal approvals under its governance procedures, and the Parties have executed the Agreement. ****

Exhibit (i)
Reason for the Capital Modification

The Taunton Wastewater Treatment Facility receives all of its flow from the Main Lift Pumping Station, and improvements to the station are required to provide reliable operation.

1) The project will include the following station improvements at a minimum:
   a) New pumping station structure - Remaining Build Out
   b) New pumps and piping
   c) New electrical equipment
   d) New instrumentation and controls
2) The Foundation Construction and the Influent Sewer & Force Main Construction is by others.

Exhibit (ii)
Description of the Capital Modification

A new pumping station will be constructed to the east of the existing pumping station. The site is south of Fifth Street off of West Water Street to the east and adjacent to the Taunton River. This scope of Work is based on the Progress Set of Engineering Documents dated _____[1] and the Preliminary Design Report dated August 11, 2017 prepared by Beta Group, Inc. for the City of Taunton.

1) Main Lift Pumping Station Structure Build-Out ("Build-Out") Construction
   a) Structures:
      i) Existing Pump Station Building Improvements
         (1) New Windows, doors and louvres
         (2) Cleaning of the structure exterior and interior painting
         (3) New exterior lighting
         (4) New Roof
      ii) New Pumping Station Building
         (1) Foundation Construction by others
         (2) The above-grade portion of the building, which will house the control room, will be a single-story CMU structure with a brick facing.
         (3) Roof - Roof shall be flat membrane.
         (4) Doors - Fiberglass exterior door and frame.
         (5) Windows - Insulated translucent panel (white) with aluminum frame.
         (6) Miscellaneous Metal - Stairs (remaining build out stairs only), pipe railings, ladders, and louvers shall be aluminum. Hatches by others.
         (7) Interior Finishes - Interior wall surfaces and ceilings shall be painted or coated.
         (8) Lighting - All interior lighting adjacent or within the wet well areas shall be explosion proof.
   b) Building Services
      i) Electrical
      ii) Heating and Ventilation including automatic temperature control (ATC).
      iii) Plumbing - waters (hot & cold), sanitary, vent and storm (roof) drainage.
   c) Site Work
      i) Influent sewer & force mains by others.
      ii) No changes to the access drive are proposed. The new driveway will extend around the facility to allow access to the wet well and to allow retrieval of equipment from the east side of the facility
      iii) Potable Water
      iv) Electric - New transformer to support the new pumping station
      v) New ten (10) foot tall perimeter fencing with PVC coated fabric installed around the site.
      vi) Landscaping
      vii) Signage
   d) Wet Well
      i) Foundation by others.

ii) Concrete infill & masonry in the separated wet well, three (3) sections, and motor operated sluice gates.
iii) Wet Well Air Mixing System
iv) Passive air vent and charcoal filter

e) Dry Well
i) Foundation by others.
ii) The upper, above-grade level will house electrical switch gear, motor control center, electrical panels, pump controls, instrumentation panels, heating and ventilation equipment, and bathroom facilities. Pumping discharge piping will be located on the intermediate level and lower level along with flow metering equipment and the lower level will house the sewage pumps.
iii) Five (5) Pumps with semi-open impeller for a firm capacity of 25 MGD when one of the largest pumps is out of service. Pumps will include constant speed motors equipped with Variable Frequency Drives (VFD)
iv) Ductile Iron Pumping Suction and Discharge Piping
v) Sump pumps and flood alarm indicator
vi) Two (2) station flow mag meters.
vii) Hoisting equipment – Hoist and monorail systems in pump room and on ground floor

f) Instrumentation & Control
i) The Instrumentation and Control (I&C) system will be configured to monitor the pumping system, wet pit water level, security systems, and power distribution systems. Operational signals and alarms will be sent to the Wastewater Treatment Facility.
ii) Telemetry will be provided by a digital data modem system. The instrumentation and control system will not provide remote operation capability. Changes to station operations will be done locally.
iii) The pumping system will consist of variable speed pumps operated by level controls. Wet well level will be monitored with redundant submersible transducers positioned within PVC stilling wells. The pumps will be started with individual pneumatic pressure switches. An emergency high level float will provide additional back-up for the transducer system.
iv) The five (5) pump system will be operated with the following control logic:
(1) Lead pump
(2) Lag pump
(3) Lag-Lag Pump
(4) Lag-Lag-Lag Pump (Future)
(5) Lag-Lag-Lag Lag Pump (Future)
v) The pumps will have the ability to pump to either force main with manual valve operation. The pumping systems will be programmed such that the lead and lag pumps will alternate between each force main. Each pump will have a predetermined on and off level depending on its function.

g) Stand-by Power
i) A new engine/generator (E/G) will be installed to provide “Stand-by” power to the pumping station. The new diesel E/G will be located in its own aluminum, sound attenuating enclosure with integral fuel tank. The enclosure will be installed on a

concrete pad adjacent to the pumping station building. The standby generator will be supported on a reinforced concrete slab supported on concrete piers at elevation 16

2) Main Lift Pumping Station Structure Build-Out Engineering
   a) The City is responsible for preparation of the engineering plans and specifications. The City has hired Beta Group, Inc. as its design engineer. Veolia is responsible to the City for the preparation of procurement documents, bid solicitation, construction, and startup of the project. Veolia will act as the construction manager during construction and hire sub-contractors, as required, to complete the construction. City, or its design engineer, shall:
      i) Complete all site surveying and geotechnical investigations needed.
      ii) Evaluate permitting requirements.
      iii) Prepare a basis of design.
      iv) Prepare all design documents, including but not limited to:
         (1) P&IDs
         (2) General facility layout & site positioning
         (3) General equipment layout configuration
         (4) Process equipment design & specifications
         (5) Electrical & process mechanical configuration
         (6) SCADA platform
         (7) Structural development
         (8) Site development
         (9) Architectural design development
      v) Prepare engineer's cost estimates.
      vi) Submittal Reviews
      vii) Respond to Requests for Information (RFI)
      viii) Main Lift Pumping Station Structure Build-Out O&M Manuals
      ix) Record Drawings
3) General
   a) Include participation of Disadvantaged Business Enterprise (DBE) subcontractors at the level required to meet SRF funding requirements in the engineering scope of services.
   b) All Subcontractors shall be subject to the approval of the City
   c) All subcontracts shall be based on Veolia Terms and Conditions.
4) Construction Management
   a) Contractor & materials procurement
      i) Initiate key equipment purchasing, coordinated through Veolia purchasing group. Review and approve all purchase orders issued on the project.
      ii) Develop the required bid packages and support the solicitation by invitation, discipline bids reflecting the following scopes or combinations there-of:
         (1) Building / Mechanical
         (2) Electrical
         (3) Instrumentation.
         (4) Sole-source selected equipment, if necessary. This will be other process equipment and may include electrical gear, pumps, mixers, etc.
      iii) Solicit bids from two (2) or more qualified contractors for each construction discipline (final content of each bid package will be agreed to with the City and may include more than one construction discipline) indicated above and award a contract

to the lowest bidder who is determined to be responsible and qualified and who has satisfactorily demonstrated an ability to perform the work as required. Veolia reserves the right to sole source work if it is in the best interest of the Build-Out. Any sole source procurement will be approved by the City.

iv) Support the award of project discipline bids – Update and issue construction documents stamped by the discipline P.E. or Architect and stamped "Issued for Construction." The issuance of these documents initializes the beginning of the construction phase for that discipline's work.

v) Performance and Payment Bonds to be provided by Construction Subcontractors with Dual Obligee Bonds listing Veolia and the City of Taunton as Obligees.

b) Generation & maintenance of project schedules
   i) Develop project Maintenance of Operation Plan (MOPO) (execution plan) to define how disruption to the wastewater pumping service will be minimized. Detailed MOPO sequencing of construction plan to be incorporated into discipline bid documents.
   ii) Finalize Project Schedule – develop the final project schedule after receipt of all subcontract bids, to be updated on a monthly basis.
   iii) Review project schedule/coordinate impact on wastewater systems operation – update project execution plan including MOPO.
   iv) Develop and maintain construction schedule for duration of project w/monthly updates
   v) Provide progress projections with cash flow analysis for City use, monthly cost requisition submittals.
c) Document control and submittal processing
   i) Review and maintain complete shop drawing records, as-built construction records
d) Preparation & maintenance of daily field reports
e) Processing & dissemination of field clarification requests
   i) Address/manage all Requests for Information ("RFI") from discipline contractors
   ii) Coordinate engineering support from the design engineers for RFI from contractors.
f) Coordination of testing & inspections
   i) Develop quality assurance / quality control ("QA/QC") program for the project to include all materials testing, equipment start-up and testing – to be finalized when all equipment purchased.
g) Monitoring field progress and reporting same
h) Maintenance of project budget
   i) Respond to any request for contract change orders, manage project claims to minimize project impact, notify City of change orders or claim notices received, their disposition, provide review of legitimacy, and confirm any associated costs.
i) Supervise construction installation activities
   i) Provide resident services during active construction to oversee the execution of the construction with coordination/management of the discipline contracts by Veolia.
   ii) Coordinate and directly manage all contractor activity on-site.
   iii) Attend weekly construction meetings during active construction
j) Evaluation of scope & pricing on any Change Order requests
k) Monitor contractor's field safety program

i) Develop, manage, and supervise the on-site project Safety program, including any contractor/sub-contractor activities.

l) Construction Review

i) Construction Review Intent

(1) The City will review, monitor, and, as it deems necessary, inspect the Main Lift Pumping Station Structure Build-Out Construction to ensure conformance to the Design Requirements and to ensure that such Main Lift Pumping Station Structure Build-Out Construction does not represent a substitution of lesser quality. In addition, the City shall review the progress of construction to verify payment for services.

ii) City Access, Review Meetings

(1) The City shall have access to the Main Lift Pumping Station Structure Build-Out at all times. Veolia shall report to the City monthly, hold monthly progress review meetings with the City, and otherwise solicit the City's input to the process as required. Veolia shall record the minutes of all meetings and construction progress, and provide the City with copies of minutes and documentation of said meetings.

m) Construction Submittals

i) Veolia shall identify the key submittals to be prepared by Veolia and the expected submittal dates. The City shall designate the number of copies of submittals and distribution.

ii) The following documents shall be provided to the City for review.

(1) Shop Drawings

(a) All major process shop drawings shall be available to the City for review and comment.

(2) Product Data

(a) Product data shall include, but not be limited to standard prepared data for manufactured products (sometimes referred to as catalog data), such as the manufacturer's product specification and installation instructions, availability of colors and patterns, roughing-in diagrams and templates, catalog cuts, product photographs, standard wiring diagrams, printed performance curves and operational-range diagrams, production or quality control inspection and test reports and certifications, recommended spare parts listing, and printed product warranties, as applicable to the Main Lift Pumping Station Structure Build-Out Construction.

(3) Samples

(a) Samples shall include, but not be limited to, physical examples of the work such as sections of manufactured or fabricated work, small cuts, or containers of materials, complete units of repetitively-used products, and color/texture/pattern swatches, as applicable to the Main Lift Pumping Station Structure Build-Out Construction.

(4) Review Procedures and Time Periods

(a) The City will complete its review of each construction submission within five (5) Business Days of receipt, or such longer period as the parties may agree, and will either take no exceptions with said construction submission, or will notify Veolia of any concerns, problems, non-approval on non-compliance of

such submission within that time. If the City does not respond within that time, the submission shall be deemed approved by the City. If any such submission is not approved by the City, Veolia will resubmit with modification as identified by the City, and the City's review and comment period upon each such resubmission shall be five (5) Business Days. If Main Lift Pumping Station Structure Build-Out Construction is delayed by virtue of the City's failure to identify reasons for rejection of a submittal, an equitable cost and/or schedule adjustment to reflect the direct consequences of the resulting delay shall be executed as a Change Order; provided that Veolia shall have provided to the City written notice reminding the City of this provision and of the City's failure to respond to a particular submittal at the expiration of the applicable period.

n) Format for Construction Submittals
   i) Submittals shall contain:
      (1) The date of submission, noting whether it is an original submission or a resubmission.
      (2) The Project title and number.
      (3) The names of:
         (a) Contractor
         (b) Supplier
         (c) Manufacturer
      (4) Identification of any deviations from design requirements.
      (5) Massachusetts P.E., if necessary

5) Project close-out
   i) Develop project punch list and manage completion of all work.
   ii) Provide contractors releases from all sub-contractors.
   iii) Make revisions to construction drawings (red lines) and submit to City's Engineer
   iv) Complete all punch-list items
   v) Turn-over of all pertinent project records, shop drawings, etc.

6) Main Lift Pumping Station Structure Build-Out Construction - Specifications & Drawings
   a) Progress Set of Engineering Documents prepared by Beta Group, Inc. for the City of Taunton dated _____.
   b) Application for Financial Assistance, Clean Water State Revolving Fund, Construction Stage, February 2019
      i) App D, Model Sub-Agreement Provisions [include in all subcontracts as well]
      ii) App F, D/MBE and D/WBE Forms [include in all subcontracts as well]
      iii) App G, Statement of Tax Compliance [include in all subcontracts as well]
      iv) App J, American Iron and Steel Requirements [include in all subcontracts as well]

Exhibit (iii)
Startup and Testing Program

1) Start-up and testing of process equipment
   a) Support the installation of all process equipment, with the review of appropriate testing to confirm correct installation.
   b) Testing of equipment and systems will occur in two phases: Start-Up Test(s) and the Acceptance Test. The formal Acceptance Test and procedures plan will be submitted to the City after the engineering documents and O&M manuals are completed.
   c) Start-Up Test
      i) In the initial phase, Start-Up Testing of equipment and subsystems will be completed to demonstrate that each is installed correctly, functions as intended, and meets the applicable conditions specified. Start-Up Testing will occur once the equipment or subsystems have been installed and are mechanically and electrically complete. A description of the Start-Up Tests will be outlined in a detailed Start-Up Plan prepared by Veolia specifically for this Amendment. The Start-Up Test will include, as applicable:
         (1) Run tests to check motor vibration, temperature, and noise.
         (2) Functional test of controls and instruments, including the interface with the SCADA system.
         (3) For pumps and blowers – measurement of flow vs. head at three points on the pump curve.
         (4) Additional equipment-specific tests in accordance with good and accepted practice.
      ii) The process equipment and subsystems will be subjected to performance tests to demonstrate that when the Build-Out are completed, they can perform in accordance with the specifications.
      iii) To the extent practicable, all equipment and sub-systems shall be demonstrated to operate properly over all specified hydraulic and treatment process conditions.
      iv) The process equipment supplier shall be required to conduct a performance test on their equipment after installation. Veolia shall direct and oversee the Performance Test as mutually agreed to and appropriate for the system being tested.
   d) Acceptance Test
      i) Upon successful completion of the Start-Up Test, the second phase, the Acceptance Test will occur. The Acceptance Test will be conducted in accordance with the Acceptance Test plan, to be prepared by Veolia specifically for the Upgrade. The Acceptance Test is to demonstrate that the completed work functions as intended and meets the design requirements. The Acceptance Test is to be conducted over the full design range of the Build-Out to the extent practicable.
      ii) The Acceptance Test will include various sub-tests all conducted within a 30-day period prior to the plant Acceptance Test which will have a duration of 48 hours.
      iii) The Acceptance Test will include:
         (1) Name of equipment/system and reference to the specific equipment/system information provided in the Start-Up Plan.

(2) Testing Schedule and duration with proposed dates and times for testing each item of equipment/system.
(3) Summary of power, lighting, chemicals, water, sludge, test equipment, etc. needs required to conduct the testing.
(4) Outline of specific responsibilities of Veolia operators, manufacturer representatives, or factory personnel during the test period.
(5) Detailed description of the step-by-step testing requirements, with appropriate references to standardized testing and process control procedures and laboratory analyses.
(6) Samples of forms to be used to collect and record test data, and to present tabulated test results.
(7) Summary of how the acceptance test data collected will be interpreted and protocol for determining that the specific performance criteria of discharge permit will be met.
(8) Description of equipment/system limits that identify conditions that the equipment/system will only be allowed to be operated within and that are in accordance with the design criteria.
(9) Simulated Power Outage
    (a) A simulated power outage test will be conducted to demonstrate proper switch over to standby power and full restart and all Build-Out components to pre-power loss conditions.
(10) SCADA System Functional Test
    (a) A 30-day continuous demonstration test will be conducted to demonstrate proper operation of the SCADA System. All controls and functions will be demonstrated during the test.

Exhibit (iv)
Construction Price

City of Taunton, Massachusetts	
Main Lift Pumping Station	
Project Cost Estimate Summary	
	Total Project Cost
Equipment & Subcontractor Total	$6,290,687
Veolia Fee (10%)	$629,069
Shared Contingency (5%)	$314,534
Veolia General Liability Insurance - $14.00/$1,000	$126,000
A. CONSTRUCTION TOTAL	**$7,360,290**
B. TECHNICAL SERVICES	
Engineering Services During Construction, BETA Group, Inc.	$480,000
Capital Program Management Services, Veolia	$1,159,710
B. TECHNICAL SERVICES TOTAL	**$1,639,710**
C. POLICE	**$0**
TOTAL CONTRACT PRICE - A+B+C	**$9,000,000**
Notes:	
1. Assumes 18 months on site construction	
2. Permit Fees not included	
3. Sales and Use Tax not included	
4. Engineering Design not included	
5. Construction Costs are based on final construction bids.	
6. Subcontractors, including Sole-Source Subcontractors will be assigned DBE/MBE participation goals that will total a minimum of 4.2% of total project cost for D/MBE and 4.5% of total project cost for D/WBE	

1. The City shall pay Veolia for completion of the Build-Out a sum equal to the Total Contract Price of the Build-Out. Total Contract Price of the Build-Out includes, but is not limited to:
    a. Payroll costs for the employees in the direct employ of Veolia.
    b. Cost of all materials incorporated into the Work.
    c. Payments made by Veolia to subcontractors.
    d. Costs of special consultants employed for services related to the Work.
    e. Cost of transportation, travel, and subsistence costs for Veolia employees.
    f. Cost of consumables.
    g. Cost of rentals of equipment.
    h. Cost of sales, consumer, use, or similar taxes.
    i. Cost of utilities, fuel, and sanitary facilities.
    j. Cost of telephone service, express delivery.
    k. Cost of bonds and insurance.
    l. Construction management fee.
    m. Project contingency
2. Total Contract Price
    a. After completion of the Contractor & Materials Procurement, the Total Contract Price will include:
        i. Fixed Cost for all Construction Management Services.
        ii. Construction Cost for Equipment & Construction Subcontractors. A 10.0% Fee and a 5.0% Contingency will be added to the Total Construction Cost.
        iii. Fixed Fee for Capital Program Management Services.
        iv. Project Contingency Use
            1. Use of the shared project contingency will be mutually agreed upon by the City and Veolia. Veolia and the City will share in a 50/50% split of the unused contingency upon final completion of the project.
            2. The City's portion of the unused project contingency can be used, as directed and approved by the City, for City requested Modifications, existing planned project phases not yet completed, or to build new project phases associated with the Upgrade.
        v. The aggregate amounts of Items i – iii will be the Total Contract Price.
        vi. The Schedule of Values will be updated to reflect the Total Contract Price.
        vii. DBE Participation will be adjusted to confirm the Total Contract Price achieves the DBE goals.
            1. Disadvantaged MBEs (D/MBE) 4.2% of Total Contract Price.
            2. Disadvantaged WBEs (D/WBE) 4.5% of Total Contract Price.
    b. Qualifications:
        a. Assumes 18 months on site construction
        b. The City will pay all permit costs.
        c. Sales and use taxes are the City's responsibility and are not included in the Total Contract Price.
        d. Testing, storage, removal, and disposal of hazardous or contaminated materials is not included.

e. Beta Group Inc. will have sole responsibility for the Engineering Documents, including any errors, omissions, and deficiencies thereof. Veolia makes no warranty with respect to the Engineering Documents.
f. The City will pay all Utility Fees.
g. To the fullest extent permitted by law and notwithstanding any other provision of the Service Contract, Veolia's liability for performance or nonperformance of any obligation arising under the Service Contract (whether arising under breach of contract, tort, strict liability, or any other theory of law or equity) in connection with the Capital Modification herein described, including, but not limited to its indemnity and warranty obligations, shall not exceed the Total Contract Price (as used herein) cumulatively; provided that the foregoing limitation shall not apply to any insurance proceeds or from losses resulting from the gross negligence or willful misconduct of Veolia or Veolia's subcontractors, employees or agents. IN NO EVENT SHALL VEOLIA OR ANY OF ITS REPRESENTATIVES OR AFFILIATES BE LIABLE FOR CONSEQUENTIAL, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, PUNITIVE, OR ENHANCED DAMAGES ARISING UNDER THE SERVICE AGREEMENT IN CONNECTION WITH THE CAPITAL MODIFICATION HEREIN DESCRIBED.

ii. Payment Procedures
    1. Veolia shall submit and the City will process Applications for Payment.
    2. The Schedule of Values will serve as the basis for payment and will be incorporated into a form of Application of Payment acceptable to the City. Changes to the Schedule of Values shall have revised values approved by the City.

iii. Work completed to date measured as a percentage of the total work shall be submitted by Veolia and substantiated as required by the City.

Exhibit (v)
Construction Schedule

Illustrative Schedule

PROJECT CONSTRUCTION SCHEDULE: The Build-Out project work shall commence on a date coordinated with the City. A detailed construction schedule will be distributed within ten days of the issuance of the notice to proceed.

Veolia shall complete all work required under the Main Lift Pumping Station Structure Build-Out within 548 days of the issuance of a Notice to Proceed.

Exhibit (vi)
Draw-down Schedule[2]

Estimated Drawdown Schedule:

	Month	Running Total
Month 1	125,000	125,000
Month 2	50,000	175,000
Month 3	100,000	275,000
Month 4	125,000	400,000
Month 5	150,000	550,000
Month 6	250,000	800,000
Month 7	500,000	1,300,000
Month 8	650,000	1,950,000
Month 9	650,000	2,600,000
Month 10	750,000	3,350,000
Month 11	1,000,000	4,350,000
Month 12	1,150,000	5,500,000
Month 13	1,000,000	6,500,000
Month 14	800,000	7,300,000
Month 15	650,000	7,950,000
Month 16	650,000	8,600,000
Month 17	300,000	8,900,000
Month 18	100,000	9,000,000