GNHWPCA Protecting the Environment
Greater New Haven Water Pollution Control Authority
260 East Street New Haven, CT 06511
203.466.5280 p 203 772.1564 f www.gnhwpca.com

REGULAR MEETING OF THE
GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
BOARD OF DIRECTORS
WEDNESDAY, NOVEMBER 8, 2023 6:00 P.M.
260 EAST STREET
NEW HAVEN, CONNECTICUT

AGENDA

1. Approval of minutes of October 11, 2023 – Regular Meeting.
2. Public participation relating to agenda items.
3. Consideration and approval of a resolution determining the Schedule of Regular Meetings for 2024.
4. Consideration and approval of a resolution authorizing the Executive Director, Sidney J. Holbrook, to negotiate, execute and deliver a task order with AECOM Technical Services, Inc. for engineering and design services relating to hurricane wind proofing retrofits at the East Shore Water Pollution Abatement Facility, for an aggregate amount not to exceed $148,500.
5. Consideration and approval of a resolution appropriating $6,500,000 for engineering, design, and construction relating to infiltration and inflow removal in the Town of Woodbridge for Areas 2 and 2A and in the Town of East Haven for Areas 15, 18 and 23 and authorizing the issuance of $6,500,000 Clean Water Fund obligations of the Authority under the State of Connecticut Clean Water Fund program secured solely by revenues of the sewerage system and authorizing the Authority to enter into grant and loan agreements.
6. Consideration and approval of a resolution authorizing the Executive Director, Sidney J. Holbrook, to issue a refund to Elsworth Mobley for an amount not to exceed $6,963.33.
7. November 9, 2023 public presentation on the information package and Long Term Control Plan update.
8. Executive summary and department updates and presentations.

9. Consideration and approval, as necessary, of any other new business of the Authority.
10. Call to the public.
11. Adjournment.

GNHWPCA
Protecting the Environment

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THE GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY SCHEDULE OF REGULAR MEETINGS FOR 2024.

The Greater New Haven Water Pollution Control Authority will hold its Regular Monthly Meetings on the 2nd Wednesday of the month, at 6:00 PM, at the Administrative Offices, 260 East Street, New Haven Connecticut.

January 10, 2024

February 14, 2024

March 13, 2024

April 10, 2024

May 8, 2024

June 12, 2024

July 10, 2024

August 14, 2024

September 11, 2024

October 9, 2024

November 13, 2024

December 11, 2024

GNHWPCA
Protecting the Environment

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MEMORANDUM

DATE: November 1, 2023

TO: Sidney J. Holbrook

FROM: Thomas Sgroi, PE
Director of Engineering

RE: Task Order Recommendation
Project No. CWF 2021-03
AECOM – Design Services
Wind Retrofit Implementation Project

Sid:

I request that the above-mentioned recommendation be added to the November 8, 2023 Board Agenda for resolution.

AECOM will provide Engineering and Design to retrofit several buildings at the East Shore WPCF and the Administration building at 260 East Street to protect against hurricane winds in accordance with FEMA and the Connecticut State Building Code requirements. The Code identified these facilities as being within the Type C, Risk Category IV Wind Borne Debris Region. Work includes hurricane wind and rain protection retrofits for building openings such as doors, windows, and louvers along with roof decking and covering.

I recommend approval of the attached **AECOM** Scope of Services in the amount of $135,000 plus a (10% contingency) of $13,500 for a total not to exceed **$148,500**

The project received a 90% FEMA Hazard Mitigation Grant with the 10% balance to be paid out of designated funds within the Authority's FY23 Capital Budget.

Thomas V. Sgroi, PE
Director of Engineering

ecopy: Gabe Varca, Gary Zrelak
Lou Criscuolo, Isabella Schroeder, Nick Stevens

December 7, 2022

Ms. Isabella Schroeder, Senior Engineer
Greater New Haven Water Pollution Control Authority
260 East Street
New Haven, CT 06511

Subject: Wind Retrofit Implementation Project – Engineering and Design

Dear Ms. Schroeder:

AECOM is excited to submit our proposal for the Wind Retrofit Implementation Project – Engineering and Design. Our Team is uniquely positioned to complete this Engineering and Design because of our past experience and knowledge of Greater New Haven Water Pollution Control Authority's (GNHWPCA) organization and facilities; established lines of communication; our extensive experience with Federal Emergency Management Agency (FEMA) and FEMA funding programs; and unmatched technical staff knowledge of wastewater facilities design and construction for facilty upgrades especially for facilities that need to perform well in harsh conditions and provide an increased level of protection. AECOM has been recognized for its wind retrofit expertise as one of FEMA's Mitigation technical advisors for over 30 years. In that capacity, AECOM has assisted in the analysis of how buildings perform in a range of extreme weather conditions, including tornado and hurricane post event assessments. Additionally, AECOM has supported FEMA's development of wind retrofit guidance that includes the development of enhanced code guidance for the US Virgin Islands Construction Guidance for Stronger Homes and FEMAs P-804 Wind Retrofit Guide for Residential Buildings. With over a decade of experience providing technical assistance to FEMA for the implementation of their hazard mitigation assistance programs, including the Hazard Mitigation Grant Program (HMGP) and the newly launched Building Resilient Infrastructure and Communities (BRIC) program, AECOM is ready to support GNHWPCA's Wind Retrofit Implementation Project to further your resilience and mitigation goals.

PROJECT UNDERSTANDING

This project includes engineering and design services for hurricane wind proofing retrofits to meet the latest Building Code requirements for Wind Borne Debris Regions for several buildings at the GNHWPCA's East Shore Water Pollution Abatement Facility (ESWPAF), located at 345 East Shore Parkway, New Haven, CT and Administrative Offices, located at 260 East Street, New Haven, CT. These buildings are critical wastewater facilities subject to potential hurricane wind damage due to their location along Long Island Sound. Both locations are included within the 2018 Connecticut State Building Code, Type C, Risk Category IV Wind Borne Debris Region.

GNHWPCA has applied for and is in the process of receiving funding approval from the FEMA HMGP to implement wind retrofits at the ESWPAF and Administrative Offices. The Project includes required wind retrofits to the buildings identified in Table 1.

The wind retrofits include an assessment of the building envelope and implementing opening protection for doors, windows and louvers against wind borne debris, wind driven rain, and high wind pressure and roof retrofits which consists of securing roof top equipment, replacing roof decking and coverings (FEMA Option 1 Mitigation Package). Per the RFP, GNHWPCA believes that that the steel doors, structural framing and louvers for these buildings currently meet hurricane wind requirements however the windows and entrance glass doors for many of the buildings do not. In addition, several building roofs at the ESWPAF consist of built-up roofs with gravel which are not permitted in a Wind-Borne Debris region. These factors and others need to be considered in the building envelope assessments.

Table 1- Project Site Locations

Bldg	Location	Building Name	Opening Protection	Roof Retrofit
1	260 East St.	Administrative Office	Replace Glass Windows (~2600 sf of glass) and Main Entrance Doors	None
2	ESWPAF	Operations Building	Replace Glass Windows (33 each) and Main Entrance Doors	None
3	ESWPAF	Inlet Works Building	Replace Glass Windows (5 each)	Roof (~7000 sf)
4	ESWPF	Maintenance Building	Replace Glass Windows (9 each)	None
5	ESWPAF	Garage	Replace Glass Windows (4 each)	None
6	ESWPAF	Substation 2	Replace Glass Windows (5 each)	None
7	ESWPAF	Substation 3	Replace Glass Windows (13 each)	Roof (~6800 sf)
8	ESWPAF	Generator Building	Replace Glass Windows (3 each)	Roof (~900 sf)
9	ESWPAF	Chlorine Building	None	Roof (~200 sf)

PROJECT APPROACH

AECOM will perform sufficient investigation into the design of the facilities to enable informed design choices to meet the project goals of providing hardening to windows, doors, and roof elements within the project budget.

A multi-disciplinary team of technical specialists will complete field observations of existing conditions at each of the nine (9) buildings. The facility field observations will be based upon what may be seen through visual observation. Material coverings will not be removed as part of the assessment, and no destructive testing is anticipated to be required. The facility condition assessment at each structure will consist of the following items:

- Review framing methodology of windows and doors if accessible.
- Review roof construction and materials.
- Review attachment of mechanical components to roof structure.
- Review interior roof structural framing for condition and configuration.
- Note discrepancies between available construction documentation and as-built condition.
- Identify observable additional structural items of concern which may lead to additional structural modifications under the requirements 2022 Connecticut State Building Code (incorporating amendments from the 2021 International Building Code and the 2021 International Existing Building Code).

The evaluation of hazardous building materials is not included in this scope of work. Our understanding is that GNHWPCA will handle this during construction with the contractor through an allowance. Following completion of

the field assessment, the project Team will perform structural analysis of each building to identify structural elements or connections which may require reinforcement. The results of the analysis, combined with the findings and notes from the architectural and structural field assessment, will be utilized to generate written documentation for each structure to describe anticipated scope of structural revisions and develop quantity estimates for use in the construction cost estimates.

SCOPE OF WORK

As noted in the RFP, the AECOM Team will complete the scope of work detailed below. Additional clarification and assumptions have been added as appropriate.

Phase I

As summarized above in Table 1, window and glass door hardening/protection is required at multiple ESWPAF buildings and the 260 East Street Administrative Offices. Window and glass door hardening/protection includes retrofit/replacement of existing windows and glass doors with hurricane rated materials and installation requirements meeting the large missile test of ASTM E 1996. In addition, roof retrofits are required for several ESWPAF buildings. Roof work includes removal of the old built-up roof, inspection and hardening of the roof substructure and decking, installation of a new membrane roof and fastening of roof mounted structures.

Task 1: Engineering Analysis and Preliminary Design:

1. AECOM will complete an analysis of the building envelopes and assessment of wind hazards and retrofit requirements for each of the nine (9) buildings in Table 1 in accordance with FEMA Option 1 Mitigation Package.
2. AECOM will attend a virtual project kick-off meeting to review project goals, communication protocols and understanding. As part of this meeting AECOM will review available existing facility documentation, identify dates for site visits and follow-up meetings.
3. Prior to a site visit AECOM will review existing information including original construction documents (drawings and specifications) and shop drawings.
4. AECOM will perform a site visit to investigate nine (9) buildings at the ESWPAF and Administrative Offices. AECOM has assumed that the nine (9) buildings can be inspected in one day. AECOM would ask that GNHWPCA provide unimpeded access to all windows and doors from the interior of the structure, and further provide roof access either through interior stairwells, hatches, or exterior placed ladders. The exterior portion of windows and doors will be reviewed from grade without access from a ladder or manlift.
5. AECOM will conduct a virtual upgrade materials/features workshop with GNHWPCA staff to discuss the materials, finishes and desired features of the upgraded elements, focused on window and door systems. For the Administrative Offices and Operation buildings in particular, sequencing of the work and the need for temporary facilities during construction will be reviewed. Minutes of the meeting will be prepared.
6. AECOM will coordinate with vendors to confirm materials, availability and lead times.
7. AECOM will prepare a design basis report along with preliminary design (30 percent completion level) drawings and a preliminary schedule.
8. AECOM will develop a preliminary opinion of cost to review the cost construction budget in comparison to available funding.
9. AECOM will attend a virtual meeting with GNHWPCA to discuss the design basis report and review GNHWPCA comments. Minutes of the meeting will be prepared.

Meetings for Task 1:

1. Virtual kick-off meeting
2. Virtual meeting to discuss materials, finishes and desired features
3. Virtual meeting to discuss the design basis report and review GNHWPCA comments

Deliverables for Task 1:

1. Design basis report
2. Preliminary design drawings
3. Preliminary opinion of cost

4. Meeting minutes
5. Response to GNHWPCA comments on design basis report

Task 2: Final Design and Bidding Documents:

1. The final design will be based on the findings and comments received from GNWHPCA on the design basis report and the construction cost established under Task 1. Improvements will be designed to provide a useful life of at least 25 years and a protection level that meets or exceeds requirements for Wind Zone 1 for ultimate wind speeds greater than or equal to 130 and less than 140 miles per hour (mph). At a minimum the following codes will apply:
   a. Latest edition of the International Building Code (IBC)
   b. International Existing Building Code (IEBC)
   c. American Society of Civil Engineers, Minimum Design Loads for Buildings and Structures (ASCE 7), FEMA P-577
   d. Requirements of the City of New Haven and State of Connecticut Building Codes, including new/amended section R301.1.1 (Wind Design Criteria)
2. AECOM will prepare design drawings and specifications in general accordance with AECOM and GNHWPCA standards. GNHWPCA's standard specifications will be utilized where appropriate supplemented by AECOM's technical specifications. Scanned existing drawings of the buildings will be utilized as the basis for the design drawings.
3. AECOM will provide electronic submissions for 60%, 90% and 100% final design documents.
4. Following submission of the 60% design documents including drawings, specifications and a opinion of construction cost, a virtual design coordination meeting will be utilized to further refine the scope and nature of the proposed improvements and obtain GNHWPCA input. Minutes of the meeting will be prepared.
5. AECOM will develop the 90% design documents including drawings, specifications and a opinion of construction cost. Following submission of the 90% design documents, AECOM will attend a virtual design coordination meeting to discuss the 90% submittal and review GNHWPCA comments. Minutes of the meeting will be prepared.
6. AECOM will produce a final set of stamped 100% design documents including drawings, specifications and a final opinion of construction cost.

Meetings for Task 2:

1. Virtual 60% design document review meeting to discuss the submittal and review GNHWPCA comments
2. Virtual 90% design document review meeting to discuss the submittal and review GNHWPCA comments

Deliverables for Task 2:

1. 60% Design Documents including drawings, specifications and opinion of construction cost
2. Response to GNHWPCA comments for the 60% Design Documents
3. 90% Design Documents including drawings, specifications and opinion of construction cost
4. Response to GNHWPCA comments for the 90% Design Documents
5. 100% Design Documents including drawings, specifications and opinion of construction cost
6. Meeting minutes

Phase II – Bidding Services

Task 3: Procurement Assistance:

1. AECOM will prepare the bid advertisement along with opinion of final construction cost and updated construction schedule.
2. AECOM will prepare an electronic copy of the bid documents for uploading to GNHWPCA vendor portal and up to 20 complete sets of specifications and drawings.
3. AECOM will prepare for and attend a pre-bid meeting and pre-bid site visit. Meeting minutes will be prepared and distributed in an addendum.
4. AECOM will review bidder questions/Requests for Information (RFIs) and prepare and issue necessary addenda.
5. AECOM will review the bids submitted and provide a bid tabulation and recommendation for award.

Meetings for Task 3:

1. Pre-bid meeting and site visit

Deliverables for Task 3:

1. Bid Advertisement
2. Contract Documents
3. Addenda
4. Bid Tabulation
5. Recommendation for Award

Phase III – Additional Optional Services

AECOM can provide additional services that may be required for this project including Construction Administration and Resident Representation Services or other related services as requested.

If requested, Construction Administration services may include observing and advising GNHWPCA as to the progress and quality of the work being completed by the Contractor, reviewing and acting upon schedule of values, shop drawings, samples, testing results and other inspections or data required of the work; conducting periodic progress meetings, issuing instructions and clarifications to the Contractor; preparing and reviewing change orders; reviewing quantities for payment requisitions and reviewing work including the necessary documentation for substantial completion and final acceptance of the work. If requested, AECOM can prepare record drawings of the completed construction work in conformance with GNHWPCA latest standards. The record drawings would be prepared based on as-built features of the newly constructed facilities in conjunction with field notes and sketches prepared by the resident representative using the scanned drawings utilized during the design.

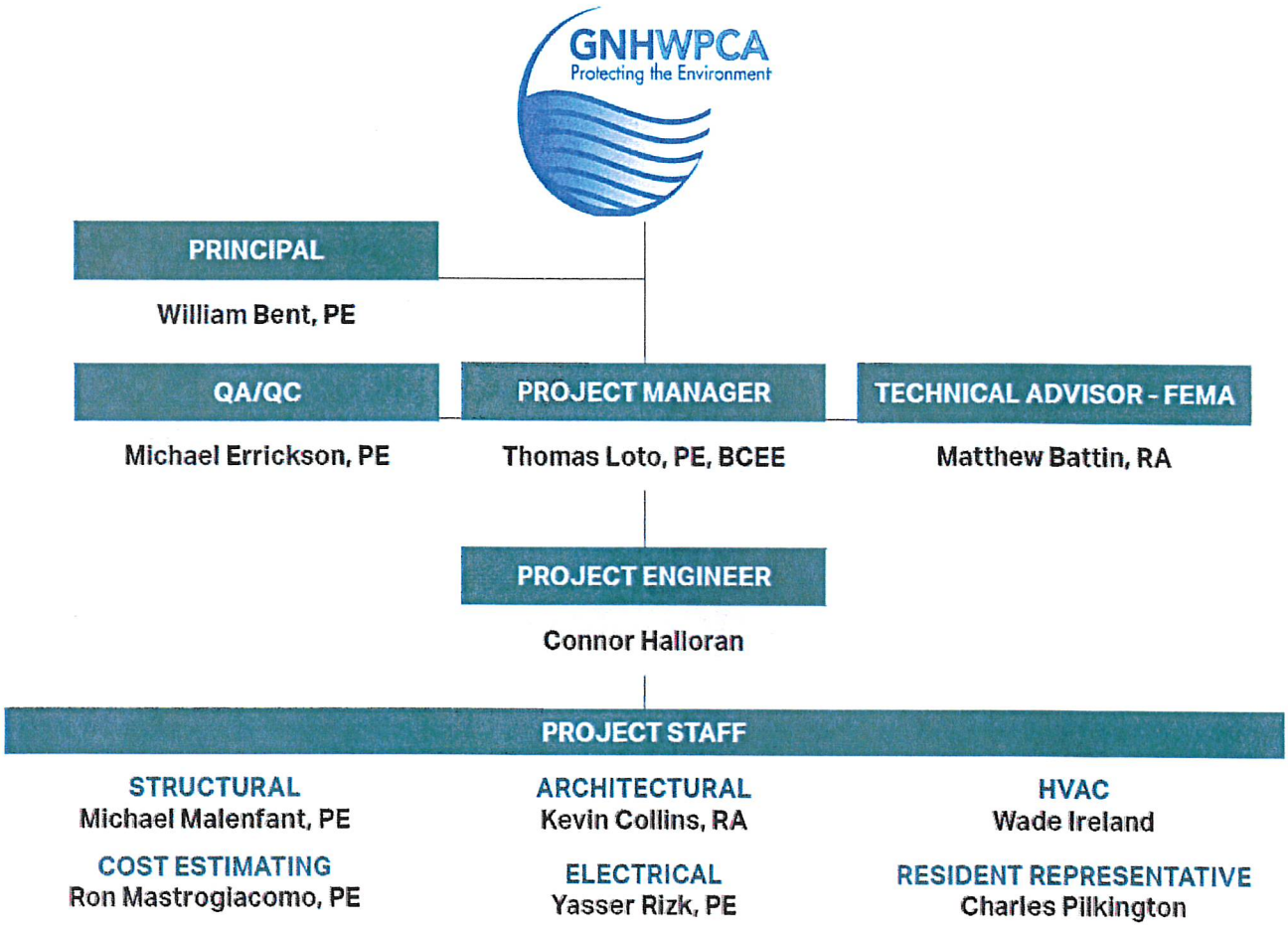
If requested, Resident Representative Services may include the following tasks:

- Constructibility review with other Team members as part of the final design plans.
- Serve as the GNHWPCA's point of contact for field construction related matters.
- Keep GNHWPCA advised of construction issues and serve as the liaison with the GNHWPCA and the Contractor to assist in understanding the intent of the Contract Documents.
- Review the progress schedule, shop drawings and log submittals and schedule of values.
- Advise GNHWPCA and the Contractor if work is not conforming to accepted shop drawings or if work is deemed to be unsatisfactory.
- Conduct daily on-site construction reviews of work in progress and keep written records of quantities and daily activities.
- Maintain orderly files and records at the job site of construction related information, progress and quantity observations.
- Review quantities and applications for payment with the Contractor prior to review by the GNHWPCA.
- Conduct final observation of the constructed project and develop and monitor punch list items prior to final acceptance.
- Maintain project record drawings.

PROJECT TEAM

AECOM's Team for this project understands the goals and objectives of the Wind Retrofit Implementation Project – Engineering and Design through relevant work on similar projects and the Team's prior work with GNHWPCA. An organization chart for AECOM's proposed Team follows along with a brief description of each of our key team members. Resumes for the majority of the Team were included in the original GNHWPCA On-Call Consultant RFQ 2020-01 Proposal. Additional resumes are included as an attachment to this proposal for Team members that were not included in the original On-Call Consultant RFQ 2020-01 Proposal.

Organizational Chart



William Bent, PE – Principal for this Project. Mr. Bent has more than 35 years' experience in the planning, design and construction management of wastewater treatment, pumping and collection systems and has served as principal for on-call contracts in Hartford and Meriden and multiple contracts for the Connecticut Water Company. Project experience includes various assignments from the City of Meriden's on-call contract, the Town of Greenwich's Wastewater Force Main Replacement and MDC Hartford's South Hartford Conveyance and Storage Tunnel.

Thomas Loto, PE, BCEE – Project Manager for this Project. Mr. Loto has over 30 years of program management and project management experience on projects including wastewater treatment plants, sewer system evaluations, pump stations and more. Mr. Loto is currently managing the Mill River – SSES project with GNHWPCA. Prior to AECOM, he had direct experience working with the GNHWPCA as a project manager on the Phase I Infiltration/Inflow Study for Woodbridge, Phase II Sanitary Sewer Evaluation Survey for East Haven, Phase III Sewer Rehabilitation Project for East Haven, Siphons Standard Operating Procedure Report, Emergency Response Plan, Mill River Infiltration and Inflow Study, West River CSO Improvement Project, CMOM Program Manual and CMOM Pump

Station Evaluations. Other relevant AECOM projects include MDC's Hartford's South Hartford Conveyance and Storage Tunnel and the City of Meriden's Infiltration/Inflow Study and Sanitary Sewer Evaluation Survey.

Michael Errickson, PE – QA/QC for this project Mr. Errickson brings over 26 years of diverse experience in civil engineering. His background includes environmental permitting, green infrastructure design, traffic calming design, site design, stormwater management design, water/wastewater pump station design, construction administration and project management. Mr. Errickson is presently serving as the Lead Verifier on the GNHWPCA Mill River SSES project located in Hamden, Connecticut. The responsibilities of this role include quality control and quality assurance reviews of each project deliverable. Reviews include calculation checks, conformance with standards and regulations, grammar and formatting, and verification of the technical scope. Mr. Errickson's prior experience with GNHWPCA includes design and construction oversight of modifications to combined sewer regulators 025 & 034 located in New Haven, CT, and design of the Yale Campus / Trumbull Street Phase 2A combined sewer separation project located in the East Rock section of New Haven, CT.

Connor Halloran – Project Engineer for this project. Connor has served as a Project Engineer with AECOM for 7 years. He has been involved in the analysis, design and implementation of wastewater collection, pumping and distribution systems. Connor is currently involved with the GNHWPCA Mill River SSES and Meriden SSES projects.

Matt Battin – Technical Advisor - FEMA for this project. Matt's full resume is attached to this proposal as Matt was not included in the original GNHWPCA On-Call Consultant RFQ 2020-01 Proposal. Matt is an architect with 22 years of experience in managing and delivering federal programs. He has experience managing and delivering technically complex disaster and humanitarian projects, as well and managing Federal programs with diverse project types. Matt is a senior advisor in FEMA disaster policy and project formulation and has worked closely with state and local governments as well as private-non-profits to substantiate damages, justify replacement, and define codes and standards necessary for restoration of community lifelines, services and infrastructure. He is experienced with guiding sub-recipients through complex project development, procurement and contracting, as well as leveraging Public Assistance Alternative Procedures and Hazard Mitigation Grant Program funding to meet recovery objectives. Supporting project development, as a policy expert, Matt has supported all categories of work collaborating with subject matter experts (SMEs) to substantiate technical requirements as eligible work.

Michael Malenfant, PE – Structural Engineer for this project. Michael is a senior structural design engineer with experience in all aspects of structural engineering design, engineering computer analysis, construction services, structural condition assessments and structural design quality reviews throughout the world, including the United States, Australia, Africa and the Middle East. He has extensive experience in the analysis, design, field investigation, condition assessment and retrofit of reinforced concrete structures for municipal water and wastewater treatment facilities and ancillary structures. Mr. Malenfant has experience performing damage assessments following flood events and delineating flood damage and wind damage.

Kevin Collins, RA – Architecture for this project. Mr. Collins is a Senior Architect/ Deputy Architectural Department Lead experienced in leading high-profile wastewater and water infrastructure projects of considerable size and complexity. He excels at performing all aspects of project design, development, documentation, coordination, and construction/contract administration roles utilizing his design abilities, technical knowledge, and construction related experience. He frequently brings his experiences and knowledge to bear on existing conditions and building analysis evaluations.

Yasser Rizk, PE – Electrical Engineer for this project. Mr. Rizk is a senior electrical engineer and is the AECOM New England Area Design Center Electrical and Control Systems Department Manager located in Chelmsford, MA. Mr. Rizk is specialized in electrical engineering, SCADA, Networks and control systems design for water treatment facilities and wastewater collection, pumping, treatment, and disposal systems. He is highly skilled in electrical system design and coordination of mechanical process, HVAC, and control systems for environmental treatment facilities. His experience includes design of medium- and low-voltage electrical distribution systems, including substations, transformers, switchgears, motor control centers, standby generators, power systems, CHP cogeneration, variable-frequency drives (medium and low voltage), and PLC/SCADA control systems. He also designs electrical support systems, such as lighting, fire alarm, gas-monitoring, security, card access, and telephone systems. Mr. Rizk's also performs electrical system studies such as short circuit, coordination, arc flash and harmonics analysis.

Wade Ireland – HVAC Engineer for this project. Wade's full resume is attached to this proposal as Wade was not included in the original GNHWPCA On-Call Consultant RFQ 2020-01 Proposal. Mr. Ireland is a mechanical design engineer with diversified background and experience in HVAC, plumbing, and fire protection. He has completed numerous surveys to ascertain conditions of existing facilities, performed studies to evaluate the cost-effectiveness of design alternatives, and recommended alternatives for implementation. Mr. Ireland has subsequently been responsible for design of the selected alternative for a wide variety of projects, as well as providing services during the construction phase. His responsibilities have involved design of various mechanical systems and provision of building services for commercial, institutional, municipal, industrial, military, and small-to-large residential projects.

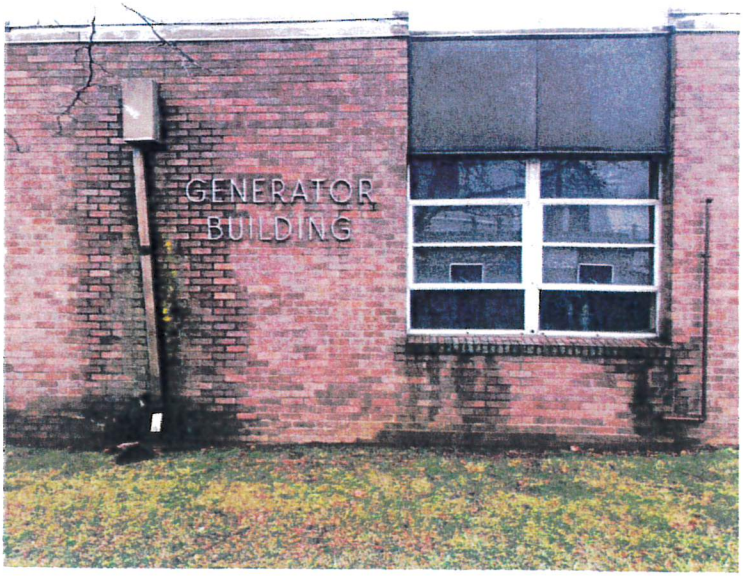
Ron Mastrogiacomo – Cost Estimator for this project. Ron is AECOM's Chief Project Controls Engineer with the Water Business line in AECOM's Chelmsford, MA Design Center and has over 40 years of experience with preparing and reviewing cost estimates and construction schedules. Ron is responsible for preparing capital cost estimates, reviewing estimates and estimating market conditions to advise clients of pricing volatilities that may affect pricing. His experience in the design-bid-build arena gives him a unique experience in advising municipalities in securing funding for their projects.

Charles Pilkington – Resident Represnetative for this project. Mr. Pilkington is an adaptable and results-oriented operations professional with a proven record of accomplishment in production planning, facilities Management, client/employee relations and training and development. Mr. Pilkington leverages exceptional interpersonal skills to lead cross-functional teams performing work with Springfield Water and Sewer Commission and the Metropolitan District Commission. Mr. Pilkington is currently serving as a resident representative for the South Hartford Consolidation and Storage Tunnel for Contract 5 for the Metropolitan District Commission.

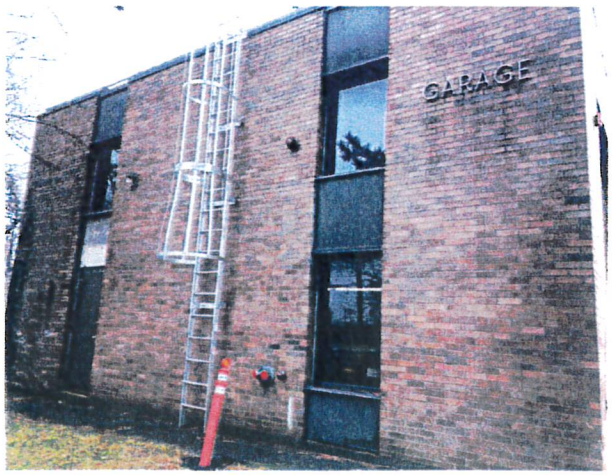
RELEVANT EXPERIENCE

List of Relevant Projects

As demonstrated in the table below, AECOM has extensive experience providing facility assessment and design for code upgrades and resiliency/mitigation to Wastewater Treatment Facilities, other public clients and residential programs, that including wind and flood hazards. Additionally, AECOM currently provides FEMA with full-time on-site staff, supported by numerous off-site subject matter experts to focus on implementing Hazard Mitigation Assistance (HMA) grant program activities ranging from program strategy, guidance, outreach, and facilitation of the application to award/post-award processes. The programs require extensive program planning, management, technical and implementation support. FEMA expanded AECOM's scope based on demonstrated performance in programmatic improvements and support of programmatic objectives—reaching the contract ceiling in three years, as opposed to the planned five. Our experts provide technical guidance on engineering feasibility, benefit-cost analysis, environmental and historic preservation issues, and other programmatic challenges — AECOM supports FEMA leadership with programmatic decisions that increase community resilience and sustain HMA funding.



Project Name	Client	Date Complete	Relevance
USPS Roofing Program	United States Postal Service	2019	AECOM performed roofing assessments for 72 USPS Facilities throughout the US Northeast and Puerto Rico which included buildings in areas with ultimate design wind speeds greater than 140 mph. Assessments encompassed roofing condition, upgrades needed to meet current code required wind conditions, hazardous materials testing and cost estimating. Upon approval of the reports from USPS, AECOM then developed detailed construction documents, assisted with procurement of construction contractors and typical construction administration services.
Sand Island Wastewater Secondary Treatment	City and County of Honolulu	2021	The project primary objective to address adaptation sea level rise, FEMA flood zone X and AE and tsunami zone resiliency included code triggered wind upgrades to existing WWTF including historic structures as well as design of new facilities.
Passaic Valley WWTP	Passaic Valley Sewerage Commission	2022	FEMA HMGP Resiliency assessment and design for existing WWTP. This project demonstrates AECOMs experience delivering a complaint project of a similar funding type, however, of significantly greater complexity.
New Riverside Government Center – P3	City of Miami	2024	AECOM is acting as program manager and supports the client with assessing wind calculations for the new design by the P3 Development team.
Miami Dade College Capital Improvement Program	Miami Dade College	2024	AECOM is providing Program Management and Owner's Representation Services, acting on behalf of Miami Dade College in the delivery of projects under its capital improvement program. Projects include new construction, renovations, and modernizations as well as site and infrastructure improvements.
Program Management for the SMART Bond	School Board of Broward County	2020	AECOM acted as program manager and assisted the client with wind retrofit/assessment of existing facilities
EHRVI Phase 2 STEP	US Virgin Islands Housing Finance Authority	2019	AECOM provided assessment, design, and construction management to rebuild over 1500 roofs to meet updated high wind codes after Hurricanes Irma and Maria
Permanent Canal Closures and Pumping Stations (Design Build)	USACE	2019	AECOM, operating in an Owner's Engineer capacity, supported the procurement and delivery of a $615M design-build contract to construct three large pump stations in New Orleans. These structures were designed to be resilient to future hurricane impacts of both flooding and wind hazards.
FEMA's Hazard Mitigation Technical Assistance Program (HMTAP)	FEMA, Mitigation Directorate, Hazard Mitigation Assistance Branch	Ongoing	AECOM supported FEMA's Hazard Mitigation Technical Assistance Program (HMTAP) on Indefinite Delivery Task Order contracts for four consecutive terms. Under this contract, we provided technical assistance to FEMA Headquarters' Mitigation Directorate and its ten regional counterparts in the management of their various tasks within the HMTAP. AECOM's pre- and post -disaster technical and programmatic support addresses all types of hazards including floods, hurricanes, earthquakes, wildfires, ice storms, tornadoes, tsunamis, manmade hazards, and other events.
Amelia Earhart & New Charles River Dams: Inundation Vulnerability Assessment, Final Design and Permitting Services	Massachusetts Department of Conservation and Recreation	Ongoing	AECOM evaluated the vulnerability of these two critical costal flood protection facilities in Boston Harbor to withstand a storm surge event with wave action including projected sea level rise. AECOM then proceeded with design and construction services for implementation of the hardening recommendations including new doors, windows, hatches, store fronts and vents amounst several other upgrades to increase the survivability of the facilities.



AMELIA EARHART & NEW CHARLES RIVER DAMS: INUNDATION VULNERABILITY ASSESSMENT, FINAL DESIGN AND PERMITTING SERVICES INCLUDING HARDENING UPGRADES (DOORS & WINDOWS)

Somerville & Boston, MA

Client
MassDCR
Mike Gavin
617-626-1442

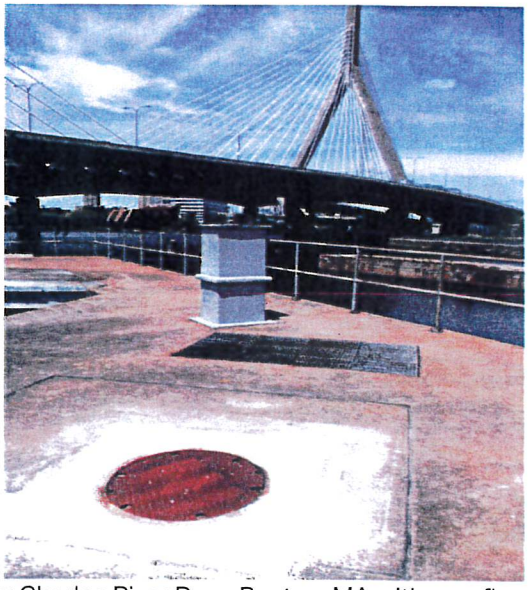
Project Duration
2015 – Ongoing

AECOM conducted a flood inundation vulnerability assessment of critical infrastructure components of the Amelia Earhart and New Charles River Dam Flood Control Facilities for the Massachusetts Department of Conservation and Recreation.

These two flood control facilities protect people as well as billions of dollars of property in the metropolitan Boston area. Both dams were built as part of coastal flood protection systems and include dam structures, locks, and pumping stations. The goal of the study was to determine the vulnerability of the dams to extreme storm surge and to determine required mitigation. The scope of work included a physical assessment of the two facilities, including inspections and meeting with operations staff; identification of key flood levels at the facilities, specifically at the locations of critical infrastructure given sea level rise and storm surge predictions; determination of upgrades to provide serviceability and survivability of each flood control facility; and the cost to implement the improvements.

Based on the finding of the vulnerability study, AECOM then proceeded with the design and construction of hardening the Amelia Earhart and New Charles River Dam Flood Control facilities. Final Design for the Amelia Earhart Dam and New Charles River Dam were completed as two separate bid packages.

New Charles River Dam design, permitting, and construction phase services was completed in 2021 and included replacement of a 350 KW backup generator and associated electrical and HVAC work, new generator exhaust stacks, new water-tight manholes and hatches on the crest of the dam, new FRP chimneys over air vents on the crest, new sump pumps and piping, replacement of the sector gate limit switches, sealing of electrical conduits, and new flood proof doors.



New Charles River Dam, Boston, MA with new flood tight manhole cover and FRP chimney over air vent.

Final design of the Amelia Earhart Dam hardening included replacement of two 350 KW backup generators and associated electrical and HVAC work, new generator exhaust stacks, new water-tight manholes and hatches on the crest of the dam, new FRP chimneys over air vents on the crest, new water-tight doors and storefronts, replacement of louvers, new limit switches on the sector gates, sealing of electrical conduits, replacement of the facility transformer and secondary conduits, new sump pumps and piping, replacement of exhaust fans, and abatement of hazardous building materials. Construction of the hardening upgrades including new doors, windows, hatches, store fronts and vents amounst several other upgrades to increase the survivability of the facilities is ongoing.

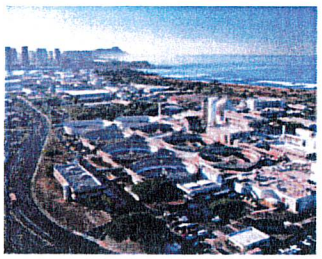
SAND ISLAND WASTEWATER SECONDARY TREATMENT

Honolulu, Hawaii

Client
City and County of Honolulu
Trudy So-Yiu Hamic
808-7658-87400, thamic@honolulu.gov

Project Duration
2021 – 2028 (est.)

This project demonstrates our team's ability to provide assessment and design services to withstand a variety of coastal wind and flood requirements in a Special Wind Region.



AECOM, as **Designer of Record** on this **D-B-B project**, is working with the City and County of Honolulu (CCH) to design the upgrade of the Sand Island Wastewater Treatment Plant (SIWWTP) to secondary treatment. Based on the facility plan recommendations, AECOM is designing the Phase 1 implementation of a 20-mgd Membrane Bioreactor installation. A 2010 U.S. Environmental Protection Agency Consent Decree requires that Phase 1 secondary treatment construction must begin before January 2022.

For more than two decades, AECOM has provided a wide range of professional services to the Sand Island Wastewater Treatment Plant. Sand Island is the largest treatment plant on the island of Oahu and is responsible for treating the sewage for most of urban Honolulu. In this current assignment, AECOM provided CCH **conceptual design**, **final design** and **permitting** services for the SIWWTP Secondary Wastewater Treatment Project. Plans and specifications were prepared for two bid packages. AECOM performed 95% of the work on this project, and our subcontractors performed 5%.

Knowledge of Local Conditions

This site is in a Special Management Area, a contaminated soil management area, FEMA flood zone X and AE and tsunami zone, airport flight path (FAA approval), contains a historic building, and is accessed from a State Highway. AECOM handled the coordination of all these entitlements in addition to the standard building permits and utility reviews. The SIWWTP site is located within FEMA flood zones "X" and "AE" and within a tsunami design zone indicating that they are prone to flooding. CCH has been developing Island wide planning to address climate change and related sea level rise especially in areas that are prone to flooding. As a result, all new secondary treatment buildings were designed with building entrance at an elevation 16 feet above mean sea level to protect against flooding and wind impact, site fill and a tunnel structure which protects a portion of the existing site. Structures were designed to withstand impact from a tsunami.

Project Scope

Work included conceptual design of a 96 mgd MBR secondary treatment facility, related solids thickening system and odor control. The planning phase of this project included several charette workshops with the stakeholders to refine the design and ensure operating requirements would be met. All the technical disciplines conducted condition assessments of the existing 50 mgd primary treatment plant. Topographic surveys, soil borings, infiltration studies, and potholing to locate utilities were important for site assessment. Twenty-three technical memos were produced, addressing all the planning constraints and considerations. This was important to clearly document the basis of design and form the basis for preparing detailed plans and specifications to be used to solicit construction bids.

The project includes the replacement of existing facilities to clear space for proposed plant components and phasing to allow for continuation of permit compliant operations. As part of the MBSSI package, AECOM planned and designed a new maintenance building to remove the old building which will free up space at the plant for future treatment facilities. The Maintenance Building was designed to meet LEED Silver. Other improvements include new utilities, roadways, and a centralized employee parking lot with a photovoltaic canopy.

BROWARD COUNTY PUBLIC SCHOOLS CAPITAL PROGRAM

Broward County, FL

Client
School Board of Broward County

Project Duration
2020 - 2024

This project demonstrates our team's ability to provide assessment and wind retrofit design services including roof upgrades in a Wind-Borne Debris Region .

Project Overview

AECOM is providing program management/owner's representative services for the School Board of Broward County's (SBBC) Capital Program. This work encompasses: projects executed under the Safety, Music & Arts, Athletics, Renovation, and Technology (SMART) Program, which is funded by a general obligation bond passed in 2014; additional District Educational Facilities Plan projects that have since been added to the SMART Program; and various previously funded projects.

The majority of the scope consists of assessment and wind retrofit of existing facilities (including roof recovery and replacement), HVAC and life safety system upgrades, and new construction.

Our role as program manager is to manage all assigned capital projects from their current status through commissioning and closeout. In managing the District's capital projects, our team serves as its representative and actively seeks to identify and resolve issues. Specific services include estimating, scheduling, procurement and contracts management, document control, design management, construction management, inspections support, commissioning, and program auditing/compliance.

Serving as a true partner to the School Board, additional pre-construction services have included development of strategies and management of the District Wide Update Facilities Condition Assessment, development of the Structural Inspection Pilot Program, development of a swing space program, and development of an updated roofing safety certification program.

In addition, our team manages community outreach and coordination of the District's small, women-owned and minority-owned business enterprise outreach efforts.

In addition to working with District stakeholders, school administrators and project design professionals, contractors and vendors, our team also coordinates with the District's cost and program controls manager (CPCM) for project-based estimating and scheduling tasks. We also support the District and the CPCM in the implementation and use of its enterprise project management software (e-Builder) to track all project activities.

PROJECT BUDGET AND SCHEDULE

Project Budget

Included below is a proposed project budget following requirements set forth in the RFQ#2020-01 On-Call Professional Engineering Services Contract with the Greater New Haven Water Pollution Control Authority including job classifications, hourly bill rates, and overhead rates. Other direct costs (ODCs) are included at cost and subconsultants include a 5% markup. A Project Fee is included at 10%.

Also included is a project schedule on page 15 for the tasks outlined in this proposal. AECOM will initiate work upon receiving written authorization to proceed. The Design Basis Report is estimated to take approximately 4 weeks to complete following the kickoff meeting and site visit. The 60% and 90% design deliverables are estimated to take approximately 6 weeks each. The final design deliverable is estimated to take approximately 3 weeks to compile. Procurement assistance tasks will occur following GNHWPCA review of the final design deliverable. This task is estimated to take approximately 5 weeks to complete. This schedule assumes 1 week of review time for GNHWPCA for each deliverable and that AECOM will respond to one round of comments from GNHWPCA for each deliverable.

Level of Effort for GNHWPCA Wind Retrofit Implementation Project - Engineering and Design

	Officer (Principal in Charge)	Project Manager	Senior Technical Specialist	Senior Project Engineer	Engineer	Staff Engineer	Senior Technician	Total Hours	Labor Cost	Expenses	Subconsultants	Total Cost
	$ 250.00	$ 220.00	$ 250.00	$ 175.00	$ 145.00	$ 120.00	$ 105.00					
Task 1: Engineering Analysis and Preliminary Design	2	40	44	104	4	0	24	218	$41,600	$800	$0	$42,400.00
Architectural			16	40				56	$11,000	$300		
Structural			8	64				72	$13,200	$300		
HVAC			2		2			4	$790			
Electrical			2		2			4	$790			
Estimating			8					8	$2,000			
Project Team	2	40	8				24	74	$13,820	$200		
Task 2: Final Design and Bidding Documents	2	64	64	128	40	20	204	522	$82,600	$100	$0	$82,700.00
Architectural			32	88			136	256	$37,680	$91		
Structural			8	40			4	52	$9,420	$9		
HVAC			4		8			12	$2,160			
Electrical			4		8			12	$2,160			
Estimating			8					8	$2,000			
Project Team	2	64	8		24	20	64	182	$29,180			
Task 3: Procurement Assistance	1	8	4	16	8	0	24	61	$9,490	$410	$0	$9,900.00
Architectural			2	8				10	$1,900			
Structural			2	8				10	$1,900			
HVAC								0	$0			
Electrical								0	$0			
Estimating								0	$0			
Project Team	1	8			8		24	41	$5,690	$410		
Total	5	112	112	248	52	20	252	801	$133,690	$1,310	$0	
												$135,000

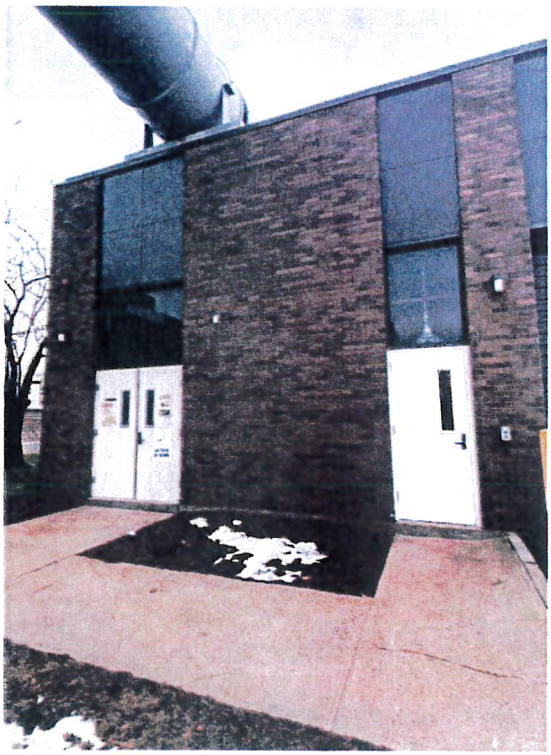
Phase III Optional Services

Job Classification	Hourly Billing Rate
Project Manager	$220.00
Senior Technical Specialist	$250.00
Senior Project Engineer	$175.00
Staff Engineer	$120.00
Resident Project Representative	$145.00

Our proposed project budget presented above is based on the following assumptions on page 14.

Assumptions

1. Structural modifications or alterations are not required to support the new architectural elements within the facilities (e.g., the findings of the structural analysis is that the framing is adequate). The intent of the structural analysis for the windows, doors, and wind uplift is to confirm that the support system is adequate.
2. Changes or alterations in the thermal envelope are not required to support the new architectural elements within the facilities.
3. Mechanical HVAC and Electrical hours are carried to address uncertainty in encountered items as a response to the structural and architectural investigation.
4. Review of attachment of mechanical and electrical components is limited to the fastening systems which can be visually observed on areas to be reroofed. If fasteners and supporting structural elements cannot be observed, or the facility is not subject to roof replacement, it will be assumed that the fastening system is sufficient unless specific details of installation are available.
5. Assumption is that roofing system, windows, and doors will be specified and identified on design drawings and specifications. Details of installation will be the responsibility of the contractor to provide industry standard installation, flashing, and other details as part of the system.
6. Card readers, magnetically controlled hardware, electrified hardware and intrusion alarm door/window contacts associated with door upgrades are not required.
7. Comments for each submittal are received as a single set of review comments.
8. Existing drawings showing window, door and roof configurations for all structures are available and will be provided for AECOM use.
9. All design will be in 2-D CAD documents utilizing previously issued drawings as PDF based backgrounds.
10. The evaluation of hazardous building materials is not included in the scope of the work. AECOM's understanding is that GNHWPCA will handle this during construction with the contractor through an allowance.
11. Pricing for Task 2 is based upon assumptions identified above.



Project Schedule

Greater New Haven Water Pollution Control Authority
Wind Retrofit Implementation Project - Engineering and Design
Proposed Design Schedule

Task Description	Months from Notice to Proceed																																	
	1				2				3				4				5				6				7				8				9			
Notice to Proceed																																		
1 Engineering Analysis and Preliminary Design																																		
Kickoff Meeting (virtual)																																		
Site Visit																																		
Materials and Features Workshop (virtual)																																		
Design Basis Report																																		
Design Basis Report Review Meeting with GNHWPCA (virtual)																																		
2 Final Design and Bidding Documents																																		
60% Design Deliverable																																		
60% Design Document Review Meeting with GNHWPCA (virtual)																																		
90% Design Deliverable																																		
90% Design Document Review Meeting with GNHWPCA (virtual)																																		
100% Design Deliverable																																		
3 Procurement Assistance																																		
Construction NTP																																		
GNHWPCA Reviews																																		

Thank you for your consideration. We hope that you find that we are the most qualified team to complete the Wind Retrofit Implementation Project – Engineering and Design Project. Please do not hesitate to contact Thomas Loto if you need any additional information at 860-830-1418.

Sincerely,

AECOM Technical Services, Inc.

Thomas A. Loto, PE, BCEE
Project Manager

William J. Bent, PE
Principal

GNHWPCA Protecting the Environment
Greater New Haven Water Pollution Control Authority
260 East Street New Haven, CT 06511
203.466.5280 p 203 772.1564 f www.gnhwpca.com

MEMORANDUM

DATE: November 1, 2023

TO: Sidney J. Holbrook

FROM: Thomas Sgroi, PE
Director of Engineering

RE: Allocation of Clean Water Funds
Project No. CWF 2019-02 – Infiltration and Inflow Improvements Woodbridge Area 2 and 2A and East Haven Areas 15, 18, and 23

Sid:
I request that the above-mentioned recommendation be added to the November 8, 2023 Board Agenda for resolution.

The Engineering Department recommends and requests a resolution for the allocation of $6,500,000 grant and loan application under the State of Connecticut Department of Energy and Environmental Protection (DEEP) Clean Water Fund (CWF) Program qualifying under their priority list for Infiltration and Inflow projects.

Pending final approval of the DEEP CWF Application, this project will receive a 20% grant and 80% low interest loan.

Thomas V. Sgroi, PE
Director of Engineering

e-copy: Gabe Varca, Gary Zrelak
Lou Criscuolo, Mario Ricozzi, Nick Stevens

STATE OF CONNECTICUT

DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION

Planning and Standards Division

Clean Water Fund Application Form

APPLICANT	TELEPHONE	CWF- ~~CSL-~~
Greater New Haven WPCA (GNHWPCA)	203-466-5280	TBD
MAILING ADDRESS	FAX	Date Application Received
260 East Street	203-772-1564	
New Haven, CT 06511	**Project Type:** [ ] Planning	[ ] Design [X] Construction

PROJECT DESCRIPTION

CONSTRUCTION - Intermediate Term Control Plan Improvement Project - CWF 2019-02 - Infiltration and Inflow Improvements Woodbridge Areas 2 and 2 A and East Haven Areas 15, 18, and 23

	A	B	C	D = A - (B+C)	D = A - (B+C)	E D * Grant %	F + D - E
Project Costs Summary	Total Project Cost	Funding from other sources	Local Share	CWF Eligible Project Costs	Grant Eligible Project Costs	Grant Amount	Loan Amount
Construction — Contract #: 2019-02	5,072,810		0	5,072,810	5,072,810	1,014,562	4,058,248
Construction — Contract #: Escalation	150,000		0	150,000	150,000	30,000	120,000
Construction — Contract #:	0		0	0	0	0	0
	0			0	0	0	0
Construction — Utility Relocation	0			0	0	0	0
Subtotal	5,222,810	0	0	5,222,810	5,222,810	1,044,562	4,178,248
Tech. Serv.-Design	0			0	0	0	0
Tech Serv	0			0	0	0	0
CA&I-2019-02	626,049			626,049	626,049	125;210	500,839
Contingency (5%) (Const)	261,141		0	261,141	261,141	52,228	208,912
Legal/Fiscal	180,000			180,000			180,000
Interest During Const.	170,000			170,000			170,000
Other: Admin. Legal Notices	40,000			40,000	40,000	8,000	32,000
Other:	0		0	0	0	0	0
TOTAL	6,500,000	0	0	6,500,000	6,150,000	1,230,000	5,270,000

Project Funding Summary

Clean Water Fund			Other Funding Sources	
[ ] Blended Grant Approx.	0%		[ ] USDA-Rural Development	
[ ] 25% Small Community Grant			[ ] Utility Assistance Grant	
[X] I&I grant	20%	$1,230,000	[ ] Other:	
[ ] 50% CSO Grant	0%	$0	[ ] Other:	
[ ] 55% Planning Grant	55% of Total		[ ] Local Share*	$0
[X] CWF Loan		$5,270,000	*Where there may be project costs ineligible for any funding, or for balance of funding on a planning project, where no loan exists.	
Total CWF Assistance:		**$6,500,000**	Total Project Costs:	$6,500,000

The Greater New Haven Water Pollution Control Authority hereby makes application to the State of Connecticut for grants and/or loans for the project described above. The undersigned representative of the applicant certifies that that the information contained above and in any attached statements and materials in support thereof is true and correct to his/her knowledge.

DRAFT — 1-Dec-23

SIGNATURE OF AUTHORIZED REPRESENTATIVE — DATE

Sidney J. Holbrook, Executive Director

NAME AND TITLE OF REPRESENTATIVE (TYPE OR PRINT)

CONSTRUCTION NOTIFICATION
WORK IN YOUR NEIGHBORHOOD

GNHWPCA
Protecting the Environment

PROJECT CWF 2019-02: INFILTRATION AND INFLOW IMPROVEMENTS – WOODBRIDGE AREAS 2 AND 2A AND EAST HAVEN AREAS 15, 18 AND 23

PROJECT AREAS: WOODBRIDGE – AREA BETWEEN KONOLDS POND AND WOODBRIDGE/NEW HAVEN LIMITS, NEW HAVEN/EAST HAVEN – AREA BETWEEN HILLSIDE AVE, I-95 AND MASSACHUSETTS AVE. EAST HAVEN – AREA BETWEEN HELLSTROM RD. AND GRANISS POND. EAST HAVEN – FOXON BLVD. AREA NEAR EAST HAVEN/NEW HAVEN LIMITS

PROJECT OVERVIEW

This project builds on prior studies of the target areas where excess infiltration and inflow (I&I) has been identified. The project involves installation of over 25,000 linear feet of cured in place pipe lining, and the rehabilitation of approximately 300 manholes. The rehabilitation will require temporary pumping of flows during the cured in place pipe lining installation.

BENEFITS

- Minimizes infiltration and inflow
- Rehabilitates aging infrastructure.
- Allows for increased sewer flow capacity.

IMPACTS

- Some traffic impacts are expected.
- Signs and fencing will be erected to maintain safety.
- Notices will be handed to nearby residents providing additional information/guidance on how to prevent potential sewer and styrene odors from potentially back drafting into homes.

TIMING AND COORDINATION

Construction Start: Spring/Summer 2024
Duration: Project duration is anticipated to be 12 months*
Schedule: Mon-Fri from 7 am to 7 pm

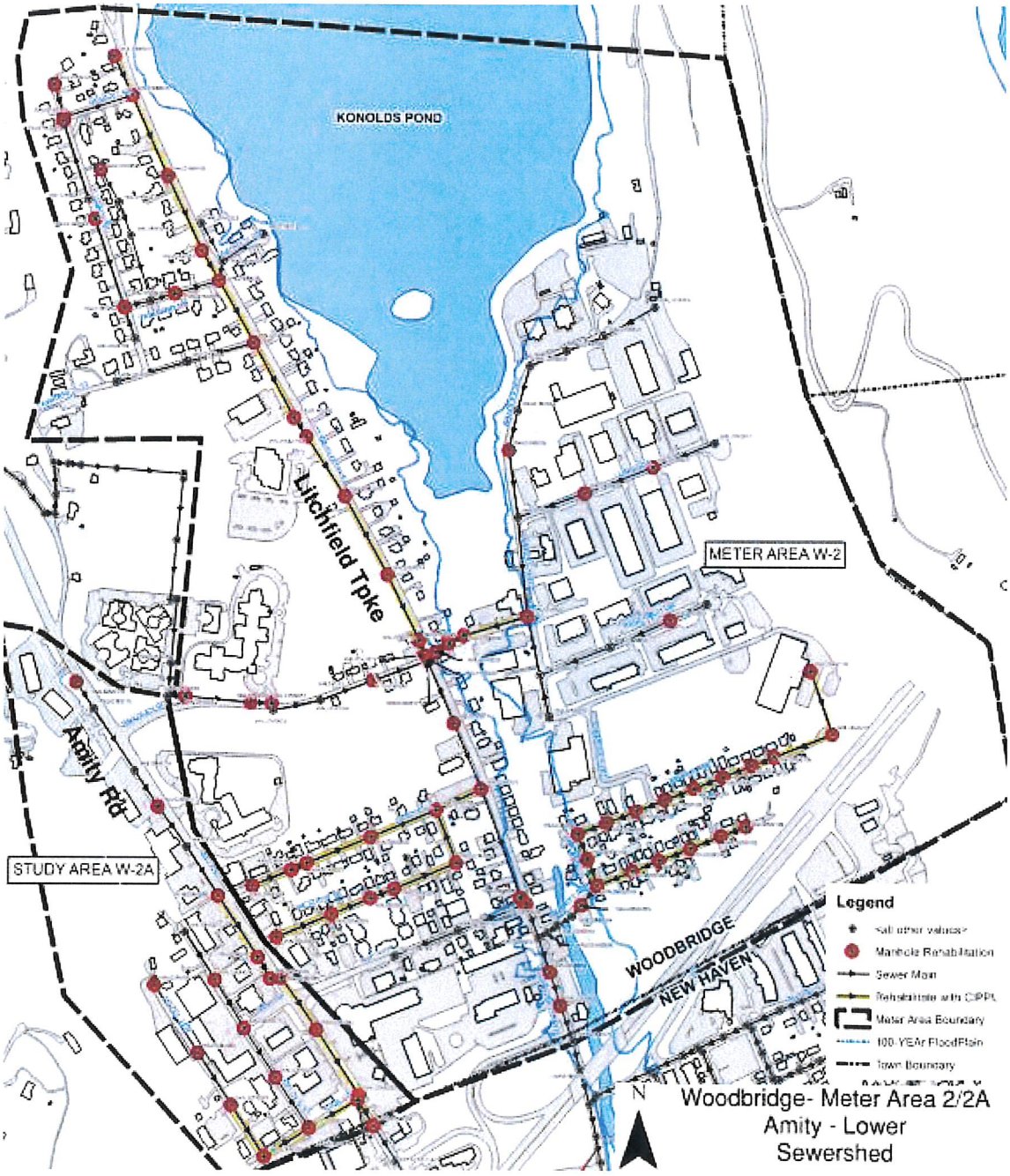
**Due to dynamics of construction schedule, weather and other factors, dates and times are subject to change.*

FOR MORE INFORMATION

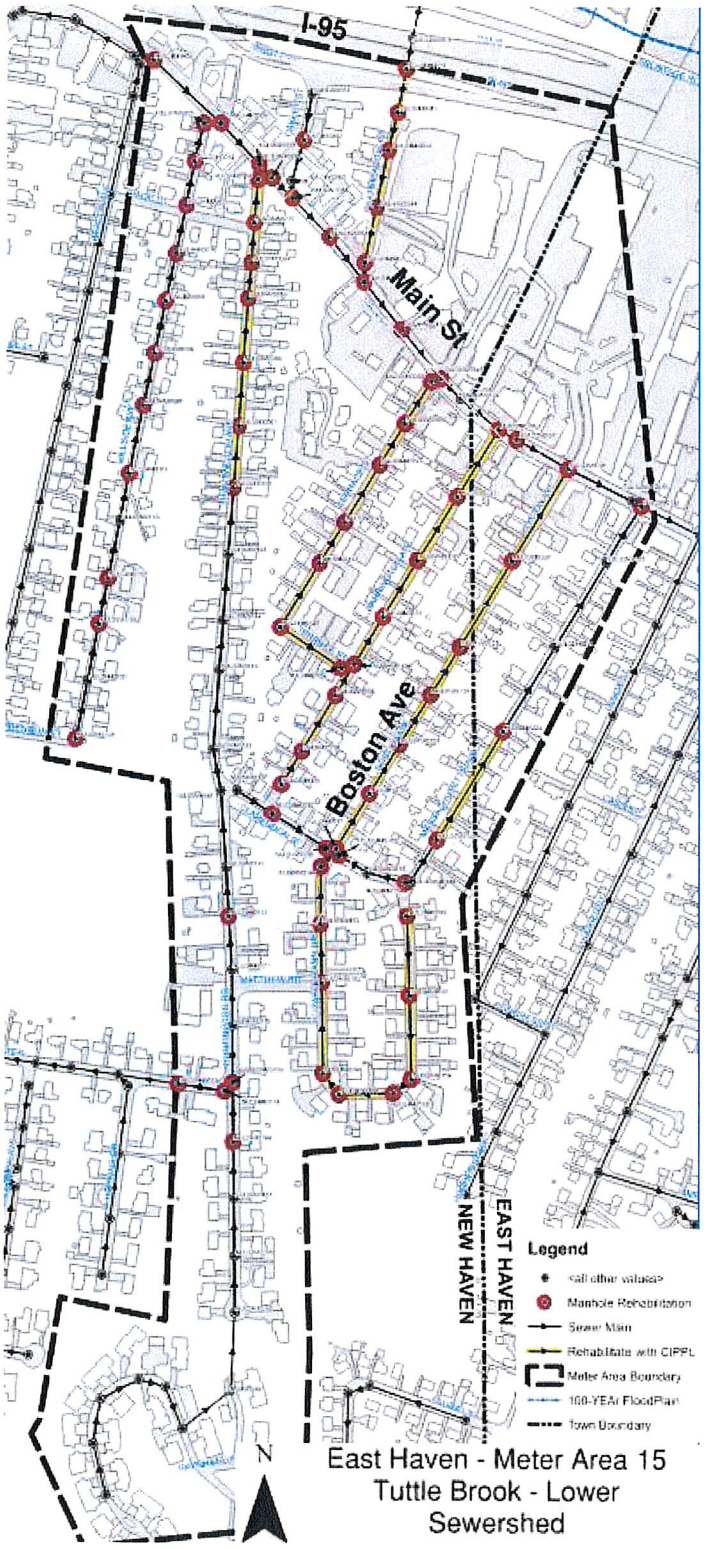
Contact the Engineering Department at: 203-466-5280
engineering@gnhwpca.com
or, visit the GNHWPCA website at www.gnhwpca.com
Sewer Emergencies (24/7) Call: 203-466-5260

"To protect the environment, to serve the public and to maintain a reputation for quality and value"

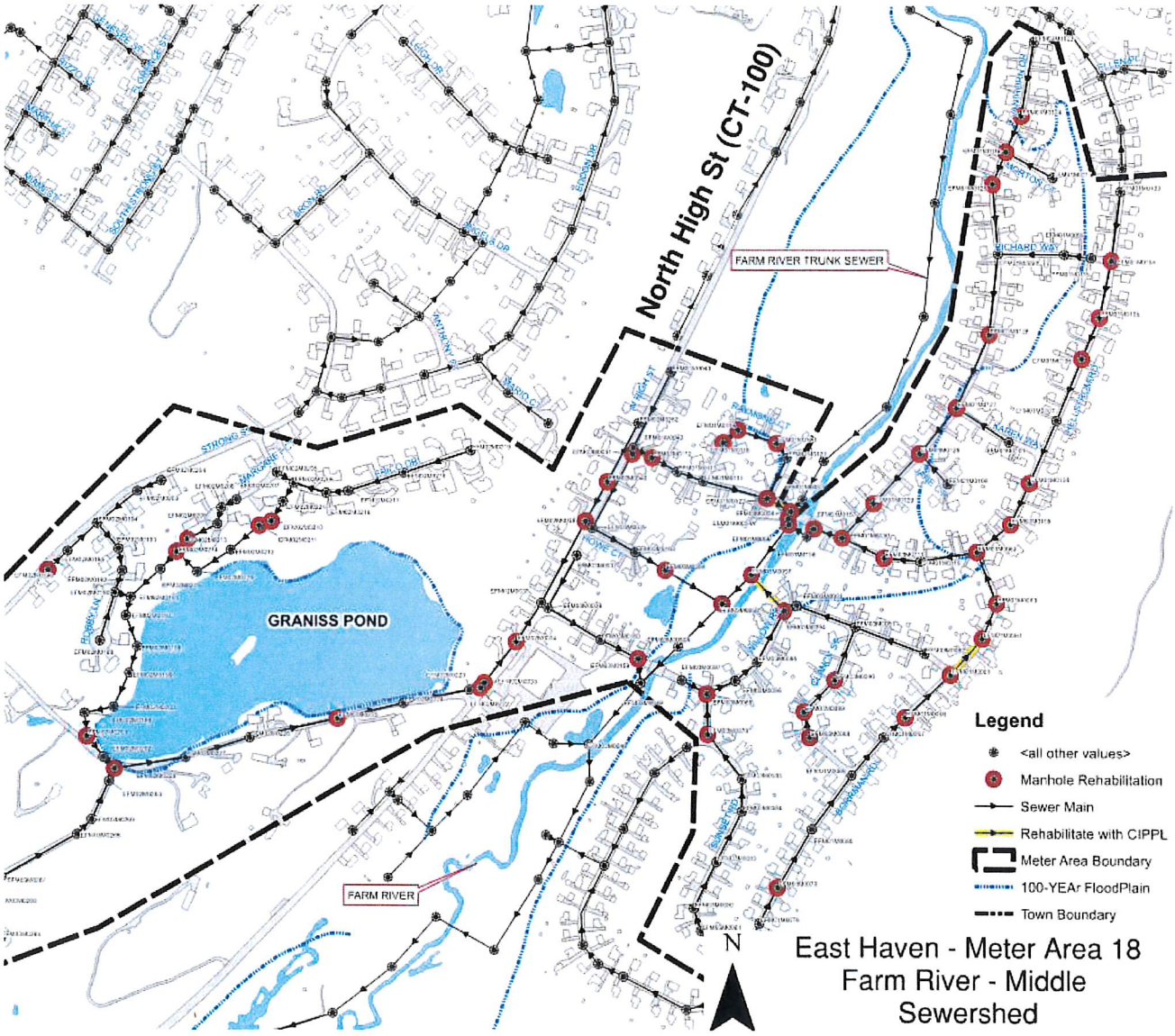
PROJECT CWF 2019-02: INFILTRATION AND INFLOW IMPROVEMENTS – WOODBRIDGE AREAS 2 AND 2A PROJECT LOCATIONS



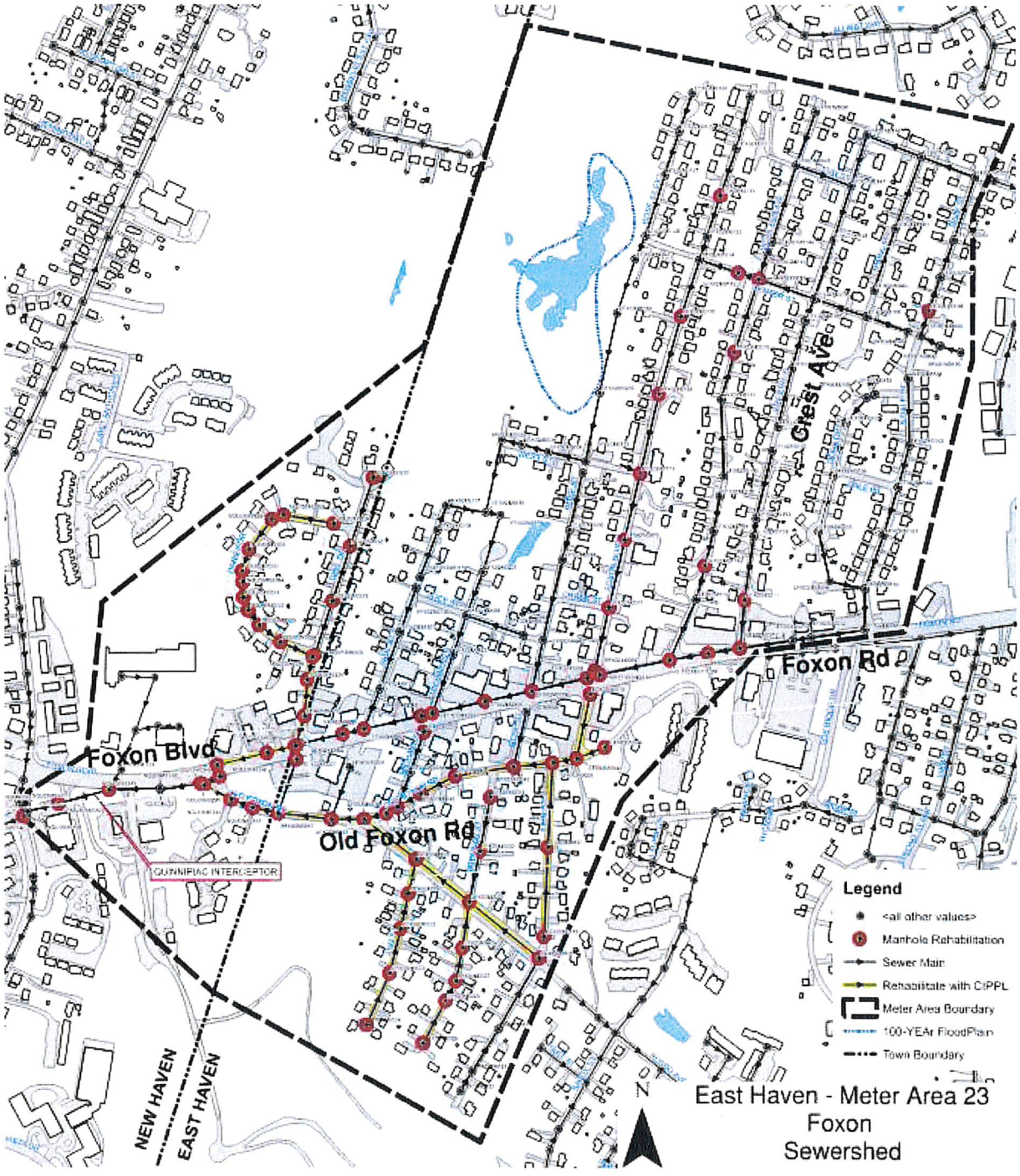
PROJECT CWF 2019-02: INFILTRATION AND INFLOW IMPROVEMENTS EAST HAVEN AREA 15 PROJECT LOCATIONS



PROJECT CWF 2019-02: INFILTRATION AND INFLOW IMPROVEMENTS EAST HAVEN AREA 18 PROJECT LOCATIONS



PROJECT CWF 2019-02: INFILTRATION AND INFLOW IMPROVEMENTS EAST HAVEN AREA 23 PROJECT LOCATIONS



RESOLUTION APPROPRIATING $6,500,000 FOR ENGINEERING, DESIGN, AND CONSTRUCTION RELATED TO INFILTRATION AND INFLOW REMOVAL IN THE TOWN OF WOODBRIDGE FOR AREAS 2 AND 2A AND IN THE TOWN OF EAST HAVEN FOR AREAS 15, 18 AND 23 AND AUTHORIZING THE ISSUANCE OF $6,500,000 CLEAN WATER FUND OBLIGATIONS OF THE AUTHORITY UNDER THE STATE OF CONNECTICUT CLEAN WATER FUND PROGRAM SECURED SOLELY BY REVENUES OF THE SEWERAGE SYSTEM AND AUTHORIZING THE AUTHORITY TO ENTER INTO GRANT AND LOAN AGREEMENTS

BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY:

Section 1. Under and pursuant to the provisions of the Bylaws of the Greater New Haven Water Pollution Control Authority (the "Authority") and all other general or special laws thereto enabling, there be and hereby is approved the appropriation of $6,500,000 for: (1) the engineering, design, and construction, as applicable, of infiltration and inflow removal (i) in the Town of Woodbridge for Areas 2 and 2A, and (ii) in the Town of East Haven for Areas 15, 18 and 23, including, but not limited to, laying, installing, constructing, operating, maintaining, repairing, and replacing sanitary sewer lines, and the rehabilitation of manholes, all as more fully set forth in the "Sanitary Sewer Evaluation Survey of Woodbridge Meter Area W-2 and Study Area W-2A and East Haven Meter Areas 15, 18 and 23 – Final DRAFT Report" dated March 2018, approved by the Connecticut Department of Energy and Environmental Protection on January 19, 2018, and prepared by ARCADIS, as the same may be amended from time to time; and (2) engineering, administrative, printing, legal and financing costs related thereto, including, but not limited to, trustee fees, credit enhancement and bond funded reserve requirements, as applicable, said appropriation to be inclusive of any and all State and Federal grants-in-aid thereof (collectively, the "Project").

Section 2. To meet said appropriation, not exceeding $6,500,000 interim funding obligations and project loan obligations of the Authority may be issued (hereinafter "Clean Water Fund Obligations") evidencing an obligation to repay any portion of the costs of the Project determined by the State of Connecticut Department of Energy and Environmental Protection to be eligible for funding under Section 22a-475 et seq. of the Connecticut General Statutes, as the same may be amended from time to time (the "Clean Water Fund Program"). The Executive Director is authorized in the name and on behalf of the Authority to apply for and accept any and all Federal and State loans and/or grants-in-aid of the Project and is further authorized to expend said funds in accordance with the terms hereof and in connection therewith to contract in the name of the Authority with engineers, contractors and others. The Executive Director is hereby authorized to execute and deliver to the State in the name of and on behalf of the Authority Project Loan and Project Grant Agreements under the Clean Water Fund Program. The Authority may issue Clean Water Fund Obligations in one or more series and in such denominations as the Executive Director

and the Treasurer shall determine. The Executive Director and the Treasurer are hereby authorized to determine the amount, date, maturity, interest rate, form and other details and particulars of the Clean Water Fund Obligations subject to the provisions of the Clean Water Fund Program, and to execute and deliver the same.

Section 3. The payment of the principal and interest on the Clean Water Fund Obligations shall be secured solely by revenues derived from the operation of the sewerage system, including without limitation use charges, connection charges, benefit assessments or any combination thereof, investment income derived therefrom, or other property of the sewerage system or revenue derived from the operation of the sewerage system, subject to the provisions of the Clean Water Fund Program. Each of the Clean Water Fund Obligations shall recite to the effect that every requirement of law relating to its issue has been duly complied with, that such Clean Water Fund Obligation is within every debt and other limit prescribed by law, that such Clean Water Fund Obligation does not constitute a general obligation of the Authority for which its full faith and credit is pledged, and that such Clean Water Fund Obligation is payable solely from revenues, assessments, charges or property of the sewerage system specifically pledged thereto and therefor.

Section 4. All or any portion of the Clean Water Fund Obligations may be issued pursuant to an indenture of trust, (hereafter the "Indenture") which Indenture may contain provisions customarily included in revenue bond financings, including, without limitation, identification and pledge of revenues securing the Clean Water Fund Obligations, providing for the form of the Clean Water Fund Obligations, conditions precedent to the issuance of Clean Water Fund Obligations and additional Clean Water Fund Obligations, the establishment and maintenance of funds and the use and disposition thereof, including but not limited to accounts for the payment of debt service, the payment of operating expenses, debt service reserve and other reserve accounts, providing for the issuance of subordinated indebtedness, defining an event of default and providing for the allocation of revenues in such event, credit enhancement, providing for a pledge and allocation of sewer revenues to pay for obligations issued by third parties, and provisions of a similar and different nature and which are necessary, convenient or desirable in connection with the issuance of the Clean Water Fund Obligations and their marketability. The Executive Director and the Treasurer are authorized to execute and deliver the Indenture and their signatures shall evidence their approval on behalf of the Authority of all such provisions contained therein pursuant to this section and shall be effective to the Authority in accordance therewith.

Section 5. The Executive Director and the Treasurer are hereby authorized and directed to execute and deliver any and all additional instruments, agreements, documents and certificates in connection with the issuance and sale of the Clean Water Fund Obligations as shall be necessary or appropriate to consummate the transactions contemplated by this resolution and the aforementioned documents.

Section 6. The Authority hereby expresses its official intent pursuant to §1.150-2 of the Federal Income Tax Regulations, Title 26 (the "Regulations"), to reimburse expenditures paid sixty days prior to and anytime after the date of passage of this resolution in the maximum amount and

for the Project with the proceeds of bonds, or other obligations authorized to be issued by the Authority. The bonds or other obligations authorized to be issued shall be issued to reimburse such expenditures not later than eighteen months after the later of the date of the expenditure or the substantial completion of the Project, or such later date the Regulations may authorize. The Authority hereby certifies that the intention to reimburse as expressed herein is based upon its reasonable expectations as of this date. The Treasurer or his designee is authorized to pay Project expenses in accordance herewith pending the issuance of reimbursement bonds, and to amend this declaration.

Section 7. The Executive Director and the Treasurer are hereby authorized, on behalf of the Authority, to enter into agreements or otherwise covenant for the benefit of bondholders to provide information on an annual or other periodic basis to the Municipal Securities Rulemaking Board (the "MSRB") and to provide notices to the MSRB of events as enumerated in Securities and Exchange Commission Exchange Act Rule 15c2-12, as amended, as may be necessary, appropriate or desirable to effect the sale of the Clean Water Fund Obligations authorized by this resolution. Any agreements or representations to provide information to the MSRB made prior hereto are hereby confirmed, ratified and approved.

Section 8. This resolution shall be effective upon its approval by the Board of Directors of the Authority.

GNHWPCA
Protecting the Environment

Account# 0036822-00212274
177 Morse St, Hamden
Elsworth Mobley

RWA reversed high bills due to Estimated Reads

Reading	Type	Date
266751	Last Estimate	2/3/2023
106714	First Actual	2/15/2023
1600 CCF		

1600 CCF ÷ 4 = 400 CCF/year

FY 2020-21: $2766.40 (573 CCF) - $2286.40 (473 CCF) = $480.00
$480.00 x 4 = $1920.00 Reduction

FY 2021-22: $2634.03 (533 CCF) - $2143.03 (433 CCF) = $491.00
$491.00 x 4 = $1964.00 Reduction

FY 2022-23: $2175.87 (429 CCF) - $1672.87 (329 CCF) = $503.00
$503.00 x 4 = $2012.00 Reduction

FY 2023-24: $2445.60 (476 CCF) - $1935.60 (376 CCF) = $510.00
$510.00 Reduction

Total Principal Reduction = $6406.00
Interest Adjustment = $557.33

ok

Batch # 35714
10/20/23