

TASK ORDER NO. 11083.d

Pursuant to the

MASTER AGREEMENT FOR PROFESSIONAL SERVICES BETWEEN

CITY OF MERIDIAN (OWNER) AND CONSULTANT (ENGINEER)

This Task Order is made this 6th day of November, 2024 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 “Owner”, and accepted by J-U-B Engineers, 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 2, 2023. The Project Name for this Task Order is as follows:

WELL 24 WATER TREATMENT FACILITY DESIGN

PROJECT UNDERSTANDING

The City of Meridian (City) domestic water system experiences water quality issues related to the precipitation of iron and manganese from groundwater resulting in brown water events, reduced chlorine residuals, extended system flushing, and customer complaints.

The purpose of this project is to design a feasible treatment option and implement the preferred water treatment technology at Well 24 located in the Tumble Creek Subdivision at 2870 N. Blue Springs Avenue near the intersection of W. Tumble Creek Drive. The City intends to construct a manganese and iron treatment system for Well 24. Projected flow is 2,000 gallons per minute (GPM).

The project will consist of:

- (1) Completing treatment equipment procurement process initiated under previous task order No.11083.c.
- (2) Completing final design and preparing a construction document package for the City’s use in obtaining bids for the construction and installation of the water treatment facility—the previously procured equipment and a building to house the equipment.

Major Tasks

J-U-B ENGINEERS, Inc. (J-U-B) will perform the following tasks on the iron and manganese removal project at Well 24:

Task 1 – Project Management and Administration

Task 2 – Quality Control Reviews

Task 3 – Entitlements and Public Involvement (if necessary)

Task 4 – Survey and Mapping

Task 5 – Preliminary Engineering Report

Task 6 – Final Design for 70%, 90%, 95% agency submittal and 100% Bid Ready

Task 7 – Bidding Assistance - Construction of the Water Treatment Facility

Task 8 – Agency Coordination, Meetings and Permitting

OWNER INFORMATION, RESPONSIBILITIES and PROJECT ASSUMPTIONS

Project Scoping Assumptions

1. The City will provide to J-U-B the following for Well 24:
 - a. Updated water quality information for Well 24, if available.
 - b. Current standard City electrical and controls specifications for incorporation into the project.
2. The City will provide the following during any bidding or procurement process:
 - a. All bidding and contract documents including, but not limited to: advertisement for bids, bid forms, contracts/agreements, condition of the contract, award, bonding and insurance requirements.
 - b. Incorporate J-U-B's technical specifications and drawings into Bidding and Contract Documents using the City's contracting boiler plate to bid procurement of the treatment equipment.
 - c. Provide all administration to bid and procure the iron and manganese removal water treatment equipment.
 - d. Incorporate J-U-B's technical specifications and drawings into Bidding and Contract Document using the City's contracting boiler plate to bid the construction and startup of the water treatment facility.
 - e. The City will distribute the Bidding and Contract Documents for the construction of the iron and manganese removal water treatment facility.
 - f. Following a review of the bids received for the construction of the water treatment facility, the City will award and execute a contract with the successful bidder.
3. The City will:
 - a. Provide on-going review of J-U-B's work and timely consideration of design issues within a time acceptable to the City and J-U-B.
 - b. Pay for all permits and fees needed for the project.
 - c. Provide a project manager to serve as a liaison with other City departments and divisions to facilitate the project reviews and approval process.

4. Assumptions:

- a. The backwash water from the facility will be discharged to the existing sanitary sewer main in W. Tumble Creek Drive. There will be no backwash storage tank. It is assumed that the existing sanitary sewer trunk has adequate capacity to receive and convey the process backwash water. This will be verified in Task 5 by J-U-B.
- b. Space is available on the existing lot for on-site storm water disposal.
- c. No new roadway access is required and, consequently, no coordination or permitting with Ada County Highway District is required.
- d. Design of a contact chamber, contact pipeline gallery, or detention tank is not included.
- e. It is assumed that a fire suppression (sprinkler) system will be required.
- f. The existing electrical service to the site is capable of accepting the electrical loads associated with the demands for this new equipment, building, and associated appurtenances. An evaluation to verify this assumption is included in Task 5 (preliminary engineering report).
- g. No design of offsite sewer, other than a segment from the treatment facility to the existing gravity main immediately adjacent to the site, will be necessary.
- h. The replacement generator will not require structural (expansion) modifications to the existing well building.
- i. A value engineering phase will not be required.
- j. Permanent easement acquisition is not required.
- k. A water shutdown phasing plan will not be required.
- l. A SWPPP plan will not be required.
- m. Three meetings will be held between the City and J-U-B's electrical/instrumentation/control subconsultant during the design phase, either concurrently with project review meetings or separately.
- n. The filter panel, programming and startup will be provided by the manufacturer.
- o. It is assumed that invoices from J-U-B to the City will be submitted by email.

5. Construction and Post-Construction Phase Services:

- a. Services during construction of the water treatment facility and post-construction phase services are not included in this Scope of Work. A separate scope of work and associated budget will be prepared after the bidding of the construction contract for the water treatment facility.

SCOPE OF WORK

TASK 1: Project Management and Administration

J-U-B will provide the overall project planning, management, scheduling, coordination of efforts and the day-to-day administrative tasks required for this Task Order. Specific tasks include:

- Project setup (electronic folders, financial system, design team).
- Coordinate quality assurance and quality control process.

- Attend kickoff meeting.

Progress Reports

The project is assumed to require twelve months for the water treatment equipment procurement and design of the water treatment facility. J-U-B will prepare written monthly progress reports. The reports will include the following items:

- A written description of the progress of the work accomplished to date.
- A summary of project issues and concerns that need to be resolved.
- A summary of changes in contract amount or time (if applicable).
- Monthly invoices for work completed.

Deliverables for this Task

- Monthly progress reports and detailed invoices.
- Meeting notes.

TASK 2: Quality Control Reviews

J-U-B and the subconsultants will perform quality control (QC) reviews by a senior engineer to provide an independent review of the 70% and 90% design plans and specifications prior to submittal to City.

TASK 3: Entitlements & Public Involvement

J-U-B will assist the City in obtaining a certificate of zoning compliance. If the preferred layout of new facilities does not meet setback or other dimensional requirements, J-U-B will assist the City in obtaining a variance. J-U-B will specifically provide the following:

- Certificate of Zoning Compliance – J-U-B will prepare the submittal package per Community Development Department requirements for obtaining a certificate of zoning compliance.
- Public Involvement – If authorized by the City, J-U-B will provide public involvement services that may include mailers, door hangers, or limited door-to-door visits.
- Variance Application – If required by the final design layout, J-U-B will prepare a variance application for submittal to the City of Meridian Community and Development Services (CDS). This will include one (1) pre-application meeting with the City CDS staff.

Assumptions for this Task

A time and materials, not-to-exceed amount of \$4,700 is included in the overall Compensation Schedule amount of Task 3 for this item.

TASK 4: Survey and Mapping

J-U-B will provide topographical survey and prepare base mapping for the design of the water treatment facility at the existing well site and for the drain line outfall alignment to the existing sanitary sewer trunk.

It is anticipated that the effort will include:

- **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 Owner. It is assumed that the City will provide Title Reports for all properties that will be encroached upon by the proposed project.
- **Survey Control:** Establish survey control at the site and along the outfall line alignment using: horizontal coordinate system, NAD 1983 translated to the Ada County G.I.S. system, and vertical control based on NAVD 1988. Right-of-ways (ROWs) will be established and shown on the base map using Ada County G.I.S. data. Any land monuments will be located and shown where found from visual observations during the field survey. Well 24 lot lines will be developed from field measurements and recorded plat information.
- **TBM:** Establish temporary construction benchmarks (T.B.M.s) at two locations on the Well 24 lot.
- **Topographic Survey:** Complete topographic survey as previously described herein. For the purposes of this scope and fee proposal, it is assumed that survey will include existing observable features such as building corners, sidewalks, fences, edge of roadways, power poles, and utility boxes, manholes and inverts, water valves, well head, found property pins, and structures. Existing utilities shall be located to the extent that they are visibly marked by the utility companies.
- **Base Mapping:** Prepare topographic mapping in Civil 3D 2023 at a scale TBD. Topographic features will be depicted using accepted J-U-B standard symbols. Topographic features will be shown on the design plans to the extent that they are found or field located by the utility companies, such as fences, utility poles, surfacing, utilities, edge of pavement, face of curb, sidewalks, striped roadway centerline, guard rails, signal poles, signs, mail boxes, face of retaining walls, telephone risers, large trees, and include monuments of record and physical survey of monuments and property pins that are found. Provide locations (X & Y coordinates) and elevation of local temporary benchmarks to be used on Project. Property lines will be shown based on Ada County G.I.S. mapping. Contours at one-half foot (1/2') intervals will be generated. Roadway will be cross-sectioned at 50' intervals on centerline, edge of pavement, gutter, top of curb and natural ground near ROW.

Deliverables for this Task

- Base mapping pdf with 0.5-foot contours intervals of the project site, including the drain line outfall to the existing sanitary sewer.
- Legal description for City's use in securing a temporary construction easement.

TASK 5: Preliminary Engineering Report

J-U-B will prepare a preliminary engineering report (PER) for the facility in compliance with IDEQ rules IDAPA 58.01.08, Section 503.

A preliminary design and report based on the City-selected equipment, under Task Order No. 11083.c, will be developed. The PER will address:

- Building and equipment layout and equipment selection
- Site layout
- Piping layout
- Ancillary equipment sizing and selection (dosing pump, chemical storage)
- Preliminary sizing and selection of replacement well pump
- Electrical and controls summary and narrative
- Calculations and basis of design
- 30% design drawings:
 - Site Plan.
 - Design Criteria.
 - P&ID.
 - Building Layout & Concept Floor Plan (this will be advanced to 50% level).
 - Building Elevations.
- Verification of capacity in adjacent sanitary sewer to receive backwash water.
- Operation and maintenance considerations.
- Geotechnical evaluation (via subconsultant).
- Final electrical standby power evaluation.

The PER will identify design criteria, site constraints, code requirements, permitting and entitlement requirements, a list of equipment to be provided in the facility along with their electrical requirements, and a description of the operation, maintenance, and control of the facility. A geotechnical report for use in footing/foundation and potential storm water facility design will be completed and included in the PER. Geotechnical field work will include two borings to a maximum depth of 20 feet at the site and installation of one groundwater observation well. A general building and equipment layout plan will be included. A conceptual level cost estimate will also be provided in the PER. Following the City's review, the report will be updated and provided to the City for submission to the IDEQ as the Preliminary Engineering Report for approval. J-U-B will incorporate applicable IDEQ comments and publish a final PER to IDEQ and the City.

Deliverables for this Task

- Draft PER for City Review, PDF via email.
- Final PER for City and IDEQ Approval, PDF via email to City and uploaded to IDEQ website.

TASK 6: Design (70%, 90% and 100% Submittals)

J-U-B will prepare civil, mechanical, electrical, architectural and structural design and prepare plans and specifications for the construction of a treatment facility for iron and manganese removal at Well 24. The facilities included in the design will be as described in the PER from Task 5. Major design elements will include the following:

1. Iron and manganese removal equipment including filters, media, backwash controller, backwash flow meter, backwash flow control, pressure relief valve, piping, and other related appurtenances such as instrumentation.
2. Electrical power and controls for the new treatment facility and building equipment.
3. Lighting, heating, and ventilation for the new building. J-U-B will consult with Idaho Power Company (IPCo) contacts to determine best energy efficiency practices to be used for the facility, what opportunities exist for incentives or rebates from IPCo, and whether the incentives or rebates are worth pursuing. Best practices for energy efficiency will be followed regardless of incentives.
4. On-site yard piping improvements needed for the new treatment equipment.
5. Backflush and flush-to-waste pipeline to the existing sanitary sewer main.

Drawings and specifications will be submitted to the City for review and approval at 70%, 90%, 95% agency review and 100% bid-ready plans and specifications. J-U-B will submit 95% drawings and specifications to IDEQ for review and approval. An engineer's opinion of probable construction cost will be updated and submitted with the 90% documents. The City may require up to five days for review of the 90% submittal and IDEQ will require up to 30 days for review of the 95% submittal.

Subtask 6.1: 70% Design

J-U-B will develop 70% design plans substantially based on the approved PER. The preliminary design plans will include a site plan, building floor plan, preliminary pump sizing, piping and equipment plan, building elevations, landscape plan, and preliminary electrical and control plans. The 70% design package will include preliminary technical specifications (not including architectural, mechanical or electrical) and a preliminary Opinion of Probable Construction Cost. The 70% plans will be provided to the City for initial review.

J-U-B will conduct an in-person design workshop to review the 70% work products with the City's personnel and other key project staff. Workshop minutes, including a City comment log, will be prepared and sent to the City's PM for their internal distribution.

70% Design Workshop

J-U-B will conduct a design workshop to review the work products with the City's personnel and other key project staff. Workshop minutes, including the City's comments will be prepared and distributed to attendees. J-U-B will implement City review comments from the 70% review as warranted. Advancement 90% design will include plans, technical specifications, bid schedule and the Engineer's Opinion of Probable Construction Cost.

Deliverables for this Task

- 70% Complete preliminary design Plans, PDF via email to City.
- Attend 70% review workshop with the City.

- City comment log.
- Preliminary Opinion of Probable Construction Cost.

Subtask 6.2: 90% Agency Review Design, Plans and Specifications

J-U-B will finalize the design of structures, equipment, major plant piping, process and site plan to allow final detailing of the same during the 100% design activities. Specific activities, and work products from 90% design include the following:

Project Management

- Conduct constructability review.
- Conduct operability review.
- Update engineer's opinion of probable construction cost.
- Coordination with treatment equipment vendor.
- Prepare City comment log from 70% review workshop and comments from the City.

Civil

- Finalize building and major site element horizontal locations.
- Finalize floor/control levels and finished grades.
- Define contractor staging, storage, and off-site access corridors.
- Prepare site grading, fencing, drainage, landscape and Temporary Erosion Sediment Control plans.
- Prepare yard piping and drain layouts.
- Prepare access road revisions to building.
- Prepare technical specifications.
- Senior staff will complete an internal QC review.

Architectural

- Finalize building floor plan and elevations for building.
- Finalize the structural design concepts for the building.
- Review applicable codes for the building with City Building, Plumbing, and Electrical Officials and the Fire Marshal. Complete building and fire code analysis.
- Prepare technical specifications.
- Senior staff will complete an internal QC review.
- Final landscape plan.
- Architectural renderings are not included in this task. If, during the course of design, the City wishes to have architectural renderings done, those will be billed on a time and material basis.

Structural

- Complete structural design for new building and selection of materials of construction.
- Prepare foundation, framing and roofing plan for building.
- Prepare final floor plan for building.
- Prepare sealed structural calculations.
- Prepare technical specifications.

- Senior staff will complete an internal QC review.

Process & Mechanical

- Final major equipment sizing calculations.
- Final replacement pump selection and sizing.
- Coordinate with instrumentation and control system (I&CS) on completion of P&IDs.
- Coordinate with architectural and structural team on preparation of building layout
- Complete fire sprinkler design.
- Assemble catalog cut sheets for all major process equipment. Complete equipment data sheets or equipment list on all major equipment items.
- Coordinate with I&CS in the finalization of P&IDs.
- Finalize ancillary equipment sizing and line sizing calculations (chemical storage, feed and delivery systems, etc.).
- Finalize equipment selection (type, size, weight, and arrangement).
- Finalize selection of piping materials and sizes.
- Prepare technical specifications.
- Senior staff will complete an internal QC review.

HVAC/Plumbing

- Energy compliance documents for the mechanical systems.
- Prepare mechanical specifications as required.
- HVAC load calculations and sizing of new HVAC systems as required.
- Ductwork sizing and layout.
- Plumbing sizing and layout.
- Subconsultant will coordinate with J-U-B and other subconsultants on applicable items for the City's SCADA integration.

Instrumentation and Control

- Design to upgrade control system to current City standard.
- Develop P&ID.
- Develop design package to replace the existing control panel and reconnect existing instrumentation to the new control panel.
- Develop control panel drawings suitable for UL construction.
- Prepare instrumentation and control specifications as required.
- Subconsultant will coordinate with J-U-B and other subconsultants on applicable items.

Electrical

- Service load and standby power calculations.
- Site lighting.
- Interior lighting.
- Power distribution.
- Variable frequency drive.
- Energy compliance documents for lighting systems.
- Coordinate with instrumentation and control system (I&CS) on completion of P&IDs.
- Prepare electrical specifications.

- Subconsultant will coordinate with J-U-B and other subconsultants on applicable items.

Asset Management Incorporation

The new components will be identified and labeled on the plans per the nomenclature standards identified in the City's Asset Management policy. Assets involved will include pumps, valves, flowmeters, mechanical and electrical components, and other equipment as identified by the City. An inventory shall be prepared in a table and included with the technical specifications for use and implementation of tagging by the contractor.

Quality Control

J-U-B and the subconsultants will perform quality control (QC) reviews by a senior engineer to provide an independent review of the 90% design prior to submittal to City.

Deliverables for this Task

- 90% complete design plans, specifications, and special provisions, one electronic copy at scale TBD to the City.
- Opinion of Probable Construction Cost.

Assumptions

J-U-B will submit the 90% design plans and specifications to the following agencies for review: the City and the Tumble Creek Subdivision HOA (see Task 7).

Subtask 6.3: 95% Agency Review Plans/Specifications

J-U-B will complete 95% agency review technical contract drawings and specifications for submission to IDEQ and City building permit.

Design Management

- Conduct final reviews and incorporate 90% design review comments.

Contract Document Completion

- Prepare agency review construction drawings.
- Prepare agency review technical specifications.
- Prepare final calculations.
- Agency permitting documents, checklists and related tasks.

Assumptions

- The City will complete the address verification and certificate of zoning compliance applications.

Subtask 6.4: 100% Bid Ready Contract Document Preparation

J-U-B will complete final technical contract drawings and specifications for competitive bidding based on 95% agency review comments. Key activities during this phase will include:

Design Management

- Conduct final reviews and incorporate 95% agency review comments.

Contract Document Completion

- Prepare final construction drawings.
- Prepare final technical specifications.

Incorporation of Final Review Comments

J-U-B will modify the contract documents to reflect all agreed upon 95% agency review comments from any supplemental City comments and outside agency reviews. These plans will be incorporated into the bidding documents package in Task 7.

Deliverables for this Task

- 100% complete bid-ready plans, specifications, and special provisions, one electronic copy at scale TBD to the City.
- Bid Schedule.
- Opinion of Probable Construction Cost.

TASK 7: Bidding Assistance - Water Treatment Facility

J-U-B will assist the City during the bidding process for the construction of the new water treatment facility in responding to technical questions from prospective bidders.

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

Deliverables for this Task

- Written responses to technical questions submitted during the bidding phase.

TASK 8: Agency Coordination and Permitting

J-U-B will assist the City with the agency approval process. J-U-B will submit the plans, on behalf of the City, specifically limited to the following:

- DEQ Plan Approval. Complete the applicable DEQ Checklists and submit copies of the design for review. J-U-B will make required changes to the plans and specifications based on their review.
- City of Meridian Building Permit. Complete the Building Permit application and submit copies of the design for review. J-U-B will meet with the Building Department to discuss their review of the plans, if necessary. Required comments will be integrated into the plans and resubmitted for review and approval. This process is estimated to take one (1) month. This excludes revisions that require modification to the base design.
- Tumble Creek Subdivision Homeowners Association. Coordinate with the HOA on building siting, landscaping and architectural treatments. Two onsite meetings are anticipated with the HOA: one upon completion of the PER, and one upon completion of 70% complete design plans.

NOTICES

Any and all notices required to be given by either of the parties hereto, unless otherwise stated in this agreement, shall be in writing and be deemed communicated when mailed in the United States mail, certified, return receipt requested, addressed as follows:

City of Meridian
Purchasing Manager
33 E. Broadway Avenue
Meridian, Idaho 83642
Telephone: (208) 489-0417
kwatts@meridiancity.org

JUB Engineers, Inc.
Attn: Brad Watson
2760 W. Executive Ln.
Meridian, ID 83642
Telephone: (208) 376-7330
bwatson@jub.com

TIME OF COMPLETION and COMPENSATION SCHEDULE

COMPENSATION AND COMPLETION SCHEDULE				
Task	Description	Due Date	Fee Type	Compensation
010	Project Management and Administration	Ongoing Throughout Project	Time and Materials (Ceiling Amount Shown)	\$21,600
020	Quality Control Reviews	90 days from NTP	Lump Sum	\$3,200
030	Entitlements & Public Involvement (if necessary)	Ongoing Throughout Project	Time and Materials (Ceiling Amount Shown)	\$4,700
040	Survey and Mapping		Lump Sum	\$7,900
050	Preliminary Engineering Report		Lump Sum	\$61,600
060	Final Design for 70%, 90%, 95% and 100% Submittal		Lump Sum	\$203,600
070	Bidding Assistance - Construction of the Water Treatment Facility		Time and Materials (Ceiling Amount Shown)	\$9,500
080	Agency Coordination, Meetings and Permitting	Ongoing Through Tasks 5 – 8.	Time and Materials (Ceiling Amount Shown)	\$17,700
TASK ORDER TOTAL:				\$329,800.00

The Not-To-Exceed amount to complete all services listed above for this Task Order is three hundred twenty-nine thousand eight hundred dollars and 00/100 (\$329,800.00). No compensation will be paid over the Not-to-Exceed amount without prior written approval by the Owner 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, Purchasing Manager

Dated: _____

City Project Manager:
Brent Blake

JUB ENGINEERS, INC.

BY:  _____
Timothy Blair PE / Area Manager

Dated: 10/28/2024