

INTERIM AGREEMENT
BETWEEN
HAMPTON ROADS SANITATION DISTRICT
AND
BURNS & MCDONNELL ENGINEERING COMPANY, INC.

THIS INTERIM AGREEMENT (“Agreement”) is by and between Hampton Roads Sanitation District, a political subdivision of the Commonwealth of Virginia (“HRSD” or “Owner”) and Burns & McDonnell Engineering Company, Inc., a Missouri corporation authorized to do business in the Commonwealth of Virginia (“Private Entity” or “Design-Builder”), each a “Party” and together, the “Parties.”

RECITALS

1. HRSD provides sewer conveyance and treatment services for twenty (20) cities and counties in Southeastern Virginia. Working closely with the U.S. Environmental Protection Agency, Virginia Department of Environmental Quality, and local communities, HRSD has embarked on an extensive program to reduce sanitary sewer overflows in the region. As part of this program, HRSD will be conducting extensive efforts including studies, design, and construction on both HRSD’s sewer system and on the sewer systems owned and operated by the various cities and counties in the region. A critical component of these efforts is HRSD’s High Priority Inflow and Infiltration Reduction Program (the “Program”).

2. Although the design-bid-build project delivery method that utilizes competitive bidding is the default method of procurement for construction in Virginia, this process will not provide the desired outcome for the Program, which requires many complex, interrelated, and geographically diverse projects. Additionally, because the type, location, and amount of construction activities cannot be initially predicted, the Program will require a project delivery team led by an engineering firm that can directly contract with construction firms, as necessary, to complete this work. Consequently, HRSD selected the Public-Private Education Facilities and Infrastructure Act of 2002 (Virginia Code § 56-575.1. *et seq.*) (the “PPEA”) as its method for developing and contracting for the development of the Program.

3. The HRSD Commission (the “Commission”) has adopted guidelines for implementation of the PPEA as Appendix F of the HRSD Procurement Policy and, on February 24, 2024, adopted findings and supplemental guidelines for the solicitation and evaluation of proposals related to the Program under the PPEA (collectively, the “Guidelines”).

4. Consistent with the Guidelines, HRSD solicited proposals through a two-phase Request for Proposals under the PPEA for the Program.

5. In accordance with Virginia Code § 56-575.17(B), and the Guidelines, HRSD held a duly noticed public hearing on May 28, 2024, on the conceptual proposals received for the Program.

6. Following the review and analysis of proposals consistent with the Guidelines, HRSD selected Private Entity for negotiation of an Interim Agreement for preliminary design of the Program.

7. HRSD's approval of Private Entity's Proposal is subject to the Private Entity entering into an interim agreement with the Commission pursuant to Virginia Code § 56-575.9:1 and a subsequent Comprehensive Agreement pursuant to Virginia Code § 56-575.9.

8. Due to the complex, large, phased, and long-term nature of the Program, an interim agreement is necessary to negotiate a fair and reasonable price for the first phase of the Program, the completion, or partial completion, of which is necessary to provide information critical to the negotiation of a fair and reasonable price for succeeding phases under a Comprehensive Agreement.

9. The Parties have negotiated this Agreement relating to the Program consistent with the PPEA, other applicable law, the Guidelines, Private Entity's proposal, and discussions between representatives of HRSD and Private Entity.

10. The Parties acknowledge and agree that this Agreement will function as the Interim Agreement for purposes of the Project.

11. Having considered this Agreement and other information, Owner has determined that the Project to be designed and constructed pursuant to this Agreement serves the public purpose of the PPEA under the criteria Virginia Code § 56-575.4(C).

12. In accordance with Virginia Code § 56-575.17(C), prior to Commission approval HRSD made the Agreement publicly available in a manner provided in Virginia Code § 56-575.17(A).

13. At its meeting on August 27, 2024, the Commission approved this Agreement and authorized the Chief to execute the Agreement on behalf of HRSD.

14. In connection with its approval of Private Entity's Proposal and this Agreement, HRSD shall establish a date for the commencement of activities related to the Project, which may be extended by HRSD from time to time.

NOW, THEREFORE, in consideration of the Recitals set forth above, which are incorporated herein, and good and valuable consideration as set forth below, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

PROJECT INFORMATION

Interim Agreement: High Priority Inflow and Infiltration Reduction Program (GN020300) (Program)

Engineer: Private Entity shall be the Engineer and shall directly perform the Design Professional Services, as well as subcontract with other Project Design Professionals through Design Agreements for performance of some Design Professional Services related to the Project.

Authorized Representatives: Owner and Private Entity each hereby designates a specific individual authorized to act as representative with respect to the performance of responsibilities under this Interim Agreement. Such an individual shall have authority to transmit instructions, receive formal notices, receive information, and render decisions relative to this Interim Agreement on

behalf of the respective party that the individual represents.

1. Owner's Authorized Representative:
Bruce Husselbee, Chief Engineer
1434 Air Rail Avenue,
Virginia Beach, Virginia 23455
(757) 460-7012
bhusselbee@hrsd.com
2. Private Entity's Authorized Representative:
John J. Pruss, PE ENV SP
Director of Program Management, Water
Burns & McDonnell
Direct: 816-627-4772
jjpruss@burnsmcd.com

Terms used in this Agreement have the meanings stated herein and in the General Conditions and the Supplementary Conditions.

ARTICLE 1 – THE WORK

1.01 *General Description of Interim Agreement Work*

Under this Agreement and consistent with Article 6, Private Entity shall provide Design Professional Services and other support services necessary to plan and conceptually design the Project, consisting of multiple sanitary sewer rehabilitation and replacement projects within gravity sanitary sewer systems, and related remediation consistent with the Program and the Contract Documents. The goal of this Program and the Project is to reduce capacity-related sanitary sewer overflows within the pre-selected Locality catchments through the cost-effective reduction of inflow and infiltration.

The Parties understand and agree that Design Professional Services, including detailed engineering, and Construction will be performed utilizing a design/build delivery method governed by a Comprehensive Agreement to be negotiated by the Parties during the term of this Agreement.

ARTICLE 2 – CONTRACT TIMES

2.01 *Time is of the Essence*

All time limits for Private Entity's attainment of Milestones for Design Submittals necessary for Construction, if any, are of the essence of the Contract.

2.02 *Contract Times*

Private Entity will complete the Scope of Work within 180 days after the Effective Date.

2.03 *Liquidated Damages (applicable to the subsequent Comprehensive Agreement)*

- A. Private Entity and Owner recognize that time is of the essence as stated in Paragraph 2.01 above, and that Owner will suffer financial and other losses if the Work is not completed prior to December 31, 2030, plus any extensions thereof allowed in accordance with the Comprehensive Agreement, and Milestones, if applicable, are not achieved within the times specified, plus any extensions thereof allowed in accordance with the Comprehensive Agreement. The Parties also recognize the delays, expense, and difficulties involved in proving in a lawsuit the actual loss suffered by Owner if the Work and Milestones, if applicable, are not completed on time. Accordingly, instead of requiring any such proof, Owner and Private Entity agree that as liquidated damages for delay (but not as a penalty):
1. *Completion*: Private Entity shall pay Owner liquidated damages in an amount to be further defined and agreed to in the Comprehensive Agreement for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in the Comprehensive Agreement for completion of the Work and Milestones, if applicable. The Parties may establish separate liquidated damages amounts for separate failures to timely achieve certain Milestones or establish a uniform liquidated damages amount per day or both, such determinations to be made at the time of and memorialized in the Comprehensive Agreement.

2.04 *Consequential or Special Damages (applicable to the subsequent Comprehensive Agreement)*

- A. Private Entity shall reimburse Owner (1) as special damages, for any fines or penalties imposed on Owner as a direct result of the Private Entity's failure to attain Substantial Completion or the Project being Functionally Complete according to the Contract Times in the Comprehensive Agreement ("Special Damages"), and (2) for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in the Comprehensive Agreement for Substantial Completion (as duly adjusted pursuant to the Contract), until the Work is substantially complete ("Consequential Damages"). The total amount for Special Damages and Consequential Damages shall not exceed an amount or percentage of the Contract Price and all approved Contract Price modifications, such amount to be determined in the Comprehensive Agreement.
- B. After Private Entity achieves Substantial Completion, if Private Entity shall neglect, refuse, or fail to complete the remaining Work within the Contract Times established in the Comprehensive Agreement, Private Entity shall reimburse Owner for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in the Comprehensive Agreement for Work to be completed and ready for final payment (as duly adjusted pursuant to the Contract), until the Work is completed and ready for final payment ("Final Consequential Damages").
- C. The Special Damages, Consequential Damages, and Final Consequential Damages imposed in this Paragraph are supplemental to any liquidated damages for delayed completion established in this Agreement.

- D. The Parties understand and agree that the provisions of Paragraph 2.03 and this Paragraph 2.04 shall be included in any Comprehensive Agreement executed by the Parties for the Project.

2.05 *Limitation on Liability*

Except as expressly provided for in the Interim or Comprehensive Agreement, Private Entity will have no liability for any special, indirect, punitive, liquidated, or consequential damages.

In consideration for the mutually negotiated pricing and payment provisions, and terms and conditions contained in this agreement, the total aggregate liability of Design-Builder, its officers, directors, shareholders, employees, agents, subcontractors and suppliers, and any of them to Owner and Owner's personnel, and anyone claiming by, through or under Owner or Owner's personnel, for any and all claims losses, liability, costs, expenses, or damages whatsoever arising out of, resulting from, or in any way related to the Work or this Agreement shall not exceed the contract price paid to Design-Builder.

Notwithstanding anything to the contrary in this Agreement, all limitations of liability specifically expressed in this Agreement shall apply to all claims, causes of actions, theories of recovery, and demands at law, equity, or otherwise, including but not limited to breach of contract, breach of warranty, strict liability, products liability, and negligence of any degree. Such limitations and waivers shall not apply to Private Entity's indemnity obligations under this Agreement for third-party property damage, bodily injury, or death, nor to either Party's fraud or willful misconduct.

ARTICLE 3 – CONTRACT PRICE

3.01 *Contract Price*

- A. Owner shall pay Private Entity for completion of the portion of the Work subject to this Agreement in accordance with the Contract Documents identified in Article 6 the amounts that follow, subject to adjustment under the Contract:
1. Planning and Conceptual Design Professional Services: an amount based on time and material rates set forth in Exhibit A – Scope of Services. Any not-to-exceed amount is a budgetary estimate and not a maximum amount of compensation to be paid to Private Entity for the Work. To extent that Design-Builder anticipates that the Planning and Conceptual Design Professional Services shall exceed the budgetary estimate and prior to such time that it is exceeded, Design-Builder shall contact Owner to discuss whether a revised Scope of Work should be implemented or whether the Contract Price should be increased, or both.

ARTICLE 4 – PAYMENT PROCEDURES

4.01 *Submittal and Processing of Payments*

- A. Private Entity shall submit Applications for Payment in accordance with Article 14 of the General Conditions and Supplementary Conditions. Owner will process Applications for Payment as provided in the General Conditions and Supplementary Conditions.

4.02 *Progress Payments; Retainage*

- A. Owner shall make progress payments on account of the Contract Price on the basis of Private Entity's Applications for Payment monthly during performance of the Work as provided in Paragraph 4.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of this Interim Agreement. All such payments will be measured by any Schedule of Values established as provided in the General Conditions and Supplementary Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided in Paragraphs 3.01.A.1 and 6.01.A.5 and elsewhere in this Interim Agreement.
 - 1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with this Interim Agreement.
 - a. 95 percent of Work completed (with the balance being retainage); and
 - b. 95 percent of cost of materials and equipment not incorporated in the Work but delivered, suitably stored, and accompanied by documentation satisfactory to Owner as provided in Paragraph 14.01.B of the General Conditions (with the balance being retainage).
- B. Upon Substantial Completion, the retainage shall be further reduced below 5 percent to that amount necessary to assure Final Completion, as determined by the Owner. The determination of any such reduction shall be at the sole discretion of the Owner.
- C. Notwithstanding the provisions above, no retainage shall be withheld with respect to this Agreement or the portion of a payment application pertaining to engineering, design, and other professional services in the Comprehensive Agreement.

4.03 *Diversity Procurement*

- A. The Private Entity, Project Design Professionals, Construction Subcontractors, and Suppliers are encouraged to provide the participation of small, women-owned, and minority-owned (SWaM) businesses, service-disabled veteran-owned businesses (SDVOB), or disadvantaged business enterprises (DBE) in this Agreement. With each monthly Application for Payment, the Private Entity shall document the following:
 - 1. if the Private Entity is designated by the Commonwealth of Virginia as a SWaM, SDVOB, and/or DBE, the designation type and the dollar value of Work completed by the Private Entity,
 - 2. dollar value of Work completed by Project Design Professionals, Construction Subcontractors, and/or Suppliers designated by the Commonwealth of Virginia as small businesses,

3. dollar value of Work completed by Project Design Professionals, Construction Subcontractors, and/or Suppliers designated by the Commonwealth of Virginia as women-owned businesses,
4. dollar value of Work completed by Project Design Professionals, Construction Subcontractors, and/or Suppliers designated by the Commonwealth of Virginia as minority-owned businesses,
5. dollar value of Work completed by Project Design Professionals, Construction Subcontractors, and/or Suppliers designated by the Commonwealth of Virginia as SDVOB, and
6. dollar value of Work completed by Project Design Professionals, Construction Subcontractors, and/or Suppliers designated by the Commonwealth of Virginia as DBE.

4.04 *Construction Subcontractor and Supplier Payments*

A. In accordance with Virginia Code § 2.2-4354 :

1. Private Entity is liable for the entire amount owed to any Construction Subcontractor or Supplier with which it contracts. Private Entity shall not be liable for amounts otherwise reducible due to the Construction Subcontractor's or Supplier's noncompliance with the terms of the contract. In the event that the Private Entity withholds all or a part of the amount promised to the Construction Subcontractor or Supplier under the contract, the Private Entity shall notify the Owner and Construction Subcontractor or Supplier in writing of their intention to withhold all or a part of the Construction Subcontractor's or Supplier's payment with the reason for nonpayment. Payment by the Construction Subcontractor or Supplier contracting with the Private Entity shall not be a condition precedent to payment to any lower-tier Construction Subcontractor or Supplier, regardless of the Private Entity receiving payment for amounts owed to the Private Entity. Any provision in a contract contrary to this Section 4.04 shall be unenforceable.
2. Within 7 calendar days of each payment by Owner to Private Entity under this Agreement, Private Entity shall either:
 - a. pay the Construction Subcontractor or Supplier for the proportionate share of the total payment received from the Owner attributable to the Work performed by the Construction Subcontractor or Supplier; or
 - b. notify the Owner and Construction Subcontractor or Supplier in writing of the intention to withhold all or part of the Construction Subcontractor's or Supplier's payment with the reason for nonpayment.
3. Private Entity shall pay interest to its Construction Subcontractor or Supplier on all amounts owed by the Private Entity that remain unpaid after 7 calendar days following receipt by the Private Entity of payment from Owner for Work performed by the Subcontractor or Supplier, except for amounts withheld as allowed in this Paragraph 2.

4. Unless otherwise provided under the terms of this Agreement, interest shall accrue at the rate of 1 percent per month.
 - a. Private Entity shall include in each of its subcontracts a provision requiring each Construction Subcontractor or Supplier to include or otherwise be subject to the same payment and interest requirements set forth in this Paragraph.
 - b. A subcontract modification shall not be made for the purpose of providing reimbursement for the interest charges. A cost reimbursement claim shall not include any amount for reimbursement for the interest charge.

4.05 *Final Payment*

- A. Upon Final Completion and acceptance of the Work in accordance with Paragraph 14.06 of the General Conditions, Owner shall pay the remainder of the Contract Price.

4.06 *Consent of Surety*

- A. Owner may withhold final payment or return or release retainage at Substantial Completion or any other time, unless Private Entity submits written consent of the surety to such payment, return or release.

ARTICLE 5 – REPRESENTATIONS, CERTIFICATIONS, AND STIPULATIONS

5.01 *Private Entity's Representations*

- A. To induce Owner to enter into this Contract, Private Entity makes the following representations with respect to the portion of the Work to be performed under this Agreement:
 1. Private Entity has provided its social security number or federal employer identification number in Owner's Online Oracle Enterprise Resource Planning (ERP) system.
 2. Private Entity has examined and carefully studied the Contract Documents, any data, and reference items identified in the Contract Documents.
 3. Private Entity has become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the portion of the Work subject to this Agreement.
 4. Private Entity is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
 5. Private Entity has carefully studied the reports, if any, of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings, if any, of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Contract Documents, with respect to the Technical Data in such reports and drawings.

6. Private Entity has carefully studied the reports and drawings, if any, relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Contract Documents, with respect to Technical Data in such reports and drawings.
7. Private Entity has considered the information known to Private Entity itself, and to Construction Subcontractors and Project Design Professionals that Private Entity has selected as of the Effective Date; information commonly known to design professionals, Private Entities, and contractors doing business in the locality of the Site; the Contract Documents; and the Site-related reports and drawings, if any, identified in the Contract Documents or otherwise made available to Private Entity, with respect to the effect of such information, observations, and documents on (a) the cost, progress, and performance of the portion of the Work subject to this Agreement; and (b) Private Entity's safety precautions and programs.
8. Intentionally Omitted.
9. Private Entity is aware of the general nature of work to be performed by Owner and others at the Site that relates to the portion of the Work subject to this Agreement as indicated in the Contract Documents.
10. Private Entity has submitted online discussion(s) through Owner's Online Oracle ERP system as written notice of all conflicts, errors, ambiguities, or discrepancies that Private Entity has discovered in the Contract Documents and of discrepancies between Site conditions and the Contract Documents and confirms that the written resolution by Owner is acceptable to Private Entity.
11. Private Entity has determined that the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the portion of the Work subject to this Agreement.
12. Private Entity's entry into this Contract constitutes an incontrovertible representation by Private Entity that without exception all prices in the Agreement are premised upon performing and furnishing the portion of the Work subject to this Agreement as required by the Contract Documents.
13. Private Entity is organized or authorized to transact business in the Commonwealth of Virginia in accordance with Virginia Code Title 13.1 and/or Title 50 . Private Entity shall not allow its existence to lapse or its certificate of authority or registration to transact business in the Commonwealth of Virginia, if so, required under Virginia Code Title 13.1 and/or Title 50, to be revoked or cancelled at any time during the term of this Agreement. If the Private Entity fails to remain in compliance with the provisions of this section, Owner reserves the right to cancel this Agreement.
14. Private Entity does not, and shall not during the performance of the contract, knowingly employ an unauthorized alien as defined in the Federal Immigration Reform and Control Act of 1986, in accordance with Virginia Code § 2.2-4311.1.

5.02 *Private Entity's Certifications*

- A. Private Entity certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Private Entity Contract. For the purposes of this Paragraph:
1. "Corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the Proposal process or in the Design-Build Contract execution.
 2. "Fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the Proposal process or the execution of the Design-Build Contract to the detriment of Owner, (b) to establish Proposal or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition.
 3. "Collusive practice" means a scheme or arrangement between 2 or more Proposers, with or without the knowledge of Owner, a purpose of which is to establish Proposal or Contract prices at artificial, non-competitive levels.
 4. "Coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the Proposal process or affect execution of the Design-Build Contract.

5.03 *Anti-Discrimination Requirements*

- A. For all contracts over \$10,000 the Private Entity shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability or other basis prohibited by state law relating to discrimination in employment. During the performance of this Agreement, the Private Entity shall:
1. post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause,
 2. in all solicitations or advertisements for employees placed by or on behalf of the Private Entity, will state that such Private Entity is an equal opportunity employer. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section, and
 3. include the provisions of the foregoing clauses in every Construction Subcontract or purchase order over \$10,000, so that the provisions will be binding upon each Construction Subcontractor or Supplier, all in accordance with Virginia Code § 2.2-4311.
- B. Further, in accordance with Virginia Code § 2.2-4343.1, the Private Entity shall not discriminate against a faith-based organization on the basis of the organization's religious character or impose conditions that restrict the religious character of the faith-based organization, except in accordance with Virginia Code § 2.2-4343.1.F, that no funds shall be expended on contracts for religious worship, instruction, or proselytizing, or impair, diminish,

or discourage the exercise of religious freedom by the recipients of such goods, services, or disbursements.

- C. In accordance with the Virginia Human Rights Act, Virginia Code § 2.2-3900, the Private Entity shall safeguard all individuals within the Commonwealth from unlawful discrimination in employment because of race, color, religion, national origin, sex, pregnancy, childbirth or related medical conditions, age, marital status, sexual orientation, gender identity, disability, or status as a veteran; preserve the public safety, health, and general welfare; further the interests, rights, and privileges of individuals within the Commonwealth; and protect citizens of the Commonwealth against unfounded charges of unlawful discrimination.

5.04 *Drug Free Workplace Requirements*

- A. For all contracts over \$10,000 the Private Entity shall maintain a drug-free workplace. During the performance of this Agreement, the Private Entity shall:
 - 1. provide a drug-free workplace for the Private Entity's employees,
 - 2. post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the Private Entity's workplace and specifying the actions that will be taken against employees for violations of such prohibition,
 - 3. state in all solicitations or advertisements for employees placed by or on behalf of the Private Entity that the Private Entity maintains a drug-free workplace, and
 - 4. include the provisions of the foregoing clauses in every Construction Subcontract or purchase order over \$10,000, so that the provisions will be binding upon each Construction Subcontractor or Supplier, all in accordance with Virginia Code § 2.2-4312.

ARTICLE 6 – CONTRACT DOCUMENTS

6.01 *Contents*

- A. The Contract Documents consist of the following:
 - 1. This Agreement (inclusive).
 - 2. General Conditions as applicable to the Scope of Work (inclusive; not attached but incorporated by reference).
 - 3. Supplementary Conditions as applicable to the Scope of Work (inclusive; not attached but incorporated by reference).
 - 4. Not used
 - 5. Exhibits to this Agreement (enumerated as follows):

- a. Scope of the Design Professional Services (Interim Agreement) (“Scope of Work”).
 - b. Not used.
 - c. Conceptual Documents as identified in RFP Article 4.01 (inclusive, not attached but incorporated by reference), being:
 - 1. Location of High Priority Inflow and Infiltration Program Work
 - 2. Regional Wet Weather Management Plan dated June 2020 (https://www.hrsd.com/sites/default/files/assets/Documents/pdfs/EP_A/FINALRWWMPasAPPROVED_1-26-22.pdf)
 - 3. RWWMP Improvements Framework dated October 2018
 - 4. Alternatives Analysis Report dated July 29, 2016
 - 5. Locality Memorandum of Agreement dated March 10, 2014
 - d. Private Entity’s time and material rates
6. The following which may be delivered or issued on or after the Effective Date of this Agreement and are not attached hereto:
- a. Notice to Proceed.
 - b. Performance Bond (not required prior to execution of Comprehensive Agreement) (together with power of attorney; See Supplementary Conditions Paragraph 6.01).
 - c. Payment Bond (not required prior to execution of Comprehensive Agreement) (together with power of attorney).
 - d. Insurance Certificates.
 - e. Escrow Agreement (if applicable).
 - f. Work Change Directives (if applicable).
 - g. Change Orders (if applicable).
- B. The Contract Documents listed in Paragraph 6.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 6.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the Contract.
- E. The General Conditions and Supplementary Conditions are not intended to modify Contractor’s Scope of Work for the Interim Agreement as set forth in Exhibit A.

ARTICLE 7 – TERMINATION PROVISIONS

7.01 Termination of Agreement

- A. Suspension of Work or termination of the Agreement shall be in accordance with Article 15 of the General Conditions.
- B. Execution of this Agreement and the performance of any services provided hereunder shall not require or bind the Owner to retain the Private Entity for the construction phase of the Project. Final negotiations and execution of a Comprehensive Agreement, and amendments as applicable, will occur at a time when the conceptual plan scope of work and budgetary cost of the construction effort for the Work can be more accurately defined. If a scope of work and compensation for the construction-related activities cannot be successfully negotiated, the Owner reserves the right to terminate this Agreement for convenience in accordance with Section 15.03 of the General Conditions and compensate the Private Entity to complete the design-related efforts associated with this Project and use the Record Specifications and Record Drawings to bid and construct the needed improvements associated with the Project. The Owner will then have the right to use the documents as defined in Paragraph 3.04 of the General Conditions and as further modified in the Supplementary Conditions. In negotiating the cost to complete the design-related efforts, the Private Entity and the Owner each hereby commits to negotiate a reasonable price in relation to the cost of the services provided. The Owner may, in its sole discretion, elect to cancel the Project and compensate the Private Entity for design related services completed and other termination expenses as provided for in Section 15.03 of the General Conditions.

ARTICLE 8 – MISCELLANEOUS

- 8.01 *Assignment of Agreement: Unless expressly agreed to elsewhere in the Agreement, no assignment by a party hereto of any rights under or interests in the Agreement will be binding on the other party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Agreement.*
- 8.02 *Successors and Assigns: Owner and Private Entity each binds itself, its successors, assigns, and legal representatives to the other party hereto, and its successors, assigns, and legal representatives, in respect to all covenants, agreements, and obligations contained in the Agreement.*
- 8.03 *Severability: Any provision or part of the Agreement held to be void or unenforceable under any applicable law or regulations shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Private Entity, who agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.*
- 8.04 *Permission to Use HRSD Name and Social Media Release: The Private Entity or any of its employees or agents shall not use HRSD's name, logo, proprietary information, or site photographs in any format for any personal or professional marketing or public relations material or social media use without prior review and approval from the Owner. These materials include, but are not limited to, advertisements, news releases, published articles, customer lists, social media posts,*

advertorials or any other promotional purposes. Owner's Director of Communications shall be provided with any material to be shared with the public at least 7 business days prior to the planned release of the information.

This Agreement will be effective on the date it is signed by the last signatory required below.

The Agreement and all subsequent changes to the Agreement will be approved and executed using Owner's Enterprise Project Management (Unifier) system. Physical signatures (on the Agreement and future Change Orders) will not be required if acknowledged by Private Entity through the online system.

Hampton Roads Sanitation District

Burns & McDonnell Engineering Company, Inc.

Signature

Signature

Printed Name: _____

Printed Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

FIRST AMENDMENT to the INTERIM AGREEMENT

Between

HAMPTON ROADS SANITATION DISTRICT

And

BURNS & MCDONNELL ENGINEERING COMPANY, INC.

This FIRST AMENDMENT to the INTERIM AGREEMENT (the “First Amendment”) is made by and between the Hampton Roads Sanitation District, a political subdivision of the Commonwealth of Virginia (“HRSD” or “Owner”) and Burns & McDonnell Engineering Company, Inc., a Missouri corporation authorized to do business in the Commonwealth of Virginia (“Private Entity” or “Design-Builder”).

WHEREAS, the parties entered into an Interim Agreement pursuant to the Public Private Education Facilities and Infrastructure Act of 2002, Virginia Code § 56-575.1, et seq. (“PPEA”) for Planning and Conceptual Design Professional Services for HRSD’s High Priority Inflow and Infiltration Reduction Program (the “Program”); and

WHEREAS, the Parties wish to extend the term of the Interim Agreement to for a period of 180 days, to allow the Interim Agreement services to be completed; and

WHEREAS, the funds are sufficient to compensate the Private Entity for the completion of the Interim Agreement services; and

WHEREAS, the HRSD Commission approved the First Amendment on March 25, 2025.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, HRSD and the Private Entity enter into this First Amendment.

1. Extension and Modification of Term of Agreement. The text of Section 2.02 Contract Times on page 3 of the Interim Agreement is amended by deleting “180” and replacing it with “360.”

2. Effective Date. In accordance with the terms of the Interim Agreement, the parties agree and acknowledge that this First Amendment is effective as of the date the contract change is acknowledged using Owner’s Unifier system.

3. Incorporation and Confirmation. All other terms, conditions and provisions of the Interim Agreement are confirmed and incorporated herein by reference and all other terms and conditions contained in the Interim Agreement shall remain unchanged and in full force and effect, except by necessary implication.

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IN WITNESS WHEREOF, the Parties have executed this First Amendment to the Interim Agreement.

Hampton Roads Sanitation District

Bruce Husselbee

Signature

Printed Name: Bruce W. Husselbee, PhD, PE

Title: Chief Engineer

Date: August 20, 2025

Burns & McDonnell Engineering Company, Inc.

John J. Pruss

Signature

Printed Name: John J. Pruss

Title: Director Program Management

Date: August 26, 2025

MEMORANDUM

DATE: March 11, 2025
TO: Beatriz Patino and Nick Taschner, HRSD
FROM: John Pruss, Program Manager
SUBJECT: Request to Extend Contract Time

- 1. Project Name:** High Priority Inflow and Infiltration Reduction Program (HPIIRP)
- 2. Contractor:** Burns and McDonnell Engineering Company, Inc.
- 3. Basis for Contract Change:** This contract time extension is necessary to continue the work initiated in the first 6-months of the HPIIRP under the Interim Agreement, including program management and project planning, sanitary sewer evaluation surveys (SSES), flow monitoring, hydraulic modeling, cost-effective analyses of alternative I/I reduction strategies, private I/I reduction planning, and the development of both conceptual and preliminary I/I reduction program plans.
- 4. Was this Contract Change Planned?** Yes
- 5. Will this change require Commission approval?** Yes
- 6. Cost Impact for Proposed Contract Extension:** None for original scope of work.*
- 7. Cumulative Cost Information:**

Maximum Contract Amount Approved by HRSD Commission:	\$ 8,900,000.00
Original Authorized Amount:	\$ 8,400,000.00
Original Additional Services Amount:	\$ 500,000.00
Additional Services No.1 Amount	\$ 45,261.00
Additional Services No. 2 Amount:	\$ 2,942.50
Balance Additional Services Amount:	\$ 451,796.50
Total Authorized Amount	\$ 8,448,203.50

SCHEDULE IMPACT

Original contract: Scope of Work within 180 days after the Effective Date (9/30/2024). Hence, the Original Contract Time was 3/29/2025.

This request would extend the contract time 180 days, or to 9/25/2025.

* A future amendment for additional funding may be necessary if the quantities of SSES and flow monitoring work, and programmatic activities are increased.

PROFESSIONAL SERVICES AGREEMENT

AMENDMENT NO. 2

for

High Priority Inflow and Infiltration Reduction Program

(GN020300)

THIS AGREEMENT is entered into and becomes effective this twenty-seventh day of May 2025, by and between Hampton Roads Sanitation District (HRSD) (Owner) and Burns and McDonnell Engineering Company, Inc. (Firm) and amends the Interim Agreement entered into on September 2024.

Owner and Firm hereby agree as follows:

Item 1. Article 4 – PAYMENT PROCEDURES, *Section 4.02. Progress Payments; Retainage*, make the following change in accordance to the Scope and Fee prepared by Burns and McDonnell dated May 6, 2025:

- A. Increase the Lump Sum authorization for Pre-Planning by \$1,600,000 from \$8,900,000 to \$10,500,000 due to additional flow monitoring and data analysis, completion of SSES work, and to continue program management and administration activities to further evaluate the ten (10) identified alternate project areas as potential locations for cost effective Inflow and Infiltration reduction.

This Amendment will be approved and executed using HRSD's Enterprise Project Management (Unifier) system. Physical signatures will not be required if acknowledged by Firm through the online system.

Additional Services Appropriation – Amendment No. 2

EXHIBIT A SCOPE OF SERVICES

Private Entity: Burns and McDonnell Engineering Company, Inc.

Owner: Hampton Roads Sanitation District

Project: High-Priority Inflow and Infiltration Reduction Program (CIP NO. GN020300)

I. GENERAL

The Hampton Roads Sanitation District (HRSD) is implementing a High Priority Inflow and Infiltration Reduction Program in accordance with a Federal Consent Decree and has selected Private Entity to design and construct high priority inflow and infiltration reduction projects under the Public-Private Education Facilities and Infrastructure Act of 2002 (PPEA). The Scope of Services defined herein will be performed under an Interim Agreement pursuant to Virginia Code § 56-575.9:1.

- A.** The Program will include professional engineering, construction, and support services necessary to design and construct multiple sanitary sewer rehabilitation and replacement projects within gravity sanitary sewer systems, utilizing a design/build delivery method governed by an Interim Agreement and Comprehensive Agreement.
- B.** The goal of this Program is to reduce capacity-related sanitary sewer overflows (SSOs) within locality catchments selected by HRSD based on the results of flow monitoring and cost-effective analysis of inflow and infiltration (I&I) reduction by Private Entity. Work may be located on locality-owned assets, HRSD-owned assets, and/or private assets/property, and may include the upsizing of gravity pipelines. The Regional Wet Weather Management Plan (RWWMP) identified basins where I&I reduction could be performed to cost-effectively reduce simulated sanitary sewer overflows (SSOs). HRSD will coordinate the identification and reduction of overflows with locality partners. The work is located in York County, and the Cities of Chesapeake, Newport News, and Norfolk, as indicated in Appendix 3 of the Sixth Amendment to Consent Decree filed January 19, 2024. Work may also be performed in James City County and the Cities of Suffolk, Portsmouth and Williamsburg.
- C.** This Program is part of HRSD's Consent Decree with the United States Environmental Protection Agency (EPA) for Sanitary Sewer Overflows and has a regulatory deadline of December 31, 2030. The overall goal of the RWWMP is to reduce the modeled 5-year SSO volume by 69 percent through a combination of I&I reduction projects and capacity improvements by December 31, 2040.

- D.** Based on past flow monitoring and hydrologic modeling, the sanitary sewer systems in Hampton Roads are typically inflow-dominated and exhibit very rapid responses to rainfall. Capacity-related SSOs are typically also short-duration, predominantly occurring during or shortly after the peak rainfall.
- E.** The primary work to be performed under the Interim Agreement will be sanitary sewer evaluation surveys (SSES), flow monitoring, hydraulic modeling, cost-effective analyses or similar activities to help identify the location and magnitude of inflow and infiltration sources, and preparation of a Preliminary I/I Reduction Program Plan for cost-effective I/I reduction in up to three locality project areas selected by HRSD.
- F.** A future Comprehensive Agreement is envisioned to consist of the continuation of cost-effective analyses and development of Preliminary I/I Reduction Program Plans for individual project areas, detailed design and construction packages as selected by HRSD during the Interim Agreement and may also include post-construction monitoring and modeling. The Comprehensive Agreement may be amended one or more times with additional design and/or construction work packages as the results of each subsequent phase of work for each project area are evaluated. The Comprehensive Agreement may also include assisting HRSD with refining the capacity improvement projects to be completed between 2030 and 2040 based on the success of this Program, or other service contracts related to the Program.
- G.** Private Entity's program approach will combine sewer system evaluation survey data previously collected by others with enhanced basin-specific data collected by Private Entity to evaluate multiple repair technologies and develop informed and cost-effective basin rehabilitation strategies. These strategies will be adapted with data-driven feedback from design and construction work packages during program implementation.

II. BASIC SCOPE OF SERVICES

The Basic Scope of Services to be provided by Private Entity under the Interim Agreement are described below and organized under the following Task Series:

TASK SERIES 100 – PROGRAMMATIC ACTIVITIES

TASK SERIES 200 – EXISTING DATA REVIEW AND FIELD INVESTIGATIONS

TASK SERIES 300 – TIME SERIES DATA ANALYSIS AND MODELING

TASK SERIES 400 – CONCEPTUAL I/I REDUCTION PROGRAM PLAN

TASK SERIES 500 – PRIVATE I/I REDUCTION PROGRAM

TASK SERIES 600 – PRELIMINARY I/I REDUCTION PLANS

TASK SERIES 700 - PRECONSTRUCTION SUPPORT ACTIVITIES

TASK SERIES 800 - COMPREHENSIVE AGREEMENT

DESCRIPTION OF BASIC SCOPE OF SERVICES

The following is a description of the Work to be performed under this Scope of Services to assist HRSD implement its Priority Inflow and Infiltration Reduction Program. These services will be performed within a 12-month period (per Amendment No. 1) which will begin upon receipt of Notice to Proceed.

TASK SERIES 100 - PROGRAMMATIC ACTIVITIES

Task 101 Program Management and Mobilization

- a. Private Entity will provide a Program Manager responsible for oversight of all services performed by its team and be the primary liaison with HRSD management staff. Program Manager will provide strategic planning and coordinate day-to-day activities through a Deputy Program Manager, Project Planning Lead, Data Management & SSES Lead, Design Manager, Construction Manager.
- b. Prepare, execute, and manage the performance of work contracted and authorized under subconsultant and subcontractor agreements.
- c. Lead and monitor Private Entity's program management services to achieve timely completion of activities and deliverables, including planning, engineering and preconstruction activities; project controls development, tracking and trend analyses; quality control and quality assurance; modeling projections of inflow and infiltration reduction to be achieved and presumed progress towards reducing baseline modeled SSOs by volume for the 5-year peak flow recurrence event; and monthly invoicing, and project status reporting.
- d. Mobilize BMcD Team leadership and set up designated program office space within BMcD offices in Chesapeake.
- e. Prepare for and conduct BMcD Program Team Kick-off Meeting, HRSD-BMcD Program Kickoff Meeting, and HRSD-Locality Program Kickoff Meeting.
- f. Establish program charter and objectives, strategies, and critical success factors to support the charter.
- g. Identify key stakeholders and their roles, responsibilities, and reporting structures, including members of the program executive leadership team and Locality representatives.
- h. Prepare for and participate in HRSD Partnering Sessions.
- i. Develop 30/60/90/120-day Program Commencement Plan to define initial planned scope of services, key deliverables, and schedule milestones for each deliverable.
- j. Finalize HRSD and BMcD Team organization structure for program function group integration, including roles and responsibilities and seams of interface with HRSD management and executive leadership.
- k. Review the total budgetary cost established by HRSD for this Program and each Round 1 High Priority I/I Reduction Project and each Round 2 High Priority Capacity Project,

which HRSD has updated to 2024 dollars. This updated budgetary cost information will be used in the cost-effective analysis described in Task 504 below.

- l. Identification of accounting structure and cost reporting, invoicing and program status reporting requirements utilizing HRSD's Unifier system.
- m. Participate in quarterly HRSD Steering Committee Meetings to evaluate program performance and direction.

Task 102 Program Execution Plan (PEP)

- a. Commence development of a Program Execution Plan to implement the program scope of services defined in the Interim and Comprehensive Agreements.
- b. Document program charter and objectives, strategies, and critical success factors.
- c. Define HRSD organization structure for this program, staffing resources, delineation of roles and responsibilities.
- d. Establish schedule for regular/quarterly Program Steering Committee Meetings (attendance by key program team and HRSD staff) to evaluate program performance and direction.
- e. Commence development of program management policy, practices and processes that govern communications, program management administrative procedures and workflows.
- f. Commence development of methodologies, technology tools, and techniques that will be used during program execution, and project management lifecycle process with HRSD decision points for each phase, including project planning and development, engineering, procurement, construction, commissioning and transfer to locality, and closeout, to execute projects in a consistent, standardized fashion.
- g. Commence development of quality assurance and quality control processes used during planning and design phases of each project.

Task 103 Program and Project Controls

- a. Review HRSD's technology tools used for financial management, project management information systems, change management, scheduling, document management, asset data management, geographic information system mapping, public outreach and engagement, etc.
- b. Commence development of a Technologies Data Integration Plan to integrate data from HRSD's Systems of Record and BMcD technology tools for dashboard reporting.
- c. Commence development of a Program Controls Plan for tracking and dashboard reporting of program and project level budget and funding execution, cost, schedule, change management, risk management, document management, quality, safety information, and progress toward achieving reduction in SSO volume using HRSD's regional and locality hydraulic models.
- d. Review accessibility to available data from HRSD's Boat Harbor and Portsmouth I/I Reduction Projects for inclusion in program dashboard reporting.

- e. Provide program and project-level controls to development, implement, monitor and manage the scope of work, costs, and schedule for program implementation.

Task 104 Stakeholder Engagement and Public Outreach

- a. Conduct workshop with HRSD public outreach and program leadership to discuss HRSD's strategies to potentially brand the I/I Reduction Program and communicate program commencement and periodic updates to the public and coordinate with each impacted locality Public Information Officer.
- b. Prepare a Stakeholder Engagement Plan to define HRSD and Program Team roles and responsibilities for engagement of individual localities and the public for project level public outreach and program level communications. Submit draft plan to HRSD for review and comment. Submit updated plan to HRSD for review and approval.
- c. Support HRSD as requested with development of a Program website and content.
- d. Assist HRSD as requested with creating, implementing, and maintaining an ongoing public information strategy to promote public support for the Program, including supporting positive working relationships with the media.
- e. Prepare and distribute informational materials to stakeholders as requested by HRSD.
- f. Participate in stakeholder meetings, and support HRSD's overall coordination of public involvement activities as requested. The timing of these meetings and support services will be mutually agreed upon.
- g. Provide an 11-month subscription to MySocialPinpoint software platform to support public engagement.

Task 105 HRSD Consent Decree Program Review

- a. Review minimum required scope of all Consent Decree (CD) projects
- b. Review actual work completed and cost for each CD project, including Interim System Improvements and Rehabilitation Action Plan project.
- c. Review other non-regulatory capacity-related HRSD projects that could have an impact on SSO volume.
- d. Summarize findings from subtasks a., b. and c. above and identify completed work that goes beyond Consent Decree requirements and impacts SSO volume reduction.
- e. Review HRSD Consent Decree and referenced RWWMP and supplement to the RWWMP to identify key elements related to modeling, SSO reductions, projects and other commitments and provide input into potential strategies for HRSD's continued regulatory compliance.
- f. Provide a graphical and tabular summary of capacity-related wet weather SSOs in the region by year from 2008 to 2025.

TASK SERIES 200 - EXISTING DATA REVIEW AND FIELD INVESTIGATIONS

Task 201 Review Existing Data & Develop Data Collection Plans

- a. Review strategy and approach previously developed for each high priority I/I reduction project as documented in HRSD's RWWMP.
- b. Assess and propose alternative areas to original high priority I/I reduction projects that have potential for cost-effective I/I reduction and consider need for additional flow metering in these areas.
- c. Review existing available data provided by HRSD for each high priority I/I reduction project (HPIIRP) area and assess the quality and completeness of data to determine sewer system asset condition and system response to wet weather events. This may include:
 - Asset data from GIS
 - Model files
 - Flow data and flow parameters
 - SSES data (CCTV, smoke testing, manhole inspections)
 - SSO Records
 - Work done since RWWMP
 - Pump Station Data
 - Stormwater, flooding and drainage information, including public complaints
 - Best available Lidar data/DEM
 - Groundwater Monitoring
 - Salinity Data contributing to SSOs
- d. Host workshop to present the findings from the existing data review.
- e. Develop basin-specific data collection plans by identifying locations where additional flow, rainfall or asset condition data is needed prior to defining the scope of I/I reduction work. Plans to include flow monitoring within the original 19 high-priority project areas and up to 10 additional alternate project areas identified by Private Entity.
- f. For all HPIIRP areas with a rehabilitation/replacement plan previously developed using with a "General" approach as described in Section 8 of the RWWMP (total of 7), identify the additional flow monitoring and SSES data needed to update each plan using a "Data-Driven" approach or a "Comprehensive" approach as described in the RWWMP. This additional data will be collected and used to develop a Conceptual I/I Reduction Program Plan for the rehabilitation of all HPIIRP areas.
- g. Determine locality permitting requirements, including, but not limited to traffic control, water usage, waste disposal, public service organization notifications.
- h. Host Workshop(s) to present the proposed data collection plans and associated costs, including Clarity overview and introduction.

Task 202 Field Data Collection Program

- a. Prepare Flow and Rainfall Monitoring and SSES Protocols for all data collection methods, including, but not limited to:
 - Discuss leveraging of GARR data
 - Flow/Depth-Only and Rainfall Monitoring including locations for rehab and control basins.
 - Smoke Testing and Dyed Water Testing
 - Manhole Inspections
 - CCTV Inspections
 - Cleanout Inspections
 - Distributed Temperature Sensing

Protocols will include but not be limited to:

- Public, locality, and HRSD notification, including prompt attention notification procedures
 - Data collection platforms
 - Data collection equipment
 - Asset identification and naming SOP
 - Data collection methodology and SOP
 - Data deliverable and progress reporting
 - Data QA/QC and review processes
 - Data integration with localities and HRSD
- b. Review and revise field data collection forms to capture agreed-upon data collection objectives.
 - c. Provide Clarity access and training. All SSES data to be viewable and accessible to all team members and stakeholders. Define user-level accessibility.
 - d. Define data structure and packaging within Clarity (i.e., segmentation by HPP, jurisdiction, data type, etc.).
 - e. Host field training workshops with SSES subcontractors and HRSD project managers to review user interface with RJN Group's Clarity data hosting platform. Best practices for flow monitoring data collection, data reporting, and protocols for each SSES activity and associated field safety measures will also be reviewed.
 - f. Perform programmatic quality control of all SSES data deliverables. Periodic field observation will be performed to confirm protocols are being followed in a consistent manner by subcontractors.

Task 203 Distributed Temperature Sensing (DTS)

- a. Develop a general strategy for deploying DTS to identify significant public and private inflow sources in project areas.
- b. Develop field plans for DTS studies in specific areas and conduct DTS to identify sources of excessive inflow in the York-003 project area.
- c. Develop DTS data-based reports cataloging findings in specific areas for guiding subsequent field investigations, rehab/repair decisions.
- d. Develop approach for post-rehab DTS monitoring to confirm flow removal conditions.

TASK SERIES 300 - TIME SERIES DATA ANALYSIS AND MODELING

Task 301 Regional Hydraulic Model Strategy Document and Workshop

- a. Meet with HRSD to discuss and review the current RHMs and their use for this program including:
 - Any update of design event results as it pertains to baseline and current conditions with conversion to SWMM hydraulic engine.
 - Extent to which RWWMP projects have been included.
 - Any additional model updates that may be necessary within each project area selected by HRSD prior to the RHM being used for cost-effective analysis.
 - Discuss potential hydrologic parameter modifications based on new data.
 - Discuss if future development conditions should be revised.
 - Discussion on coordination of modeling.
 - Discuss initial concepts for modeling needed during this program.
- b. Prepare a Model Strategy and Protocol Document that outlines the existing status of models, coordination protocols, data management, version control, baseline SSO volume and locations, current SSO volume and locations, and the proposed overall modeling approach for this project.
- e. Conduct a Workshop with HRSD staff to review the Model Strategy and Protocol Document and gain consensus on approach and modeling responsibilities between the BMcD team and HRSD.
- f. Create an outline to document HRSD's general development of the 2017 Baseline RHMs and HRSD's 2024/2025 updating of these RHMS to Mike Urban + software.

Task 302 Time Series Analysis and RTK Development

- a. Import all existing available time series data into HazenQ received from localities and HRSD and review for quality and ability to use as part of the analysis. Generate R-values where feasible and confirm if I&I response is sufficient to continue with the priority basin

or to consider looking at other basins that may have larger contribution to SSOs. This will be done prior to installing new flow meters.

- b. Import all time-series data gathered as part of program into HazenQ.
- c. Review early data in HazenQ to identify and address any quality issues and perform ongoing review of data to ensure sufficient usable data.
- d. As sufficient data are gathered, conduct detailed flow decomposition for full time series including, but not limited to:
 - Base sanitary flow
 - GWI – This will be calculated seasonally or after significant changes in the overall GWI
 - Rainfall analysis including return periods for all events
 - Total RDII and R-values for each event
 - Ongoing development of RTK model parameters to match extended periods and will likely include multiple sets depending on season and antecedent conditions. Initial abstractions will be included, as necessary. It is assumed that the Groundwater infiltration module will not be utilized. This can be included if desired but cannot be used in Mike+ for large hydraulic analyses
 - Early RDII responses will be reviewed to assess level of response and to determine if basin may not be appropriate to be added as part of program
 - For level only sites use HazenQ to develop diurnal patterns and plot against level data to identify locations of high I&I including rapid response. This data may be used to add additional sensors upstream to further isolate.
- e. Conduct early and ongoing reviews of R-values and RTKs to identify potential additional upstream locations or other field activities to identify sources and inform alternatives analysis.
- f. Determine if any adjustments may be needed or desired to the inputs for the RHM and LHMs based on the data analysis.
- g. Work with HRSD to select the RTKs to use for development of basin mini-models, LHMs, and RHMs.
- h. Review flow calibration data provided by Newport News to HRSD and develop RTK flow parameters for 35 service areas, and submit them to HRSD to update the Northshore RHM.

Task 303 Locality Hydraulic Model Assessments

- a. Review the current status of LHMs for each I/I service area and determine if there are gaps or updates required. Meet with HRSD to review gaps and updates necessary to support the needs of the program, especially to identify potential capacity limitations that will impact alternatives analyses. Consider the extent to which localities have refined their own models and discuss with HRSD if these should be considered.

- b. Review LHM model parameters and compare to available flow data analysis to determine if model refinements are needed.
- c. Utilize the LHMs as necessary to support the overall goals of the program and analyses and any upsizing needed for alternative costing.

Task 304 Support Update of Regional Hydraulic Model

- a. Assist HRSD staff with updates necessary to use the RHM for the cost effectiveness analysis per Task Series 300. These updates may include:
 - Adding projects completed but not added to model yet
 - Adding projects either in design or under construction
 - Revising PS operations if there are known changes
 - Revising hydrologic parameters where necessary

TASK SERIES 400 - CONCEPTUAL (COMPREHENSIVE) I/I REDUCTION PROGRAM PLAN

Task 401 Conceptual (Comprehensive) I/I Reduction Program

- a. For all project areas proposed by Private Entity and selected by HRSD, develop a rehabilitation/replacement plan using a “Data-Driven” approach or a “Comprehensive” approach as described in the RWWMP:
 - Perform flow data analysis to characterize RDII flows
 - Perform hydraulic modeling as needed using available RHMs and Locality Hydraulic Models
 - Evaluate SSES data to produce a “Data Driven” or “Comprehensive” rehabilitation plan for each project area
- b. Prepare a conceptual design level opinion of probable construction cost for all proposed project areas included in the HPIIRP in accordance with Association for the Advancement of Cost Engineering (AACE) International Recommended Practice NO. 18R-97. The total opinion of probable construction cost shall be a Class 5 estimate consistent with AACE standards and used only for comparison to HRSD’s total estimated cost of \$130,000,000 and inclusion in a Conceptual I/I Reduction Program Plan.
- c. Prepare an outline for a Conceptual (Comprehensive) I/I Reduction Program Plan, which will include the rehabilitation/replacement plan for each project area and submit to HRSD for review and comment.
- d. Develop a Conceptual (Comprehensive) I/I Reduction Program Plan inclusive of all proposed project areas selected by HRSD and the conceptual design level opinion of probable construction cost for each.

- e. Prepare a conceptual implementation schedule for design and construction of each project area for inclusion in the Conceptual (Comprehensive) I/I Reduction Program Plan.
- f. Prepare a conceptual design level opinion of probable construction cost for all future capacity improvement projects included in the RWWMP to achieve 69 percent SSO volume reduction in accordance with Association for the Advancement of Cost Engineering (AACE) International Recommended Practice NO. 18R-97. The total opinion of probable construction cost shall be a Class 5 estimate consistent with AACE standards and used only for comparison to HRSD's original cost for capacity projects included in the RWWMP.

TASK SERIES 500 - PRIVATE I/I REDUCTION PROGRAM

Task 501 Program Strategy Development

- b. Review prior documents and commence development of a HRSD private property I/I reduction program to disconnect inflow sources on Non-Single Family (NSF) parcels.
- c. Review efforts by HRSD to address I/I flows from Federal Facilities.
- d. Hold workshop with HRSD staff to provide briefing on work to-date and options for supporting PPEA Program with private property I/I reduction.
- e. Develop strategy for private property I/I reduction that can be implemented in high priority project areas. Strategy to consider the following topics:
 - Identification of properties
 - Current Locality Sewer Use Ordinance provisions
 - Obtaining right of entry agreements for inflow source investigations and disconnection and service lateral repair improvements
 - Public outreach and engagement to encourage voluntary property owner participation in private I/I reduction program
 - Coordination with other Locality private property programs (e.g., Lead Water Service Lines)
 - Voluntary participation, potential incentives, and code enforcement by Locality
 - Prioritization and packaging of disconnection and service lateral improvements
 - Reporting activities
 - Property close-out activities and warranty period

Task 502 Program Development within each Locality

- a. Review each Locality Sewer Use Ordinance to identify program enabling legislation.

- b. Identify NSF properties within up to 20 select high priority project areas and alternate project areas and their proximity to each Locality's public sanitary sewer system and map the location of NSF properties within each project area.
- c. Determine the need for a HRSD Right of Entry Agreement with the NSF property owner to enable Private Entity to perform SSES investigations of private sewer system assets.

Task 503 Non-Single Family Legal Property Owner Determination

- a. Identify the legal property owner(s) of each NSF property in up to three proposed project areas.
- b. Contact Localities to obtain private sewer system asset information for each NSF property and assemble collected information for SSES investigations.
- c. Contact NSF property owner(s) about SSES investigations of private sewer systems connected to each Localities sanitary sewer system by Private Entity and execution of Right of Entry Agreement by HRSD and property owner(s).
- d. Characterize the private sewer system assets for up to 20 NSF properties and assemble collected information for SSES investigations.

TASK SERIES 600 - PRELIMINARY I/I REDUCTION PLANS

Task 601 Sewer Rehabilitation Cost-Effective Analysis Guidance Document

- a. Develop a Cost-Effective Analysis Guidance Document that defines rehabilitation and repair technologies for defects that are considered potential contributors to I/I; identify associated specifications; develop average costs for the rehabilitation and repair work; and establish an estimate of I/I reduction for various levels of rehabilitation. Average costs developed under Task Series 800 will be incorporated into the document and continually updated as current pricing is obtained.
- b. Assist in the development of the latest revision of the HRPDC Regional Construction Standards. Private Entity will review and provide comments on the draft version of the standard technical specifications.
- c. Develop an asset management software tool to initially assign sewer rehabilitation technologies to repair structural defects that can contribute to excessive I/I. Technology product types and installation procedures will broadly follow locality standards first, second HRPDC standards, third HRSD standards, and then industry standards to fill in any gaps.
- d. Host workshop to present the Private Entity's cost-effective analysis approach and guidance, to review the asset management software tool and proposed rehabilitation technologies, and to review associated rehabilitation costs, and solicit feedback from HRSD staff.

Task 602 Condition Data Review and Rehabilitation Categorization

- a. Evaluate asset condition data and develop recommended methods for rehabilitation of sewer mains, manholes, private laterals, and stormwater disconnections. For budgeting purposes this task is limited to condition data that is being collected for up to three project areas.
- b. Develop repair cost for each asset evaluated in Task 602.a.

Task 603 I/I Reduction Strategy Alternatives Development

- a. Develop a suite of applicable alternative I/I reduction strategies for each proposed project area.
- b. Each alternative will be developed utilizing a mini-model and/or, where feasible, the LHMs to identify any additional local improvements needed to convey the peak flows and to develop a predicted post-construction hydrograph.
- c. Develop rehabilitation costs and local conveyance improvements costs for each alternative. The following describes alternatives that will be evaluated. All alternatives will consider the inclusion of non-single family private sewer system laterals and inflow sources pending the outcome of Task Series 500.

Level 1 – Removal of all inflow defects identified from SSES activities as well as other analyses such as interflow inflow.

Level 2 – Level 1 plus fixing the pipes and manholes with defects that may allow I/I to enter the collection system. For this approach to work, any pipe with a qualifying defect will be completely lined or replaced along with lining or replacement of the public portion of the lateral. Upstream and downstream manholes will also be sealed at the chimney, the pipe penetrations, and joints that are not clearly watertight.

Level 3 – Level 1 plus Level 2 for all pipes, manholes, and laterals (public) in a particular subcatchment.

Task 604 Cost-Effective Evaluation

- a. Develop equivalent storage costs to account for the additional flow reduction required to meet the target flow rates established in the RWWMP.
- b. Select the most cost-effective I/I reduction strategy alternative by summing the costs for I/I reduction, equivalent storage volume, and local capacity improvements for each alternative and select the lowest total cost alternative as the “Preliminary Preferred I/I Reduction Plan”.
- c. Confirm the preliminary preferred solution using the RHM.
 - Run the RHM with all planned future HPP capacity improvements and the “Preliminary Preferred I/I Reduction Strategy” within each HPP area to calculate their combined impact on the targeted SSO volume reduction within each Treatment Plant Service Area (TPSA).

- Calculate the cost to eliminate any remaining SSO volume required to meet the TPSA SSO reduction target established by the RWWMP. This will be accomplished by using the cost of the RWWMP HPPs divided by the total SSO volume removed to determine a \$/(SSO gallon removed) in each TPSA.
- Compare the total cost to eliminate any remaining SSO volume to the total cost of the equivalent storage volume.
- If these total costs do not fall within a reasonable range of each other, then we will adjust the total cost of the equivalent storage and rerun our cost-effective analysis.
- Make necessary adjustments and generate the final Preliminary Preferred I/I Reduction Plan.

Task 605 Preliminary I/I Reduction Plans

- a. Host workshop(s) to present results of the cost-effective evaluation and the most cost-effective alternative for inclusion into a Preliminary I/I Reduction Plan, and solicit feedback from HRSD staff.
- b. Develop a Preliminary I/I Reduction Program Plan to describe the proposed implementation of the alternative I/I reduction strategy selected by HRSD for up to three proposed project areas, including the proposed phased implementation schedule with interim milestones for the completion of detailed design, construction, and post-construction flow monitoring.
- c. Develop a preliminary design level total opinion of probable construction cost for up to three proposed project areas in accordance with Association for the Advancement of Cost Engineering (AACE) International Recommended Practice NO. 18R-97. The total opinion of probable construction cost shall be a Class 4 estimate consistent with AACE standards and used only for comparison to HRSD's total estimated cost of \$130,000,000 and inclusion in the Preliminary I/I Reduction Program Plan.
- d. Submit a draft outline of the Preliminary I/I Reduction Program Plan to HRSD for review and comment.

TASK SERIES 700 - PRECONSTRUCTION SUPPORT ACTIVITIES

Task 701 Subcontractor Outreach

- a. Conduct an outreach program to identify local, regional, and national SSES and construction contractors that may be interested in performing work on the program.
- b. Confirm with each contractor their capabilities and capacity.
- c. Generate interest in the program to encourage participation in the bid process.

- d. Work with SSES and construction contractors to complete their registration in Private Entity's supplier registry system.

Task 702 Selection of SSES Subcontractors

- a. Establish scale of initial SSES field data collection efforts and desired schedule.
- b. Obtain subcontractor pricing for performance of flow monitoring and SSES services based on defined scope of work, schedule, and locality location.
- c. Present pricing information to HRSD and select subcontractor based on cost-effectiveness and subcontractor's ability to complete the work expeditiously.

Task 703 Cost Metric Verification for Cost Effectiveness Analysis

- a. Gather local market cost information for sewer and manhole rehabilitation and replacement, and proxy equivalent storage for use in cost effective analysis.
- b. Gather recent historical bid pricing for sewer rehabilitation projects awarded by utilities in the region to assess market trends.
- c. Incorporate cost information into Sewer Rehabilitation Best Practices and Cost Manual developed under Task Series 500.

Task 704 Safety Program

- a. Develop a safety program for deployment during performance of flow monitoring, SSES field work activities.
- b. Give consideration to HRSD and locality standard safety practices and requirements.

TASK SERIES 800 - COMPREHENSIVE AGREEMENT

Task 801 Develop Comprehensive Agreement

- a. Work with HRSD to prepare Comprehensive Agreement prior to designing and constructing work packages for the project areas selected by HRSD.
- b. Develop a Scope of Work for the design of up to three selected project areas.
- c. Execute Comprehensive Agreement and submit to HRSD for execution.

Task 802 Subcontractor Agreements

- a. Prepare and execute subcontractor agreements to provide services under the Comprehensive Agreement.

III. ADDITIONAL SERVICES

HRSD may request the Private Entity to provide a wide range of staff resources to supplement and support HRSD Staff with implementation of its Priority I/I Reduction Program. Any work requested by HRSD this is not stated in the Basic Scope of Services above, will be classified as Additional Services. Private Entity's contract maximum upper limit for compensation includes a total allowance amount of \$0.00 for Additional Services not yet authorized by HRSD that may be required throughout the course of the work. This allowance amount shall not be utilized by Private Entity unless specifically authorized in writing by HRSD to perform Additional Services. Additional Services will not be performed, nor is the Private Entity approved to utilize any of the allowance amount, unless HRSD provides written authorization to Private Entity that includes the scope of work and for each Additional Service to be performed and a maximum billing limit for compensation that has been mutually agreed upon. Additional Services may include, but not limited to:

- a. Development of RTK values for locality pump station service areas that are not high-priority basins.
- b. Updating of Locality GIS files to correct sanitary sewer connectivity and/or location errors and discrepancies.
- c. Commence development of a Public Outreach and engagement plan for Private I/I Reduction to encourage voluntary property owner participation in private I/I reduction program.
- d. Establishment of protocols for Private I/I Reduction Program related to private property investigations work, private property I/I source reduction work, right of access agreements, and reporting parameters for private property activities.
- e. "Early Out" Work Order Development. Prepare Work Order for HRSD approval. Work Order will consist of the proposed repair (asset ID/location and repair type), required technical specifications, plans (if required), traffic control (if required), locality permitting, and proposed pricing
- f. Topographic Survey to support development of Early Out Work Orders
- g. Temporary and Permanent Easement Acquisition
- h. Performance of Environmental Impact Assessments for Early Out Work Orders
- i. Construction of Early Out Work Orders
- f. Development of document controls and administrative procedures for construction cost estimating, subcontractor procurement, submittals, project construction records, construction correspondence with HRSD and locality representatives, daily field reports, and construction progress meetings, and project closeout.
- g. Determination of permitting and temporary construction easement acquisition requirements to perform construction within the public right-of-way of each locality and applicable environmental permitting requirements.

- h. Establishment of protocols for testing or visual inspection of completed construction work for acceptance and commissioning prior to transfer to locality for operation and maintenance.

IV. OWNER RESPONSIBILITIES

Owner will furnish, or request from the Localities, the following items as required by the Basic Scope of Services, and not at the expense of the Private Entity:

- A. The most recent available HRSD or Locality data associated with the HPIIRP areas identified below and as listed in the RWWMP:

HPIIRP Basins:

CHES-016, CHES-018, CHES-026, CHES-032, CHES-047, CHES-067, CHES-111, CHES- 227, NEWP-013 (WCPSA001575), NEWP-015 (WCPSA001600), NORF-H-106-G001, NORF- H-106-G002, NORF-H-113-G001, NORF-H-113-G002, NORF-H-113-G005, YORK-001, YORK-003, YORK-005, YORK-229-2

Data:

- Collection system improvements (including rehabilitation) completed, 2011 to present
 - Sanitary sewer evaluation survey (SSES) data, 2011 to present
 - Stormwater / drainage GIS data
 - Collection system flow/level/velocity data, 2019 to present
 - Pump station operational data, 2019 to present
 - Flow, level, or pressure data (for pressure data, please provide elevation of gauge relative to pumps)
 - Pump run times or status
 - Bypass pump information, 2019 to present
 - Temporarily or permanently installed
 - Time periods in active
 - Pump size/model and number installed
- B. Hydraulic models for the HPIIRP basins from each Locality, including collection system sensor network data to be used by Private Entity to support locality hydraulic model updates and refinements, as available
 - C. Coordination of Private Entity's work with each Locality, including but not limited to:
 - The commitments described in the Memorandum of Agreement between each Locality and Owner
 - Owner approval of locality funded infrastructure improvements as part of each HPIIRP and Owner compensation directly to Private Entity for locality funded work, as agreed to by Owner and Locality in cost share agreement, or similar
 - Communication of work planned within each HPIIRP area to Locality representatives
 - Public outreach and engagement of locality utility customers with support from Private Entity

- Private Entity's work with other third-party contractors contracted directly with Locality and performing work within or immediately adjacent to HPIIRP areas
 - Public infrastructure improvements recently completed or to be completed by Locality that could impact the sequencing, schedule, or cost of work performed by Private Entity
 - Submission of and timely completion of shop drawing and data review by each locality prior to commencement of related construction work
 - Obtain access agreements, or similar, from Locality to enable Private Entity to perform work within locality utility easements within each HPIIRP area.
 - Negotiate rights of entry or temporary construction easements, as necessary, to perform work on private property within each HPIIRP area.
 - Resolution of pre-existing unforeseen subsurface conditions
 - Locality operation of all existing equipment, valves, or other locality systems necessary for functional or performance testing required by Private Entity.
 - Locality performance of CCTV condition assessments of rehabilitated sewers during the correction period of each HPIIRP and identify defects to be corrected by Contractor.
- D.** The services of a Project Manager in North Shore and in South Shore HPIIRP areas who obtain permission to enter and knowledge of existing locality facilities
- E.** Maintenance and administration HRSD project management system (Unifier) and workflow planning, development and implementation of any new Unifier functionality, and training system users on the use of new functionality to meet program needs.
- F.** Review and approval of Private Entity submittals at Owner decision points established throughout the planning, engineering, and construction phases of each HPIIRP.
- G.** Acceptance and disposal of sanitary sewer debris at Owner's wastewater treatment facilities that is removed by Private Entity from underground facilities as part of the Work. All such sanitary sewer debris must be of a type and nature treatable at Owner's facility in the normal course of the facility's operation.

(End of Scope of Services)

		Burns & McDonnell				Hazen		BC	RJN	Miles	WRA	Dukes	Wright	Crotty	Total Subcontractors (w/ 7% Markup)		Total Direct Expenses (with 7% Markup)		Program Total		
Task Number	Task Description	Budgeted Labor Billings	Actual + Forecasted Labor	Budgeted Direct Expenses	Actual + Forecasted Direct Expenses	Actual + Forecast Labor & Expenses	Actual + Forecast Labor & Expenses	Actual + Forecast Labor & Expenses	Actual + Forecast Labor & Expenses	Actual + Forecast Labor & Expenses	Actual + Forecast Labor & Expenses	Actual + Forecast Labor & Expenses	Actual + Forecast Labor	Actual + Forecast Labor	Budget Labor + Expenses	Actual + Forecast Labor & Expenses	Budget Direct Expenses	Actual + Forecast Direct Expenses	Budget Total	Actual + Forecast Total	Delta
100 -Programmatic Activities																					
101	Program Management and Mobilization	\$764,270.00	\$925,185.08	\$101,630.00	\$85,318.95	\$181,966.47	\$98,518.39	\$137,517.55	\$13,029.45	\$9,731.00	\$0.00	\$31,414.00	\$8,000.00	\$338,683.89	\$513,789.24	\$101,630.00	\$85,318.95	\$1,204,583.74	\$1,524,293.27	\$319,709.53	
102	Program Execution Plan	\$222,780.00	\$114,515.00	\$8,800.00	\$3,885.48	\$101,520.50	\$4,650.00	\$17,255.74	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$109,375.40	\$132,066.08	\$8,800.00	\$3,885.48	\$340,955.40	\$250,466.55	-\$90,488.85	
103	Program and Project Controls	\$248,494.00	\$439,724.85	\$9,870.00	\$19,202.62	\$0.00	\$17,580.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,996.00	\$18,810.60	\$9,870.00	\$19,202.62	\$261,360.00	\$477,738.07	\$216,378.07	
104	Stakeholder Engagement and Public Outreach	\$181,424.00	\$278,785.80	\$8,440.00	\$15,869.65	\$0.00	\$0.00	\$13,561.13	\$15,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$137,408.33	\$30,560.41	\$8,440.00	\$15,869.65	\$327,272.33	\$325,215.86	-\$2,056.47	
105	HRSO Consent Decree Program Review	\$0.00	\$20,952.00	\$0.00	\$716.40	\$0.00	\$33,280.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$35,609.60	\$0.00	\$716.40	\$0.00	\$57,278.00	\$57,278.00	
	100 Subtotal	\$1,416,968.00	\$1,779,162.73	\$128,740.00	\$124,993.10	\$283,486.97	\$154,028.39	\$168,334.42	\$28,029.45	\$9,731.00	\$0.00	\$31,414.00	\$8,000.00	\$588,463.62	\$730,835.93	\$128,740.00	\$124,993.10	\$2,134,171.62	\$2,634,991.76	\$500,820.14	
200 -EXISTING DATA REVIEW AND FIELD INVESTIGATIONS																					
201	Review Existing Data & Develop Data Collection Plans	\$176,658.00	\$157,396.00	\$23,344.00	\$6,743.62	\$153,767.00	\$167,847.00	\$9,539.68	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$387,657.15	\$354,334.44	\$23,344.00	\$6,743.62	\$587,659.15	\$518,474.06	-\$69,185.09	
202	Field Data Collection Program	\$323,880.00	\$270,579.50	\$64,044.00	\$17,226.30	\$9,825.00	\$0.00	\$368,818.76	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$266,785.13	\$405,148.82	\$64,044.00	\$17,226.30	\$654,709.13	\$692,954.63	\$38,245.49	
203	Distributed Temperature Sensing (DTS)	\$11,258.00	\$9,940.00	\$380.00	\$318.40	\$9,084.00	\$112,756.00	\$49,900.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.00	\$97,198.80	\$189,111.80	\$380.00	\$318.40	\$108,836.80	\$199,370.20	\$90,533.40	
	200 Subtotal	\$511,796.00	\$437,915.50	\$87,768.00	\$24,288.33	\$172,676.00	\$280,603.00	\$428,258.44	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.00	\$751,641.08	\$948,595.06	\$87,768.00	\$24,288.33	\$1,351,205.08	\$1,410,798.89	\$59,593.81	
300 -TIME SERIES DATA ANALYSIS AND MODELING																					
301	Regional Hydraulic Model Strategy Document and Workshop	\$117,212.00	\$110,859.00	\$13,861.00	\$4,937.70	\$49,047.00	\$318,035.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$297,388.31	\$392,777.74	\$13,861.00	\$4,937.70	\$428,461.31	\$508,574.44	\$80,113.13	
302	Time Series Analysis and RTK Development	\$31,182.00	\$12,022.00	\$993.00	\$378.10	\$195,211.77	\$135,380.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$241,779.34	\$353,733.19	\$993.00	\$378.10	\$273,954.34	\$366,133.29	\$92,178.95	
303	Local Hydraulic Model Assessments	\$39,950.00	\$49,288.50	\$1,538.00	\$1,547.23	\$55,195.29	\$15,408.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$117,845.52	\$75,545.52	\$1,538.00	\$1,547.23	\$159,333.52	\$126,381.25	-\$32,952.28	
304	Support Update of Regional Hydraulic Model	\$0.00	\$3,792.00	\$0.00	\$119.40	\$0.00	\$42,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$44,940.00	\$0.00	\$119.40	\$0.00	\$48,851.40	\$48,851.40	
	300 Subtotal	\$188,344.00	\$175,961.50	\$16,392.00	\$6,982.43	\$299,454.06	\$510,823.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$657,013.17	\$866,996.45	\$16,392.00	\$6,982.43	\$861,749.17	\$1,049,940.38	\$188,191.21	
400 -CONCEPTUAL I/I REDUCTION PROGRAM PLAN																					
401	Conceptual (Comprehensive) I/I Reduction Program	\$57,460.00	\$64,899.50	\$2,822.00	\$2,193.98	\$0.00	\$311,688.06	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$386,062.42	\$333,506.22	\$2,822.00	\$2,193.98	\$446,344.42	\$400,599.70	-\$45,744.72	
	400 Subtotal	\$57,460.00	\$64,899.50	\$2,822.00	\$2,193.98	\$0.00	\$311,688.06	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$386,062.42	\$333,506.22	\$2,822.00	\$2,193.98	\$446,344.42	\$400,599.70	-\$45,744.72	
500 -PRIVATE INFLOW REDUCTION PROGRAM																					
501	Program Strategy Development	\$41,318.00	\$15,238.50	\$5,480.00	\$482.58	\$0.00	\$83,454.86	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$87,431.84	\$89,296.70	\$5,480.00	\$482.58	\$134,229.84	\$105,017.78	-\$29,212.06	
502	Program Development within each Locality	\$15,940.00	\$646.00	\$1,244.00	\$19.90	\$0.00	\$43,050.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$43,056.80	\$46,063.50	\$1,244.00	\$19.90	\$60,240.80	\$46,729.40	-\$13,511.40	
503	Non-Single Family Property Owner Determination	\$0.00	\$646.00	\$0.00	\$169.15	\$0.00	\$58,550.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$62,648.50	\$0.00	\$169.15	\$0.00	\$63,463.65	\$63,463.65	
	500 Subtotal	\$57,258.00	\$16,530.50	\$6,724.00	\$671.63	\$0.00	\$185,054.86	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$130,488.64	\$198,008.70	\$6,724.00	\$671.63	\$194,470.64	\$215,210.83	\$20,740.19	
600 -PRELIMINARY I/I REDUCTION PLANS																					
601	Sewer Rehabilitation Cost-Effective Analysis Guidance Document	\$96,955.00	\$181,832.00	\$4,894.00	\$7,415.21	\$10,000.00	\$5,495.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.00	\$111,390.17	\$21,929.65	\$4,894.00	\$7,415.21	\$213,239.17	\$211,176.86	-\$2,062.31	
602	Condition Data Review and Rehabilitation Categorization	\$10,440.00	\$56,576.00	\$400.00	\$7,056.20	\$50,541.60	\$64,980.90	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$128,759.52	\$123,609.08	\$400.00	\$7,056.20	\$139,599.52	\$187,241.28	\$47,641.76	
603	I/I Reduction Strategy Alternatives Development	\$30,222.00	\$101,102.00	\$1,140.00	\$3,920.30	\$75,177.60	\$98,269.20	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.00	\$194,718.60	\$190,938.08	\$1,140.00	\$3,920.30	\$226,080.60	\$295,960.38	\$69,879.78	
604	Cost-Effective Evaluation	\$35,538.00	\$63,658.00	\$1,260.00	\$7,329.89	\$37,622.40	\$57,939.30	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.00	\$95,230.00	\$107,601.02	\$1,260.00	\$7,329.89	\$132,028.00	\$178,588.91	\$46,560.91	
605	Preliminary Preferred I/I Reduction Plans	\$15,748.00	\$21,262.00	\$3,669.00	\$796.00	\$8,799.60	\$11,549.25	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.00	\$23,538.93	\$27,123.27	\$3,669.00	\$796.00	\$42,955.93	\$49,181.27	\$6,225.34	
	600 Subtotal	\$188,903.00	\$424,430.00	\$11,363.00	\$26,517.60	\$182,141.20	\$238,233.65	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.00	\$553,637.22	\$471,201.09	\$11,363.00	\$26,517.60	\$753,903.22	\$922,148.69	\$168,245.47	
700 -PRECONSTRUCTION SUPPORT ACTIVITIES																					
701	Subcontractor Outreach	\$41,964.00	\$71,690.00	\$11,240.00	\$2,517.35	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$11,240.00	\$2,517.35	\$53,204.00	\$74,207.35	\$21,003.35	
702	Selection of SSES Subcontractors	\$13,582.00	\$25,713.50	\$460.00	\$910.43	\$0.00	\$0.00	\$1,613,681.25	\$0.00	\$0.00	\$1,840,000.00	\$0.00	\$0.00	\$2,562,650.00	\$3,695,438.94	\$460.00	\$910.43	\$2,576,692.00	\$3,722,062.86	\$1,145,370.86	
703	Cost Metric Verification for Cost Effectiveness Analysis	\$7,702.00	\$7,479.00	\$280.00	\$248.75	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$280.00	\$248.75	\$7,982.00	\$7,727.75	-\$254.25	
704	Safety Program	\$9,702.00	\$2,005.00	\$340.00	\$69.65	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$340.00	\$69.65	\$10,042.00	\$2,074.65	-\$7,967.35	
	700 Subtotal	\$72,950.00	\$106,887.50	\$12,320.00	\$3,746.18	\$0.00	\$0.00	\$1,613,681.25	\$0.00	\$0.00	\$1,840,000.00	\$0.00	\$0.00	\$2,562,650.00	\$3,695,438.94	\$12,320.00	\$3,746.18	\$2,647,920.00	\$3,806,072.61	\$1,158,152.61	
800 -COMPREHENSIVE AGREEMENT																					
801	Develop Comprehensive Agreement	\$9,796.00	\$11,596.00	\$440.00	\$437.80	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$440.00	\$437.80	\$10,236.00	\$12,033.80	\$1,797.80	
802	Subcontractor Agreements	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
	800 Subtotal	\$9,796.00	\$11,596.00	\$440.00	\$437.80	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$440.00	\$437.80	\$10,236.00	\$12,033.80	\$1,797.80	
	Subtotal Task Series 100 - 800	\$2,503,475.00	\$3,017,383.23	\$266,569.00	\$189,831.03	\$937,758.23	\$1,680,430.96	\$2,210,274.11	\$28,029.45	\$34,731.00	\$1,840,000.00	\$31,414.00	\$8,000.00	\$5,629,956.15	\$7,244,582.39	\$266,569.00	\$189,831.03	\$8,400,000	\$10,451,796.65	\$2,051,796.50	
	Additional Services																	\$500,000.00	\$48,203.50	-\$451,796.50	
	Program Total	\$2,503,475.00	\$3,017,383.23	\$266,569.00	\$189,831.03	\$937,758.23	\$1,680,430.96	\$2,210,274.11	\$28,029.45	\$34,731.00	\$1,840,000.00	\$31,414.00	\$8,000.00	\$5,629,956.15	\$7,244,582.39	\$266,569.00	\$189,831.03	\$8,900,000.15	\$10,500,000.15	\$1,600,000.00	

Schedule of Hourly Rates and Expenses

<u>Position Classification</u>	<u>Hourly Billing Rate</u>
General Office 5*	\$74.00
Technician 6*	\$94.00
Assistant 7*	\$114.00
Project Specialist*	\$115.00
Project Controls Support*	\$140.00
Assistant 8*	\$156.00
Senior Project Specialist*	\$160.00
BMI Support Staff	\$160.00
Public Outreach Specialist*	\$180.00
Assistant 9*	\$186.00
Staff 10*	\$211.00
Staff 11*	\$231.00
Project Financial Manager	\$255.00
Senior 12	\$261.00
Senior 13	\$283.00
Associate 14	\$291.00
Associate 15	\$308.00
Associate 16	\$316.00
Associate 17	\$323.00

NOTES:

- Position classifications listed above refer to the firm's internal classification system for employee compensation. For example, "Associate", "Senior", etc., refer to such positions as "Associate Engineer", "Senior Architect", etc.
- For any nonexempt personnel in positions marked with an asterisk (*), overtime will be billed at 1.5 times the hourly labor billing rates shown.
- For outside expenses incurred by Burns & McDonnell, such as authorized travel and subsistence, and for services rendered by others such as subcontractors, the client will pay the cost to Burns & McDonnell plus 7%.
- A technology charge will be applied at a rate of \$9.95 per labor hour for technology usage, software, hardware, internal printing & reprographics, shipping and telecommunications. Specialty items are not included in the technology charge.
- Monthly invoices will be submitted for payment covering services and expenses during the preceding month. Invoices are due upon receipt. A late payment charge of 1.5% per month will be added to all amounts not paid within 30 days after receipt of the invoice.
- The services of contract/agency and/or any personnel of a Burns & McDonnell subsidiary, such as Burns & McDonnell India (BMI), or an affiliate shall be billed to Owner according to the rate sheet as if such personnel is a direct employee of Burns & McDonnell.
- The rates shown above are effective for services through December 31, 2024 and are subject to revision thereafter.
- Reimbursement of direct expenses associated with the performance of Professional and Non-Professional Services will be based on the actual costs incurred for airfare, rental car, lodging, meals, reproduction of deliverables, taxi service, special equipment and supplies, partnering facilitator services, mobilization of staff to the project area, and daily Per Diem established for construction field staff assigned full-time to the project. Consideration will be given to the maximum allowable amount for each type of direct expense as indicated in the latest version of the Owner's annual published guideline for reimbursable expenses.

301 Bendix Road, Suite 400
Virginia Beach, VA 23452-1385

T: 757.518.2400



August 15, 2024

John Pruss
Burns and McDonnell
Via email

Subject: Rates for HRSD PPEA I/I Contract

Please find the hourly rates for Brown and Caldwell staff categories for the HRSD PPEA I/I initial contract. Escalation would be necessary annually, beginning January 1, 2025, equivalent to the Consumer Price Index.

Category	Rate
Vice President	\$330.00
Managing Engineer	\$300.00
Sr Principal	\$250.00
Principal	\$240.00
Sr Associate	\$230.00
Supervisor	\$190.00
Associate	\$170.00
Sr Analyst	\$140.00
Sr Staff	\$150.00
Staff	\$140.00
Project Analyst	\$100.00
Admin	\$90.00

Respectfully,

A handwritten signature in dark ink, appearing to read "Chris", written in a cursive style.

Christopher Wilson
Local Leader
Brown and Caldwell

HRSD Priority I&I Program

Hazen and Sawyer Categorical Rates (through June 30, 2025)

Job Title	Level	Hourly Rate
Vice President	17	\$330
Associate Vice President	16	\$320
Senior Associate	15	\$290
Associate	14	\$270
Sr. Principal Engineer	13	\$230
Principal Engineer	12	\$170
Principal GIS Analyst/Scientist	11	\$170
Assistant Engineer II	10	\$160
Sr. Principal Designer	9	\$160
Assistant Engineer I	8	\$140
Principal Designer	7	\$120
Office Support	6	\$87

The Miles Agency 2024 Billing Rate Schedule

Job Title	Rate/Hr
Sr Community Engagement Specialist	\$ 250
Community Engagement Specialist	\$ 145
Jr Community Engagement Specialist	\$ 115

Labor Rates for RJN Group (Prime)		
Position Classification	2024 Minimum Loaded Rates	2024 Maximum Loaded Rates
Project Director	\$ 163.47	\$ 355.63
Sr. Project Manager	\$ 141.48	\$ 316.29
Technology Specialist	\$ 191.20	\$ 283.47
Technical Advisor	\$ 175.63	\$ 247.63
Practice Leader	\$ 151.20	\$ 215.98
Project Manager	\$ 153.66	\$ 195.47
Senior Project Engineer	\$ 105.13	\$ 163.56
Field Manager	\$ 74.52	\$ 156.23
Project Engineer	\$ 84.43	\$ 155.63
Sr. Apps Engineer	\$ 120.87	\$ 153.17
Staff Engineer	\$ 79.65	\$ 152.34
GIS Technician	\$ 72.95	\$ 146.78
Construction Manager	\$ 99.75	\$ 139.70
Software Aps Engineer	\$ 100.73	\$ 130.65
Engineering Technician	\$ 71.66	\$ 127.63
Senior GIS Analyst	\$ 101.60	\$ 126.67
Senior Designer	\$ 92.45	\$ 122.08
Administrative Manager	\$ 68.14	\$ 115.44
Senior Resident Project Rep.	\$ 90.67	\$ 115.17
Senior Field Manager	\$ 87.93	\$ 112.72
Info System Analyst	\$ 82.42	\$ 111.34
Lead Info Sys Specialist	\$ 92.30	\$ 110.42
Lead GIS Analyst	\$ 86.08	\$ 108.28
Field Technician	\$ 68.01	\$ 105.78
Senior Data Analyst	\$ 80.79	\$ 105.07
Info. System Specialist	\$ 69.83	\$ 99.24
Sr. Project Accountant	\$ 80.35	\$ 96.18
Graduate Engineer	\$ 76.78	\$ 95.71

Hampton Roads Sanitation District**5/12/2025****High Priority Inflow and Infiltration Reduction Program****Amendment No. 2 - BMcD Team Fee Summary - Flowmetering Unit Price (RJN)**

Description	Unit of Measure	Budget Unit Price	Amendment Unit Price
Flow Meter Installation	EA	-	\$1,850.00
Level-only Meter Installation	EA	-	\$800.00
Rain Gauge Installation	EA	-	\$875.00
Long-Term Flow Monitoring	M-M	\$2,000.00	\$1,800.00
Short-Term Flow Monitoring Public Gravity Sewers	M-M	\$2,000.00	\$1,800.00
Short-Term Flow Monitoring NSF Gravity Sewers	M-M	\$2,000.00	\$1,800.00
Level-Only Flow Monitoring	M-M	-	\$600.00
Rain Gauges	M-M	\$1,000.00	\$875.00
Flow Meter Removal	EA	-	\$875.00
Level-Only Meter Removal	EA	-	\$500.00
Rain Guage Removal	EA	-	\$875.00

Hampton Roads Sanitation District

5/12/2025

High Priority Inflow and Infiltration Reduction Program**Amendment No. 2 - BMcD Team Fee Summary - SSES Unit Price (Dukes & RJN)**

Description	Unit of Measure	Budget Unit Price	Amendment Unit Price
Smoke Testing (RJN)	LF	\$1.00	\$0.97
Dye Testing (RJN)	LS	\$22,000.00	\$22,000.00
CCTV Sewer Inspection	LF	\$2.50	\$3.35
Sewer AI CCTV QAI (RJN)	LF	-	\$0.05
Service Lateral (Public Side)	LS	\$137,000.00	-
Manhole Inspections	EA	\$350.00	\$170.00
Lamp Hole Inspections	EA	-	\$225.00
SewerAI Manhole Sewer3D (RJN)	EA	-	\$45.00
Mainline Cleanout Inspections	LS	\$150.00	\$200.00
Heavy Cleaning Allowance	LS	\$65,000.00	\$50,631.00
Temporary Security (Portsmouth)	\$/day	-	\$1,200.00
Distributed Temperature Sensing	2 Person Crew + Truck	\$275/Hr	\$49,500
Distributed Temperature Sensing	3 Person Crew + Truck	\$350/Hr	



BILLABLE WAGE RANGES BY CLASSIFICATION

Effective July 28, 2024

Position	Fully Loaded Rate
Senior Vice President	\$250.90
Vice President/ Principal in Charge	\$233.33
Associate-Vice President	\$223.68
Project Manager/ Associate	\$202.73
Senior Project Engineer	\$175.31
Senior Project Construction Engineer	\$182.00
Senior Project Architect	\$167.67
Senior Project Landscape Architect	\$141.05
Senior Project Interior Designer	\$192.40
Senior Project Designer II	\$182.62
Senior Project Designer I	\$169.81
Senior Project Planner	\$164.14
Senior Project Environmental Planner/Scientist	\$160.58
Senior Construction Manager II	\$169.00
Senior Construction Manager I	\$165.46
Project Engineer	\$136.43
Project Architect	\$136.43
Project Landscape Architect	\$136.43
Project Designer II	\$186.34
Project Designer I	\$155.82
Project Planner	\$142.43
Project Environmental Planner/Scientist	\$137.75
Project Geologist	\$136.50
Construction Manager II	\$142.19
Construction Manager I	\$120.74
Design Engineer	\$128.99
Senior Environmental Scientist/Planner	\$115.70
Senior GIS Specialist	\$156.52
Engineer	\$110.16
Architect	\$96.30
Interior Designer	\$100.10
Landscape Architect	\$92.30
Environmental Planner/Scientist	\$96.43
Geologist	\$87.44
Safety Specialist	\$124.80
Real Estate Specialist	\$136.71
Planner	\$102.52
Senior Designer	\$135.90
Designer	\$107.80
Drafting/ CADD	\$114.75
Drafter / Draftsperson	\$105.95
Resident Engineer I	\$116.43
Inspector	\$90.45
Party Chief	\$120.90
Survey Technician II	\$93.60
Survey Technician I	\$60.66
Technical Specialist II	\$252.90
Technical Specialist I	\$228.07
Security Analyst/Specialist	\$183.69

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Rates subject to review every six-months



MEMORANDUM

DATE: May 12, 2025

TO: Beatriz Patino and Nick Taschner, HRSD

FROM: John Pruss, Program Manager

SUBJECT: Request for Additional Services Due to New Project Areas

- 1. Project Name:** High Priority Inflow and Infiltration Reduction Program (HPIIRP)
- 2. Contractor:** Burns and McDonnell Engineering Company, Inc.
- 3. Basis for Contract Change:** The original scope of work identified 19 high priority projects where SSOs attributed to inflow and infiltration were thought to be an issue. Through flow monitoring and data analysis, the BMcD Team has determined that only four of the original 19 high priority projects remain potential locations for cost-effective I&I reduction. The remaining 15 high priority projects were found to not show a sizeable system response to storm events, or other system capacity improvements were implemented which reduced the targeted capacity-related SSOs.

The BMcD Team also flow metered ten alternate project areas and found six of them to exhibit a sizeable system response to storm events. The BMcD Team proposes to further evaluate these alternate project areas to estimate the amount of cost-effective I/I reduction that could be achieved. The BMcD Team's proposed list of ten priority project areas was initially shared with HRSD in a spreadsheet entitled, Project Selection Table for HRSD 4-21-25, and is shown below.

Basin ID	Locality	STP	PPEA BMCD Phase	Weighted Score	Sum	Public Sewer LF	2025 Adjusted Cost	Cumulative Cost Sum
PORT-10	PORT	VIP	ALT	120.0	15	71,758	\$ 25,751,750	\$ 25,751,750
JCSA-LSA3-8	JCSA	WB	ALT	97.0	11	54,409	\$ 31,887,980	\$ 69,639,730
CHES-067	CHES	AT	2	96.5	12	30,885	\$ 32,046,323	\$ 101,686,053
JCSA-LSA3-1	JCSA	WB	ALT	89.7	10	62,204	\$ 67,136,485	\$ 168,822,538
JCSA-LSA5-4	JCSA	WB	ALT	82.8	9	35,622	\$ 24,121,250	\$ 192,943,788
JCSA-LSA3-6	JCSA	WB	ALT	79.0	8	24,345	\$ 7,117,500	\$ 200,061,288
YORK-003	YORK	WB	3	77.5	9	31,512	\$ 12,327,205	\$ 212,388,493
YORK-006	YORK	WB	3	71.8	8	38,620	\$ 40,754,030	\$ 253,142,523
CHES-016	CHES	NA	2	71.3	8	30,358	\$ 38,504,600	\$ 291,647,123
SUFF-146	SUFF	NA	ALT	69.7	7	14,295	\$ 13,775,000	\$ 305,422,123

This Amendment to the Interim Agreement is to continue flow monitoring and data analyses, to complete SSES investigations in the ten proposed project areas, and to continue program management and administration activities. These services are budgeted to be performed through August 31, 2025, at which time we anticipate that the BMcD Team's work will continue under a new Comprehensive Agreement.

Attached is an updated Scope of Work (Exhibit 1) that will replace the original Scope of Work attached to the Interim Agreement. This updated Scope of Work also includes an updated BMcD Team Fee Summary that provides a comparison of the original BMcD labor billings budget, subcontractor budget and direct expenses budget to the sum of actual and forecasted labor billings, subcontractor costs, and direct expenses. Budget currently remaining for individual work tasks will be utilized to continue the task activities or repurposed for other work activities.

We request that HRSD authorize the current remaining budget for Additional Services (HRSD-controlled contingency) so that it can be used to complete the updated Scope of Work.

- 4. Was this Contract Change Planned? Yes**
- 5. Will this change require Commission approval? Yes**
- 6. Cost Impact for Proposed Contract Extension: \$2,051,796.50**
- 7. Cumulative Cost Information:**

Maximum Contract Amount Approved by HRSD Commission:	\$ 8,900,000.00
Original Authorized Amount:	\$ 8,400,000.00
Original Additional Services Amount:	\$ 500,000.00
Additional Services No.1 Amount:	\$ 45,261.00
Additional Services No. 2 Amount:	\$ 2,942.50
Current Remaining Balance for Additional Services Amount:	\$ 451,796.50
Current Total Authorized Amount:	\$ 8,448,203.50
Additional Contract Authorization Requested:	\$2,051,796.50
Less Authorization of Additional Services Balance:	<\$451,796.50>
Outstanding Contract Authorization:	\$1,600,000.00
Amended Contract Total Authorized Amount:	\$10,500,000.00

SCHEDULE IMPACT

None