TASK ORDER NO. 1

Pursuant to the

MASTER AGREEMENT FOR PROFESSIONAL SERVICES
BETWEEN CITY OF MOSCOW, IDAHO AND J-U-B ENGINEERS, INC.

This Task Order is made this 5th day of February, 2017, and entered into by and between the City of Moscow, a municipal corporation of the State of Idaho (hereinafter “City”), and accepted by J-U-B ENGINEERS, Inc. (hereinafter “Engineers”), pursuant to the mutual promises, covenant and conditions contained in the Master Agreement Category 1.a, Water Supply and Operations Engineering between the above mentioned parties dated the 8th day of February, 2017. The Project Name for this Task Order 1 is as follows:

CITY OF MOSCOW

WELL #10, PHASE II

PROJECT UNDERSTANDING

City plans to bring City’s new Well No. 10 on-line in 2018. The well has been drilled and tested under separate contract. This scope of work includes site surveying, design, bidding assistance, construction administration, and start-up and close-out services for completion of the well. The well is located at the end of West “A” Street off Warbonnet Drive. The well will connect to the sixteen inch (16”) main adjacent to the site on West “A” Street (approximately fifty feet [50’] of piping). The well, well house, electrical, and site improvements as well as the water main and appurtenances will conform to all applicable City and Idaho Standards for Public Works (ISPWC) specifications as well as the requirements of the IDEQ in effect at the time of contract initiation.

City currently has water rights to complete the well at two thousand five hundred (2,500) gpm, but if supported through analysis of pump test results, may desire to complete the well at approximately three thousand three hundred (3,300) gpm. The additional capacity would be authorized via future consolidation of water rights by City.

SCOPE OF WORK

TASK 1 - WELL COMPLETION DESIGN

The well house will include a concrete masonry building, space for on-site sodium hypochlorite generation system for disinfection, Supervisory Control and Data Acquisition (SCADA) to monitor operations, plus related piping, plumbing, HVAC, electrical, and sitework. Electrical and
HVAC design will be completed by AEI Engineering, Inc. The new well house design will be similar to the current Booster Station project and architectural elements will be designed by Architects West, Inc. under contract to J-U-B. Structural elements will be completed directly by J-U-B.

1.1 **City Kick-Off Meeting** - J-U-B will first meet with City and operations staff at City offices and onsite to review available record information, control strategy, operational criteria, field conditions, facility siting, flow data and projections, projected budget, schedule, and construction staging issues that need to be considered in developing and implementing this Project in accordance with City requirements.

1.2 **Internal Kick-Off Meeting** - Complete an in-house coordination meeting to discuss Project goals and establish milestones with J-U-B staff and sub-consultants.

1.3 **Well Completion Design** - The well will be completed and connected to the City water system.

  - **Topographic survey** - Complete a topographic survey of the Project area to provide information for design and a base map for the drawings. Survey of surface features including drainages, roads, fences, structures, valves, building corners, utility poles, equipment, signs, and underground utilities marked in the field by City.

  A boundary survey is not included in this Scope of Work. Property pins will be identified and located by the field crews in this survey wherever they are readily recoverable as part of their overall survey effort.

  J-U-B will request locates from dig line and City. Existing utilities identified and located by others will be surveyed as marked and available; utilities identified in record drawings will be included in the Project base map in an approximate way only.

  - **Base Map Development** - Utilize site survey information to develop contours and identify surface features including breaklines and site utilities.

  - **Geotechnical Evaluation** - J-U-B and an authorized sub-consultant (STRATA, Inc.) will conduct research that, in their professional opinion, is necessary for this Project’s expected Scope of Work and will prepare a report to provide design recommendations for earthwork, foundation design, asphalt design, and site drainage. Such services will be performed in a manner consistent with the ordinary standard of care.

  J-U-B / STRATA, Inc. will perform the following work: coordinate access to the site with City; complete two (2) dynamic cone penetrometer (DCP) soundings near the proposed location of the well house to an approximate depth of ten feet (10’), or to refusal due to bedrock (if encountered); perform standard penetration testing in the borings; obtain samples from the borings; backfill borings roughly level with existing ground surface (temporary landscaping to be provided by City); complete laboratory testing on collected samples; and review and analyze the collected data for the purposes of subsequent design. Should additional borings be required or requested by City for this Project, or potential future projects, the work shall be performed as an Additional Service.

  Provide a final geotechnical report for City’s records and for inclusion in the Bid Documents.

**TASK ORDER NO. 1 WELL #10 PHASE II**

J-U-B ENGINEERS, INC.
• **Sitework** - Review site constraints and design sitework to facilitate drainage and long term access.

• **Well house** - Complete structural design of a concrete masonry unit structure based on geotechnical design recommendations provided by STRATA, Inc. Incorporate architectural elements provided by sub-consultant Architects West, Inc. to mimic the recent Booster Station Project design.

• **Pump and Motor Selection** - Utilize City-provided pump test and alignment test results to review pump and motor selections based on manufacturer’s recommendations and review tech memo with City during the thirty percent (30%) design review meeting (summarized elsewhere in Scope). Pump and Motor design will include a technical memorandum analysis reviewing vertical turbine and submersible pump options, identifying benefits and disadvantages of each for final selection by City. The analysis will be completed for up to two (2) design flow rates based on City-provided test pump analysis, anticipated at this time to be two thousand five hundred (2,500) gpm and three thousand three hundred (3,300) gpm. City will provide system design head conditions (based on existing modelling results).

• **On-site Chlorine Generation** - Complete design for on-site chlorine generation and incorporate into well house design. On-site chlorine generator capacity shall include well design flow plus additional capacity to provide hypochlorite solution for Booster Stations.

• **Green Sand Filter Concept** - Complete concept design to facilitate space and layout for future construction of green sand filter to treat iron and manganese. Design beyond the concept level is not included as part of this Scope, and would be provided as an Additional Service.

• **Mechanical Design** - Identify required mechanical components, including Air/Vac valves, flow meter, and isolation valves. Design well house piping based on anticipated maximum flows of three thousand three hundred (3,300) gpm.

• **Standard Details** - Utilize City provided details as required to detail specific contract requirements.

• **Electrical and HVAC** - Utilize services provided by AEI, Inc. to complete electrical, heating and ventilation design to conform to standard design guidelines. Coordinate with Avista Utilities to provide appropriate power service for Well No. 10. Project will include design, procurement, and installation of backup power source.

• **Controls** - Provide control system design for operation of Well No. 10 in accordance with City standards. Design will interface with City’s new, updated SCADA system.

1.4 **Permitting** – Complete required permitting to facilitate well completion. CITY will pay all required permit and review fees directly as required at the time of submittal.

• **City of Moscow** - Complete draft application for a City Building permit. The application will be finalized and submitted by the Contractor or by the CITY.
1.5 **Well Completion Design** - Prepare Project plans incorporating identified components of the well completion design. Prepare plan reviews for submittal to entities identified at the following milestones. Incorporate and respond to comments as required.

- **Thirty percent (30%) Progress Preparation and Meeting** - Review includes City meeting and review of progress prints, including site plan and building layout; pump and motor selection technical memorandum; geotechnical considerations; and preliminary control description. Design will not proceed until pump and motor and design flow rate are established. Submittals to:
  - City of Moscow

- **Ninety percent (90%) Progress Preparation and Meeting** - Includes City meeting and review of progress prints. Discuss final items and answer questions to finalize Project design. Submittals to:
  - City of Moscow
  - IDEQ

1.6 **Specifications** - Prepare contract requirements and specifications based on standard EJCDC format, City of Moscow Standard Construction Specifications and Drawings, and Project specific requirements. Utilize CSI 16-Division format for technical specifications.

1.7 **Quality Assurance/Quality Control (QA/QC)** - Conduct internal QA/QC prior to each milestone submittal. Address comments and finalize draft documents for external review.

1.8 **Opinion of Probable Cost** - Prepare Association for Advancement of Cost Engineering (AACE) class estimates as identified per each milestone:

- **Thirty percent (30%) submittal** – Class 3 (-10% to +30%) Estimate
- **Ninety percent (90%) submittal** – Class 2 (-5% to +20%) Estimate
- **Bid Documents** – Class 1 (-5% to +15%)

1.9 **Agency Coordination** - Complete Agency coordination as required to complete Well No. 10 as follows:

- **IDEQ** - Prepare the following checklists for IDEQ submittal:
  - General Plan and Specification Checklist
  - Drinking Water Well Construction Design Checklist

1.10 **Finalize Contract Documents** - Review and incorporate comments to finalize Bid Documents. Coordinate with Agencies as required to answer questions and clarify design documents.

**TASK 2 - WELL COMPLETION BID AND CONSTRUCTION MANAGEMENT SERVICES**

Provide bidding and construction management services as follows:
2.1 Bidding Phase - Bidding Phase Services include:

- **Bid Document Preparation** – Produce ten (10) copies of the Contract Documents for use by City, Engineer, and Contractor. Distribute to the City and IDEQ. Prepare a complete pdf of plans and specifications. Utilize Quest CDN to distribute electronic documents to prospective bidders. Hard copies will not be distributed to prospective bidders.

- **Advertisement and Solicitation of Bids** - Assist City by preparing an advertisement for bids. Notify responsible bidders of Project advertisement.

- **Pre-Bid Conference** - Prepare for and conduct an on-site pre-bid conference to discuss the Project and bid requirements. Distribute conference notes to meeting attendees.

- **Bidder Questions and Addenda** - Receive and answer bidder questions arising during the bid advertisement timeframe. Issue Project addenda as required to clarify the Contract Documents.

- **Bid Opening and Evaluation** - Assist City at a bid opening located at City office. Review and evaluate the apparent low bid for compliance with the bid requirements. Review available budget and prepare a summary letter to City of any items not in compliance with the bid requirements for City’s consideration prior to Project Award.

2.2 Construction Phase - Construction Phase Services include:

- **Construction Agreement Preparation** - Coordinate with City and successful bidder to assist with preparation and execution of the construction agreement.

- **Notice to Proceed Coordination** - Coordinate with City and Contractor to issue a Notice to Proceed in accordance with the Contract Documents.

- **Pre-Construction Conference** - Conduct an on-site pre-construction conference with the Contractor prior to the Notice to Proceed. Prepare and distribute meeting notes to all meeting attendees.

- **Survey and Project Control** - Provide construction staking within two (2) site mobilization to establish Project control and construction layout survey for location, line and grade. First mobilization will include building, piping layout, and rough grading. Second mobilization will include final sitework and grading. Once the survey is completed, it will be the responsibility of the Contractor to protect and maintain all staking and control.

- **Project Administration and Updates** - Perform general Project administration tasks including City updates and monthly invoice preparation.

- **Construction Management** - Assist City by providing Construction Management Services as detailed in Standard Exhibit B and as follows. Engineer will provide part-time observation and Resident Project Representative (RPR) Assistance.
  - **Contractor Questions & RFI’s** - Receive and answer Contractor questions and issue Requests for Information (RFI’s) as required to clarify the contract documents.
  - **Submittal Review** - Review Project submittals presented by the Contractor for conformance with Design.
- **Progress Meetings** - Prepare for and complete bi-weekly progress meetings on-site to facilitate communications. Prepare and distribute meeting notes to all attendees and interested parties.

- **Pay Requests** - Receive, review, and coordinate with the Contractor as required to present a monthly recommendation for payment to City.

- **Construction Support and Oversight** - Discuss progress as required and provide general oversight as required to guide well completion.

- **Special Inspection Coordination** - Coordinate with City and Contractor to obtain recommended inspections including compaction testing. The cost of special inspections will be paid by City or Contractor as requested by City during the design phase.

- **Start-up Testing** - Provide start-up testing services to facilitate integration of the Project and system controls.

- **Construction Closeout** - Assist City to identify when the Project is complete and issue the Certificate of Substantial Completion. Prepare final contract documents book including all pertinent Project contracts and closeout materials.

### 2.3 Project Closeout

- **Record Drawings** - Prepare final, electronic drawings for submittal to DEQ per IDAPA 58.01.16 Section 400.05. Provide one (1) full size and three (3) half size prints to City, together with an electronic copy of the record drawings. All information within the record drawings will be provided by the Contractor.

- **Operations & Maintenance Manual** - Prepare O&M Manual for City use, integrating Contractor provided O&M manuals together with a narrative of design intent and operational scenarios.

- **Warranty Walkthrough** - Complete a warranty walkthrough with City and Contractor prior to termination of the warranty period.

### TASK 3 - MANAGEMENT RESERVE FUND

- At the request of City's authorized representative, Additional Services may be performed by J-U-B (upon mutual agreement of scope, additional fees, and schedule) under the Management Reserve Fund task. An initial budget has been established herein, but may be adjusted upon mutual agreement by City and J-U-B.

- This Agreement will pre-authorize an amount not to be exceeded without City approval for the Additional Services completed under this task.

### TASK 4 - ADDITIONAL SERVICES

The following Additional Services will be completed as specifically authorized by City:

#### 4.1 Design Funding Source Requirement
• **Green Project Reserve Memorandum** - Prepare a Green Project Reserve Memorandum as required by the Idaho Department of Environmental Quality as part of the SRF Loan requirements. Complete a City and Agency review draft followed by a final document to incorporate comments. If additional information is requested by DEQ (for example during the course of construction or at Project closeout), the work will be completed as an Additional Service.

4.2 **VFD Analysis** - Review of pump performance using a variable frequency drive to allow installation of a three thousand three hundred (3,300) gpm pump which could operate at two thousand five hundred (2,500) gpm. Analysis will include energy usage and operational benefits.

**CITY PROVIDED DATA, TASKS, & SERVICES**

• **Well Pump and Drilling Report** - Provide pump test results including observed drawdown and recovery, pump depth recommendations, long-term production recommendations, and water quality testing results. Include results of alignment testing for use in developing vertical turbine or submersible pump recommendations.

• **Access to Project Site** - Provide access to the site as required to complete the Scope of Work.

• **Active Participation** - Provide prompt notice to the Engineer whenever City observes or otherwise becomes aware of any other development that affects the Scope or time of performance of Engineer Services, or any defect or non-conformance in Engineer Services or the work.

• **Permits** - City will coordinate, obtain and pay any fees associated with any building or other permits required for this Project.

**ASSUMPTIONS**

• Cost of Special Inspections are excluded,

• SWPPP Coordination/Documentation is excluded from this Scope of Work,

• Expenses for outside vendors or regulatory fees are excluded,

• Coordination with Funding Agencies not identified by this Scope of Work is not expected or anticipated.

• Legal Services are excluded.

• Unanticipated tasks or public hearing assistance not otherwise identified in this Scope of Work are excluded.

**TIME OF COMPLETION AND COMPENSATION SCHEDULE**
The following schedule is based on a Notice to Proceed (NTP) from City by February, 2017 and resulting in Final Design to be completed by October, 2017. An NTP issued on a different date will change the schedule accordingly.

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
<th>Completion Date</th>
<th>Compensation</th>
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<tbody>
<tr>
<td>1</td>
<td>Well Completion Design</td>
<td>* 10/15/17</td>
<td>$169,130</td>
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<tr>
<td>2</td>
<td>Solicitation and Construction Management Services</td>
<td>* 11/01/18</td>
<td>$226,530</td>
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<tr>
<td>3</td>
<td>Management Reserve Fund</td>
<td>* As Needed</td>
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<tr>
<td>4</td>
<td>Additional Services</td>
<td>* As Needed</td>
<td>$7,190</td>
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</table>

**COMPENSATION AND COMPLETION SCHEDULE**

**TASK ORDER TOTAL: $437,850**

The Not-To-Exceed amount to complete all services listed above for this Task Order No. 1 is four hundred thirty-seven thousand eight hundred fifty dollars ($437,850). No compensation will be paid over the Not-To-Exceed amount without prior written approval by City in the form of a Change Order. Monthly invoices shall be billed for time actually spent on the project. Any and all travel will only be reimbursed if pre-approved by the Project Manager, and only per City Travel Policy. Reimbursable expenses will be paid at cost and only if pre-approved by the Project Manager, and accompanied by an itemized receipt. Any travel and/or reimbursables paid will be paid as part of the Not-To-Exceed Task Order Total per the Compensation and Completion Schedule above.

**CONSULTANT**

J-U-B Engineers, Inc.

Cory R. Baune, Area Manager

**CITY**

City of Moscow, Idaho

Gary J. Riedner, City Supervisor

Dated: 1/23/2017

Dated: 2/8/2017

**SIGNATURE BLOCKS MAY CHANGE WITH THE DOLLAR VALUE OF THE TASK ORDER**