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**WATER & RESOURCE RECOVERY FACILITY**

MEMORANDUM

To: Gregg Mandsager, City Administrator

CC: Nancy Lueck, Finance Director  
Cinda Hilger, Secretary

From: Jon Koch, WRRF Director

Date: September 18, 2018

Re: High Strength Waste Receiving Station Supplemental #5

**INTRODUCTION:** Stanley Consultants was asked in April of 2018 to shift work for the High Strength Waste (HSW) Receiving Station Project to a new location at the Water & Resource Recovery Facility (WRRF) due to project size expansion and cost reduction potentials. They utilized existing design and plans as much as possible and have developed a supplemental agreement for those changes in the amount of \$194,355.00. Approval of this supplemental agreement is needed at this time to conclude design specifications and proceed with the project.

**BACKGROUND:** In March of 2018 the MARRVE (Muscatine Area Resource Recovery for Vehicles and Energy) project was temporarily halted for evaluation of site capacity and targeted cost reductions. So many new clients were expressing interest in utilizing the facility that design alterations were made to accommodate a larger presence of trucked-in solid wastes. Project costs were also re-evaluated and existing non-utilized assets within the plant were available to scale up the size and reduce the purchase of additional equipment. With the site location move, capacity has doubled, receiving has expanded and flow of traffic efficiencies has increased significantly. Original estimations of increased engineering fees were originally projected at \$125,000.00 but there was significantly more engineering work required including but not limited to geological research needed to build over the buried structures, material movement relocation and plumbing scheme changes required more detailed programming (see attached agreement for details). Original costs were higher but through negotiation with Stanley were reduced by \$30,000.00 to \$194,355.00. Project costs have also been reduced and this engineering increase is not anticipated to push the project over the \$3,000,000.00 projected budget.

This project continues to grow and as more regional manufacturing expresses interest, anticipated revenue grows with it. Last estimates were conservatively expecting \$400,000.00 of new revenue. With this expansion and only one new client MARRVE is anticipated to increase

**"I remember Muscatine for its sunsets. I have never seen any  
on either side of the ocean that equaled them" — Mark Twain**

revenue by an additional \$62,000.00 to \$75,000.00 annually. This improves anticipated return on investment from seven years to six years. More manufacturers have expressed interest but are not included in the projected revenue estimates until volumes can be confirmed. These new customer evaluations are on-going and will be added to future revenue projections as they become available.

**RECOMMENDATION/RATIONALE:** Staff recommends approval of Supplemental Agreement #5 with Stanley Consultants for the expanded engineering services for the High Strength Waste Receiving Station Project in the amount of \$194,355.00.

**BACKGROUND:**

1. Supplemental Agreement #5



## SUPPLEMENTAL AGREEMENT NO. 5

This Supplemental Agreement, made and entered into by and between STANLEY CONSULTANTS, INC. (Consultant) and CITY OF MUSCATINE, IOWA (Client) amends their agreement of April 18, 2014 and Supplemental Agreements 2 and 3 for Consultant to provide services to the Client for the Muscatine WWTP HSW Project, as follows:

### Background

Previously design services were provided to develop and design high strength (organic) waste (HSW) receiving facilities for unloading, separating, storing, and metering the organic waste into the existing anaerobic digester system. The originally conceived project was located immediately north of the existing sludge thickener building. Design was completed to approximately 95% complete. After further consideration by Owner, Owner determined that the original site was not conducive to updated projections of long term waste volumes and truck traffic.

Consultant has worked with Owner to adapt the original design to the new proposed site south of the lab and control building. The reconfiguration has involved extensive modifications to the original building layout, new site design including truck traffic geometrics and paving layout, and reuse of existing control building tunnel, pump room space, and existing sludge blend tanks now repurposed to high strength waste storage. The work also includes development of alternates to assist with matching the program with budget.

### Services

1. Consultant has provided additional services during the project including but not limited to revised concept development, revised site plan including underground utilities, drainage, and pavement, site survey, conceptualization and design of structure foundations, design of canopy structures, design of various piping systems and pumps including:
  - Liquid food waste pump and piping
  - HSW channel, wet well, and transfer pump and piping
  - HSW storage tank modifications and mixing system
  - HSW recirculation and heating system
  - HSW metering pump systemConceptualization and identification of electrical service for the various components in new locations, redesign of the HVAC system, expansion of outdoor truck loading docks, additional meetings, cost reduction and estimating efforts.
2. Finalizing the design for bidding including design modifications to reduce cost and incorporating bid alternates to give Client flexibility to award as budget allows.
  - Project Re-Start Meeting as working session to finalize concepts, scope, and establish revised receiving building floor plan
  - Status submittals and prefinal submittal to Client
  - Design Review Meeting
  - Initial concept development meeting with DVO (digester equipment vendor).
  - Concept meeting with Scotts Equipment (Separator Equipment) Company
  - Meeting IDNR in Des Moines.
  - Final Contract Documents for IDNR Permitting and bidding.
  - Design modifications as identified herein

Time of Beginning and Completion

Anticipated schedule is January 8, 2018 to October 5, 2018

Fees and Payments

1. Net Compensation for Services 1 -3 herein:

Client shall compensate Consultant a Lump Sum amount of One Hundred Ninety-Four Thousand Three Hundred Fifty-Five Dollars (\$194,355) for the Services described in this Supplemental Agreement.

2. Compensation for Additional Services:

Additional Services performed by the Consultant at Client’s direction, shall be compensated on an Hourly basis for Direct Labor, Plus Reimbursable Expenses in accordance with the attached current “Hourly Fees and Charges 2018-2019” (Form BC\_C 18-19).

Except as specifically amended by this Supplemental Agreement, all the terms and conditions of the original Agreement dated April 18, 2014 shall remain in full force and effect.

IN WITNESS WHEREOF, the parties have caused this Supplemental Agreement to be executed on the date below indicated.

**STANLEY CONSULTANTS, INC.**

**CITY OF MUSCATINE, IOWA**

By: \_\_\_\_\_

By: \_\_\_\_\_

*Tony Mardam, P.E., Vice President*

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Attest:

Attest:

By: \_\_\_\_\_

By: \_\_\_\_\_