



Our vision of Coeur d'Alene is of a beautiful safe city
that promotes a high quality of life and sound economy
through excellence in government

GENERAL SERVICES/PUBLIC WORKS COMMITTEE

with

Council Members Wood, Evans, English

December 13, 2021, 12:00 p.m.

Library Community Room

702 Front Avenue

AGENDA

*****ITEMS LISTED BELOW ARE CONSIDERED TO BE ACTION ITEMS**

- Item 1 Request Approval of an Agreement with H2E, Inc. for replacement of SCADA system at the Wastewater Treatment Facility – Wastewater Superintendent Mike Anderson
- Item 2 Request Approval of an Amendment to the Professional Services Agreement with HDR Engineering, Inc., for the Solids Handling Improvements Project – Mike Becker, Project Manager, Wastewater Department
- Item 3 Request Approval of the purchase of a 750 KW Generator from Western States CAT for the Atlas Well, under an open procurement from another agency (Sourcewell), as allowed by the City's Procurement Policy in the amount of \$176,767.00 – Kyle Marine, Assistant Director, Water Department.
- Item 4 **PRESENTATION** – Finance Department – Comptroller Vonnie Jensen

The City of Coeur d'Alene will make reasonable accommodations for anyone attending this meeting who requires special assistance for hearing, physical or other impairments. Please contact Juanita Knight, Senior Legal Assistant, at (208) 769-2348 at least 24 hours in advance of the meeting date and time.

**GENERAL SERVICES/ PUBLIC WORKS COMMITTEE
STAFF REPORT**

DATE: DECEMBER 13, 2021

FROM: MIKE ANDERSON, WASTEWATER DIRECTOR

**SUBJECT: AGREEMENT WITH H2E, INC. FOR REPLACEMENT OF
SCADA SYSTEM AT THE WASTEWATER TREATMENT
FACILITY**

DECISION POINT: Should the City of Coeur d'Alene enter into an agreement with H2E, Inc., for conversion of the existing Wastewater Treatment Facility SCADA system?

HISTORY: Supervisory Control And Data Acquisition (SCADA) is the computer software interface that allows the operators to interact with all of the equipment at the Wastewater Treatment Facility. The current SCADA system is extremely antiquated and unsupported. Numerous failures, particularly of the alarming system, in the past 2 years have required operators to man the Treatment Facility 24 hours per day over prolonged periods of time. An evaluation of the existing SCADA system was performed by H2E last year at which time a plan was developed to address some of these issues. That plan involved evaluating and updating the Programmable Logic Controllers (PLC's), and replacement of the current SCADA system. This plan will ensure the Treatment Facility is recoverable in the event of catastrophic failure.

The SCADA system conversion is proposed to take place over the following 3 Phases:

1. "Standards Creation" is where H2E and the City will come up with a plan on everything from background data structures to how the screens will look to the operators.
2. "Application Development" is where the bulk of the work will be done. This will be where the programming will be done and take place over a period of many months.
3. "System Implementation" will include software installation and verification that everything functions as expected.

FINANCIAL ANALYSIS: This project is a continuation of H2E's initial evaluation (Phase 1) and is anticipated to take up to two (2) years to complete. The total cost for all three (3) phases and all options, which is highly recommended, is nearly \$440,000. This fiscal year, \$250,000 was budgeted for this project with the remaining \$190,000 anticipated to be completed next Fiscal Year.

Phase	Base	Option 1 (TMF)	Option 2 (Centrifuge)	Total
1	\$57,284	\$23,400	\$8,851	\$89,535
2	216,822	58,696	19,697	\$295,215
3	41,004	10,482	2,925	\$54,411
Total	\$315,110	\$92,578	\$31,473	\$439,161

PERFORMANCE ANALYSIS: The Wastewater Department purchased a new SCADA package, VT Scada, and used it to replace the old SCADA system for the Sewer Collection System. This SCADA system went online last week and has performed flawlessly. The new SCADA system as proposed herein will permit our Treatment Facility Operators much greater interaction and functionality such as integrated alarming and trend building, as well as allow them to log in remotely with 2 factor authentication. Similarly, converting the Treatment Facility’s SCADA system will benefit the City by minimizing operator demands and solving a multitude of Treatment Facility issues.

Idaho Code § 67-2320 governs contracts with professional engineers, among others. H2E, as an engineering firm, falls under this statute. Subsection 4 of this statute provides that “[w]hen a public agency or political subdivision of the state has previously awarded a professional services contract to a person or firm for an associated or phased project, the public agency or political subdivision may, at its discretion and in accordance with all provisions of section 59-1026, Idaho Code, negotiate an extended or new professional services contract with that person or firm.” Based on H2E’s completion of Phase 1 and the intimate knowledge it has of the plan it helped develop, it would be in the best interest of City to utilize § 67-2320(4) and enter into a new professional services agreement with H2E to complete phases 2 and 3 of this project.

DECISION POINT/RECOMMENDATION: Council should approve the agreement between the City of Coeur d’Alene and H2E, Inc. in the amount of \$439,161 for the conversion of the existing Wastewater Treatment Facility SCADA system.

PROFESSIONAL SERVICES AGREEMENT

between
CITY OF COEUR D'ALENE

and
H2E, Inc.

For
Conversion of Existing SCADA System

THIS Agreement is made and entered into this _____ day of _____, 2021, between the CITY OF COEUR D'ALENE, Kootenai County, Idaho, a municipal corporation organized and existing under the laws of the state of Idaho, hereinafter referred to as the "City," and H2E Inc., a Washington corporation, with its principal place of business at 23305 East Knox Avenue, Liberty Lake, WA 99019, hereinafter referred to as the "Consultant."

W I T N E S S E T H:

Section 1. Definition. In this Agreement:

A. The term "City" means the city of Coeur d'Alene, 710 Mullan Avenue, Coeur d'Alene, Idaho 83814.

B. The term "Consultant" means H2E, Inc., 23305 E Knox Ave., Liberty Lake, WA 99019.

C. The term "Mayor" means the mayor of the city of Coeur d'Alene or his authorized representative.

Section 2. Employment of Consultant. The City hereby agrees to engage the Consultant and the Consultant hereby agrees to perform the services hereinafter set forth.

Section 3. Scope of Services.

A. The Consultant shall perform the services described in the Scope of Services attached hereto and incorporated herein by reference as Exhibit "A."

B. Area Covered: The Consultant shall perform all the necessary services provided under this Agreement respecting the tasks set forth in the Scope of Services.

Section 4. Personnel.

A. The Consultant represents that it has or will secure at its own expense all personnel required to perform its services under this Agreement. Such personnel shall not be employees of or have any contractual relationship with the City.

B. All of the services required hereunder will be performed by the Consultant or under its direct supervision, and all personnel engaged in the work shall be fully qualified and shall be

authorized under state and local law to perform such services.

C. The Consultant agrees to maintain Worker's Compensation coverage on all employees, including employees of subconsultants, during the term of this Agreement as required by Idaho Code §§ 72-101 through 72-806. Should the Consultant fail to maintain such insurance during the entire term hereof, the Consultant shall indemnify the City against any loss resulting to the City from such failure, either by way of compensation or additional premium liability. The Consultant shall furnish to the City, prior to commencement of the work, such evidence as the City may require guaranteeing contributions which will come due under the Employment Security Law including, at the option of the City, a surety bond in an amount sufficient to make such payments.

Section 5. Time of Performance. The services of the Consultant shall commence upon execution of this Agreement by the Mayor and shall be completed within three hundred sixty-five (365) days thereafter. The period of performance may be extended for additional periods only by the mutual written agreement of the parties.

Section 6. Compensation.

A. Subject to the provisions of this Agreement, the City shall pay the Consultant an amount not to exceed four hundred thirty-nine thousand one hundred and sixty-one and NO/100 Dollars (\$439,161).

B. Except as otherwise provided in this Agreement, the City shall not provide any additional compensation, payment, use of facilities, service or other thing of value to the Consultant in connection with performance of agreement duties. The parties understand and agree that, except as otherwise provided in this Section, administrative overhead and other indirect or direct costs the Consultant may incur in the performance of its obligations under this Agreement have already been included in computation of the Consultant's fee and may not be charged to the City.

Section 7. Method and Time of Payment. The City will pay to the Consultant an amount not to exceed the amount set forth in Section 6 which shall constitute the full and complete compensation for the Consultant's professional services. Monthly progress payments must be submitted by the 10th of the month for work done in the previous calendar month. Partial payment shall be made by the end of each calendar month for the work completed in the previous calendar month. Final payment shall be made thirty (30) days after completion of all work and acceptance by the City Council.

Section 8. Termination of Agreement for Cause. If, through any cause within Consultant's reasonable control, the Consultant shall fail to fulfill in a timely and proper manner his obligations under this Agreement, or if the Consultant shall violate any of the covenants, agreements, or stipulations of this Agreement, the City shall, after providing Consultant reasonable time to remedy the deficiency, thereupon have the right to terminate this Agreement by giving written notice to the Consultant of such termination and specifying the effective date thereof, at least five (5) days before the effective date of such termination. In that event, all finished or unfinished hard copy documents, data, studies, surveys, and reports or other material prepared by the Consultant under this agreement shall at the option of the City become its property, and the Consultant shall be entitled to

receive just and equitable compensation for any satisfactory work completed on such documents and materials. Equitable compensation shall not exceed the amount reasonably billed for work actually done and expenses reasonably incurred.

Section 9. Termination for Convenience of City. The City may terminate this Agreement at any time by giving thirty (30) days written notice to the Consultant of such termination and specifying the effective date of such termination. In that event, all finished or unfinished documents and other materials as described in Section 8 above shall, at the option of the City, become its property. The Consultant shall be entitled to receive compensation not to exceed the amount reasonably billed for work actually done and expenses reasonably incurred as of the effective date of the termination.

Section 10. Modifications. The City may, from time to time, require modifications in the general scope of services initial basic services of the Consultant to be performed under this Agreement. The type and extent of such services cannot be determined at this time; however, the Consultant agrees to do such work, which shall be mutually agreed upon by the City and Consultant, as ordered in writing by the City, and the City agrees to compensate the Consultant for such work accomplished by written amendment to this Agreement.

Section 11. Equal Employment Opportunity.

A. The Consultant will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, sexual orientation, and/or gender identity/expression. The Consultant shall take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, sex, national origin, sexual orientation, and/or gender identity/expression. Such actions shall include, but not be limited to the following: employment, upgrading, demotions, or transfers; recruitment or recruitment advertising; layoffs or terminations; rates of pay or other forms of compensation; selection for training, including apprenticeship; and participation in recreational and educational activities. The Consultant agrees to post in conspicuous places available for employees and applicants for employment notices to be provided setting forth the provisions of this nondiscrimination clause. The Consultant will, in all solicitations or advertisements for employees placed by or on behalf of the Consultant, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, sexual orientation, and/or gender identity/expression. The Consultant will cause the foregoing provisions to be inserted in all subcontracts for any work covered by this agreement so that such provisions will be binding upon each subconsultant, provided that the foregoing provisions shall not apply to contracts or subcontracts for standard commercial supplies or raw materials.

B. The Consultant shall keep such records and submit such reports concerning the racial and ethnic origin of applicants for employment and employees as the City may require.

Section 12. Interest of Members of City and Others. No officer, member, or employee of the City and no member of its governing body, and no other public official of the governing body shall participate in any decision relating to this Agreement which affects his personal interest or the interest of any corporation, partnership, or association in which he is, directly or indirectly,

interested or has any personal or pecuniary interest, direct or indirect, in this Agreement or the proceeds thereof.

Section 13. Assignability.

A. The Consultant shall not assign any interest or duty in this Agreement and shall not transfer any interest or duty in the same (whether by assignment or novation) without the prior written consent of the City thereto. Provided, however, that claims for money due or to become due to the Consultant from the City under this Agreement may be assigned to a bank, trust company, or other financial institution without such approval. Notice of any such assignment or transfer shall be furnished promptly to the City.

B. The Consultant shall not delegate duties or otherwise subcontract work or services under this Agreement without the prior written approval of the City.

Section 14. Interest of Consultant. The Consultant covenants that neither it nor any of its principals or officers presently have any interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed under this Agreement. The Consultant further covenants that in the performance of this Agreement, no person having any such interest shall be employed.

Section 15. Findings Confidential. Any reports, information, data, etc., given to or prepared or assembled by the Consultant under this Agreement which the City requests to be kept confidential shall not be made available to any individual or organization by the Consultant without the prior written approval of the City.

Section 16. Publication, Reproduction and Use of Materials. No material produced, in whole or in part, under this Agreement shall be subject to copyright in the United States or in any other country. The City shall have unrestricted authority to publish, disclose, distribute and otherwise use, in whole or in part, any reports, data electronic files, or other materials prepared under this Agreement. Consultant shall provide copies of such work products to the City upon request.

City may make and retain copies of Documents for information and reference in connection with use on the Project by the City. Such Documents are not intended or represented to be suitable for reuse by City or others on extensions of the Project or on any other project. Any such reuse or modification without written verification or adaptation by the Consultant, as appropriate for the specific purpose intended, will be at the City's sole risk and without liability or legal exposure to the Consultant and Consultant's subconsultants. To the extent allowed by law, the City shall indemnify and hold harmless the Consultant and Consultant's subconsultants from all claims, damages, losses, and expenses, including attorneys' fees arising out of or resulting therefrom.

Section 17. Audits and Inspection. Consultant shall provide access for the City and any duly authorized representatives to any books, documents, papers, and records of the Consultant that are directly pertinent to this specific agreement for the purpose of making audit, examination, excerpts, and transcriptions. Consultant shall retain all records pertinent to the project for three years after final payment and all other pending matters are closed.

Section 18. Jurisdiction; Choice of Law. Any civil action arising from this Agreement shall be brought in the District Court for the First Judicial District of the State of Idaho at Coeur d'Alene, Kootenai County, Idaho. The law of the state of Idaho shall govern the rights and obligations of the parties.

Section 19. Non-Waiver. The failure of the City at any time to enforce a provision of this Agreement shall in no way constitute a waiver of the provisions, nor in any way affect the validity of this Agreement or any part thereof, or the right of the City thereafter to enforce each and every protection hereof.

Section 20. Permits, Laws and Taxes. The Consultant shall acquire and maintain in good standing all permits, licenses and other documents necessary to its performance under this Agreement. All actions taken by the Consultant under this Agreement shall comply with all applicable statutes, ordinances, rules, and regulations. The Consultant shall pay all taxes pertaining to its performance under this Agreement.

Section 21. Relationship of the Parties. The Consultant shall perform its obligations hereunder as an independent contractor of the City. The City may administer this Agreement and monitor the Consultant's compliance with this Agreement but shall not supervise or otherwise direct the Consultant except to provide recommendations and to provide approvals pursuant to this Agreement.

Section 22. Integration. This instrument and all appendices and amendments hereto embody the entire agreement of the parties. There are no promises, terms, conditions, or obligations other than those contained herein; and this Agreement shall supersede all previous communications, representations or agreements, either oral or written, between the parties.

Section 23. City Held Harmless.

A. The Consultant shall save, hold harmless, and indemnify the City, its officers, agents and employees from and against any and all damages or liability arising out of the Consultant's wrongful acts or negligence, including costs and expenses, for or on account of any and all legal actions or claims of any character resulting from injuries or damages sustained by any person or persons or property arising from Consultant's performance of this Agreement and not arising from Consultant's professional services. To this end, Consultant shall maintain general liability insurance in at least the amounts set forth in Section 25A.

B. The Consultant shall save, hold harmless and indemnify the City, its officers, agents, and employees from and against damages or liability arising out of the Consultant's negligent acts, errors, or omissions, including costs and expenses for or on account of any and all legal actions or claims of any character resulting from injuries or damages sustained by persons or property to the extent arising from Consultant's negligent performance of this Agreement, including but not limited to Consultant's professional services. To this end, Consultant shall maintain Errors and Omissions insurance in at least the amounts set forth in Section 25B.

Section 24. Notification. Any notice under this Agreement may be served upon the Consultant or the City by mail at the address provided in Section 1 hereof.

Section 25. Special Conditions. Standard of Performance and Insurance.

A. Consultant shall maintain general liability insurance naming the City, its entities, and its representatives as additional insureds with limits of at least Five-hundred Thousand and no/100 dollars (\$500,000.00) for property damage or personal injury, death or loss as a result of any one occurrence or accident regardless of the number of persons injured or the number of claimants, it being the intention that the minimum limits shall be those provided for by Idaho Code 6-924.

B. In performance of professional services, the Consultant will use that degree of care and skill ordinarily exercised under similar circumstances by members of the Consultant's profession. Should the Consultant or any of the Consultant's employees be found to have been negligent in the performance of professional services from which the City sustains damage, the Consultant has obtained Errors and Omission Insurance in at least the amount of Five-hundred Thousand and no/100 dollars (\$500,000.00). The Consultant shall maintain, and furnish proof thereof, coverage for a period of two years following the completion of the project.

C. The Consultant shall obtain and maintain auto liability insurance in the amount of Five-hundred Thousand and no/100 dollars (\$500,000.00) for the duration of the project.

D. Prior to work under this Agreement, the Consultant shall furnish to the City certificates of the insurance coverages required herein, which certificates must be approved by the City Attorney. Certificates shall provide cancellation notice information that assures at least thirty (30) days' notice prior to cancellation of the policy for any reason in which case the Consultant shall promptly notify the City.

Section 26. Non – Discrimination.

During the performance of this contract, the Consultant, for itself, its assignees and successors in interest, agrees as follows:

A. The Consultant shall comply with the Regulations relative to non-discrimination in federally assisted programs of United States Department of Transportation (USDOT), Title 49, Code of Federal Regulations, part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract. In addition, the Consultant shall comply with the requirements of Title 9, Chapter 9.56, Coeur d'Alene City Code.

B. The Consultant, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, sex, national origin, sexual orientation, and/or gender identity/expression in the selection and retention of sub-Consultants, including procurement of materials and leases of equipment. The Consultant shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations, or discrimination prohibited by Title 9, Chapter 9.56, Coeur d'Alene City Code.

C. In all solicitations either by competitive bidding or negotiations made by the Consultant for work to be performed under a subcontract, including procurement of materials or leases of equipment, each potential subconsultant or supplier shall be notified by the Consultant of the Consultant's obligations under this contract and the Regulations and City Code relative to non-discrimination on the grounds of race, color, sex, national origin, sexual orientation, and/or gender identity/expression.

D. The Consultant shall provide all information and reports required by the Regulations or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information and its facilities as may be determined by the contracting agency or the appropriate federal agency to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of a Consultant is in the exclusive possession of another who fails or refuses to furnish this information, the Consultant shall so certify to ITD or the USDOT as appropriate, and shall set forth what efforts it has made to obtain the information.

E. In the event of the Consultant's non-compliance with the non-discrimination provisions of this contract, the City shall impose such contract sanctions as it or the USDOT may determine to be appropriate, including, but not limited to:

- Withholding of payments to the Consultant under the contract until the Consultant complies, and/or;
- Cancellation, termination, or suspension of the contract, in whole or in part.

The Consultant shall include the provisions of paragraphs (A) through (E) in every subcontract, including procurement of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The Consultant shall take such action with respect to any subconsultant or procurement as the contracting agency or USDOT may direct as a means of enforcing such provisions including sanctions for non-compliance.

Provided, however, that in the event the Consultant becomes involved in, or is threatened with, litigation with a subconsultant or supplier as a result of such direction, the Consultant may request ITD enter into such litigation to protect the interests of the state and, in addition, the Consultant may request the USDOT enter into such litigation to protect the interests of the United States.

IN WITNESS WHEREOF, this Agreement executed the day and year first written above.

CITY OF COEUR D'ALENE

H2E, INC.

Steve Widmyer, Mayor

By _____
Its _____

ATTEST:

ATTEST:

Renata McLeod, City Clerk

Name/Title

Scope of Work
Exhibit “A”



Washington Office
23305 E. Knox Ave.
Liberty Lake WA 99019
509.927.2424

Montana Office
825 Great Northern Blvd.
Helena MT 59601
406.210.2442
H2Einc.com

November 24, 2021

Ben Martin
City of Coeur d'Alene
Wastewater Department
765 W Hubbard Ave
Coeur d'Alene, ID 83814

Attn: Ben Martin

RE: VT SCADA Conversion Proposed Scope Rev C

On behalf of the H2E Team, thank you for the continued opportunity to support the City of Coeur d'Alene. From investigation and scope conversations with your team, we have prepared this initial scoping proposal to complete the VT SCADA Upgrade in phases. The scope is based on the assumptions listed within this document; however, changes to assumptions can affect actual costs.

After your review, and confirmation we have captured the entirety of the expected scope for the project, and we can then add Budgetary estimates to this defined scope. As always, if you have any feedback, questions, or concerns, we are happy to discuss and adjust to better suit your needs.

Changes to the scope of the project, based on discussions with CDA, are italicized.

We appreciate this opportunity to support you with this VT SCADA conversion project and look forward to further discussions and a successful project.

Best regards,

Troy Pefley

Principal Automation Engineer/Project Manager

cc:

Dennis Bacon, Automation Engineer, EIT
Cody Litzko, Automation Engineer, EIT

Project Objectives and Background

In 2020 H2E conducted an evaluation of the Wastewater HMI applications. The applications were developed in Wonderware 2012 R2. H2E's work included analysis of the Wonderware applications configuration and design. The goal of the evaluation was to identify patterns within the tagging structures and screens, to enable a more rapid platform migration to Ignition. H2E's review included the HMI displays and popups, trending, links from the HMI to the PLC, PLC connections, PLC program review, and alarming. Since that evaluation, the City of Coeur d'Alene Wastewater Department has made the choice to go with VT SCADA over Ignition.

SCADA System Evaluation

H2E's evaluation of the Wonderware application showed very little consistency in tag names among the PLCs, as well as multiple tag structures which prohibits simple importation into VT SCADA. Below identifies the inputs used to estimate Phase I through Phase III.

Wastewater HMI Evaluation

1. Twelve (12) connections to processors exist for the Wastewater Treatment Facility application that are used in the Wonderware displays that H2E reviewed.
 - a. The facility primarily utilizes Siemens PLCs which utilize Siemens Total Integrated Architecture software. The Siemens processors do not have browsable tags, making the tag connections to VT SCADA more time consuming.
 - b. Differences in PLC tag data structures were discovered in the evaluation of the programs. Each unique data structure will require an individualized approach in development for tag mapping. Due to the inconsistent nature of the data structures and the impact they have on integrating into VT SCADA, H2E recommends creating/updating five (5) User-Defined Data Types in the PLCs that will enable faster integration into VT SCADA and creates consistent PLC code to assist in troubleshooting and future hardware migration.
2. H2E identified 60 Main Displays within the Wastewater application.
 - a. Main Displays utilize indirect HMI tag referencing. Tags utilized in the HMI have a unique name which does not have a direct correlation to the PLC tag names. The nature of this type of mapping will cause additional work in the migration of the HMI tags to new VT SCADA application.
 - b. The Main Display objects utilize often inconsistent HMI expressions to animate objects within the HMI. Due to the inconsistent expressions and much of the logic not programmed into the PLC, HMI design will require more time.
3. H2E identified 44 different Pop-up Displays within the application that looked to be used in the Wastewater operations.
 - a. Pop-up Displays utilize indirect HMI tag referencing. Tags utilized in the HMI have a unique name which does not have a direct correlation to the PLC tag names. The nature of this type of mapping will cause additional work in the migration of the HMI tags to new VT SCADA application.
 - b. The Pop-ups utilizes often inconsistent HMI expressions to animate/control objects within the HMI. Due to the inconsistent expressions and much of the logic not programmed into the PLC, HMI design will require more time.

4. H2E discovered that the Wastewater HMI Alarm database had 1082 alarms. H2E filtered out the alarms by Processor and City of Coeur d'Alene completed further filtering, resulting in 500 alarms that will be replicated in VT SCADA for the Wastewater application. Note, the 500 alarm total is based on the City of Coeur d'Alene's initial review and filtering of the alarm database.
 - a. H2E identified that of the 1082 HMI Alarms 633 of them were utilized in the Win911 Callout application. H2E has allocated time for 100 unique alarm callouts. Alarms of the same type (Level Transmitter Level High) are only counted once as a unique alarm.
5. Graphics used multiple times in Wonderware will be converted into a reusable component within VT SCADA. Reusable components contain parameters that are developed once and copied to each required instance. Reusable components are a representation of equipment, instruments, and limited control pop-ups, which are used in the HMI to provide status or control.
 - a. H2E estimated that 15 different reusable components will need to be developed.
 - b. Developing reusable components reduces the amount of time to develop Main Displays and enable future edits to stay consistent with the rest of the program. They do however take time and multiple iterations (review and approval process with the City of Coeur d'Alene) to get them to a usable state. Additionally, all reusable components will still need to be individually linked to the correct tags. With the review and approval process with the City of Coeur d'Alene, the time spent creating the reusable components will develop a strong building block for future PLC upgrades, as well as ease the maintenance of the VT SCADA system.
6. A Historian exist with the Wonderware application, all 383 analog tags will be added to the VT SCADA Historian; currently 14 discrete tags are historized and will be added
7. Trending will be ad-hoc (drag and drop values) in addition to eight (8) preconfigured trends.
8. No reporting exists in the Wonderware application and is not planned as part of this project.

The lack of common naming and tag structure within the Wonderware application and PLC programs will require a more manual approach for the platform conversion. However, where practical, the use of automated tools developed by H2E for HMI design and conversion will be utilized.

In addition to the inputs listed above used to develop an Estimate for Phase I through Phase III the following components have been added by direct request from the City of Coeur d'Alene or were included to assist in the development and implementation of the VT SCADA system, the details of which will be included in the applicable design phases.

1. The City of Coeur d'Alene has requested the new SCADA System not be an updated copy of the current SCADA System.
2. The City of Coeur d'Alene has requested that an unspecified number of the Main Displays have preconfigured trends and that the allocated number of eight (8) above is likely not sufficient.
3. Modifying the PLC program to utilize standard blocks throughout the facility now, rather than waiting on a complete PLC upgrade project
4. The City of Coeur d'Alene has requested that the TMF screens be recreated in the VT SCADA application rather than use a VNC to view the HMI in the field.

5. *The City of Coeur d'Alene has requested that the Centrifuge screens be recreated in the VT SCADA application rather than use a VNC to view the HMI in the field.*

Deliverables by Phase

A phased approach will be used for the project. The items below outline the deliverables and assumptions for the remaining effort. H2E's development of standards as proposed will assist in customization and maintenance of the new platform. The Wonderware application is not designed for easy integration with programming logic. Going forward, the VT SCADA system will contain reusable object views that will aid in future PLC and HMI upgrades. Developing reusable objects makes them repeatable and enables timely development of the HMI and standardizes PLC programming, as well as easy modifications and enhanced troubleshooting.

Phase I: Standards Creation

Phase I will be to document standards that will be the building blocks for the application development. H2E will work with City of Coeur d'Alene to document the HMI architecture and layout guidelines. The VT SCADA servers will be configured, and the reusable objects will be created, and HMI tag naming standards will be developed. With the tools created in Phase I this will provide the upfront work to dive into Phase II, create a standardized application, and eliminate rework.

a. Assumptions

- i. The tag data structures utilized for the development of the VT SCADA Application will be based off the tag data structures in the Secondary Building PLC.
 1. Modification to the PLC program will be made where it makes sense to reduce substantial manual linking and future rework.
 2. H2E plans to updating/create five (5) User Defined Types (UDTs).
- ii. A tag correlation file will be necessary to reference newly developed VT SCADA based objects and attributes to the HMIs indirectly referenced PLC tags. Documentation of the tag correlation will aid in application development, maintenance, and used in the test plan.
 1. This will be a manual process as automated tools do not work for evaluating tag linking.
- iii. The VT SCADA primary and redundant servers will be sized according to the VT SCADA sizing guidelines.
- iv. The field HMIs will be compatible with the latest release of VT SCADA
- v. The Vendor TMF PLC logic will not change
- vi. *The Vendor TMF local HMI will not change*
- vii. *The Vendor Centrifuge PLC logic will not change*
- viii. *The vendor Centrifuge HMI will not change*

b. Deliverables

- i. Develop a Standards document based on discussions with City of Coeur d'Alene
 1. Document will include tag standards, colors, control functions, graphic standards, screen layout, and navigation.

- ii. Configure the VT SCADA Servers
 - 1. Includes VT SCADA software installation, driver installation
 - 2. Redundancy configuration
 - 3. Historian configuration
 - 4. Server configuration
- iii. Configure the Field HMIs
 - 1. Includes programming and setup of HMIs
 - 2. Does NOT include installation documentation of equipment specification
- iv. Develop standard graphics and reusable objects to be used in VT SCADA
 - 1. Develop 20 reusable components
 - 2. Each reusable component will have an associated graphic(s)
 - a. The graphic will correlate to the conditions determined in the standards document and approved by the City of Coeur d'Alene.
- v. Develop a correlation file between VT SCADA object attributes and PLC tag reference. The correlation file will be used in the test plan for commissioning in Phase III.
 - 1. The document will be used in development and maintenance as well as a tool for future PLC upgrades.
 - 2. Alarms will be captured in the correlation file.

Phase II: Application Development

Phase II will be to create the application. To layout and link the reusable components created in Phase I onto the Main displays and Pop-ups. The connections to the PLCs will be configured in this phase and all required HMI tags will be created and linked to the associated PLC tags. Navigation and screen design will be completed during this phase in addition to linking all the object attributes to the HMI tags. The effort to create the HMI tags and then link them to the associated HMI objects will be the largest effort of this phase and will require manual input.

- a. Assumptions
 - i. No software or hardware purchasing included as this is to be completed by the City of Coeur d'Alene.
 - ii. City of Coeur d'Alene will provide IP Addressing.
 - iii. Estimate based on 60 Main displays and 44 Pop-ups.
 - iv. Estimate based on one (1) Ad-Hoc trends and eight (8) pre-configured trends.
 - v. Estimate based on four (4) users to configure with security privileges
 - 1. The users included View only, Operator, Supervisor, and Administrator

- vi. Configuration of 500 alarms (primarily discrete alarms) in the VT SCADA system, to match the configuration in the existing Wonderware System.
- vii. Estimate based on all analog data being historized at the same rate
 - a. No historization of discrete data is included in this estimate
- viii. Estimate based on modifying each PLC to utilize the five (5) User Defined Types created in Phase I.
- ix. Vendor PLC's will not be modified during this upgrade
- x. Estimate includes the labor hours to directly link each tag reference to a VT SCADA attribute and to re-create expressions and animations used in Wonderware or agreed upon in Phase I
- xi. H2E will be provided a spare processor to be utilized for emulation testing and connection of HMI tags to PLC tags.
- xii. The network modifications to prep for HMI Upgrade are largely complete. CDA has requested the network switches be managed by City IT. Configuration of the network switches is not part of the scope of this project.
- xiii. Virtual Machine development and VT SCADA configuration is by H2E. Server (Host) hardware setup and configuration is performed and managed by City IT.

b. Deliverables

- i. Finalize number of screens/popups required in VT SCADA.
- ii. Main Displays
 - 1. Including Main Displays, Pop-ups, Trending
- iii. Create four (4) Users that will have access to the runtime application for VT SCADA and associated Security
 - a. View-Only will not have any control
 - b. Operator will have control of required items
 - c. Supervisor will have control of required items and the ability to change setpoints
 - d. Admin will have full control to make operations modifications as well as application modifications
- iv. PLC connections configured (13)
- v. Alarm development (600)
- vi. Historical data configuration (All analog tags)
- vii. Redundancy testing on the servers
- viii. Test Plan development outlining functions to be tested while onsite and signed off by City of Coeur d'Alene.
- ix. Test Procedure development defining the procedures and items that will be tested as part of the System Implementation

In addition to the assumptions and deliverables listed above the following deliverables have been added by direct request from the City of Coeur d'Alene or were included to assist in the development and implementation of the VT SCADA system.

c. Additional Assumptions

- i. Additional meeting time has been added to encompass the time required to develop and full understanding of what the City of Coeur d'Alene envisions for the screens as the outcome of this project. As the City of Coeur d'Alene does not want an updated copy of their current system.
- ii. The City of Coeur d'Alene has requested that an unspecified number of the Main Displays have preconfigured trends and that the allocated number of eight (8) above is likely not sufficient.
 - a. 5 additional preconfigured Trends have been added for Main Displays
- iii. Navigation includes forward and back buttons to allow operations to view screens in a repeatable fashion.
- iv. Modifying the PLC program to utilize standard blocks throughout the facility now, rather than waiting on a complete PLC upgrade project.
 - a. Creating and implementing PLC program blocks during the VT SCADA upgrade assists in the PLC to SCADA system linking as standardized blocks are utilized.
 - b. Implementing PLC programming during the VT SCADA upgrade also reduces future rework costs associated with relink the majority of the SCADA System.
 - c. The existing equipment control blocks cannot be modified as part of this project because Wonderware still needs to operate until VT SCADA is accepted and Wonderware is decommissioned. Removal of the existing equipment control blocks is not part of this VT SCADA upgrade project; the PLC logic cleanup will be performed during each individual PLC Upgrade.

Phase III: System Implementation

Phase III includes the onsite support for software installation, integration into the network, verify communications, perform site acceptance testing, and operator training. H2E's recommendation is to bring the VT SCADA system up in parallel with the Wonderware system to allow for comparison while transitioning to the VT SCADA system.

a. Assumptions

- i. H2E assumes that the Wonderware System and the VT SCADA system will run in parallel initially. Control will be done via the VT SCADA system and verified through the Wonderware application. Commissioning will test every available item, should there be any items that cannot be tested the HMI systems should be run in parallel until all items in the VT SCADA system can be fully tested.

1. H2E assumed that the PLCs will allow multiple connections. This includes existing connection to Wonderware and the new connection to VT SCADA to run the systems in parallel.
 - ii. VT SCADA Clients will be configured in the Library, the Operator's office, and at eight (8) in field thin clients
 - iii. City of Coeur d'Alene will provide all network connections for the new VT SCADA system.
 - iv. Testing will include visual verification, as well as control functions approved by City of Coeur d'Alene. Any control functions that are not available for testing will be documented and signed off by City of Coeur d'Alene after commissioning.
- b. Deliverables
- i. Emulation Testing to verify linking between the HMI and a PLC tag. This testing will ensure that the link does exist in the PLC, but final verification will be done onsite when the connection is showing live data.
 - ii. Onsite support for software acceptance testing is allocated as a reasonable estimate.
 1. Twelve (12) days for one (1) engineer for onsite SAT support after implementation.
 2. H2E will provide a test document upon completing commissioning that will document the links and equipment that has been tested, alarms that are tested, and any items that could not be tested.

TMF HMI VTSCADA Screen Development

In addition to the assumptions and deliverables listed above the following deliverables have been added by direct request from the City of Coeur d'Alene or were included to assist in the development and implementation of the VT SCADA system.

Phase I: Standards Creation

a. Additional Assumptions

- i. The City of Coeur d'Alene has requested that the TMF screens be recreated in the VT SCADA application rather than use a VNC to view the HMI in the field.
3. The City of Coeur d'Alene has communicated that no changes are to be made to the Vendor PLC so H2E will need to work with the existing TMF PLC code. This means that for all the reusable objects to function the same for the TMF as the rest of the facility, new standard objects must be developed

b. Additional Deliverables

- ii. 10 Additional reusable components
- iii. An additional tag correlation file will be necessary to reference newly developed VT SCADA based objects and attributes to the TMF HMIs

tags. Documentation of the tag correlation will aid in application development, maintenance, and used in the test plan.

4. This will be a manual process as automated tools do not work for evaluating tag linking.

Phase II: Application Development

- a. Additional Assumptions
 - i. None.
- b. Additional Deliverables
 - i. 20 Main displays
 - ii. 13 popups
 - iii. 1 PLC connection
 - iv. 50 unique alarms
 - v. 25 unique callouts
 - vi. 25 historized tags

Phase III: System Implementation

- c. Additional Assumptions
 - i. None.
- d. Additional Deliverables
 - i. Three (3) days for SAT
 - ii. Additional time was added to the include the TMF in the Test documentation required for commissioning
 - iii. Six (5) additional days, to be used as required, have been added for Post commissioning support at the request of the City of Coeur d'Alene.

Centrifuge HMI VTSCADA Screen Development

In addition to the assumptions and deliverables listed above the following deliverables have been added by direct request from the City of Coeur d'Alene or were included to assist in the development and implementation of the VT SCADA system.

Phase I: Standards Creation

- a. Additional Assumptions
 - i. *The City of Coeur d'Alene has requested that the Centrifuge screens be recreated in the VT SCADA application rather than use a VNC to view the HMI in the field.*
 1. *The City of Coeur d'Alene has communicated that no changes are to be made to the Vendor PLC so H2E will need to work with the existing Centrifuge PLC code. This means that for all the reusable objects to function the same for the Centrifuge as the rest of the facility, new standard objects must be developed*

b. Additional Deliverables

- i. *Three (3) Additional reusable components*
- ii. *An additional tag correlation file will be necessary to reference newly developed VT SCADA based objects and attributes to the Centrifuge HMI's tags. Documentation of the tag correlation will aid in application development, maintenance, and used in the test plan.*
 1. *This will be a manual process as automated tools do not work for evaluating tag linking.*

Phase II: Application Development

a. Additional Assumptions

- i. *None.*

b. Additional Deliverables

- i. *4 Main displays*
- ii. *5 popups*
- iii. *1 PLC connection*
- iv. *54 unique alarms*
- v. *10 unique callouts*
- vi. *5 historized tags*

Phase III: System Implementation

a. Additional Assumptions

- i. *None.*

b. Additional Deliverables

- i. *One (1) day two (2) engineers for SAT*
- ii. *Additional time was added to the include the Centrifuge in the Test documentation required for commissioning*

Engineering Fee Estimate

H2E anticipates our support will be provided on a Time & Expense basis. Based on our understanding of the scope required to execute the VTSCADA Upgrade for CDA WTP, as clarified herein, our estimate is broken down as follows:

Base Scope

- Phase I Standards Development and Documentation - **\$57,284**
 - Standards Document
 - Emulation Testing with CDA
 - Test Procedure
- Phase II Application Development - Plant HMI Programming – **\$139,498**
- Phase II Application Development - Plant PLC Programming - **\$77,324**

- Phase III System Implementation - Plant Commissioning - **\$33,440**
 - 12 days 1 engineer
 - Network / VTSCADA Hardware Setup
 - Subsystem Testing
 - Functional Testing
- Post Commissioning Support – **\$7,564**
 - 5 days 1 engineer

Optional Scope – TMF Screen Development for VTSCADA

- Phase 1 Standards Development and Documentation - **\$23,400**
 - Standards Document
 - Test Procedure
- Phase II Application Development - HMI Programming – **\$58,696**
- Phase III System Implementation - Commissioning - **\$10,482**
 - 3 days 1 engineer
 - Subsystem Testing
 - Functional Testing

Optional Scope – Centrifuge Screen Development for VTSCADA

- *Phase 1 Standards Development and Documentation - \$8,851*
 - *Standards Document*
 - *Test Procedure*
- *Phase II Application Development - HMI Programming – \$19,697*
- *Phase III System Implementation - Commissioning - \$2,925*
 - *1 day 2 engineers*
 - *Subsystem Testing*
 - *Functional Testing*



SCADA Upgrade

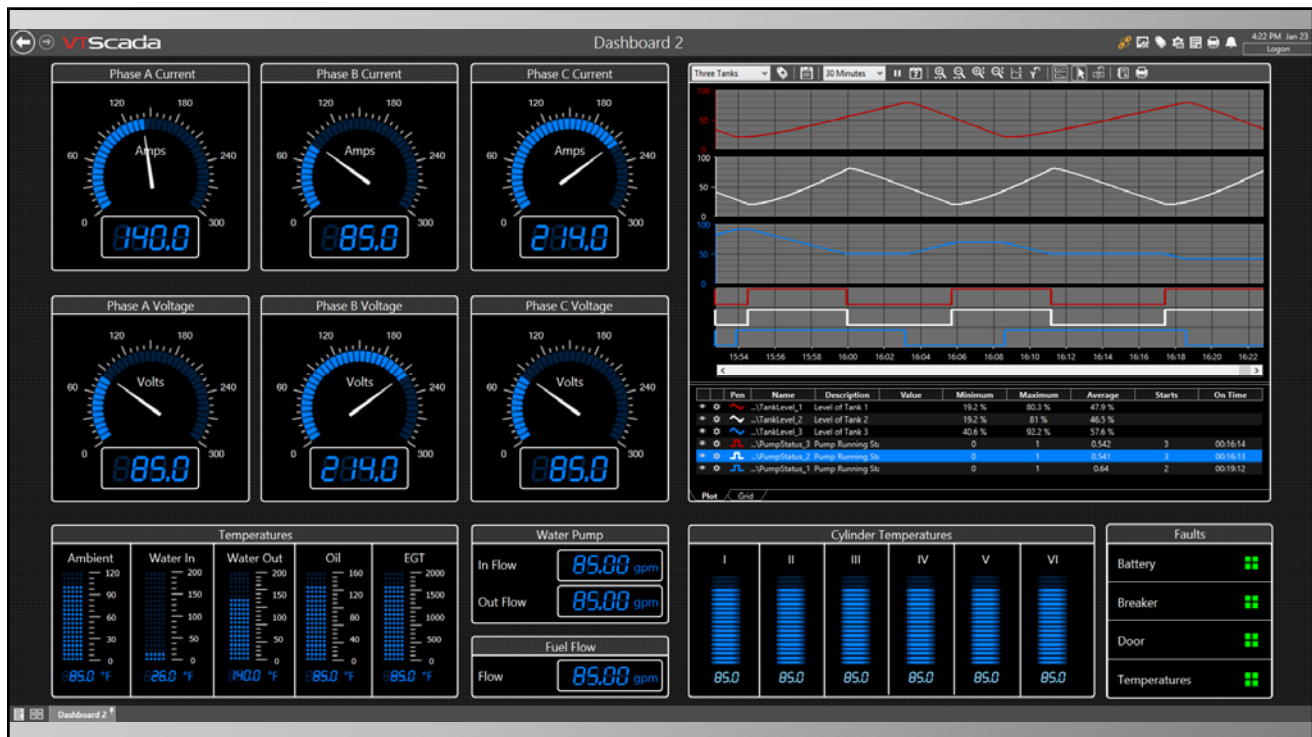
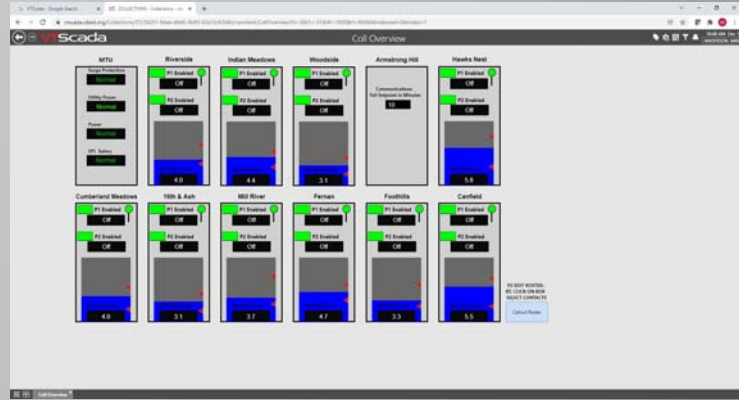
**CITY OF COEUR D'ALENE
WASTEWATER DEPARTMENT**



What is SCADA?

Supervisory
Control
And
Data
Acquisition

Used to gather data and interface with equipment throughout the Wastewater Treatment Facility.



Current SCADA

- **Software is unsupported**
- **Alarming system is separate from SCADA**
- **User interface is not uniform**
- **“Behind the scenes” code is not standardized.**



UPGRADE in PHASES

- **Phase 1 – Standards Creation**
- **Phase 2 – Application Development**
- **Phase 3 – System Implementation**

Completion of this project is expected by the end of 2022.



COSTS

Phase	Base	Option 1 (TMF)	Option 2 (Centrifuge)	Total
1	\$57,284	\$23,400	\$8,851	\$89,535
2	216,822	58,696	19,697	\$295,215
3	41,004	10,482	2,925	\$54,411
Total	\$315,110	\$92,578	\$31,473	\$439,161



**GENERAL SERVICES/PUBLIC WORKS COMMITTEE
STAFF REPORT**

DATE: December 13, 2021

FROM: Mike Becker, Capital Programs Manager, WW Department

SUBJECT: Amendment to Professional Services Agreement with HDR Engineering, Inc., for the Solids Handling Improvements Project

DECISION POINT: Should City Council approve an amendment to the City's existing Professional Services Agreement (PSA) with HDR Engineering, Inc., for additional professional services associated with the Wastewater Department's Solids Handling Improvements Project?

HISTORY: On August 18, 2020, pursuant to Resolution No. 20-045, the City entered into a PSA with HDR Engineering, Inc., for the design improvements to the Solids Handling Facility at the City's Wastewater Treatment Facility. This PSA was limited to the evaluation, preliminary design, and technical assistance for replacing the Belt Filter Press, and the pre-purchase of centrifuge dewatering equipment. After a multi-stage manufacturer pre-qualification process, on September 17, 2021, the City awarded the contract for the new centrifuge, with related equipment, to GEA Westfalia pursuant to Resolution No. 21-048. Barring unforeseen delays, we should take delivery of this equipment around May 2022.

Each centrifuge manufacturer presents multiple proprietary operational and dimensional requirements, resulting in a wide array of engineering design parameters. Understanding that the centrifuge is the primary driver for the Solids Handling Improvements Project, this Project's final design could not be completed until a centrifuge manufacture was selected. With the selection of GEA's centrifuge, HDR can now provide its costs to complete this Project's final design elements, cost estimates, construction sequencing, and plans and specifications for bidding purposes. As part of this process, HDR will also need to prepare additional shop drawings and technical submittals for review and approval. It was for this reason that Task 500 was set up and reserved within the original PSA's scope, and is now brought forward for City Council.

FINANCIAL ANALYSIS: A summary of the original PSA tasks and costs are presented in Grey in the table below. These tasks and costs were presented to City Council on August 18, 2020. The PSA amendment for Task 500 – Management Reserve - as proposed herein is presented in [Blue](#).

TASK	DESCRIPTION	COSTS
100	Project Management	\$21,908
200	Regulatory Liaison, Permits, and Approvals	\$1,472
300	Concepts Development and Evaluation	\$36,580
400	Core & Preliminary Design	\$155,296
500	Additional Project Elements & Final Design Development (Management Reserve)	\$117,093
600	Final Contract Documents	\$14,323
700	Solids Building Improvements and Centrifuge Installation Bidding Administration	\$3,206
800	Construction Phase Services	Future
900	Construction Phase Field Services	Future
1000	Post Construction and Close-out Services	Future
Total Excluding Tasks 500, 800-1000:		\$232,785
Total with Original PSA + Task 500:		\$349,878

The Solids Handling Improvements Project is a multi-year project and will likely extend into FY 2022/2023. Funding for this project, including engineering services, is currently budgeted under #031-022-4354-7998. A copy of HDR's amended scope, modified Project Schedule and Compensation is attached for your review.

It is worth noting that once a general contractor is awarded a contract for construction, a second amendment for the remaining Tasks 800-1000 (in **Green**) will be negotiated and presented to the City Council. This is the typical process for the City's multi-year large scale treatment facility projects.

PERFORMANCE ANALYSIS: Task 500 is a continuation of the ongoing Solids Handling Improvements Project. HDR was selected for this Task in accordance with Idaho Code § 67-2320(4) which allows for the City to negotiate an extended or new professional services contract for an associated or a phased project. This amendment has been determined by the Legal Department to be consistent with Idaho law.

DECISION POINT/RECOMMENDATION: Council should approve the amendment to the Professional Services Agreement (PSA) with HDR Engineering, Inc., for additional Professional Services associated with the Solids Handling Improvements Project Task 500 – Management Reserve - at an additional cost of \$117,093.00.

AMENDMENT NO. 1
to
PROFESSIONAL SERVICES AGREEMENT
Between
CITY OF COEUR D'ALENE and HDR ENGINEERING, INC.
For
SOLID HANDLING IMPROVEMENTS PROJECT

This Amendment to the Professional Services Agreement is made and entered into the ____ day of December, 2021, between the City of Coeur d'Alene, Kootenai County, Idaho, a municipal corporation organized and existing under the laws of the state of Idaho, hereinafter referred to as the "City," and HDR Engineering, Inc., a Nebraska corporation, with its principal place of business at 412 E. Parkcenter Blvd., Suite 100, Boise, Idaho 83706, hereinafter referred to as the "Consultant," pursuant to the terms and conditions as set forth herein.

W I T N E S S E T H:

WHEREAS, on August 18, 2020, pursuant to Resolution No. 20-045, the City and the Consultant entered into a Professional Services Agreement for the Solids Handling Improvements Project, specifically for the design improvements to the Solids Handling Facility at the City's Wastewater Treatment Facility; and

WHEREAS, the Professional Services Agreement was necessarily limited to the evaluation, preliminary design, and technical assistance for the replacement of the Belt Filter Press and the pre-purchase of centrifuge dewatering equipment; and

WHEREAS, the City issued a bid solicitation for the pre-purchase of a new centrifuge with related equipment and, pursuant to Resolution No. 21-048, awarded the contract for the centrifuge to GEA Westfalia, and, barring unforeseen delays, the Wastewater Department should take delivery of the centrifuge in or around May 2022; and

WHEREAS, the centrifuge is the primary driver for the Solids Handling Improvements Project, but, until the centrifuge manufacturer was known, the Project's final design could not be completed. With the selection of GEA's centrifuge, the Consultant can now provide the project's final design elements, cost estimates, construction sequencing, and plans and specifications for bidding purposes. As part of this process, the Consultant will also need to prepare additional shop drawings and technical submittals for review and approval;

WHEREAS, these tasks were described in the original Professional Services Agreement, but the costs were unknown and, so, compensation for these costs was not included in the Professional Services Agreement; and

WHEREAS, the Consultant is available and is willing to provide personnel and services to prepare the final design elements, cost estimates, construction sequencing, plans and

specifications, additional shop drawings, and technical submittals for the Solids Handling Improvements Project; and

WHEREAS, Section 10 of the Professional Services Agreement allows for modifications to the scope of services to be provided by the Consultant for additional reasonable compensation.

NOW, THEREFORE, in consideration of the terms, conditions and covenants of performance contained or incorporated herein, the City and the Consultant agree that the Professional Services Agreement entered into on the 18th day of August, 2020, shall be amended as follows:

Section 1. Scope of Services

The scope of services is amended to include the scope of services, schedule, and compensation as described in Exhibit “A” hereto, entitled: Solids Handling Improvements Project at the Coeur d’Alene Advanced Wastewater Treatment Facility (AWTF) for the City of Coeur d’Alene, Idaho, Scope of Services, Schedule, and Compensation, Modified for Amendment 01 – November 15, 2021.

Section 2. Compensation

For services described in this Amendment, the Consultant’s total compensation for professional services, including labor and overhead costs and expenses, sub-consultant compensation, and sub-consultant mark-up, shall be One Hundred Seventeen Thousand Ninety-three and no/100 Dollars (\$117,093.00). This brings the total compensation under the Professional Services Agreement to Three Hundred Forty-nine Thousand Eight Hundred Seventy-eight and no/100 Dollars (\$349,878.00) for the Solids Handling Improvements Project.

Section 3. Schedule

The Project Schedule for the services performed pursuant to this Amendment shall be as set out in Exhibit “A.”

CITY OF COEUR D’ALENE

HDR ENGINEERING, INC.

Steve Widmyer, Mayor

Kate Eldridge, Vice President

ATTEST:

ATTEST:

Renata McLeod, City Clerk

Zelma Z. Miller, Department Accountant

EXHIBIT A

SOLIDS HANDLING IMPROVEMENTS PROJECT AT THE COEUR D'ALENE ADVANCED WASTEWATER TREATMENT FACILITY (AWTF)

FOR THE

CITY OF COEUR D'ALENE, IDAHO

SCOPE OF SERVICES, SCHEDULE, AND COMPENSATION

MODIFIED FOR AMENDMENT 01 – NOVEMBER 15, 2021

Introduction - Scope of Services

The Scope of Services is for HDR Engineering, Inc. ("HDR") to provide preliminary engineering design, detailed design and bidding services to the City of Coeur d'Alene, Idaho ("CITY") related to improvements to the solids handling system at the Coeur d'Alene Advanced Wastewater Treatment Facility (AWTF). Currently, the City operates a single centrifuge with a belt filter press as a standby dewatering unit. The improvements will include the replacement of the existing belt filter press with a new dewatering centrifuge, manufacturer control panel and associated polymer and odor control equipment, as well as planning for other Solids Handling Building improvements that may, or may not, be implemented in conjunction with provision of the new dewatering equipment depending upon decision making in the course of project development.

The scope of services identified below is based on the 2019 partial condition assessment of the wastewater treatment plant that was completed as an initial step of the 2018 Wastewater Treatment Facility Plan Update, the 2018 Wastewater Treatment Facility Plan Update, the January 2018 Evaluation of Solids Handling Facilities conducted at the partial condition assessment, and discussions with the City Management and Operations Staff.

The project is further defined as facilities to replace the existing belt press and associated system components with a new high solids dewatering centrifuge system including new emulsion polymer feed from the City's new emulsion polymer feed system. It is anticipated that these facilities will generally include the following:

- Core Project Item - Demolition of the existing belt press, solids feed, and polymer feed in the existing belt press area of the Dewatering Room on the upper level of the Solids Handling Building.
- Core Project Item - Installation of one (1) new City pre-qualified and pre-purchased centrifuge.

- Core Project Item - Installation of new electrical and control equipment in a new conditioned area of the electrical room, or if additional space is needed an extension of the electrical room or use of the existing dry polymer (aging tank) storage room.
- Core Project Item - Connection of exhaust air from the centrifuge and liquid/solids discharges to the existing odor control and ventilation system.
- Core Project Item - Connection of the new dewatering equipment to the existing emulsion polymer feed system.
- Core Project Item – Evaluation of the electrical and structural requirements for the condition when both centrifuges are running simultaneously in parallel.
- Management Reserve Item - Evaluation of additional building space to allow for a larger electrical room on the upper level of the Solids Handling Building and addition of emulsion polymer storage. The building addition and storage facilities will be an additive item to the centrifuge purchase and installation project
- Management Reserve Item – Design of additional odor control collection and treatment to support the Solids Handling Building addition and solids loadout facilities.
- Management Reserve Item - Additional assistance with the procurement of the centrifuge, including coordination with the City and centrifuge manufacturers on equipment testing requirements. Review, scoring, and responding to qualification statements, bench scale testing reports, and bid proposals from centrifuge manufacturers. Held discussions and provided recommendation information for selection of centrifuge equipment.
- Management Reserve Item - Additional services associated with the centrifuge pre-construction services including review City pre-purchased centrifuge mechanical and electrical shop drawings for compliance with the requirements of the procurement documents. Up to 2 resubmittals for each submittal is assumed, distribute reviewed submittals to the City and centrifuge manufacturer, evaluate and respond to up to three (3) RFIs from the centrifuge manufacturer.
- Management Reserve Item - Evaluation of modifications to the existing solids loadout room to include a full enclosure of the loadout facility to enable odor control for this area.
- Management Reserve Item - Evaluation of odor control alternatives for the centrate storage tank and selection of the preferred alternative for potential addition of odor control for the facility.
- Management Reserve Item - Evaluation of the Solids Handling Building odor control facilities alternatives, including the solids loadout and centrate storage, for adding odor control to the new and existing systems at the Solids Handling Building as an additive item to the centrifuge purchase and installation project.

Assumptions

The Scope of Services for design and bidding services is based on the following assumptions:

- The design and bidding services are based on the preparation of one (1) construction pre-qualification package, one (1) centrifuge pre-qualification package, one (1) pre-purchase package for procurement of a single centrifuge via pre-procurement and one (1) construction installation package for removal of the existing belt filter press in the Solids Handling Building upper level and installation of the City-supplied centrifuge system in the same location as the demolished belt filter press.
- The results from the Concepts Development and Evaluation Task Series 300 may result in changes to the scope and fee necessary if the Project scope changes.
- HDR standard AutoDesk CADD format and 6-digit specifications standards will be used for drawings and technical specifications.
- The City's standard Agreement and HDR developed pre-qualification and bidding documents will be utilized for this project. HDR will assist in the development of these documents.
- HDR's Master Specification system will be used for all technical specification sections.
- The centrifuge pre-purchase will be expedited on a fast-track basis immediately following the completion of the Concepts Development and Evaluation Task.
- A preliminary structural analysis of the Solids Handling Building will be completed to determine whether the new centrifuge will require additional structural modifications. A more thorough analysis will be completed as part of the detailed design scope. This scope assumes the detailed analysis will confirm no significant issues will be associated with the installation of the centrifuge.
- A preliminary electrical evaluation will be conducted to determine whether the new centrifuge equipment can be connected to the existing electrical service equipment at the Solids Handling Building. A new Centrifuge switchboard and Control Panel will be added on the upper level either in a new electrical room addition or existing electrical room.
- The new centrifuge equipment will be provided with a vendor-furnished PLC. A new City PLC will not be required. The City's existing SCADA system will communicate to the vendor-furnished PLC via a network connection.

A summary list of the tasks and task descriptions are presented below.

- Task Series 100 – Project Management
- Task Series 200 – Regulatory Liaison, Permits, and Approvals
- Task Series 300 – Concepts Development and Evaluation
- Task Series 400 – Core Project Preliminary and Final Design

- Task Series 500 – Additional Project Elements Preliminary and Final Design (Management Reserve)
- Task Series 600 – Final Contract Documents
- Task Series 700 – Solids Building Improvements and Centrifuge Installation Bidding Administration
- Task Series 800 – Construction Phase Services (Future Task)
- Task Series 900 – Construction Phase Field Services (Future Task)
- Task 1000 – Post Construction and Close-out Services (Future Task)

Task 100 - Project Management

Objective:

Provide project management activities over project duration, including planning, organizing and monitoring project team activities, preparing and monitoring bidding document production standards, attending meetings, budget management, and liaison with City.

ACTIVITY 101.1 TEAM MANAGEMENT AND PROJECT CONTROL

- Budget and invoice management.
- Schedule monitoring and update for project development.
- Resource management and allocation based on project schedules and activities.
- Production coordination.
- Monthly progress report submitted to City with each payment request.

ACTIVITY 101.2 PRODUCTION GUIDE STANDARDS

- Develop Design Memorandum (Project Guide) for HDR personnel to define activities, constraints, guidelines, budgets and procedures.
- Review Project Guide with designated City representatives for comments.
- Maintain Project Guide, distribute and update as activities dictate.

ACTIVITY 101.3 WORKSHOPS

- Workshop 1 will be conducted to:
 - Initiate Project
 - Review scope, summarize project objectives, and define project schedule.
 - Collect data including existing drawings and documents.
 - Review draft Dewatering Technology Confirmation TM (Task 301.2).
 - Review City requirements for redundancy, operational flexibility and construction sequencing.
- Workshop 2 will be conducted to:
 - Facilitate review of design features (Task 301.2).
 - Facilitate monetary and non-monetary discussion for the available manufacturers and centrifuge size (Tasks 301.2 and 301.3).
 - Discuss screening of manufacturers, equipment specifics, performance requirements and procurement options (Task 301.3).

- Review preliminary structural and electrical requirements (Tasks 301.5 and 301.6).
- Review preliminary facility layouts and impacts on existing facilities (Task 301.7).

ACTIVITY 101.4 QUALITY CONTROL

- Conduct team meetings on a regular basis during study and design phases to facilitate communication flow and study/design development.
- Provide independent quality control reviews for each technical memorandum and at 30, and 90 percent completion of design documents.
- Schedule internal audits of the project to confirm compliance with scope and the project quality assurance plans.

City Activities:

City will:

- Provide timely review and processing of monthly progress report and invoices.
- Provide timely review and comment on Project deliverables.
- Coordinate City staff participation and actively participate in Meetings and Workshops.
- Identify and provide relevant prior studies, reports, and drawings prepared by others.
- Provide and make arrangements for facilities to conduct Meetings and Workshops.

HDR Deliverables:

The following deliverable shall be provided:

- Monthly Project status reports and invoices
- Meeting and Workshop agenda and minutes
- Project Guide (Design Procedures Memorandum)

Key Understanding and Assumptions:

The following is understood or assumed:

- Specific deliverable review meetings are included under subsequent task.

Task 200 - Regulatory Liaison, Permits, and Approvals

Objective:

Provide support and assistance to the City in obtaining project permits and approvals.

HDR Activities:

ACTIVITY 201.1 PERMITS AND AGENCY REVIEWS:

- Support the City in obtaining required permits.
- Provide technical information, drawings, and design data necessary for permits.

- Respond to comments and questions from review agencies and incorporate as appropriate.
- Possible permits include:
 - IDEQ Construction.
 - Coeur d'Alene Building Department.

ACTIVITY 201.2 REGULATORY REVIEW OF FINAL DESIGNS.

Following the City's review and acceptance, perform the following:

- Deliver final design basis, drawings, and specifications to regulatory agencies.
- Respond to regulatory agency comments and questions and incorporate comments as appropriate in final designs.

City's Activities:

City will:

- Support HDR staff in communicating with the Idaho Department of Environmental Quality (IDEQ).
- Review, sign and submit Permit Applications, and pay all associated fees.
- Identify, prepare, submit, and pay associated fees in connection with required building permits.

HDR Deliverables:

The following deliverables shall be provided:

- Application for Permit to Construct.

Key Understandings and Assumptions:

The following is understood or assumed:

- HDR's effort is associated only with assistance on the permits specifically identified above.
- Additional permits required by the Contract Documents shall be obtained by the Construction Contractor in accordance with the Contract Documents.

Task 300 - Concepts Development and Evaluation

Objective:

Identify, evaluate and provide recommendations required to establish a firm design approach for the development of contract documents required to meet the goals of the project.

HDR Activities:

ACTIVITY 301.1 SOLIDS BUILDING FUNCTIONAL REVIEW

- Review all Solids Building functional requirements, including the near-term need to replace the aging belt filter press. Consideration will be given to solids dewatering enhancements, as well as planning for the more inclusive aspects of the following:
 - Belt Filter Press Replacement
 - Controls Additions For A New Centrifuge and Other Associated Equipment
 - Polymer System Modifications and Polymer Storage
 - Truck Enclosure Improvements
 - Solids Building Structural and Architectural requirements, including odor control and visual aesthetics
 - Odor Control Revisions Including Possible New Odor Treatment For The Solids Handling Building
 - Centrate Screening Addition
 - Centrate Tank Cover Installation

ACTIVITY 301.2 CONFIRMATION OF DEWATERING CENTRIFUGE DESIGN FEATURES

- Review updated solids projections, updated costs and application of non-monetary criteria to confirm centrifuge design.
- Develop Dewatering Centrifuge Design Features memorandum including recommendations on materials of construction, equipment size, electrical and controls, and required workable space for operation and maintenance. Submit to the City for their review and comment before finalization.

ACTIVITY 301.3 CONFIRMATION OF SIZING OF CENTRIFUGE

- Develop flow projections and solids balance information that considers the projected 10-year solids loadings and flows.
- Develop capital and operations costs for a centrifuge matching the City's existing centrifuge, and also evaluate the installation of a larger unit that will also address the City's growth projection. Provide a brief summary memorandum for discussion and consideration by the City.

ACTIVITY 301.4 PROCUREMENT OF CENTRIFUGE

- Evaluate and compare centrifuge equipment to identify and screen manufacturers, select desired components, features and performance requirements and analyze monetary and non-monetary criteria.
- Provide DRAFT Procurement documents including general conditions and technical specifications for City review and comment before finalization.

ACTIVITY 301.5 PRELIMINARY STRUCTURAL EVALUATION

- Review centrifuge layouts and sizing and consider structural requirements for the existing Solids Handling Building structure. Consider structural configurations that would allow flexibility and performance desired by the City.

- Provide a brief Preliminary Structural Evaluation summary memorandum for City review and comment before finalization.

ACTIVITY 301.6 PRELIMINARY ELECTRICAL EVALUATION

- Review centrifuge electrical requirements and consider the existing Solids Handling Building electrical capacity and determine modifications necessary for support of an additional centrifuge.
- Identify needed requirements for the existing Solids Handling Building electrical system. Consider electrical configurations that would allow flexibility and performance desired by the City and that will minimize dewatering down time for construction.
- Provide a brief Preliminary Electrical Evaluation summary memorandum for City review and comment before finalization.

ACTIVITY 301.7 FACILITY LAYOUTS AND IMPACTS

- Work with City to develop an economical and operator “friendly” layout considering impacts to existing facilities and operations, and one that allows sequenced installation to maintain required dewatering operations during construction.
- Develop a preliminary Sequence of Construction that establishes the constraints and milestones for the Installation Contractor, coordinates with equipment delivery, and accounts for allowable outages planned with Operations Staff.
- Provide hand drawn preliminary layout sketches for City review and comments before finalization.

ACTIVITY 301.8 PREDESIGN REPORT

- Consolidate all technical memoranda into one preliminary design report.
- Meet with City to review recommendations of all technical memoranda.

City’s Activities:

City will:

- Provide timely, organized review comments on deliverables issued for City review
- Coordinate City staff participation.

HDR Deliverables:

The following deliverables shall be provided:

- DRAFT and Final Preliminary Design Report, including the following:
 - Centrifuge Design Features memorandum
 - Centrifuge Selection memorandum

- Preliminary structural evaluation memorandum
- Preliminary electrical evaluation memorandum
- Preliminary equipment layout sketches
- DRAFT Centrifuge procurement documents

Key Understandings and Assumptions:

The following is understood or assumed:

- The City has elected to use centrifuge dewatering technology.
- The City would like to evaluate the installation of a similar sized machine to their existing centrifuge against installation of a larger unit that will meet the City's full solids loading and solids flow conditions on its own.
- Unless otherwise defined elsewhere, one (1) electronic (.pdf) copy of all deliverables will be submitted to the City.
- TM review meetings with the City to review and finalize comments on each of the deliverables will occur as defined above in Task 101.3 – Workshops.
- The City would like to evaluate Solids Handling Building layouts that also incorporate polymer storage and centrate screening. Evaluation of polymer storage and centrate screening will be completed as part of the preliminary design.
- The City would like to evaluate enclosure options for the solids loadout area and odor control for the solids handling building. Evaluation of odor control will be completed as part of the preliminary design.

Task 400 - Core Project Preliminary and Final Design

Objective:

Production of 30 percent and 90 percent documents for centrifuge installation including modifications to existing facilities where necessary for the centrifuge installation. Installation of added building area to house polymer storage, future centrate screening and mechanical, electrical and odor control additions are not included in this task. Advancement of design documents to ninety percent will be completed in conjunction with Task 500 as determined by the City.

HDR Activities:

ACTIVITY 401.1 DEVELOPMENT OF SOLIDS HANDLING BUILDING PRELIMINARY DESIGN

- Based upon the results of the Task Series 300, prepare a preliminary design that incorporates a recommended design for the Solids Handling Building that includes design of the preliminary recommendations for:

- Belt Filter Press Replacement
- Controls Additions For A New Centrifuge and Other Associated Equipment
- Based on results from Task Series 300, prepare a preliminary Process and Instrumentation Diagram (PID) including piping size and configuration and location of key instrumentation elements for the centrifuge system and complete a SCADA summary of operator I/O and alarms for the new centrifuge unit, with provision for a future replacement centrifuge in the future.
 - City review and document finalization.
 - Submit PID to City for review and comment.
 - Conduct in-person review meeting at the City of Coeur d'Alene WWTF Administration Building Conference Room.

ACTIVITY 401.2 DEVELOPMENT OF PRELIMINARY DRAWINGS OF DEWATERING FACILITIES

- Based on results from Task Series 300, prepare preliminary design criteria, preliminary dewatering room layout plans and sections derived from modeled layouts, and P&ID and process design criteria drawings to 30 percent.

ACTIVITY 401.3 DEVELOPMENT OF PRELIMINARY SPECIFICATIONS

- A preliminary list of technical specifications will be developed.

ACTIVITY 401.4 DEVELOPMENT OF A PRELIMINARY SEQUENCE OF CONSTRUCTION

- Based upon the results from the Task Series 300 and Task Series 401.1 and 401.2 results, develop a preliminary Sequence of Construction that identifies the Centrifuge Replacement project and other necessary Solids Handling Building Improvements and establishes the constraints and milestones for the Installation Contractor.

ACTIVITY 401.5 DEVELOPMENT OF OPINION OF PROBABLE CONSTRUCTION COST

- Develop Opinion of Probable Construction Cost (Class 4 per AACE Recommended Practice No. 17R-97) based on the preliminary contract drawing and specifications.

ACTIVITY 401.6 – REVIEW OF THIRTY PERCENT DOCUMENTS

- Perform internal QC review of design deliverables.
- HDR will transmit thirty percent documents and its Opinion of Probable Construction Costs to City for review and comment.
- HDR will conduct a telephone conference call with City to discuss and resolve review comments.
- HDR will provide a team of HDR review professionals not associated with the project to review the thirty percent documents. Those review comments will be evaluated with City's comments and incorporated into the design documents as required.

ACTIVITY 401.7 DEVELOPMENT OF NINETY PERCENT DRAWINGS

- Develop drawings to approximately 90 percent complete.

ACTIVITY 401.8 DEVELOPMENT OF NINETY PERCENT CONTRACT TECHNICAL SPECIFICATIONS AND COST ESTIMATE

- Develop preliminary technical specifications of materials, equipment systems, standards and workmanship for the project work as well as certain applicable administrative details to ninety percent complete.
- Develop a 90 percent opinion of probable construction cost estimate update, based upon the initial cost estimate developed in Task 401.5. Incorporate a Contingency Line Item in the ninety percent cost estimate, estimated up to two (2), project Change Orders that include unexpected costs. Set the project contingency at 5 percent of the total estimated probable construction cost.

ACTIVITY 401.9 DOCUMENT REVIEWS

- Perform internal QC reviews by engineering disciplines and address QC comments prior to City submittal.
- Perform operability and constructability review.
- Submit ninety percent documents to City for review and comment.
- Meet with City via telephone conference call to discuss and resolve comments.
- Incorporate City comments into documents.

ACTIVITY 401.10 ADDITIONAL CENTRIFUGE PROCUREMENT SERVICES

- Coordination with the City and centrifuge manufacturers on equipment testing requirements.
- Review, scoring, and responding to qualification statements, bench scale testing reports, and bid proposals from centrifuge manufacturers.
- Held discussions and provided recommendation information for selection of centrifuge equipment.

City's Activities:

City will:

- Provide timely, organized review comments on deliverables issued for City review.

HDR Deliverables:

The following deliverables shall be provided:

- Preliminary PID.
- Preliminary 30 percent drawings, including process design criteria, floor plans and pertinent sections derived from the process model.

- Preliminary specifications list.
- Opinion of Probable Construction Cost based on the 30 percent design documents.
- Design Development Drawings to 90 percent complete.one (1) full size drawing set in .pdf format.
- Preliminary Technical Specifications for Centrifuge Installation, in .pdf format.

Key Understandings and Assumptions:

The following is understood or assumed:

- Unless otherwise defined elsewhere, one (1) computerized file of all deliverables will be submitted to the City.
- Preliminary design drawings will generally consist of the following:
 - Structural discipline: Preliminary major structural elements and structural details.
 - Mechanical discipline: Preliminary routing of ductwork revisions (assuming existing HVAC equipment is sufficient with no modifications anticipated other than for any new spaces.)
 - Process discipline: Preliminary area layouts including equipment orientation and routing of major solids conveyance and piping.
 - Electrical discipline: Preliminary one-line diagram and equipment layouts for the proposed modifications.
 - Instrumentation discipline: Location of major field instrumentation components impacting piping layout, preliminary I/O listing and preliminary communication diagram.
- One 1-hour Project Coordination telephone conference meeting with the City and HDR design personnel per week is scoped for the design team to communicate status and expedite design.
- Opinion of Probable Construction Cost will be developed using Excel software with the format of estimate being broken down by discipline in the 6-digit specification format.
- It is assumed a maximum two-week review period will be required by City to complete its review and comment period for the Preliminary Design. After that period, the HDR design team will meet with the City staff in a single telephone conference meeting to discuss and resolve City comments.

Task 500 - Additional Project Elements Preliminary and Final Design (Management Reserve)

Objective:

Production of 30 percent and 90 percent documents for additional Solids Handling Building modifications identified during Task 300. Installation of added building area to house polymer storage, and mechanical, electrical and odor control additions are included in this task as determined by the evaluation completed in Task Series 300. Advancement of design documents to ninety percent will be completed in conjunction with Task 400 as determined by the City. The scope and fee for these improvements is undefined at this time since the specific improvements resulting from the Task 300 remain to be developed. As a result, the Task 500 scope and fee for services will be updated following Task 300 completion.

HDR Activities:

ACTIVITY 501.1 DEVELOPMENT OF SOLIDS HANDLING BUILDING PRELIMINARY DESIGN ADDITIONS

- Based upon the results of the Task Series 300, include in the preliminary design completed as part of Task 401 the recommended design additions for the Solids Handling Building. The following additions may be included in the design:
 - Polymer System Modifications and Polymer Storage
 - Truck Enclosure Improvements
 - Solids Handling Building architectural features to improve appearance of these facilities from the Centennial Trail.
 - Odor Control Revisions Including Possible New Odor Treatment for The Solids Handling Building and Centrate Storage Tank.
 - New Centrate Storage Pumping
 - Centrate Tank Cover and Mixer Installation
- Based on results from Task Series 300, modify the preliminary Process and Instrumentation Diagrams (PIDs) including piping size and configuration and location of key instrumentation elements for the added items selected by the City.
 - City review and document finalization.
 - Submit PID modifications to City for review and comment.
 - Conduct telephone conference with City to discuss and resolve comments.

ACTIVITY 501.2 DEVELOPMENT OF PRELIMINARY DRAWINGS OF DEWATERING FACILITIES

- Based on results from Task Series 300, prepare preliminary design criteria and layout plans and sections for the additions identified.

ACTIVITY 501.3 DEVELOPMENT OF PRELIMINARY SPECIFICATIONS

- The preliminary list of technical specifications will be modified to include the additions selected by the City.

ACTIVITY 501.4 DEVELOPMENT OF A PRELIMINARY SEQUENCE OF CONSTRUCTION

- Based upon the results from the Task Series 300 and Task Series 401.1 and 401.2 results, modify the preliminary Sequence of Construction to also include other selected Solids Handling Building Improvements and establish the constraints and milestones associated with the selected additions for the Installation Contractor.

ACTIVITY 501.5 DEVELOPMENT OF OPINION OF PROBABLE CONSTRUCTION COST

- Modify the Opinion of Probable Construction Cost (Class 4 per AACE Recommended Practice No. 17R-97) to include the selected additions to the contract drawing and specifications.

ACTIVITY 501.6 – REVIEW OF THIRTY PERCENT DOCUMENTS

- Perform internal QC review (using a team of HDR review professionals not associated with the project) to review the thirty percent documents of the additional design deliverables.
- HDR will incorporate internal QC review comments into the 30 percent design documents and the associated Opinion of Probable Construction Costs, and will submit to the City for review and comment.
- HDR will conduct a telephone conference call with City to discuss and resolve review comments. City review comments will be incorporated into the design documents as required.

ACTIVITY 501.7 DEVELOPMENT OF NINETY PERCENT DRAWINGS

- Develop drawings of the selected additional design features to approximately ninety percent complete.

ACTIVITY 501.8 DEVELOPMENT OF NINETY PERCENT CONTRACT TECHNICAL SPECIFICATIONS AND COST ESTIMATE

- Modify the preliminary technical specifications of materials, equipment systems, standards and workmanship for the added project work, as well as associated and applicable administrative details, to 90 percent complete.
- Modify the 90 percent opinion of probable construction cost estimate update that includes the selected additions.

ACTIVITY 501.9 REVIEW OF NINETY-PERCENT DOCUMENTS

- Perform internal QC review (using a team of HDR review professionals not associated with the project) to review the 90 percent documents of the additional design deliverables.

- HDR will incorporate internal QC review comments into the ninety percent design documents and the associated Opinion of Probable Construction Costs, and will submit to the City for review and comment.
- HDR will conduct a telephone conference call with City to discuss and resolve review comments. City review comments will be incorporated into the design documents as required.

ACTIVITY 501.10 CENTRIFUGE PRE-CONSTRUCTION SERVICES

- Review City pre-purchased centrifuge mechanical and electrical shop drawings for compliance with the requirements of the procurement documents. Up to 2 resubmittals for each submittal is assumed.
- Distribute reviewed submittals to the City and centrifuge manufacturer.

Evaluate and respond to up to three (3) RFIs from the centrifuge manufacturer. Incorporate City comments into documents City's Activities:

City will:

- Provide timely, organized review comments on deliverables issued for City review.

HDR Deliverables:

The following deliverables shall be provided:

- Preliminary 30 percent drawings of all additional facilities identified, including modified process design criteria, floor plans and pertinent sections derived from the process model.
- Specifications list for additional items identified.
- Opinion of Probable Construction Cost based on the 30 percent design documents for additional items identified.
- Design Development Drawings, to 90 percent complete, of additional items identified.

Key Understandings and Assumptions:

The following is understood or assumed:

- One 1-hour Project Coordination telephone conference meeting with the City and HDR design personnel per week is scoped for the design team to communicate status and expedite design.
- Opinion of Probable Construction Cost will be developed using Excel software with the format of estimate being broken down by discipline in the 6-digit specification format.
- It is assumed a maximum two-week review period will be required by City to complete its review and comment period for the Preliminary Design. After that period, the HDR

design team will meet with the City staff in a single telephone conference meeting to discuss and resolve City comments.

- Redesigns associated with modifications of previously approved technical memorandums and other preliminary design documents are not included in this Scope of Services.
- One Project Coordination meeting is scoped for the design team per week to communicate status and expedite design.
- Unless otherwise defined elsewhere, one electronic (.pdf) file of all deliverables will be submitted to the City.

Task 600 - Final Contract Documents

Objective:

Finalize documents developed in Task Series 400 to final Bidding Documents. This Task includes only those items required for removal of the existing belt filter press and installation of a new dewatering centrifuge and necessary mechanical, electrical and building modifications.

HDR Activities:

ACTIVITY 601.1 DEVELOPMENT OF CONTRACT DRAWINGS

- Develop final drawings to graphically show the scope, extent and character of the work to be performed by the successful bidder.

ACTIVITY 601.2 DEVELOPMENT OF CONTRACT TECHNICAL SPECIFICATIONS

- Develop final technical specifications from ninety percent specifications.

ACTIVITY 601.3 DEVELOPMENT OF FRONT-END DOCUMENTS

- Assist the City in the development of special provisions and modifications to the City's standard bidding and contract documents as appropriate for this project.

ACTIVITY 601.4 DEVELOPMENT OF OPINION OF PROBABLE CONSTRUCTION COST

- Develop final Opinion of Probable Construction Cost (Class 2 per AACE Recommended Practice No. 17R-97) to reflect contract document content, based upon the estimate update in Task 401.8.

ACTIVITY 601.5 DOCUMENT REVIEWS

- Submit bid documents to City for review and comment.
- Meet with City by telephone conference call to discuss and resolve comments.
- Finalize bid documents and issue to regulatory agency per Task Series 200.
- Conduct internal QC of bid documents.

- Incorporate City, regulatory agency and internal HDR QC comments into final bid document packages.

City's Activities:

City will:

- Provide timely, organized review comments on deliverables issued for City review.

HDR Deliverables:

The following deliverables shall be provided:

- Final Contract Drawings, Front-End Documents and Technical Specifications 90 percent complete), one (1) full size drawing set, drawings .pdf file and specifications .pdf file.
- Final Bid Documents, one (1) full size drawing set, drawings .pdf file and specifications .pdf file.
- Final Opinion of Probable Construction Cost.

Key Understandings and Assumptions:

The following is understood or assumed:

- It is assumed a maximum two-week review period will be required by City to complete its review and comment period. After that period, the HDR design team will meet with the City staff in a single telephone conference call meeting to discuss and resolve City comments.
- HDR's internal review will be conducted by a team of HDR's professional engineers and architects not directly associated with the Project.
- Redesigns associated with modifications of previously approved technical memorandums and other preliminary design documents are not included in this Scope of Services.
- One Project Coordination meeting is scoped for the design team per week to communicate status and expedite design.
- City's legal staff and purchasing will be involved with review and finalization of front-end documents.
- The City's contract documents will be used as a basis for development for the front-end documents with development of supplemental and/or special conditions by HDR with City input.
- Unless otherwise defined elsewhere, one (1) hard copy and one (1) computerized file of all deliverables will be submitted to the City.

Task 700 - Solids Handling Building Improvements and Centrifuge Installation Bidding Administration

Objective:

Provide technical assistance to City in pre-qualification of general contractors, obtaining and evaluating bids, and awarding the contract for the Final Contract Documents defined in Task Series 600.

HDR Activities:

ACTIVITY 701.1 INSTALLATION CONTRACTOR PRE-QUALIFICATION

- Develop contractor pre-qualification specifications using the City's standard pre-qualification specifications.
- Assist the City in the City's advertisement for contractor pre-qualification.
- Provide interpretations and answer questions City concerning the pre-qualification documents as requested by the City.
- Assist the City in the evaluation of pre-qualification submittals and development of the pre-qualified contractors list.

ACTIVITY 701.2 INTERPRETATIONS AND PRE-BID CONFERENCE

- Provide interpretations and answer bidders' questions concerning the bidding documents as requested by the City.
- Develop addenda as appropriate to interpret, clarify or expand the bidding documents in response to bidders' questions.
- Prepare Pre-Bid Meeting Agenda, conduct meeting, address technical issues, record notes and prepare and submit minutes to the City.

ACTIVITY 701.3 BID EVALUATION AND RECOMMENDATION OF AWARD

- Assist the City with the review and evaluation of submitted Bid Forms and associated documentation in relation to requirements of bidding documents.
- Provide written recommendation of award based on review.

City's Activities:

City will:

- Provide timely, organized review comments on deliverables issued for City review.
- Receive pre-qualification proposals through the City's bidding system.
- Receive bid proposals through the City's bidding system.
- Provide final selection of accepted proposal.

- Obtain additional information required for bid evaluation that is not included at time of bid form submission.
- Secure executed contracts and required bonds and insurance certificates from selected bidder.

HDR Deliverables:

The following deliverables shall be provided:

- Contractor pre-qualification proposal review comments
- Pre-Bid Meeting agenda and notes
- Addenda, for distribution by the City
- Written evaluation and recommendation for award of bid.

Key Understandings and Assumptions:

The following is understood or assumed:

- HDR's Project Manager will attend the Pre-bid Conference.
- HDR's bid evaluation will be limited to information presented by the bidders at the time of the bid opening.

Task 800 - Construction Phase Office Services (Future Task)

ACTIVITY 801.1 SUBMITTALS REVIEW AND PROCESSING – CENTRIFUGE

- Review City Pre-purchase centrifuge shop drawings and operation and maintenance manuals for compliance with the requirements of the contract documents. Up to 20 separate shop drawings are estimated to be reviewed, at an estimated 4 hours for each shop drawing including technical review and processing.
- Log, mark and distribute transmittals to City and manufacturer.
- Distribute approved submittals to the Contractor.
- Maintain log of submitted transmittals to monitor the progress and status of approvals.

ACTIVITY 801.2 CENTRIFUGE MANUFACTURERS PROGRESS ESTIMATE

- Review and process applications by the centrifuge manufacturer for progress payments, prior to assignment to contractor after award of construction contract, submitted based upon manufacturer contract terms. Make recommendations to the City for acceptance.

ACTIVITY 801.3 PRECONSTRUCTION MEETING

- Prepare agenda and conduct pre-construction conference to discuss and establish project procedures. Prepare meeting minutes and distribute to attendees.

ACTIVITY 801.4 SUBMITTALS REVIEW AND PROCESSING - CONTRACTOR

- Review shop drawings for compliance with the requirements of the contract documents.

- Log, mark and distribute transmittals to City and contractor.
- Maintain log of submitted transmittals to monitor the progress and status of submittals.
- Review the following miscellaneous submittals required by the contract documents and provide comments to City.
 - Initial construction schedule.
 - Concrete and other test reports.
 - Schedule of values.

ACTIVITY 801.5 CONTRACTOR'S PROGRESS ESTIMATE

- Review and process applications by the contractor for progress payments submitted on a monthly basis consistent with the City's procedures. Three (3) originals are required each attached to an AIA pay request form or other approved format.
- Ensure certified payroll reports are submitted by Contractor to HDR (If required) and forwarded to City with Contractor pay applications.
- Make recommendations to the City for acceptance and transmit to the City for processing.

ACTIVITY 801.6 PROJECT MEETINGS

- Project Manager to conduct up to six (6) two-hour progress (monthly / bimonthly as necessary) meetings at the project site or City's office during construction. Review project progress, resolve any current problems and identify future issues for resolution.
- Prepare agenda and meeting minutes and distribute to attendees.

ACTIVITY 801.7 CONSULTATION AND SITE VISITS (DESIGNERS)

- Consult on design and design modifications and contract non-performance issues.
- Provide interpretations and clarifications of the construction documents during construction.
- Conduct up three (3) periodic visits by designers, with up to three design technical leads for a maximum of 4 hours and the design team site representative for a maximum of 4 hours.

ACTIVITY 801.8 ADMINISTER REQUESTS FOR INFORMATION (RFIS)

- Receive, log and distribute RFIs to appropriate design team members.
- Evaluate and respond to RFIs. It is assumed for this scope of services, up to 20 RFIs will be reviewed, at approximately 1 hour for each RFI response.
- Log design team responses and distribute responses to Contractor and City.

ACTIVITY 801.9 ADMINISTER CHANGED WORK

- Initiate or receive, log, distribute and track changes.
- Technical processing of Requests for Substitution:
 - Review substitution requests and assist in negotiating cost or time changes associated with substitutions.
- Technical Processing of Field Orders (FOs):
 - Evaluate Project to determine when FOs are required. Prepare FOs where appropriate.

- Technical Processing of Change Proposal Requests (CPRs):
 - Evaluate Project to determine when CPRs are required. Prepare CPR where appropriate.
 - Evaluate CPR pricing and time when CPRs are returned from contractor.
 - Assist in negotiations with contractor as required and make final recommendations to City.
- Processing Change Orders (COs):
 - Prepare change orders and forward to the City.
- Maintain log of submitted transmittals to monitor the progress and status of approvals.

ACTIVITY 801.10 PROJECT MANAGEMENT

- Project Management activities listed to be provided during completion of Task Series 800 and 900.
- Provide project monitoring and reporting.
- Provide resource management and allocation based on project schedules and activities.
- Provide budget and invoice management.
- Provide coordination with City.

Key Understandings and Assumptions:

The following is understood or assumed:

- Construction contract activities will begin in early 2021 and construction will be finally complete by July 31, 2021. HDR will utilize its Project Tracker software to log and track Contractor submittals.
- It is assumed that the cost of reviewing Contractor's initial shop drawing submittals and one resubmittal are included in this scope. The review costs associated with any subsequent resubmittals will be paid for by the Contractor.
- City staff will determine compliance with prevailing wage requirements, check pay rates against schedules, conduct contractor employee interviews and maintain compliance reports.
- The City will provide the necessary contract coordination for assignment of the centrifuge manufacturer's contract to the Contractor. HDR will assist the City with the assignment process.
- HDR will provide the services of a sub-consultant to provide the Special Inspection Services as required by the Contract Documents.

Task 900 - Construction Phase Field Services (Future Task)

ACTIVITY 901.1 RESIDENT SERVICES

- Relay written and/or verbal communications between the Engineer and the contractor.
- Inform the Engineer and City of construction activities and issues on a timely basis.
- Report to the Engineer whenever work appears to be unsatisfactory, faulty or defective, has been damaged or does not conform to the contract documents.

- Maintain orderly files of project meetings, shop drawings, contract documents, addenda, work directives, change order and progress estimates.
- Review and reconcile progress estimates with contractor in the field and coordinate with Engineer to determine payment amount.
- Assist Engineer in preparing punch list when project reaches substantial completion.
- Coordinate materials testing and review results to determine contractor compliance with the requirements of the contract documents.
- Provide weekly construction report to the City.
- Provide observation of Pre-Demonstration and Demonstration periods.

Key Understandings and Assumptions:

The following is understood or assumed:

- HDR will provide one project representative (RPR) to provide approximately half- time (up to 500 hours) observation during an approximate 5-month period from Notice to Proceed, assuming March 15, 2021, to Final Completion, assuming July 31, 2021.

Task 1000 - Post Construction and Close-Out Services (Future Task)

ACTIVITY 1001.1 SUBSTANTIAL COMPLETION AND FINAL INSPECTION

- Conduct substantial completion inspection and prepare a report (punchlist) covering observed discrepancies, deficiencies and omissions in the work performed by the contractor.
- Prepare certification of substantial completion when contractor has completed work in substantial compliance with the contract documents.
- Make recommendation regarding retainage to the City.
- Conduct a final inspection of the project upon correction of deficiencies.
- Assist in preparation of close-out documents and make recommendation for final payment.

ACTIVITY 1001.2 SOLIDS HANDLING IMPROVEMENTS O&M MANUAL – HARD COPY

- Provide one (1) electronic copy of the Electronic Operations Manual for the systems modified and/or constructed as part of the Solids Handling Improvements project. This manual insert will be added to the City's existing electronic Operations and Maintenance Manual and will address the overall operation for the new facilities to supplement the individual equipment O&M manuals furnished by manufacturers and suppliers.
- The Operations Manual will include the following, as a minimum:
 - General description, flow schematic and design parameters for the new and modified facilities, including the centrifuge and polymer systems and associated electrical and control systems.
 - Detailed descriptions and design parameters for the new and modified facilities.

- Descriptions of control and normal and alternate operations of the new and modified facilities.

ACTIVITY 1001.3 START-UP ASSISTANCE

- Assist in process decisions associated with start-up of new and modified solids handling facility equipment, processes and systems.
- Review and assist the Contractor in coordinating and executing City staff training on Project systems as required by the contract documents.
- Assist the contractor in startup of new facilities by providing technical input from which he can make decisions for system startup, testing and demonstration.
- Monitor assembly and delivery of Operation and Maintenance Manuals required by the contract documents.
- Provide up to 16 hours of on-site start-up and training assistance near the completion of the construction project, including the demonstration of successful centrifuge cake production for at least 3 consecutive hours. This service will be in addition to manufacturer's start-up and training which will be required in construction contract documents.
- Provide an 11-month site walk-through with the City and one representative of HDR to evaluate the equipment installation's compliance with the one-year warranty period. Complete a brief consultant and City reflection on the project, and develop a bullet list of lessons learned for the project. Submit the lessons learned summary to the City.

ACTIVITY 1001.4 AS-RECORDED DRAWINGS

- Prepare record drawings showing changes made during the construction process. Drawings are based on mark-ups, drawings and other data furnished by the contractor.
- Provide the City one (1) set of record drawings and an electronic file in AutoCAD format.

ACTIVITY 1001.5 PROJECT MANAGEMENT

Project Management activities listed to be provided during completion of Task Series 400.

- Provide project monitoring and reporting.
- Provide resource management and allocation based on project schedules and activities.
- Provide budget and invoice management.
- Provide coordination with City.

Key Understandings and Assumptions:

Activities covered by this Task Series will be completed in approximately two (2) months after contractor notice of Substantial Completion.

- Substantial and final inspections will include the HDR Project Manager and up to one person from each design discipline, but not more than three (3) people total. Only one of each inspection is anticipated. Additional inspections will be at the expense of the Contractor.

- Contractor will furnish final equipment O&M manuals, provide associated equipment training to City's staff, and successfully complete performance and demonstration testing.

PROJECT SCHEDULE

The proposed project schedule is summarized in the Table below.

Project Task	Estimated Schedule
Design Development (30% & 90%)	11/16/21-1/29/22
Final Contract Documents (100%)	1/29/22-2/28/22
Bidding	03/15/22-04/28/22
Executed Construction Contracts	05/14/22, estimated
Installation Construction	05/14/22-09/15/22, estimated

COMPENSATION

Project Task/Activity	Description	Fee
Task 500	Additional Project Elements Preliminary and Final Design (Management Reserve) ¹	\$65,057.00
Activities 501.1 – 501.9	Design, OPCC, and Reviews	\$47,536.00
Activity 501.10	Centrifuge Pre-construction Services	\$4,500.00
Amendment Total		\$117,093.00

1. This amount is in addition to the existing \$65,057.00 under Task 500 - Management Reserve not included within original PSA.

**GENERAL SERVICES/PUBLIC WORKS COMMITTEE
STAFF REPORT**

DATE: DECEMBER 13, 2021

FROM: KYLE MARINE, ASSISTANT DIRECTOR

**SUBJECT: AWARD OF BID FOR PURCHASE OF A 750 KW GENERATOR FROM
 WESTERN STATES CAT**

=====

DECISION POINT: Should City Council authorize the Purchase of a 750 KW Generator from Western States CAT using an approved government purchasing program known as Sourcewell.

HISTORY: The Atlas Well was drilled in 1971 to 350' deep. It has a tested production capacity of 6000 gallons per minute (GPM). The production well is 20" in diameter and cased or screened to the bottom. The estimated production rate will consistently produce a rate of approximately 4000 gpm for the City's High Zone and is currently getting set up to feed the low zone as needed making this well more critical for summer peak demands. Per requirements from the Idaho Department of Environmental Quality (DEQ), the Water Department is required to provide auxiliary power at our top 3 producing wells in each zone along with all new pump stations per IDAPA 58.01.08 for public water system design criteria. It also is a requirement for backup power so that it can operate as a standalone system if needed.

FINANCIAL ANALYSIS: The Water Department has budgeted \$200,000.00 in this fiscal year's budget for Backup Power for the wells. Staff proposes to use the approved government purchasing program, Sourcewell, that has completed the competitive bid process. The bid price for the proposed 750 KW generator is \$176,767.00.

PERFORMANCE ANALYSIS: The proposed generator is sized to adequately run the 600-horsepower pump motor and related equipment at the Atlas Well. The generator is diesel powered with a self-contained double wall; sub-frame mounted fuel tank capable of running the generator at full load for a minimum of eight (8) hours as required by IDAPA 58.01.08 design criteria. The generator will have a sound attenuated enclosure to protect it from the elements and keep a decibel reading of 75 dba @ 23 feet. It will sit on a concrete pad on the south side of the building just inside the fence. The control features of the generator will be equipped with a manual transfer switch to switch from the power provider to the generator as needed in an emergency.

REQUESTED ACTION: City Council should approve the purchase of a 750 KW generator for the new Atlas Well from Western States CAT for \$176,767.00, using the Sourcewell member pricing.



Proposal

Project: Atlas Well 750kW

Date: 12/08/2021

Quote: 30987270

Attn: Kyle Marine

Valid: 30 days

From: Brant Briody

Generator Set:

Manufacturer: Caterpillar hz	Model: C18 UL2200 Listed: Yes	KW: 750	Rating: Standby	Fuel: Diesel	Voltage: 277/480 3 ph 4 wire	Frequency: 60
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Controls:

Control Panel: EMCP 4.2B	Speed Control: Electronic Isochronous	Remote Alarm Panel: None	Alarm Panel Mounting: Not Applicable
Remote Emergency Stop: 1 - Shipped Loose	Remote Communications: Modbus RS-485	Misc Items:	

Accessory Systems:

Coolant Heater: Yes 208/240 vac	Battery Heater: None	Alternator Heater: None	Battery Charger: 10 amp NFPA110	Battery System:
Wet Battery, Rack and Cables 24 vdc		Misc Items:		

Alternator / Breaker:

Excitation System: AREP Brushless	Voltage Regulator: Cat IVR	Ground Fault: GFI Alarm	Circuit Breaker # 1: 1200A LS/I, 100% rated, adjustable trip
Misc Items:			

Packaging:

Enclosure: Sound Attenuated	Sound Level: 75 dBA @ 23'	Fuel Tank: Integral UL142 24 hour, 1367 gallon	Fuel Tank Type: Double Wall UL142
Exhaust System: Interior Mounted	Enclosure Color: White	Electrical Package: 125 Amp Load Center	Misc Items: Includes CAT PLG641 cellular modem. Connection is optional but hardware is provided

Total price for above package

\$176,767

Included:

Startup: PS-Specialist
Maintenance Program: Available
Spare parts kit: No
Warranty Genset: 60 month platinum
Warranty ATS: N/A

Freight: Included to first destination
Site Load test: 100% available building load
Factory Test: 100% load
Owner training: Yes

Not included:

Installation
Taxes / Permits of any kind / Any engineering
Coordination Studies
Any fuel or fuel piping

Offloading at jobsite
Anchors and anchor calculations
Third party testing

Notes and clarifications:

- Quoted specifically for City of Coeur d’Alene Idaho via Caterpillar’s Sourcewell Contract
 - CAT’s contract number is 120617-CAT
 - City of CDA’s membership number is 68749

Terms:

100% of payment is required prior to startup and testing on the jobsite.

Payment terms are in accordance with WSECO Standard terms upon approved account.

No retainer is allowed unless specifically agreed to in writing prior to order placement.

Cancellation charges minimum of 25% once released. No return on manual transfer switches.

No Liquidated Damages of any type, unless specifically agreed to in writing prior to order.

Thank you for the opportunity to quote quality Caterpillar products and services. Please let me know how we can be of assistance.

Sincerely,

Accepted By:

Brant Briody

Power System Sales

Spokane: 509-535-1744

Missoula: 406-721-4050

Kalispell: 406-752-3030

Pasco: 509-547-9541

Lewiston: 208-746-3301

Signature:

Printed Name:

Company:

1. **METHODS OF ACCEPTANCE and TERMS OF AGREEMENT:** This Machine Sales Order ("MSO") is an offer for the sale of the equipment and attachments described on the face hereof (referred to herein generally as "equipment" and "goods" interchangeably) to Customer under the terms and conditions specified herein. This offer may be accepted by (1) the execution of this MSO by a representative of Customer or (2) Customer's verbal or written authorization or conduct consistent with prior course of dealing between the parts authorizing WSECO to take action to fulfill this order, or (3) the commencement of manufacture or shipment of the goods or services specified in this Order, whichever of the foregoing first occurs. **Acceptance of this offer is limited to the express terms stated in this Order.** Any proposal in Buyer's acceptance for additional or different terms or any attempt by Customer to vary in any degree any of the terms or any attempt by Customer to vary in any degree any of the terms of this offer is objected to and hereby rejected, but such proposals shall not operate as a rejection of this offer, unless such variances are in the terms of the description, quantity, price or delivery schedule of the goods or services, but shall be deemed a material alteration of this Order and this offer shall be deemed accepted by Seller without said additional or different terms. Once accepted, this Order shall constitute the entire agreement between WSECO and Customer with regard to the good and services specified in this Order, and exclusively determines the rights and obligations of the parties, prior course of dealing, customer, usage of trade or course of performance notwithstanding. WSECO is not bound by any representation or agreements, express or implied, oral or otherwise, which are not stated within this agreement or contained in a separate writing supplementing this agreement and signed by authorized agents of both WSECO and Customer.
2. **TIME OF DELIVERY and SHIPPING.** Orders for equipment are processed in the order of their acceptance by WSECO and WSECO will use its reasonable efforts to deliver the equipment to You on the scheduled delivery date on the face hereof. However, shipping and delivery dates are acknowledged to be estimates only and dependent upon many factors outside of WSECO's control including, but not limited to, the manufacturer's production schedule, material and labor shortages, shipping delays and various other unrelated factors. WSECO is not liable for delays or damages caused by delays in delivery or shipment of the equipment, unless stated on the face of this order to the contrary. You are responsible for all freight, shipping, loading and unloading costs.
3. To secure Customer's obligations under this agreement and to secure all of Customer's present or future debts, obligations or liabilities of whatever nature to WSECO, Customer grants to WSECO a security interest in the goods described on the reverse side hereof, together with any attachments or accessions thereto and proceeds from the sale or lease thereof. Customer agrees to deliver to WSECO, properly executed, any certificate of title or other document or instrument required by WSECO to perfect WSECO's security interest as created in this paragraph. Customer also authorizes WSECO to file financing statement(s) with respect to the security interest granted herein.

4. Risk of loss of the goods shall pass to Customer as soon as the goods are properly loaded on the carrier. WSECO's responsibility for shipment ceases upon delivery of the goods to a transportation company. Customer shall carry such fire and other insurance as necessary to protect its interest and the interest of WSECO. Any claim by Customer for shortage in shipment shall be made within fifteen (15) days after receipt of the shipment. It is specifically agreed that the risk of loss shall not be altered by the fact that the conduct of either party hereto may constitute a default or breach. The shortage in shipment notice must be in writing within fifteen (15) days and further, short age in shipment is not deemed to constitute a nonconformity.
5. Any notices pertaining to rejection or claims of nonconformity must be made in writing specifying in detail Customer's objections and such notices must be delivered within ten (10) days after delivery of the goods. It is agreed that in the event of rejection, Customer may in no event resell the goods, even in the absence of instructions from WSECO, and Customer will store the goods or reship the goods to WSECO. Should Customer sell the goods, such sale shall be deemed an unequivocal acceptance of the goods. If Customer accepts goods tendered under this agreement, such acceptance shall be final and irrevocable; no attempted revocation shall have any effect whatsoever.
6. No right or interest in this agreement shall be assigned by Customer without the written permission of WSECO, and no delegation of any obligation owed or of the performance of any obligation by Customer shall be made without written permission of WSECO. Any attempted assignment or delegation by Customer shall be wholly void and totally ineffective for all purposes unless made in conformity with this paragraph.
7. WSECO shall have all rights and remedies provided in the Uniform Commercial Code and in any other documents executed in connection with this agreement. Customer agrees to pay all costs incurred by WSECO in enforcing this agreement or any of its provisions, including without limitation reasonable attorney's fees and costs and all costs of reclaiming the goods, whether or not legal action is commenced. In the event the goods are reclaimed, Customer agrees that WSECO may bid on the goods and that a commercially reasonable price for said reclaimed goods, at a public sale, may be determined by WSECO based upon current national auction values, market trends relating to supply and demand, and related factors, for goods of similar type and condition.
8. **CANCELLATION/TERMINATION:** This Order may be canceled by Customer only with WSECO's written consent and then only upon such terms as will protect Seller from any loss. This Order may be cancelled by WSECO in the event of any default by Customer or in the event Customer fails, upon WSECO's request, to provide reasonable assurances of future performance.
9. **PERMISSIBLE VARIATIONS:** All goods shall be subject to the standard manufacturing and commercial variation and practices of the Manufacturer of the goods or of WSECO. In the event of shipment of non-conforming goods, WSECO shall be given a reasonable opportunity to replace the goods with those which conform to this order.
10. **FORCE MAJEURE:** (a) WSECO shall not be responsible or liable for any delay or failure to delivery any or all of the goods and/or performance of the services if such delay or failure is caused by any act of God, fire, flood, inclement weather, explosion, war, insurrection, riot, embargo, statute, ordinance, regulation or order of any government or agent thereof, shortage of labor, material, fuel, supplies or transportation, strike or other labor dispute, or any other cause, contingency, occurrence or circumstance of any nature, whether or not similar to those herein before specified beyond WSECO's control, which prevents, hinders or interferes with manufacture, assembly, or delivery of the goods or performance of the services. Any such cause, contingency, occurrence or circumstances shall release WSECO from performance of its obligations hereunder.
11. **VENUE:** Venue for any disputes between the parties will be in Ada County, Idaho and in state court for legal proceedings. Purchaser waives right to remove any legal action from the court originally acquiring jurisdiction.

Idaho Legal References

Idaho Code § 67-9224 (2017). Cooperative and group discount purchasing

(1) The administrator may authorize an agency to:

(a) Become a participating member of a group discount purchasing organization;

(b) Participate in, sponsor, conduct or administer a cooperative purchasing agreement for property with one (1) or more public agencies, independent of the requirements of section 67-2329, Idaho Code; or

(c) Utilize contracts of other public agencies within this state upon determining that the contract was let in a manner that constitutes competitive bidding consistent with the requirements of this chapter and is otherwise in the best interest of the state.

(2) The state's participation in a cooperative purchase or group discount purchasing organization must be formalized by a written agreement.

(3) The state's entrance fee or participation fee in a group discount purchasing organization must be based on criteria applied to all other members of the organization.

(4) Any agreement entered into pursuant to subsection (2) of this section shall be maintained on file with the division as well as with the agency entering into the agreement.

Local Governments:

Idaho Code § 67-2807 (2017). Joint purchasing agreements--Not-for-profit associations

(1) Political subdivisions may enter into joint purchasing agreements with the state of Idaho or other political subdivisions and may participate in joint purchasing agreements through a joint purchase program established by any not-for-profit association of political subdivisions. Personal property procured pursuant to such joint purchase agreements shall be acquired in accordance with the provisions of this chapter, provided such authority does not preclude or limit political subdivisions from entering into purchase agreements as otherwise provided by statute.

(2) Political subdivisions may participate in a program established by any not-for-profit association of which they become a member to assist such political subdivisions in bidding and negotiating joint purchase contracts and discount purchase agreements. Participation in any such program does not obligate a political subdivision to purchase goods or services through the program or through an agreement negotiated by the program administrator or its board. Political subdivisions shall only be obligated to pay for goods or services where the governing board has approved the purchase. Any not-for-profit association operating such a procurement program shall cause an independent, certified audit of the program to be performed annually. The audit shall be made available to the legislature upon request and a copy shall be made available for public inspection.

About Sourcewell:

Sourcewell is a service cooperative created by the Minnesota legislature as a local unit of government. Minn. Const. art. XII, sec. 3. As a public corporation and agency, Sourcewell is governed by local elected municipal officials and school board members. Minn. Stat. §

123A.21 Subd. 4 (2017). Under its enabling statute, Sourcewell is explicitly authorized to provide cooperative purchasing services to eligible members. Id. at Subd. 7(23).

Sourcewell follows the competitive contracting law process to solicit, evaluate and award cooperative purchasing contracts for goods and services. Sourcewell cooperative purchasing contracts are made available through the joint exercise of powers law to member agencies. Minn. Stat. § 471.59 (2017). Membership in Sourcewell is available for all eligible state and local governments, education, higher education and nonprofit entities across North America. § 123A.21 at Subd. 3.

The information found on the Sourcewell website are provided for educational and informational purposes only. This information contained on the website, including any printed material derived from this website, is not legal advice and no attorney-client or other contractual relationship is formed by access to this information. Information here may be out of date, obsolete, or otherwise inaccurate. Please consult with a qualified attorney regarding any questions.



2014 SEP 30 AM 8:47

SECRETARY OF STATE
STATE OF IDAHO

STATE OF IDAHO

OFFICE OF THE ATTORNEY GENERAL

LAWRENCE G. WASDEN

September 29, 2014

Miren E. Artiach, Deputy Secretary of State
Office of Secretary of State
STATEHOUSE MAIL

Re: Joint Powers Agreement
City of Boise and National Joint Powers Alliance

Dear Ms. Artiach:

Pursuant to Idaho Code § 67-2329, I have reviewed the Joint Exercise of Power Agreement (Agreement) between the City of Boise and the National Joint Powers Alliance submitted to this office on September 15, 2014. Based upon my review, it appears the Agreement is authorized by Idaho Code § 67-2807 and does not violate the provisions of the United States Constitution, the Idaho Constitution, or the Idaho Code. Individual purchases under the Agreement remain subject to compliance with the purchasing laws and policies applicable to the City of Boise and must be evaluated for such compliance as they arise.

Sincerely,

A handwritten signature in black ink, appearing to read "J. K. Weaver", with a long horizontal line extending to the right.

JULIE K. WEAVER
Deputy Attorney General
Contracts and Administrative Law Division

JKW/sb



Finance Department

OVERVIEW OF SERVICES

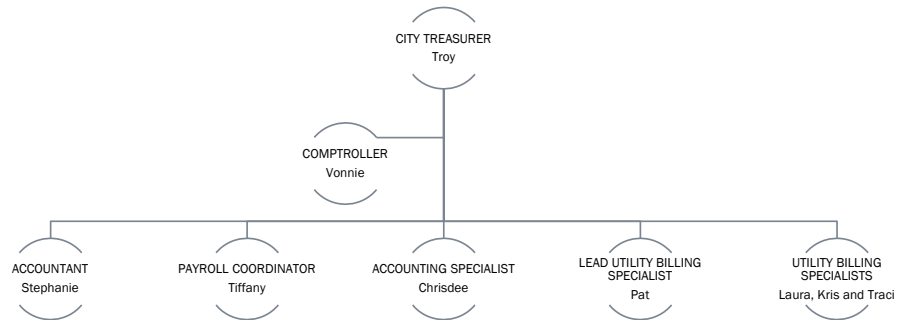
Finance Department Mission Statement

The mission of the Finance Department is to provide exemplary service to our customers both internally and externally and to properly record all City financial activity, while maintaining the highest degree of respect, fairness, public trust and integrity.

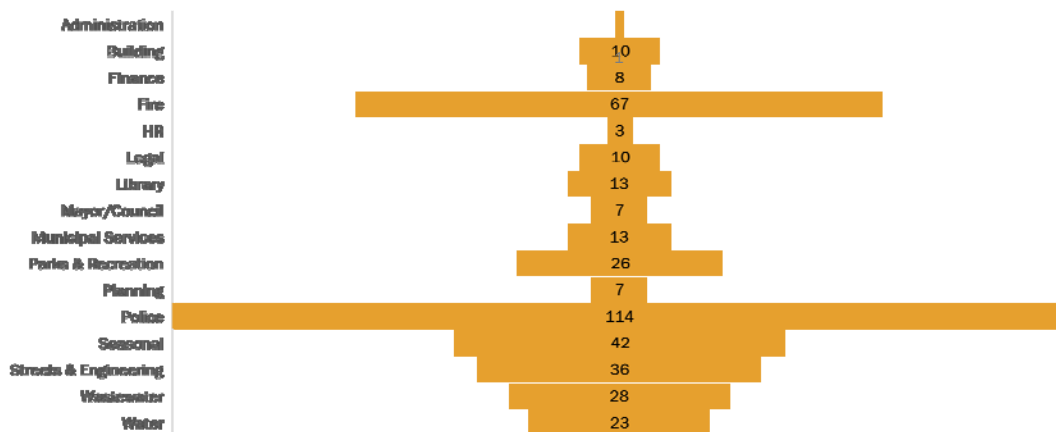
Our principle obligations are to safeguard City assets, maximize revenues, manage the business of City programs, and provide accurate, timely, and complete financial information.



The Finance Team



Departments We Support



Finance Department Overview

- Cash Receipting – electronic, credit cards, checks & cash
- Customer Service
- Utility Billing
- Accounts Payable
- Accounts Receivable
- Payroll & Benefit Payables
- Accounting & Financial Reporting
- Budgeting
- Annual Audit including Single Audit of grants
- Special Assessments and Business Improvement District



Customer Service

- ❖ 600+ phone calls a week
- ❖ over 100 in person contacts a week
- ❖ Cash Receipting: utility payments, building permits, parks & recreation charges, parking fees and tickets, cemetery purchases, water hydrant usage, BIDs, LIDs, ordinance violations, business licenses, fingerprinting, standpipe usage, franchise fees, state revenues, grants
- ❖ Types of cash receipts: electronic payment files 4,000+ /month, credit card payments 5,200/month, checks processed 8,000+/month, over 400 cash payments a month
- ❖ Daily deposit preparation

Utility Billing

- ❖ Utility Account Audits
- ❖ Utility Bills Processed – over 19,000 a month
- ❖ Late Letters Processed – over 11,000 a month
- ❖ Tags for non-payment Processed – over 4,000 a month
- ❖ Collection notices – 150 collection letters, 15 legal demand letters, 10 sent to collections a month
- ❖ Work Orders – over 3,000 a year
- ❖ Ownership Changes – 1,400+ a year
- ❖ Mail Returns – 200 a month

Accounts Payable

- ❖ Invoices processed – 1,700 a month
- ❖ P-card maintenance, processing, reconciliation and compliance
- ❖ Fleet, Building, and Assets Inventory
- ❖ Procurement compliance – public works construction and personal property
- ❖ Compliance with travel policy
- ❖ Annual 1099 reporting
- ❖ W-9 Compliance

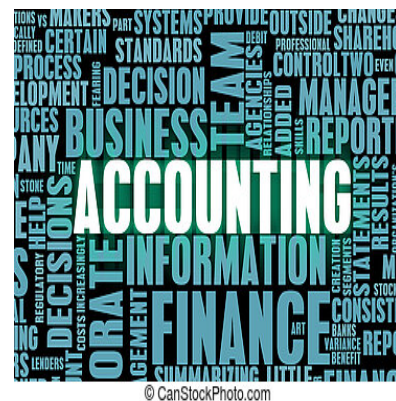
Payroll and Benefits

- ❖ Semi-monthly payroll for 400+ employees
- ❖ Benefit vendors paid and reconciled monthly or semi-monthly – over 24
- ❖ Special payroll payments
- ❖ Monthly Police Retirement payments
- ❖ Monthly Reporting
 - PERSI
 - Payroll tax reporting
- ❖ Quarterly Reporting
 - IRS 941
 - State Unemployment
 - Workmen's Comp
- ❖ Yearly Reporting
 - W-2s
 - Affordable Care Act Reporting



Accounting, Auditing and Financial Reporting

- ❖ Internal Auditing – Reconciliations - Annual Audit
- ❖ Annual Budget Process and Approval
- ❖ Annual Financial Reporting
- ❖ Grant Accounting
- ❖ Debt Management
- ❖ Fixed Asset Accounting
- ❖ Parking Commission Liaison
- ❖ Arts Commission Liaison



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Policies & Procedures

- ❖ Investment Policy
- ❖ P-card Policy
- ❖ Fixed Asset Policy
- ❖ Procurement Policy
- ❖ Federal Award Policy
- ❖ Travel and Training Policy
- ❖ Records Retention Policy
- ❖ Generally Accepted Accounting Principles



Reporting

- ❖ Annual Budget
- ❖ Annual Audited Financial Reports
- ❖ State Unclaimed Property Report
- ❖ State Street Report
- ❖ Monthly Cash Balance Reports
- ❖ Monthly & Quarterly Budget Status Reports
- ❖ Quarterly Department of Insurance Reports
- ❖ Monthly Employee Benefit Trust Reports
- ❖ Yearly Census Report



Recent Accomplishments

- ❖ COVID-19 Pandemic and Grant Reporting
- ❖ Wastewater Bond Refinancing – Savings of \$4.4 million
- ❖ City of Coeur d'Alene Employee Benefits Trust
- ❖ W-9 Audit



Future Goals

- ❖ Automatic payment processing of utility bill payments
- ❖ Update policy and procedure manuals
- ❖ Cross train within Finance Office Staff

