

TASK ORDER NO. 10549.b

Pursuant to the

MASTER AGREEMENT FOR PROFESSIONAL SERVICES BETWEEN

CITY OF MERIDIAN (CITY) AND KELLER ASSOCIATES, INC. (ENGINEER)

This Task Order is made this 30th day of December, 2022 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 Keller Associates, Inc., hereinafter referred to as “Engineer” pursuant to the mutual promises, covenant and conditions contained in the Master Agreement (Category 1d) between the above-mentioned parties dated October 1, 2020. The Project Name for this Task Order is as follows:

WELL 10B WATER TREATMENT FACILITY – DESIGN AND BIDDING SUPPORT

PROJECT UNDERSTANDING-SUMMARY

The Consultant’s scope of work has been developed based on the following project description. As the project moves forward, some of the information may change or be refined, and additional information will become known, resulting in the possible need to change, refine, or supplement the scope of work.

City has an existing water production well (Well 10B) located at the intersection of Jericho Way and E. Willowbrook Drive. The City desires to construct a new water treatment facility at this location to provide treatment for iron and manganese. A pilot test of treatment media has been performed by an independent contractor with a recommendation to provide a GreensandPlus media filter for treatment at Well 10B. Upon review of the backwash volumes during a site evaluation by Keller, it was determined to utilize MangOx Sand to reduce backwash volumes.

This project will include engineering support for the pre-construction procurement of the filter equipment, pre-design, design and bidding support for the new Well 10B Water Treatment Facility.

SCOPE OF WORK

Task 1 – Project Management

- 1.1 **General Project Management.** Provide general project administration services including contract administration, project accounting, scheduling, and internal project administration.

Deliverables

- Monthly Progress Invoices

Task 2 – Water Treatment Equipment Procurement Package

- 2.1 **Procurement Package Development.** The Engineer will prepare technical specifications to solicit proposals for water treatment equipment for the Well 10B Water Treatment Facility through a competitive solicitation process. The Engineer will prepare draft performance specifications for the preferred equipment and review it with the City in a Workshop Meeting. It is anticipated that the specifications will include:

- a. Range of expected well water quality.
- b. Results of Well 10B Pilot Test.
- c. Well flow rate and pressure information.
- d. Equipment performance requirements for removal of iron and manganese.
- e. Requirements for identifying and defining treatment system operational and maintenance costs.
- f. Limitations on backwash flow.
- g. Requirements for a treatment performance guarantee.
- h. Penalties for not meeting treatment guarantee.
- i. Requirements for submittals, training, startup, and operation and maintenance manuals.
- j. Asset Management requirements including equipment tagging and naming.

- 2.2 **Procurement Documents Workshop Meeting.** Meet with City Staff to review procurement technical specifications. Incorporate City comments into a final specification for use in procuring equipment bids.

Owner Responsibilities:

- Provide water quality data for Well 10B.
- Provide existing well composite drawing and pumping plant diagram (if available).
- Review and provide one set of consolidated comments on the Draft Procurement Technical

Specifications.

- Provide space for Workshop Meeting.
- Provide list of asset management tags to be used.

Assumptions:

- MangOx filter media will be the basis of design for this treatment system to reduce backwash flows.
- Equipment will need to treat 2,250 gallons per minute of flow to match the existing pump at Well 10B.
- The pump will not be replaced as a part of this project.

Deliverables:

- Draft and Final Procurement Technical Specifications.
- Recommended Evaluation Criteria

Task 3 – Water Treatment Equipment Procurement Support

3.1 Solicitation Support. Engineer will participate with City in a Pre-Proposal Meeting. The Engineer will assist the City during the procurement process for the water treatment equipment by responding to technical questions from prospective proposers. The Engineer will serve as a member of the City's Evaluation Team and shall evaluate all proposals received. Engineer will have input on the evaluation criteria to be included in the Request for Proposals. All evaluations will be conducted using the City's electronic procurement software, Bonfire. It is anticipated that the technical information to evaluate will include:

- a. Bidder's qualifications.
- b. General product information.
- c. Layout drawings.
- d. Product performance information, including backwash flow rates.
- e. Treatment system operational and maintenance costs.
- f. Example project installations.
- g. References.

Deliverables

- Answers to technical questions from vendors during the solicitation period.
- Attend solicitation review meeting
- Engineers ranking of proposals through the City's Bonfire portal.

Task 4 – Predesign Services

- 4.1 Survey and Mapping. The Engineer will provide topographical survey and prepare base mapping for the design of the well treatment facility at the existing Well 10B Site. The following items are included in the Engineer's Scope of Work:
- a. Research and Utility Request – Research available land monuments, plats, records of survey, right-of- ways, and recorded easements on the project site. Contact utility companies prior to survey via Dig- Line to request field locations of utilities and available utility mapping. Utilities will be shown to the extent they are visible in the field or located by the utility or City.
 - b. Survey Control – Establish survey control at the site using the NAD 1983 translated to the Ada County GIS system for the horizontal coordinate system and the NAVD 1988 vertical coordinate system. Right-of-ways (ROWs) will be established and shown on the base map using Ada County GIS data. Any land monuments will be located and shown where found from visual observations during the field survey. Well lot lines will be developed from field measurements and recorded plat information.
 - c. Topographic Survey – Complete topographic survey at site. Topographic survey will include observable features including building corners, sidewalks, fences, edge of roadways, power poles, utility boxes, property pins, and structures. Existing utilities shall be included to the extent that they are visibly marked by the City and Dig-line.
 - d. Base Mapping – Prepare topographic mapping in Civil 3D at 1" = 20' scale, 22"x34". Topographic features will be depicted using Engineer's standard symbols. Topographic features will be shown on the design plans to the extent they are field located by the City/Dig-line. Base Map will include features identified during topographic survey.
- 4.2 Geotechnical Evaluation. Engineer will provide a geotechnical investigation of the existing site for use in footing/foundation. It is anticipated that the geotechnical investigation will include no more than two borings on-site to evaluate the structures below the proposed treatment building.
- 4.3 Preliminary Engineering Report. Prepare a preliminary engineering report (PER) for the proposed treatment facility in compliance with Idaho Department of Environmental Quality (IDEQ) rules IDAPA 58.01.08. The PER document will include a 30% drawing set composed of a Title Sheet, Site Plan, Utility Plan, Concept Floor Plan, Building Elevations, Mechanical Plan, Mechanical Sections and Process and Instrumentation Diagram. The PER will incorporate the equipment selected in Task 3 and will include the project design criteria, preliminary list of assets in accordance with City standard Asset Management, and operation and maintenance considerations.

- 4.4 30% Opinion of Probable Cost. Engineer will develop a 30% opinion of probable cost for inclusion in the PER.
- 4.5 Preliminary Design Workshop Meeting. Engineer will participate with Owner in a workshop meeting to review the preliminary drawings and PER. Comments from Owner will be incorporated into an updated document.
- 4.6 DEQ Submittal. Engineer will submit PER document to DEQ for review. Engineer will coordinate with Owner and DEQ to address comments from DEQ.
- 4.7 Well Assessment. Coordinate with Owner to develop a well assessment plan including the following services:
- a. Develop documents for Owner's use in obtaining quotes for pump and motor removal, pump inspection, motor delivery to electrical shop (Hopper Electric), motor return to well site, and reinstallation of well pump/motor. Support City Project Manager in coordination with selected Contractor by answering questions regarding the proposed documents. Engineer will provide onsite observation during pump/motor removal and pump/motor reinstallation.
 - b. Develop documents for Owner's use in obtaining quotes for a video inspection inside the well casing and screens. It is anticipated that documents will include an initial videoing and an optional secondary videoing after recommending cleanings are complete (if necessary). Engineer will provide a review of video footage from inside the casing/screen.
 - c. Develop documents for Owner's use in obtaining quotes for well cleaning after initial video inside well casing/screen. Support City Project Manager in coordination with selected Contractor by answering questions regarding proposed documents. It is anticipated that documents will include performance specifications for well cleaning and reference to available videos inside well casing/screen. Documents will include requirements for inspection and disinfection of all items to be inserted into the well and Bac-T testing once complete to verify the well is ready to resume operation.
 - d. Develop a technical memorandum documenting the findings of the above tasks a through c.

Owner Responsibilities:

- Provide pump curve and pump setting information.
- Provide current City standards for water facility equipment including SCADA, PLC, Electrical, Asset Management, etc.
- Coordinate with neighbors as required.
- Review and provide one set of consolidated comments on the Draft PER. • Provide space for Workshop Meeting.
- Provide access to the site for survey.

Assumptions:

- The existing well building will not be modified as a part of this project. The new treatment structure will be free standing and not attached to the existing building.
- New facility will not have a separate electrical room.
- Chlorine storage will be included in new treatment building.
- New building will require fire sprinkler system.
- Standby power generator is not included in project.
- Stormwater is anticipated to be disposed of through existing permeable pavers. Project is not anticipated to increase the impervious area at the site.
- Engineer's scope of services does not include field work (other than observation during removal and reinstallation) associated with Well Condition Assessment. All condition assessment work will be contracted outside of this agreement and directly between Owner and third parties for the services described above.
- Engineer's review of video inspections is intended to supplement the review done by third-party contractor. Engineer will incorporate documented deficiencies from third-party in well condition technical memorandum.

Deliverables:

- Base mapping PDF with 0.5' contour intervals of the project site including existing utilities identified by City/Dig-line.
- Geotechnical Report.
- Draft and Final PER.
- Well condition assessment TM

Task 5 – Final Design

5.1 Water Treatment Equipment Submittal Review. Engineer will review submittals from selected water treatment equipment provider.

5.2 Design Documents. The Engineer will prepare civil, architectural, structural, mechanical, and electrical plans and specifications for the construction of the new treatment facility for iron and manganese removal at Well 10B. The facilities included in the design will be as described in the PER from Task 4. Engineer's tasks include preparation of submittal package for DEQ review in accordance with IDAPA 58.01.08. Design elements will include the following:

- a. Civil plans including site plan with surface repair, utility plan for water, electrical, and connection to sewer for backwash waste (profile included only for sewer line), and site grading to tie into existing grades.
 - b. Architectural and structural plans and sections including code analysis; building floor plan; building wall sections; foundation, wall, and roof design.
 - c. Mechanical plans to include layout of new filter equipment with sections showing supply, backwash and distribution into existing water system. Plans will include backwash equalization storage, heating and ventilation, and required plumbing plans.
 - d. Electrical and controls for the new building will include lighting, communication and power/controls plan for required treatment equipment from procurement package in Task 2. Controls scope does not include filter panel design or well panel design.
- 5.3 Opinion of Probable Cost. Engineer will provide an update to the Opinion of Probable Cost with 60% and 90% Deliverables.
- 5.4 60% Design Workshop Meeting. Meet with City Staff to review procurement technical specifications. Incorporate City comments into a final specification for use in procuring equipment bids.
- 5.5 90% Design Workshop Meeting. Meet with City Staff to review procurement technical specifications. Incorporate City comments into a final specification for use in procuring equipment bids.
- 5.6 DEQ Submittal. Engineer will submit Final Drawings and Specifications to DEQ for review. Engineer will coordinate with Owner and DEQ to address comments from DEQ.

Owner Responsibilities:

- Provide contract documents for construction project.
- Review and provide one set of consolidated comments on each deliverable.
- Provide Engineer access to City's ConDoc program for submittal reviews.
- Provide space for Workshop Meeting.

Assumptions:

- Four submittals have been included in Engineer's scope of work for treatment equipment. Engineer will provide review comments on water treatment equipment submittals using the City's ConDoc program.
- Engineer will not be preparing front end contract documents for construction project. Technical specifications are only specifications included in Engineer's scope of work.
- Building is anticipated to be a CMU building with limited architectural features. Exterior is planned to be a mix of smooth and split face CMU. Budget does not include installation of stucco or siding on the building exterior.

- Hard copies indicated below will be for drawings only. Specifications will be provided in electronic format.
- A single round of comments from DEQ is expected and included for budgeting purposes.

Deliverables:

- Three (3) 11"x17" hard copies and one electronic copy of 60% submittal package.
- Three (3) 11"x17" hard copies and one electronic copy of 90% submittal package.
- One (1) 22"x34" hard copy of 100% design drawing and electronic copy of specifications.

Task 6 – Permitting Support

- 6.1 City of Meridian Building Permit. The Engineer will submit the online building permit application. Engineer will provide full size individual PDFs of each drawing for inclusion in the building permit submittal. Engineer will meet with the Building Department to discuss their review of the plans, if necessary. Comments from building department will be integrated into the plans and resubmitted for review and approval.
- 6.2 Pre-Application Meeting with City Planning and Zoning Division. Engineer will participate in a Pre-Application Meeting with City Planning and Zoning Division to discuss the project and anticipated challenges.

Owner Responsibilities:

- Provide comments on Building Permit submittal.
- Provide meeting site for Pre-Application Meeting.

Assumptions:

- *No comments from the Building Department will require modifications to the base design.*

Deliverables:

- Online submittal of the Certificate of Zoning Compliance Application including applicable checklists and associated items required by the checklists.
- Online submittal of the Building Department Application including applicable checklists and associated items required on the checklists.
- PDFs of each individual drawing sheet in 22"x34" for permit submittal.

Task 7 – Bidding Assistance

- 7.1 Bid Support. The Engineer will assist the City during the bid process for the construction of the new water treatment facility by responding to technical questions from prospective bidders for use in addenda. Engineer will attend a pre-bid meeting held by Owner.
- 7.2 Conformed Documents. Engineer will develop a conformed set of drawings to include addenda items issued during the bidding period.

Assumptions:

- Up to *three addenda are included in the scope of work.*
- *Where possible, questions will be answered without reissuing drawings.*

Deliverables:

- Written responses to technical questions.
- Electronic copy of full size (22"x34") Conformed Documents.

TIME OF COMPLETION and COMPENSATION SCHEDULE

COMPENSATION AND COMPLETION SCHEDULE			
Task	Description	Estimated Completion Date	Compensation
1	Project Management and Meetings	▪ Ongoing	\$17,200
2	Water Treatment Equipment Procurement Package	▪ 120 days from NTP	\$18,200
3	Water Treatment Equipment Procurement Support	▪ 45 days during solicitation process	\$8,200
4	Pre-design	▪ 90 days from NTP	\$55,800
5	Final Design	▪ 150 days after approved layout submittal from procurement package	\$118,200
6	Permitting Support	▪ 60 days	\$14,800
7	Bidding Assistance	▪ 45 days after permit approval	\$23,300
TASK ORDER TOTAL:			\$255,700.00

The Not-To-Exceed amount to complete all services listed above for this Task Order is (two hundred fifty-five thousand seven hundred) (\$255,700.00). 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

BY: _____
KEITH WATTS, Procurement Manager

Dated: _____

City Project Manager:
Jared Hale

KELLER ASSOCIATES, INC.

BY:   _____
LARRY RUPP, President

Dated: 1/10/2023