

TASK ORDER NO. 10036.d

Pursuant to the

MASTER AGREEMENT FOR PROFESSIONAL SERVICES
BETWEEN

CITY OF MERIDIAN (OWNER) AND NAME (ENGINEER)

This Task Order is made this 1st day of December 2020 and entered into by and between the City of Meridian, a municipal corporation organized under the laws of the State of Idaho, hereinafter referred to as “City”, and accepted by MOUNTAIN WATERWORKS, INC., hereinafter referred to as “Engineer” pursuant to the mutual promises, covenant and conditions contained in the Master Agreement (category 2A) between the above mentioned parties dated October 1, 2020. The Project Name for this Task Order is as follows:

WRRF Sidestream Phosphorus Removal – Final Design

PROJECT UNDERSTANDING-SUMMARY

This Task Order is for professional engineering to complete design engineering and bid support services for the planned Sidestream Phosphorus Removal Project. The sidestream phosphorus removal equipment evaluation and procurement tasks have been completed under a separate task order. Construction support and startup services will be provided in a future task order.

The City utilizes anaerobic digestion for solids stabilization at the WRRF. During the anaerobic digestion process, a significant amount of nutrients (phosphorus and ammonia) are released. The nutrient release causes two primary challenges for the City:

- Struvite formation in piping, valves, tanks, and equipment downstream of anaerobic digestion causing significant operation and maintenance problems and expenses
- Nutrient return to the head of the WRRF resulting in concerns with meeting nutrient limits contained in the current discharge permit; and future permit limits are anticipated to be more stringent

Over the last 5 to 6 years, the City has spent a significant amount of time evaluating various options for sidestream nutrient management. A number of engineering studies were prepared and pilot testing was completed to determine the preferred approach for

sidestream nutrient management. Based on the work completed by the City, nutrient recovery from the digested sludge immediately after anaerobic digestion has been selected.

It is our understanding the City intends to sign an agreement with CNP/Centrisys to supply an equipment package that includes their Airprex sidestream treatment system. This task order is to assist the City with completing the design of the building, supporting facilities, and sitework to construct the Airprex system. The design documents will be prepared for a traditional design-bid-build construction delivery approach. Specific tasks to complete the design engineering effort are described below.

SCOPE OF WORK

Task 1 – Project Coordination

Engineer will coordinate with the project team and City throughout the project related to schedule, budget, and status updates. Monthly coordination meetings are anticipated. Meeting minutes will be prepared for project coordination meetings and distributed to attendees. Monthly progress reports will be prepared and submitted with monthly invoices to document project progress. Each monthly progress report and invoice will include a percent complete estimate for the project.

The project coordination task also includes internal Quality Assurance/Quality Control measures for all deliverables in accordance with Engineer's policies and procedures.

Task 1 Deliverables:

- Monthly progress reports with invoices
- Meeting minutes

Task 2 – Site Investigations

The engineering team will engage and coordinate with the City's geotechnical consultant and surveyor to incorporate that information into the project design documents. Results from the geotechnical investigation will be reviewed and verified. Engineer will provide any requests or comments in writing to the geotechnical consultant as needed for design coordination. The contents of the geotechnical report will be used for the new building foundation and earthwork design criteria and recommendations. Site survey and control points provided by the City's surveyor will be incorporated and utilized for the civil site design.

Engineer will investigate existing site utilities and meet with the City to determine available site water supply, drainage, and electrical and control systems for connecting service to the new facility. Utilities and site drainage will be coordinated with the Digester 6 project being designed by others.

Task 2 Deliverables:

- Written comments or requests based on geotechnical engineering review (if needed)
- Site visit reports to document site utility visits

Task 3 – Preliminary Engineering Report

Engineer has prepared a draft of the Idaho Department of Environmental Quality (IDEQ) required Preliminary Engineering Report (PER) for review and approval. The PER includes preliminary design drawings, detailed design criteria, performance goals, and opinion of probable construction cost. An initial review meeting will be held with IDEQ to provide them with an overview of the project prior to submitting the PER.

Task 3 Deliverables:

- IDEQ project coordination meeting with meeting minutes provided.
- Draft PER for City review
- Final PER for City and IDEQ review and approval

Task 4 – Design Development

Engineer will prepare design drawings to progress the design of the project to 50, 90, and 100 percent completion levels. The design will be based on the Airprex sidestream treatment system sized for a near-term projected digestate flowrate of approximately 75 gpm utilizing a single reactor tank with provisions to add process capacity and redundancy (additional tanks and equipment) in the future to meet the projected flow of 145 gpm (estimated 2040 digestate flow). A full set of draft specifications will be completed and submitted with the 90 percent complete drawings to the City for review. Engineer will provide opinion of probable construction cost at 50, 90, and 100 percent complete stages.

Three design review workshops are anticipated. The first workshop will be a 3-day preliminary design focused workshop to progress the design quickly from approximately 10 percent to 50 percent complete. The initial workshop will involve the engineering team and City to efficiently make the decisions necessary to carry the design forward, incorporating each design discipline. Additional single day workshops will be held after the 50 and 90 percent design milestones. City comments received by the engineering team during the 90 percent design review workshop will be incorporated into the final 100 percent complete plans and specifications that will be utilized for IDEQ approval and construction bidding.

The design documents will include the City's standard asset management naming conventions for mechanical, electrical, and instrumentation equipment.

Task 4 Deliverables:

- 50 and 90 percent complete plans for City review and approval
- Initial, 50, and 90 percent complete workshop meeting minutes and documentation
- Draft Specifications for City review and approval
- 100 percent complete plans and specifications for IDEQ approval and construction bidding
- 50, 90, and 100 percent opinion of probable cost

Task 5 – Bidding Assistance

Engineer will assist the City during the bidding process for the construction of the new treatment facility by responding to technical questions from prospective bidders.

The City will facilitate the bidding process. Engineer will assist the City in responding to technical questions that the City is unable to answer through review of the Contract Documents for City's use in preparation of addenda.

Task 5 Deliverables

- **Written responses to technical questions submitted during the bidding process**
- **Attend pre-bid meeting, prepare and distribute meeting notes to attendees**

The anticipated schedule is as follows:

- Complete Final Preliminary Engineering Report – within 2 weeks of receiving City comments
- Hold Initial Design Coordination Workshop – within 6 weeks of receipt of Notice to Proceed
- Complete 50 percent complete plans – within 10 weeks of Notice to Proceed
- City 50 Percent Review – assume 2 weeks
- Complete 90 percent complete plans and draft specifications – within 3 weeks of receiving City comments
- City 90 Percent Review – assume 2 weeks
- Complete 100 percent complete plans and specifications – within 3 weeks of receiving City comments

ASSUMPTIONS

The following assumptions are made for this scope of work:

- The City will provide geotechnical and survey information required for design
- The City will provide record drawings in CAD format (base file) for existing on-site facilities and utilities

- The City will advertise and manage the bidding process
- Construction support services will be completed in a future Task Order, anticipated to include the following:
 - Construction administration and support
 - Project startup
 - Project O&M manual update and project record drawings

TIME OF COMPLETION and COMPENSATION SCHEDULE


COMPENSATION AND COMPLETION SCHEDULE			
Task	Description	Estimated Completion Date	Compensation
1	Project Coordination	▪ Ongoing	▪ \$46,048.00
2	Site Investigations	▪ Estimated within 4 weeks of notice to proceed	▪ \$17,316.00
3	Preliminary Engineering Report	▪ Estimated within 2 weeks of City comments	▪ \$6,566.00
4	Design Development	▪ Estimated within 20 weeks of notice to proceed	▪ \$460,919.00
5	Bidding Assistance	▪ TBD	▪ \$14,361.00
TASK ORDER TOTAL:			\$545,210.00

The Not-To-Exceed amount to complete all services listed above for this Task Order is five hundred forty-five thousand two hundred ten dollars (\$545,210.00). No compensation will be paid over the Not-to-Exceed amount without prior written approval by the City in the form of a Change Order. No travel or expenses will be reimbursed through this agreement. All costs must be incorporated in the individual tasks within the Compensation and Completion Schedule above.

CITY OF MERIDIAN

MOUNTAIN WATERWORKS, INC

BY: _____
KEITH WATTS, Purchasing Manager

BY:  _____
STUART HURLEY, President

Dated: _____

Dated: 11/20/20

City Project Manager:
Dan Berthe