



**ERIE COUNTY WATER AUTHORITY**  
**INTEROFFICE MEMORANDUM**  
May 15, 2023

To: Terrence D. McCracken, Secretary to the Authority

From: Michael W. Wymer, Senior Production Engineer *MW*

Subject: Contract MP-090 Amendment #1 – Engineering Services  
Sturgeon Point WTP Filtration Piping, Valves and Underdrain Improvements  
ECWA Project No. 202200014

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Attached are the following documents:

1. ECWA Authorization Form for processing Professional Service Contract Amendment #1 with Arcadis of New York, Inc. (Arcadis).
2. Three original copies of Professional Service Contract Amendment #1 for the above referenced project.

The Amendment is to increase the lump sum fees for Design, General Services, and Record Drawings, and the payment method and upset value for Resident Inspection Services.

**Background**

On December 22, 2021, the Authority and the Consultant entered into a professional services contract for engineering and consulting services relating to the design and construction of improvements to Filters 1-10 at the Sturgeon Point Water Treatment Plant. The work included:

- Replacement of all filter valves including filter influent, effluent, drain, backwash supply, and filter-to waste valves, actuators, and rate-of-flow controllers.
- Modification of the existing filter-to-waste system improvements as requested by Erie County Department of Health.
- Replacement of the existing 42-inch diameter wash water supply header and valves and installation of a second rate-of -flow controller.
- Removal of the existing filter underdrains and replacement with a system that incorporates air-wash backwash capabilities.
- Construction of building improvements including an extension of the west end of the filter gallery, new electrical/blower building, and filter isolation/walkways at the operating level.
- Completion of site work including piping, interconnections, and vaults.
- Installation of new dehumidification equipment and improvements to the HVAC system.
- Installation of new electrical equipment and improvements to the existing system.
- Construction of related civil, structural, HVAC, electrical, and instrumentation improvements.

The requested Amendment may be generally attributed to two factors: the extension of the project schedule and resulting Resident Inspection services due to performance issues with the existing filters (discovered during testing conducted with the design phase), and the requirement to re-design the originally budgeted single-prime Contract into four separate contracts, requiring additional Design work and projected increases in Construction and General Services efforts (i.e. significant increases in the number of meetings, schedule reviews, payment applications etc. for four contracts as opposed to the original one contractor).

### **Schedule Extension**

Throughout the design period, and extending through spring, the plant conducted a series of operational “stress tests” on the filtration system to determine whether the original assumption of renovation of filters in pairs was feasible. The testing indicated that due to the poor condition of the existing filters, heightened by an extended period of highly turbid/highly organic water quality, the filters must be renovated one at a time in order to provide adequate filtration capacity during the construction period. Attempting to rehabilitate two filters simultaneously proved to be too risky operationally and the filter stress test pushed the Authority to a more conservative schedule. Lake Erie not icing over is a main source of highly turbid water during the winter months. It was further determined that no filtration work could occur in the high demand period from Memorial Day to Labor Day.

The reformatting/rebidding of the construction contracts described above and the limitations for construction noted above, the completion date for the work is now estimated to increase by over 2-1/2 years to May 2027.

### **Contract Documents Rework**

In accordance with the original engineering agreement with Arcadis, the project was designed as one, single-prime General Construction contract with an estimated construction completion date of August 2024. In addition to the General Construction contract, a total of six (6) pre-procurement contracts (an increase from the two (2) assumed in the original agreement) were prepared, bid, and awarded to combat extended delivery times for key equipment due to supply chain shortages.

The single-prime General Construction Contract was advertised on December 5, 2022. The Invitation to Bid was withdrawn on January 12, 2023, and the contract documents were re-designed by Arcadis into four separate prime contracts (General, Electrical, Plumbing, and HVAC) to comply with the requirements of General Municipal Law §101. This work included a new Division 00 “front end” and the preparation of four individual sections for Bid Forms, Bid Form Supplements, Bid Bonds, Bidder Qualification Statements, Agreements, Performance Bonds, and Payment Bonds. The technical specifications and drawings were re-engineered to reflect the division into four individual contracts.

The project was re-advertised on May 9, 2023, with a scheduled opening date of June 8, 2023.

### Summary of Change Order Request

- Increase Lump Sum Design Fee by \$185,000 for four (4) Additional Pre-Procurement Contracts, Division 00 Revisions, Split into four (4) multi-Prime sets of Bid Documents, Alternative Schedule Updates and Additional Design Work.
- Increase Lump Sum General Services by \$297,000 due to additional bid phase services for the four (4) multi-prime contracts and the extension of the construction schedule through 2027.
- Increase Resident Inspection services by \$820,000 and convert to time and materials at a direct labor multiplier of 2.75. The change is due to the longer construction schedule and unknowns in coordination across four (4) multi-prime contracts and staffing.
- Increase Record Drawings by \$9,000 due to 34 additional drawings in package.

The increased amount to complete the design and construction of the filter improvements is reflected in the following table and provides the original contract cost, proposed amendment cost and total contract cost.

	<b>Original Contract</b>	<b>Amendment No.1</b>	<b>Original Contract + All Amendments</b>
Basis of Design and Design	\$1,807,750	\$185,000	\$1,992,750
Construction and General Services	\$459,000	\$297,000	\$756,000
Estimated Resident Inspection	\$879,000	\$820,000	\$1,699,000
Record Drawings	\$60,000	\$9,000	\$69,000
Authority Programs/Procedures Update	\$70,000	\$0	\$70,000
Special Services	\$100,000	\$0	\$100,000
Contingency	\$100,000	\$0	\$100,000
<b>TOTALS</b>	<b>\$3,475,750</b>	<b>\$1,311,000</b>	<b>\$4,786,750</b>

Funds for the amendment are available in Unit 2510 Eng/Const Sturgeon Point, Item 101506 Filter Gallery Piping Design.

MWW:jmf  
Attachments  
cc: L.Kowalski  
L.Lester  
CONT-MP-090-2201-X-01

ERIE COUNTY WATER AUTHORITY  
AUTHORIZATION FORM  
For Approval/Execution of Documents  
(check which apply)

**Contract:** MP-090 **Project No.:** 202200014  
**Project Description:** Filtration Piping, Valve, and Underdrain Improvements  
Sturgeon Pt. WTP

**Item Description:**


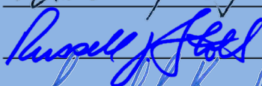

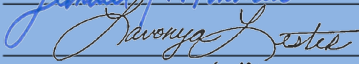



☐ Agreement ☐ Professional Service Contract ☒ Amendment ☐ Change Order  
☐ BCD ☐ NYSDOT Agreement ☐ Contract Documents ☐ Addendum  
☐ Recommendation for Award of Contract ☐ Recommendation to Reject Bids  
☐ Request for Proposals  
☐ Other \_\_\_\_\_

**Action Requested:**

☒ Board Authorization to Execute ☒ Legal Approval  
☐ Board Authorization to Award ☒ Execution by the Chairman  
☐ Board Authorization to Advertise for Bids ☐ Execution by the Secretary to the Authority  
☐ Board Authorization to Solicit Request for Proposals  
☐ Other \_\_\_\_\_

**Approvals Needed:**

**APPROVED AS TO CONTENT:**

<input checked="" type="checkbox"/> Sr Production Engineer		Date: <u>5/15/2023</u>
<input checked="" type="checkbox"/> Chief Operating Officer		Date: <u>5/15/2023</u>
<input checked="" type="checkbox"/> Executive Engineer		Date: <u>05/15/2023</u>
<input checked="" type="checkbox"/> Director of Administration		Date: <u>05/16/2023</u>
<input checked="" type="checkbox"/> Risk Manager		Date: <u>5/15/2020</u>
<input checked="" type="checkbox"/> Chief Financial Officer		Date: <u>05/15/2023</u>
<input checked="" type="checkbox"/> Legal		Date: <u>5/15/2023</u>

**APPROVED FOR BOARD RESOLUTION:**

☒ Secretary to the Authority  Date: 05/16/2023

**Remarks:** Amendment No. 1 to Professional Services Agreement.

**Resolution Date:** \_\_\_\_\_

**Item No:** \_\_\_\_\_

**AMENDMENT NO. 1  
PROFESSIONAL SERVICES CONTRACT**

AMENDMENT, effective May 25, 2023 (“Amendment No. 1”) to the Professional Services Contract (Contract No. MP-090), entered on December 22, 2021, by and between:

**ERIE COUNTY WATER AUTHORITY**  
295 Main Street, Room 350  
Buffalo, New York 14203

hereinafter referred to as the “Authority,” and

**ARCADIS OF NEW YORK, INC.**  
Key Center at Fountain Plaza  
50 Fountain Plaza, Suite 360  
Buffalo, New York 14202

hereinafter referred to as the “Engineer.”

**WHEREAS**, on December 22, 2021, the Authority and the Engineer entered into a professional services contract for engineering and consulting services relating to the construction of improvements to the filtration system at the Sturgeon Point Water Treatment Plant (the “Contract”); and

**WHEREAS**, during the design phase of the project, several changes to the scope of work occurred, including the requirement to prepare additional pre-procurement contracts, revisions to the front end specifications, and changes in schedule that will result in additional changes to the general services, resident inspection and record drawings phases of the project; and

**WHEREAS**, the Engineer has requested additional compensation of \$1,311,000 for the additional services it provided to the Authority as set forth above; and

**WHEREAS**, the Authority’s Chief Operating Officer and Executive Engineer recommend that the Authority amend the Contract by increasing the compensation to the Engineer by \$1,311,000; and

**WHEREAS**, in accordance with article 5, paragraph 5.02 of the Contract, no modification or variation from the terms of the Contract shall be effective unless it is in writing and authorized by a resolution of the Board of Commissioners of the Authority (the “Board”) and signed by all parties;

**NOW THEREFORE**, in consideration of the mutual promises herein set forth, the parties agree to the following:

- (1) The parties agree to amend article 4, paragraph 4.04, subparagraph A(1) to increase the lump sum for basis of design and design by \$185,000, changing the current figure of \$1,807,000 to \$1,992,750; and
- (2) The parties agree to amend article 4, paragraph 4.04, subparagraph A(2) to increase the lump sum for construction and general services by \$297,000, changing the current figure of \$459,000 to \$756,000; and
- (3) The parties agree to amend article 4, paragraph 4.04, subparagraph A(3) to increase the lump sum for record drawings by \$9,000, changing the current figure of \$60,000 to \$69,000; and
- (4) The parties agree to amend article 4, paragraph 4.04, subparagraph A to increase the total lump sum by \$491,000, changing the current figure of \$2,396,000 to \$2,887,750; and
- (5) The parties agree to delete article 4, paragraph 4.04, subparagraph B in its entirety and to replace it with the following:

The Authority shall pay the Engineer the direct cost of technical labor times a multiplier of 2.75 based on the hours worked at straight time. The direct cost of technical labor shall not exceed \$92 per hour in 2023, \$96 in per hour in 2024, \$99 per hour in 2025, \$102 in 2026 or \$102 in 2027. Payment will be made for actual hours worked during the duration of construction. Actual hours will vary based on the production rates of the Contractor during construction, unforeseen circumstances that develop during construction, and weather conditions.

The total cost of Resident Inspection services shall not exceed \$1,699,000; and

- (6) The parties agree all other terms and conditions of the Contract shall remain without change or amendment; and
- (7) This Amendment may be executed in counterparts, each of which is deemed an original, but all of which together are deemed to be one and the same agreement.

**IN WITNESS WHERETO**, the parties have caused this Amendment No. 1 to be signed by their respective duly constituted officers, attested and sealed pursuant to proper authority.

**ERIE COUNTY WATER AUTHORITY**

By \_\_\_\_\_  
Jerome D. Schad, Chair

**ARCADIS OF NEW YORK, INC.**

By \_\_\_\_\_  
Mark R. Lenz, P.E., Senior Vice President

**STATE OF NEW YORK    )**  
**COUNTY OF ERIE         ) ss:**

On the \_\_\_\_\_ day of May, in the year 2023, before me personally came Jerome D. Schad, to me known, who, being by me duly sworn, did depose and say that he resides in Amherst, New York, that he is the Chair of the Board of Commissioners for the Erie County Water Authority described in the above instrument; and that he signed his name thereto by order of the Board of Commissioners.

\_\_\_\_\_  
Notary Public

**STATE OF NEW YORK    )**  
**COUNTY OF ERIE         ) ss:**

On the \_\_\_\_\_ day of \_\_\_\_\_, in the year 2023, before me personally came Mark R. Lenz, to me known, who, being by me duly sworn, did depose and say that he resides in Amherst, New York, that he is the Senior Vice President of the Corporation described in the above instrument; and that he signed his name thereto by order of the Board of Directors of said Corporation.

\_\_\_\_\_  
Notary Public