

8. A RESOLUTION AUTHORIZING AN ENGINEERING SERVICES AGREEMENT

STAFF REPORT _____

QUESTIONS FROM COUNCIL ON STAFF REPORT _____

RESOLUTION NO. R-69-16

A RESOLUTION AUTHORIZING THE EXECUTION OF AN ENGINEERING SERVICES AGREEMENT BETWEEN THE CITY OF PULLMAN AND J-U-B ENGINEERING, INC FOR THE PURPOSE OF PROVIDING ENGINEERING SERVICES FOR THE WWTP ULTRAVIOLET LIGHT DISINFECTION AND MISCELLANEOUS IMPROVEMENTS PROJECT. _____

DISCUSSION _____

ACTION TAKEN _____

NOTES:

REQUEST FOR COUNCIL ACTION

For Meeting of : 11/01/16

ACTION REQUESTED:

Authorize an Engineering Services Agreement with JUB Engineers, Inc. for engineering design and bidding/award phase services for UV Disinfection and Miscellaneous Improvements Project.

BACKGROUND:

See attached Staff Report No. 083.

RECOMMENDATION:

Adopt the attached resolution authorizing an Engineering Services Agreement with JUB Engineers, Inc. for engineering design and bidding/award phase services for UV Disinfection and Miscellaneous Improvements Project.

FISCAL IMPACT:

\$715,700.00
403.3386.594.35.41.10
BARS Code Number

SUBMITTED BY:

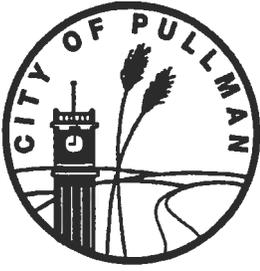
Name Kevin Gardes
Title Public Works Director
Dept. Public Works

ATTACHMENTS FOR COUNCIL REVIEW/ACTION:

- 1. Staff Report No. 083
- 2. Resolution No. R-69-16

REVIEWED BY:

	Initial	Date
Department Head	<u>KGA</u>	<u>10-25-16</u>
City Supervisor	<u>MW</u>	<u>10/26/16</u>
City Attorney (As to Form)	<u>May</u>	<u>10/27/2016</u>



CITY OF PULLMAN

Public Works and Planning Departments

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MEMORANDUM

TO: Mayor and City Council
FROM: Kevin Gardes, Public Works Director
FOR: November 1, 2016 City Council Meeting

Staff Report No. 083

In 2015, the City of Pullman commissioned HDR Engineering, Inc. (HDR) to prepare a Facility Plan for the City's wastewater treatment plant. The final draft of the facility plan was presented to Council at its October 25th regular meeting. The facility plan is a planning level document that considers a twenty year planning horizon and outlines needed capital improvements expected during that timeframe. The plant is currently performing well, with the exception of meeting its effluent permit limitation for dichlorobromomethane (DCBM); this has been difficult to meet on a consistent basis and will require a change in the plant's disinfection process.

As authorized by Council, a Consent Decree amendment was executed on April 25, 2016. The amendment includes one new requirement related to constructing improvements to address the DCBM issue. The facility plan considered different alternative disinfection processes to meet the DCBM permit requirement and recommended switching to ultraviolet light (UV) disinfection. In addition, there are two other related improvements that the facility plan recommends, that we propose be incorporated into a UV project; they are both related to hydraulic capacity:

- 1) The existing piping between the final clarifiers and the plant's disinfection process is undersized and needs to be enlarged to meet redundancy and reliability requirements
- 2) The effluent pumping system capacity is not adequate to pump the plant's full design flow during flood conditions.

It makes sense to address both of these hydraulic constraints with the UV project, as the UV equipment is set to a specific design elevation based on expected flow ranges, and if the two projects are implemented later it would likely require significant modifications to the UV system. The total cost estimate for these improvements, including construction, is \$8,838,987.

We are currently in discussions with WSU to develop a funding agreement specifically for the capital improvements recommended in the facility plan and expect to bring that to Council for approval at a future date. In the meantime, we are recommending proceeding with the design of this project.

Another consideration with this project is that UV disinfection is a component of a wastewater reuse project and part of the recently completed 30% design update prepared by J-U-B Engineers, Inc. (J-U-B)/Esvelt Environmental Engineering, LLC. Should the City decide in the future to construct the remaining wastewater reuse facilities, the UV system must be designed to minimize the impacts that the addition of future wastewater reuse related improvements would have.

A formal selection process was utilized for the wastewater reuse 30% design update. As part of that process the city reserved the right to continue into final design with the selected consultant. Because of J-U-B's familiarity with the treatment plant and wastewater reuse project in particular, staff selected J-U-B as the preferred consultant for final design work. A scope and budget has now been negotiated for this project which includes the design and contract document preparation for:

- 1) Replacement of the existing chlorine disinfection system with a new UV system;
- 2) Upsizing of yard piping from the final clarifiers through disinfection and up to the outfall structure;
- 3) Replacement of the existing effluent pumping system with a new pump station/outfall structure, including replacement of the existing check valve in the outfall line.

The full scope of work is attached as Exhibit A to the Engineering Services Agreement. The project is to be performed on a cost-reimbursable basis with an estimated budget of \$715,700. The agreement uses the city's standard consultant agreement form. Funding will be from the Utility Capital Projects budget of the Utility Fund.

RESOLUTION NO. R-69-16

A RESOLUTION AUTHORIZING THE EXECUTION OF AN ENGINEERING SERVICES AGREEMENT BETWEEN THE CITY OF PULLMAN AND J-U-B ENGINEERING, INC FOR THE PURPOSE OF PROVIDING ENGINEERING SERVICES FOR THE WWTP ULTRAVIOLET LIGHT DISINFECTION AND MISCELLANEOUS IMPROVEMENTS PROJECT.

WHEREAS, the City Council for the city of Pullman has before it an Agreement entitled Engineering Services Agreement which is attached hereto and marked as Exhibit "A"; and,

WHEREAS, this Council believes it to be in the best interests of the city of Pullman to authorize the execution of said Agreement; now, therefore,

IT IS HEREBY RESOLVED that the Mayor and the finance director be and they are hereby authorized and directed to execute the Agreement attached hereto and marked as Exhibit "A" and to deliver an executed original thereof to J-U-B Engineering, Inc.

IT IS FURTHER RESOLVED that the Mayor and finance director are each hereby authorized and directed to take such further action as may be appropriate in order to effect the purpose of this Resolution and the Agreement authorized thereby.

ADOPTED by the City Council of the city of Pullman at a regular meeting held on the _____ day of _____, 2016.

DATED this _____ day of _____, 2016.

Mayor Glenn A. Johnson

ATTEST:

Finance Director Leann L. Hubbard

Approved as to Form:

City Attorney

ENGINEERING SERVICES AGREEMENT

THIS AGREEMENT, made and entered into on this _____ day of _____, 2016, by and between the CITY OF PULLMAN, WASHINGTON, whose address is 325 SE Paradise Street, Pullman, WA 99163, hereinafter called the "CITY," and the consulting firm of J-U-B Engineers, Inc. whose address is 1630 23rd Avenue, Suite 1101-A, Lewiston, ID 83501, the location at which work will be available for inspection, hereinafter called the "CONSULTANT." The contact person for the CITY shall be Kevin Gardes, P.E. The contact person for the CONSULTANT shall be Cory Baune, P.E.

WHEREAS, the CITY desires to upgrade its disinfection system, effluent pumping and associated yard piping at the Waste Water Treatment Plant (WWTP) and

WHEREAS, the CONSULTANT has represented and by entering into this Agreement now represents, that CONSULTANT is in full compliance with the statutes of the State of Washington for registration of professional engineers and that all personnel to be assigned to the work required under this Agreement are fully qualified to perform the work to which they will be assigned in a competent and professional manner; and

WHEREAS, the CONSULTANT desires to do the work set forth in the Agreement upon the terms and conditions set forth below,

NOW, THEREFORE, in consideration of the terms, conditions, covenants and performances contained herein below, the parties hereto agree as follows:

SECTION I: OBJECTIVES AND SCOPE OF WORK

The objectives of this project are to provide design engineering and bidding/award phase services to replace the existing chlorination/dechlorination system at the city's wastewater treatment plant as part of a WWTP Ultraviolet Light (UV) Disinfection and Miscellaneous Improvements project, in conformance with Washington State Department of Ecology guidelines. Additional work includes upsizing the existing secondary clarifier effluent piping, effluent pump station upgrades and effluent piping check valve replacement. The scope of services to be performed by the CONSULTANT is as indicated in the attached Exhibit A.

During the project execution, the CONSULTANT shall provide supporting information as may be pertinent and necessary, or as may be requested by the CITY, in order for the CITY to pass critical judgment on the design features of the project. The CONSULTANT shall make such minor changes, amendments, or revisions in the details of the work as may be required by the CITY provided that they are within the scope of work and are requested prior to final review by the CITY. This item does not constitute an "Extra Work" item as related in Section VIII of this Agreement. When alternates are being considered, the CITY shall have the right of selection.

The design shall be checked by a senior review by the CONSULTANT. The CONSULTANT will be held responsible for the accuracy of the work, consistent with Section XV of this Agreement.

Exhibit "A"

SECTION II: ITEMS TO BE FURNISHED TO THE CONSULTANT BY THE CITY

The CITY will furnish the CONSULTANT maps, drawings, data, and reports on file which may relate to the project, including:

- WWTP Facility Plan (prepared by HDR, Inc.)
- Hard copies of applicable plans including as-builts from previous wastewater improvement projects related to this project.
- Geotechnical report for the previous Digester project.
- UVT/collimated beam and coliform analysis for two-week period.

SECTION III: DOCUMENTS TO BE FURNISHED BY THE CONSULTANT

The following documents, exhibits or other presentations for the work covered by this Agreement shall be furnished by the CONSULTANT to the CITY upon completion of the work specified in Section I. All such material shall become and remain the property of the CITY and may be used by it without restriction other than as described in Section XXII, Reuse of Project Documents.

- Monthly invoices and Project Status Updates
- Meeting/workshop agendas and minutes.
- Technical memorandums outlined in Exhibit A.
- Summary document for existing and planned EI&C systems.
- Draft and final UV equipment bid documents.
- 30%, 60% and 90% design submittal as outlined in Exhibit A.
- Mylar original of 100% plans and digital copy of 100% plans and technical specifications.
- Engineer's Opinion of Probable Cost at 30%, 60% and 90% design sets and final bid set.

SECTION IV: TIME OF BEGINNING AND COMPLETION

The CONSULTANT shall not begin work under the terms of this Agreement until authorized in writing by the CITY. All work authorized by this Agreement shall be completed within 300 calendar days after receipt of authorization to proceed. Time spent by the CITY in reviewing the memorandum, plans, and conducting internal work on the project shall not count against the time allowed for completion. The CITY review time shall be measured from the date information is received by the CITY until the date that comments are received by the CONSULTANT. Time spent by the Washington State Department of Ecology shall not count against the time allowed.

The established completion time shall not be extended because of any unwarranted delays attributable to the CONSULTANT, but may be extended by the CITY in the event of a delay attributable to an act of God, governmental action, or other condition beyond the control of the CONSULTANT. Failure to complete all work within the time allowed shall result in liquidated damages being deducted from payments otherwise due the CONSULTANT at the rate of \$200 per

calendar day.

The parties agree that liquidated damages are difficult or impossible to estimate at the time of execution of this Agreement, and herein agree that they have jointly agreed the aforementioned sum is a reasonable forecast of the anticipated harm caused to the CITY by CONSULTANT'S breach.

SECTION V: PAYMENT

The CONSULTANT shall be paid by the CITY for completed work or services rendered under this Agreement as provided for hereinafter. Such payment shall be full compensation for work performed or services rendered and for all labor, materials, supplies, equipment, and incidentals necessary to complete the work.

1. Payment for all consulting services for this project shall be on a cost-reimbursable basis with a not-to-exceed amount of \$715,700 for design and bidding/award phase services.

The maximum amount payable by the CITY to the CONSULTANT under this Agreement shall not exceed said not-to-exceed amount unless a supplemental agreement has been negotiated and executed in writing by the CITY prior to incurring any costs in excess of the not-to-exceed amount.

2. Partial payments may be made upon request of the CONSULTANT to cover the percentage of work completed, but are not to be more frequent than one (1) per month. Each payment request shall be accompanied by a spreadsheet showing a list of all tasks, their original budget amount, cost incurred through the invoice date, estimated remaining costs, and estimated total costs through completion. A short narrative or remark column shall be included. Any problems and potential causes for delay shall be noted. Failure to note any reasons for delay shall constitute a waiver of claims for delay to the date of the payment request. Payments to the CONSULTANT will be made within 30 days of receipt of the payment request.
3. Final payment of any balance due the CONSULTANT of the ultimate gross amount earned will be made promptly upon ascertainment and verification by the CITY of the satisfactory completion of the work under this Agreement and its acceptance by the CITY and the receipt of documents which are to be furnished under this Agreement.
4. Each payment by the CITY shall constitute full payment for labor, materials, supplies, equipment and incidentals to the date of CONSULTANT'S partial payment request. CONSULTANT'S acceptance of payment constitutes a waiver of any claims for payment not included in the partial payment request.
5. Payment for extra work performed under this Agreement shall be paid as agreed to by the parties hereto in writing at the time extra work is authorized.

SECTION VI: EMPLOYMENT

The CONSULTANT warrants that CONSULTANT has not employed or retained any company or

person, other than a bona fide employee working solely for the CONSULTANT, to solicit or secure this contract and that he has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the CONSULTANT, any fee, commission, percentage, brokerage fee, gifts or any other consideration, contingent upon or resulting from the award or making of this contract. For breach or violation of this warranty, CITY shall have the right to annul this Agreement without liability, or in its discretion, to deduct from the agreement price or consideration or otherwise recover the full amount of such fee, commission, percentage, brokerage fee, gift or contingent fee.

Any and all employees of the CONSULTANT, while engaged in the performance of any work or services required by the CONSULTANT under this Agreement, shall be considered employees of the CONSULTANT only and not of the CITY and any and all claims that may or might arise under the Workman's Compensation Act on behalf of said employees, while so engaged on any of the work or services provided to be rendered herein, shall be the sole obligation and responsibility of the CONSULTANT.

The CONSULTANT shall not engage, on a full or part time basis, or other basis, during the period of the contract, any professional or technical personnel who are, or have been, at any time during the period of the contract, in the employ of the CITY, except regularly retired employees, without written consent of the CITY.

SECTION VII: NONDISCRIMINATION

The CONSULTANT agrees not to discriminate against any client, employee, or applicant for employment or for services because of race, creed, color, national origin, marital status, sex, age, handicap, or sexual orientation except for a bona fide occupational qualification with regard to, but not limited to the following: employment upgrading, demotion or transfer, recruitment or any recruitment advertising, a layoff or terminations, rates of pay or other forms of compensation, selection for training, rendition of services. The CONSULTANT understands and agrees that if it violates this provision, this Agreement may be terminated by the CITY and further that the CONSULTANT shall be barred from performing any services for the CITY now or in the future unless a showing is made satisfactory to the CITY that discriminatory practices have terminated and that recurrence of such action is unlikely.

SECTION VIII: CHANGES IN WORK

The CONSULTANT shall make such revisions in the work included in this Agreement as are necessary to correct errors or omissions appearing therein, when required to do so by the CITY, without additional compensation.

Should the CITY find it desirable for its own purposes to have previously satisfactorily completed work or parts thereof revised, other than minor revisions within the scope of the work, the CONSULTANT shall make such revisions, if requested and as directed by the CITY in writing. This work shall be considered as Extra Work and will be paid for as provided in Section V. All extra work shall be submitted as a supplement to the basic agreement and approved by the CITY Director of Public Works in writing before the work is undertaken. Said supplement may also extend the time for completion as agreed upon by the CITY and the CONSULTANT.

SECTION IX: TERMINATION OF AGREEMENT

1. The CITY reserves the right to terminate this Agreement at any time upon not less than ten (10) days written notice to the CONSULTANT.
2. In the event this Agreement is terminated under any of its terms prior to completion of the work, a final payment shall be made to the CONSULTANT commensurate with the amount of work completed to the date of termination. The CITY is authorized to offset or deduct from any sums due the CONSULTANT any actual charges incurred by the CITY for the default of the CONSULTANT.
3. In the event this Agreement is terminated prior to completion of the work, the original copies of all plans, prints, drawings and field notes prepared by the CONSULTANT prior to termination shall become the property of the CITY.
4. Payment for any part of the work by the CITY shall not constitute a waiver by the CITY of any remedies of any type it may have against the CONSULTANT for any breach of this Agreement by the CONSULTANT, or for failure of the CONSULTANT to perform work required of it by the CITY. Forbearance of any rights under the Agreement will not constitute waiver of the entitlement to exercise those rights with respect to any future act or omission by the CONSULTANT.

SECTION X: DISPUTES

Any dispute concerning questions of facts in connection with work not disposed of by agreement between the CONSULTANT and the CITY shall be referred for determination to the Director of Public Works, whose decision in the matter shall be final and binding on the parties of this Agreement, provided, however, that if an action is brought challenging the Director of Public Works' decision, that decision shall be subject to de novo judicial review.

SECTION XI: INDEMNITY

CONSULTANT agrees to indemnify CITY from any claims, damages, losses, and costs, including, but not limited to, attorney's fees and litigation costs, arising out of claims by third parties for property damage or bodily injury, including death, to the proportionate extent caused by the negligence or willful misconduct of CONSULTANT, CONSULTANT's employees, affiliated corporations, and subconsultants in connection with the project.

CITY agrees to indemnify CONSULTANT from any claims, damages, losses, and costs, including, but not limited to, attorney's fees and litigation costs, arising out of claims by third parties for property damage or bodily injury, including death, to the proportionate extent caused by the negligence or willful misconduct of CITY or its employees in connection with the project.

SECTION XII: SUBLETTING OR ASSIGNING OF CONTRACTS

The CONSULTANT shall not sublet or assign any of the work covered by this Agreement without

the written consent of the CITY. The CITY expects that the CONSULTANT will make reasonable attempts to keep the same personnel on this project as designated during the selection process and identified in Exhibit A.

SECTION XIII: ENDORSEMENT OF PLANS

The CONSULTANT shall place CONSULTANT'S endorsement on all reports, plans, estimates or any other data furnished by CONSULTANT.

SECTION XIV: INTEREST

If payment of the amounts due, or any portion thereof, is not made as prescribed above, interest on the unpaid balance thereof will occur at the rate of one-half percent (1/2%) per month and become due and payable at the time said overdue payments are made, unless delay in payment is due to improper, contested, or inadequate billing procedures followed by the CONSULTANT. In the event of disputed or contested billing, only that portion so contested shall be withheld, and the undisputed portion shall be paid in accordance with the payment provision outlined herein. The CITY shall exercise reasonableness in contesting any bill or portion thereof. Where usury limits are less than the stated interest rate above, the maximum lawful interest rate shall apply to the unpaid balance.

SECTION XV: STANDARD OF CARE

The standard of care applicable to the CONSULTANT'S services will be the degree of skill and diligence normally employed by professional consultants performing the same or similar services. The CONSULTANT will re-perform any services not meeting this standard without additional compensation.

SECTION XVI: SUBSURFACE INVESTIGATIONS

In soils, foundation, groundwater, and other subsurface investigations, the actual characteristics may vary significantly between successive test points and sample intervals and at locations other than where observations, explorations, and investigations have been made. Because of the inherent uncertainties in subsurface evaluations, changed or unanticipated underground conditions may occur that could affect total project cost and/or execution. These conditions and cost/execution effects are not the responsibility of the CONSULTANT.

SECTION XVII: OPINIONS OF COST, FINANCIAL CONSIDERATIONS, AND SCHEDULES

In providing opinions of cost, financial analyses, economic feasibility projections, and schedules for the project, the CONSULTANT has no control over cost or price of labor and materials; unknown or latent conditions of existing equipment or structures that may affect operation or maintenance costs; competitive bidding procedures and market conditions; time or quality of performance by third parties; quality, type, management, or direction of operating personnel; and

other economic and operational factors that may materially affect the ultimate project cost or schedules. Therefore, the CONSULTANT makes no warranty that the CITY'S actual project costs, financial aspects, economic feasibility or schedules will not vary from the CONSULTANT'S opinions, analyses, projections, or estimates.

SECTION XVIII: ACCESS TO CONSULTANT'S ACCOUNTING RECORDS

The CONSULTANT will maintain accounting records, in accordance with generally accepted accounting principles and practices, to substantiate all invoiced amounts. These records will be available to the CITY during the CONSULTANT'S normal business hours for a period of one year after the CONSULTANT'S final invoice for examination to the extent required to verify the direct costs (excluding established or standard allowances and rates) incurred hereunder. The CITY may only audit accounting records applicable to cost-reimbursable type compensation.

SECTION XIX: CONSULTANT'S INSURANCE

The CONSULTANT shall procure and maintain for the duration of the Agreement, insurance against claims for injuries to persons or damage to property which may arise from or in connection with the performance of the work hereunder by the CONSULTANT, its agents, representatives, or employees.

CONSULTANT'S maintenance of insurance as required by the Agreement shall not be construed to limit the liability of the CONSULTANT to the coverage provided by such insurance, or otherwise limit the CITY'S recourse to any remedy available at law or in equity.

1. Minimum Scope of Insurance

CONSULTANT shall obtain insurance of the types described below:

- A. Automobile Liability insurance covering all owned non-owned, hired and leased vehicles. Coverage shall be written on Insurance Services Office (ISO) form CA 00 01 or a substitute form providing equivalent liability coverage. If necessary, the policy shall be endorsed to provide contractual liability coverage.
- B. Commercial General Liability insurance shall be written on ISO occurrence form CG 00 01 and shall cover liability arising from premises, operations, independent contractors and personal injury and advertising injury. The CITY shall be named as an additional insured under the Contractor's Commercial General Liability insurance policy with respect to the work performed for the CITY using an additional insured endorsement at least as broad as ISO CG 20 26.
- C. Worker's Compensation coverage as required by the Industrial Insurance laws of the State of Washington.
- D. Professional Liability insurance appropriate to the CONSULTANT'S profession.

2. Minimum Amounts of Insurance

CONSULTANT shall maintain the following insurance limits:

- A. Automobile Liability insurance with a minimum combined single limit for bodily injury and property damage of \$1,000,000 per accident.
- B. Commercial General Liability insurance shall be written with limits no less than \$1,000,000 each occurrence, \$2,000,000 general aggregate.
- C. Professional Liability insurance shall be written with limits no less than \$1,000,000 per claim and \$1,000,000 policy aggregate limit.

3. Other Insurance Provisions

The CONSULTANT'S Automobile Liability, Professional Liability and Commercial General Liability insurance policies are to contain, or be endorsed to contain that they shall be primary insurance with respect to the CITY. Any insurance, self-insurance, or insurance pool coverage maintained by the CITY shall be in excess of the CONSULTANT'S insurance and shall not contribute with it.

4. Acceptability of Insurers

Insurance is to be placed with insurers with a current A.M. Best rating of not less than A:VII.

5. Verification of Coverage

CONSULTANT shall furnish the City with original certificates and a copy of the amendatory endorsements, including but not necessarily limited to the additional insured endorsement, evidencing the insurance requirements of the CONSULTANT before commencement of the work.

6. Notice of Cancellation

The CONSULTANT shall provide the CITY with written notice of any policy cancellation, within two business days of its receipt of such notice.

7. Failure to Maintain Insurance

Failure on the part of the CONSULTANT to maintain the insurance as required shall constitute a material breach of contract, upon which the CITY may, after giving five business days notice to the CONSULTANT to correct the breach, immediately terminate the contract or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the CITY on demand, or at the sole discretion of the CITY, offset against funds due the CONSULTANT from the CITY.

8. CITY Full Availability of Consultant Limits

If the Consultant maintains higher insurance limits than the minimums shown above, the CITY shall be insured for the full available limits of Commercial General and Excess or Umbrella liability maintained by the Consultant, irrespective of whether such limits maintained by the Consultant are greater than those required by this contract or whether any certificate of insurance furnished to the CITY evidences limits of liability

lower than those maintained by the Consultant.

SECTION XX: OWNER-FURNISHED DATA

CONSULTANT will reasonably rely upon the timeliness, accuracy, and completeness of the information provided by the CITY, subject to Section XV.

SECTION XXI: LITIGATION ASSISTANCE

The scope of services does not include costs of the CONSULTANT for required or requested assistance to support, prepare, document, bring, defend, or assist in litigation undertaken or defended by the CITY. All such services required or requested of the CONSULTANT by the CITY, except for suits or claims between the parties to this Agreement, will be reimbursed as mutually agreed, unless and until there is a finding by a court or arbitrator that the CONSULTANT'S negligence caused the CITY'S damage.

SECTION XXII: REUSE OF PROJECT DOCUMENTS

All designs, drawings, specifications, documents, and other work products of the CONSULTANT are instruments of service for this project, whether the project is completed or not. Reuse by the CITY or by others acting through or on behalf of the CITY of any such instruments of service based on facts or circumstances not contemplated in the original work, without the written permission of the CONSULTANT, will be at the CITY'S sole risk. The CITY agrees to indemnify and defend the CONSULTANT from all claims, damages, losses, and expenses, including, but not limited to, direct, indirect, or consequential damages and attorney's fees, arising out of or related to such unauthorized reuse.

SECTION XXIII: FORCE MAJEURE

The CONSULTANT is not responsible for damages or delay in performance caused by acts of God, strikes, lockouts, accidents, or other events beyond the control of the CONSULTANT.

SECTION XXIV: SUSPENSION, DELAY, OR INTERRUPTION OF WORK

The CITY may suspend, delay, or interrupt the services of the CONSULTANT for the convenience of the CITY. In the event of force majeure or such suspension, delay, or interruption, an equitable adjustment in the project's schedule, commitment and cost of the CONSULTANT'S personnel and subconsultants, and the CONSULTANT'S compensation may be made if warranted.

SECTION XXV: NO THIRD PARTY BENEFICIARIES

This Agreement gives no rights or benefits to anyone other than the CITY and the CONSULTANT and has no third-party beneficiaries.

SECTION XXVI: JURISDICTION, VENUE AND APPLICABLE LAW

The law of the state of Washington shall govern the validity of this Agreement, its interpretation and performance, and any other claims related to it. The CONSULTANT consents to personal jurisdiction and venue shall be in the courts of Whitman County, Washington.

SECTION XXVII: COMPLETE AGREEMENT

This document and referenced attachments contain all covenants, stipulations and provisions agreed upon by the parties. No agent, or representative of either party has authority to make, and the parties shall not be bound by or be liable for, any statement, representation, promise or agreement not set forth herein. No changes, amendments, or modifications of the terms hereof shall be valid unless reduced to writing and signed by the parties as an amendment to this Agreement.

SECTION XXVIII: SEVERABILITY AND SURVIVAL

If any of the provisions contained in this Agreement are held for any reason to be invalid, illegal, or unenforceable, the enforceability of the remaining provisions shall not be impaired thereby. Limitations of liability, indemnities, and other express representations shall survive termination of this Agreement for any cause.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

CONSULTANT:
J-U-B Engineers, Inc.

CITY:
City of Pullman, a municipal corporation
of the State of Washington

By: 

By: _____
Mayor

Title: Area Manager

Date: 10/25/16

Date: _____

ATTEST:

By: _____
Finance Director

Exhibit A

The scope of services to be provided by CONSULTANT, budget, billing rates, and schedule for the WWTP Ultraviolet Light (UV) Disinfection and Miscellaneous Improvements project are as detailed in the attached documents.



AGREEMENT FOR PROFESSIONAL SERVICES

Exhibit A – Scope of Services, Schedule, and Basis of Fee

WWTP Upgrades UV Disinfection and Miscellaneous Improvements

OBJECTIVE/ BACKGROUND

The City of Pullman’s facility plan for the wastewater treatment plant (WWTP) identified multiple improvements that were deemed necessary over the course of the 20-year planning period. Phasing was also developed to prioritize those improvements that were most critical for retaining adequate treatment capacity, maintaining reliable operation, and satisfying known permit conditions. This Agreement addresses the Design Phase Services for some of those improvements, hereafter termed “projects,” including the following:

- UV disinfection system: replacing the existing chlorine disinfection system with a new UV system for full treatment plant flow, accounting for the potential future addition of water reclamation components as considered in the City’s 2015 Water Reclamation Project Design Development Document Update.
- Yard Piping: replace yard piping from the Secondary Clarifier, through disinfection and up to the existing outfall structure
- Effluent Pump Station: replace existing pump station with new pump station/outfall structure, pumps, piping, electrical and controls; and replace check valve in outfall structure.

SCOPE OF SERVICES

- A. **BASIC SERVICES:** J-U-B ENGINEERS, Inc. (Consultant) basic services under this agreement are limited to the following:

TASK 100 – DESIGN PHASE SERVICES

Subtask 001 – Project Administration; Client Meetings

J-U-B shall oversee project tasks and coordinate with the City representatives to manage the scope, schedule, budget and work plan for the engineering phase. Consultant invoices will be prepared and submitted to the City on a monthly basis and will include a brief status update outlining work accomplished during the billing period. The project kick-off meeting and the following milestone workshops are included:

- Workshop: Concept / Design Memo review
- Workshop: 60 Percent Progress Print review

- Workshop: 90 Percent / Agency Review meeting
- Submit Bid Set

Deliverables:

- Monthly invoices and Project Status Updates
- Project deliverables corresponding to each milestone meeting
- Meeting notes and updates as necessary following each meeting

Subtask 002 – Background Data, Base Plan Development, Geotechnical Evaluation

Complete a topographic survey of the project area to provide information for design and a base map for the drawings. The survey will collect general building and surface information generally defined as follows: the north west quadrant of the facility, including necessary structures and hydraulic control elements for the work herein; the area west and north of the existing secondary clarifiers, solids handling building, disinfection facilities and solids holding lagoon. The survey will include tie into the vertical datum of the hydraulic model and surface features such as drainages, roads, fences, structures, valves, building corners, utility poles, equipment, signs, and underground utilities marked in the field by the City. A boundary survey is not included in this scope of services. Property pins will be identified and located by the field crews in this survey wherever they are readily recoverable as part of their overall survey effort. Consultant will request locates from Dig line and the City. Existing utilities identified and located by others will be surveyed as marked and available; utilities identified in record drawings will be included in the project base map in an approximate way only.

Supplement the topographical survey with information that is available from record drawings and / or design drawings provided by the City. Consultant will rely on such information provided by others for purposes of design. Exposed elements critical for design may be confirmed in the field through surveying or field measurements.

A previous geotechnical evaluation for the digester building will be utilized to determine the likely soil conditions and estimate rock elevation in the vicinity of the existing chlorine contact basin and new effluent pump station structure.

Assumptions:

1. The geotechnical report for the digester building and associated recommendations will be used for the design. In the event that conditions appear to differ at the UV or effluent pump station site, a geotechnical report can be added as an additional service task.

Deliverables:

- Project base map

Subtask 003 – UV Disinfection Evaluation and Selection

The objectives of this task are to establish the basis for UV system design, identify preferred UV equipment manufacturers, and develop preliminary design information to allow subsequent equipment procurement and design.

Subtask 003-10 – Develop Design Criteria

Develop design criteria for existing conditions. Review existing preliminary design information and criteria for the UV system.

Develop design criteria for future conditions. Review existing design information and criteria for future improvements to the WWTP. Summarize future design criteria (UV dose, UVT, particle size distribution, fecal coliform count and flow rate) that are anticipated to treat existing wastewater and consider future water reclamation. Based on existing data, the schedule of future improvements, and projections for future flows and loads, develop recommendations for sizing the UV disinfection system to meet permit limits under future conditions. Review data and recommendations with the City to gain consensus on the recommended design criteria.

Existing UV System Installation Tours. Visit up to two (2) UV system installation with the City and WWTP staff to develop and document preferences that will influence design criteria and equipment selection. Key discussion topics include: sleeve and channel cleaning methods and frequency; equipment replacement methods, inventory, and logs; online UVT review (and calibration); typical effluent flow and water quality variations. Summarize interview data and present findings along with a brief discussion on UV equipment features to City staff.

Document Basis of Design. Summarize results to establish the basis of UV system design for current and future conditions. Document results in a brief Technical Memorandum (TM), TM1 – UV Basis of Design. Review Draft TM1 with City staff, incorporate review comments, and deliver Final TM1.

Assumptions:

1. City staff will provide existing preliminary design information from WWTP Facilities Plan
2. City staff will collect five (5) samples for UVT/collimated beam analysis, and fecal coliform enumeration over a two week period. Costs associated with that analysis are not included in this Scope of Work.
3. Consultant will estimate UV system design criteria for future conditions based on experience with other facilities operating under similar conditions. Prior to completing TM1, Consultant will review these data with the City.
4. Tours will occur within a 200 mile radius and will not include overnight trips.

Deliverables:

1. Five (5) hard copies and one (1) electronic copy of Draft TM1 – UV Basis of Design.
2. One (1) electronic copy of Final TM1 – UV Basis of Design.

Subtask 003-20 – Preliminary EI&C Assessment

Review existing preliminary design information to establish a basis for electrical, instrumentation, and control (EI&C) requirements for the UV disinfection system, including:

Electrical Design Requirements:

- Available capacity of potential sources of power for the UV system, including both existing and future loads. UV system to be added to system fed by emergency generator.
- Voltage levels available to power the UV system, including future reclamation facilities, and the need for transformers or conversion equipment to feed the UV system.

Control System Design requirements:

- Identify potential connection points to the plant's existing network to allow monitoring of the UV system from SCADA.
- Confirm the PLC architecture used at the plant (both current and planned) and determine the impacts of requiring the UV supplier to match this architecture.
- Identify the SCADA software used at the plant (both current and planned) and determine how the UV system will be monitored, how historical data will be stored, and how critical alarms will be addressed.
- Determine how the UV system will integrate with the plant's existing control system (power monitoring, load shedding programs, emergency shutdown or bypass, etc.).
- Identify potential monitoring and control requirements for reclamation.

Deliverables:

1. One (1) summary document for existing and planned EI&C systems.

Subtask 003-30 – Preliminary Design Documents

Complete preliminary design documents (drawings, major technical specifications, preliminary construction cost estimate, and preliminary construction schedule) for the Project. Deliverables provided for this subtask are expected to include:

- Design Data, Criteria, and Process Flow Diagrams for the UV System

- Confirm chlorine contact basin dimensions from as-built plans and field work
- Process Control Strategies for UV System
- Structural plans establishing existing lay-outs for equipment installation in the UV channel
- Mechanical Plans depicting location of major equipment
- Preliminary electrical one-line diagrams for UV equipment
- Preliminary layout of UV EI&C equipment
- Preliminary Process and Instrumentation Diagrams (P&IDs) depicting mechanical equipment, piping, instrumentation and control equipment for the UV system
- Preliminary equipment list that includes: equipment number (based on current WWTP # scheme), equipment size, and equipment power requirements
- Table of Contents for the Technical Specifications
- Preliminary construction cost estimate and construction schedule for the Project
- Create preliminary loop reports for each piece of equipment that will interface with the PLC system

Complete in-house Quality Control/Quality Assurance (QA/QC) procedures for preliminary design prior to submission for City review. Following the City's review of the Preliminary Design Documents and upon receipt of City comments, prepare TM for the Preliminary Design submittal. Provide a response to each City comment, indicating status and whether or not it will be incorporated into the design, and why. Submit a Draft TM for City review. Coordinate any changes to the TM with the design team and issue a Final TM. Items included in the Final TM will be considered final.

Assumptions:

1. Preliminary design information will be developed around decisions documented in workshops, and used to procure UV equipment.
2. Preliminary design information will be developed to allow competitive bidding of three (3) different UV manufacturers. Preliminary design information will be developed around one (1) basis of design manufacturer, as agreed to by the City.
3. Preliminary Design Documentation will include only work associated with the implementation of the UV System, including connection of UV panels to site power and SCADA.
4. The City will provide as-built background drawings in CADD or PDF for all disciplines for the existing disinfection system, including channels,

equipment lay-out and electrical connection locations. Drawings delivered in PDF will not be redrawn except to show work required for UV system.

5. Comments on the preliminary design documents will be provided by the City within two weeks after the submittal.
6. Consultant will incorporate comments from the Preliminary Design TM into the 60 percent Design. Revisions to the Preliminary Design documents will only be made if needed to complete equipment procurement.
7. EJCDC front-end documents (Division 0) will be used. The City will lead the development of Division 0 with technical input from Consultant.
8. Consultant's standard specification Divisions 1 through 17 will be used for preliminary and final design.
9. Drawings will be prepared using AutoCAD for preliminary and final design with Consultant's Standards.

Deliverables:

1. One (1) electronic copy on CD of preliminary design information, as defined above.
2. Draft and Final TM documentation.

Subtask 003-40 – Preliminary Design Workshops and Meetings

Schedule and conduct project workshops and meetings. Distribute an agenda and supporting information to the City Project Manager at least five (5) business days in advance of each workshop or meeting. Prepare and submit meeting minutes to the City Project Manager within ten (10) business days after each workshop or meeting.

Defined workshops and meetings include:

- TM1 Review Workshop
- Draft Design Workshops (up to two)

Each will be approximately four to six hours in length, and will be working sessions, where the appropriate Consultant technical staff will discuss specific issues in detail and generate comments from City staff.

Assumptions:

1. Workshops and meetings will be held at City facilities.
2. Consultant Project Manager and appropriate staff will attend each workshop/meeting.
3. Agendas, materials, and meeting minutes will be delivered in electronic (PDF) format.
4. Consultant will provide Kick-Off meeting agenda and meeting minutes.

Deliverables:

1. TM 1 Workshop/meeting agendas and supporting information.
2. Workshop/meeting minutes with Decisions Log and Action Items for the UV System.

Subtask 003-50 – UV Equipment Procurement

The objective of this task is to assist the City in selecting a preferred UV equipment manufacturer using an evaluated bid process. Preliminary design information will be prepared under Subtask 004-30 around a preferred group of UV disinfection manufacturers who can supply equipment to meet sizing, layout, hydraulic and support system requirements. Following procurement, a single set of final design documents will be completed for the project based on the specific details of the selected UV equipment manufacturer.

Subtask 003-51 – UV Equipment Evaluation Guidelines

Develop guidelines including evaluation criteria and weighting factors for use in selecting the preferred UV equipment and system manufacturer. Prior to UV equipment procurement, perform a sensitivity analysis to refine criteria and weighting factors such that the selection process is deemed to be appropriate and acceptable by the City. Document evaluation criteria and weighting factors in a TM (TM 2 – UV System Evaluation Guidelines) to facilitate consistent bid review.

Assumptions:

1. An evaluated bidding process using financial and evaluative criteria will be used to select UV equipment. One (1) meeting with City staff to develop UV equipment evaluation criteria and weighting factors.
2. City staff will review the process internally to ensure compliance with City purchasing requirements, and provide comments/approvals prior to finalizing TM2.

Deliverables:

1. Agenda, materials, and minutes for meetings.
2. One (1) electronic copy of Draft TM2 – UV System Evaluation Guidelines.
3. One (1) electronic copy of Final TM2 – UV System Evaluation Guidelines.

Subtask 003-52 – UV Equipment Bidding and Selection

Prepare competitive bid documents for UV equipment selection, including: preliminary layout drawings; general ancillary facility requirements; and required technical specifications. Coordinate with City staff to include terms, conditions, and contract times (submittal dates and delivery dates) into City selection documents, including financial and non-financial requirements. Meet with City

staff to review draft bid documents, incorporate comments, and issue final bid documents.

Assist the City during the UV equipment bidding period by answering questions from the UV equipment manufacturers and preparing addenda. Attend the pre-bid conference. Assist the City in evaluating all bids and in selecting the UV equipment manufacturer in accordance with the process outlined in TM2.

Assumptions:

1. Bid documents will be prepared and bids solicited from the UV equipment manufacturers.
2. One (1) conference call with City staff to review draft bid documents.
3. One (1) addendum will be prepared during the UV equipment bid period.
4. City will cover reproduction costs for deliverables outside of this contract.

Deliverables:

1. Agenda, materials, and minutes for meetings.
2. One (1) electronic copy of Draft UV equipment bid documents.
3. One (1) electronic copy of Final UV equipment bid documents.
4. One (1) electronic copy of UV Equipment bid documents Addendum No. 1.

Subtask 003-53 – Design Coordination

Coordinate with final design development following UV equipment manufacturer selection. Review shop drawing information provided by the UV equipment manufacturer for conformance with the bid documents, and provide comments. Coordinate shop drawing information with final design development. Conduct design coordination meetings with the UV equipment manufacturer to facilitate a coordinated set of final design documents, including approved shop drawings from the selected manufacturer and defined limits for the General Contractor based on manufacturer's scope of supply (e.g. inter-connecting piping, EI&C).

Assumptions:

1. Two (2) meetings with the selected UV equipment manufacturer to coordinate final design. City staff will attend these meetings as required.
2. Budget for task is based on review of one (1) comprehensive shop drawings from the UV equipment manufacturer, with one (1) re-submittal. The original submittal is estimated to require 32 hours to review (including structural, electrical and instrumentation) and coordinate responses. The re-submittal is estimated to require 16 hours to review and coordinate responses.
3. Selected UV equipment manufacturer's bid will be assigned to the General Contractor.

Deliverables:

1. Agenda, materials, and minutes for meetings.
2. Written documentation of comments following review of original UV equipment manufacturer shop drawing transmitted via email.
3. Written documentation of comments following review of UV equipment manufacturer shop drawing re-submittal, transmitted via email.

Subtask 004 – Design Technical Memorandum and 30 Percent Concept Plans

Prepare a brief design Technical Memorandum (TM) to document project decisions made with the City through Concept design. The memorandum is expected to include the following items: project design criteria, Visual Hydraulics Model verification at high facility flows, and yard piping size recommendations, consideration of future reclamation processes, major equipment selections, major equipment cut sheets and informational material, concept plans, and preliminary design cost opinions.

The 30 percent TM and Concept Plans will have limited detail but will represent the intent of the project. The UV System will be shown as a block in this TM as Task 004 will run concurrently. The TM will identify advantages and disadvantages of retrofitting the existing chlorine contact basin vs. new construction, including covers and building for the UV system. The effluent pump station is envisioned as a triplex, vertical turbine pump at grade with a wet well structure below. It will be located downstream of the disinfection system and upstream of the outfall. General location and size of the yard piping from the effluent of the secondary clarifiers to the check valve at the outfall structure will be shown. The Concept Plan set will generally include overall site plans, general process plan views, critical sections, and similar information. No callouts, details, sections, structural, or electrical/controls design sheets will be included. The purpose of the Concept Plan submittal is to detail the probable project layout and identify constraints or issues that need to be addressed before progressing into detailed design.

The Design Memorandum and 30 percent TM and Concept Plans will be reviewed with the City at the Concept / Design Memorandum workshop.

Deliverables:

- Design Memorandum and 30 percent TM and Concept Plans (four (4) hard copies and one (1) PDF copy)

Subtask 005 – Final Design Development

The purpose of this task is to develop final design documents for the selected UV equipment, allowing all project elements in the UV area to be competitively bid and constructed by a general contractor.

Upon completion of the 30 percent TM and Concept Plans, and selection of the UV manufacturer, the design team will begin production of final design documents, including: drawings and specifications; construction cost estimates; construction

schedules and sequencing plans; and provide design documents for City's use in obtaining necessary permits. Final design will be documented with three submittals:

60 Percent Design Submittal: The 60 percent submittal will advance the Project design from 30 percent preliminary UV design to approximately a 60 percent level of completion, including the incorporation of City comments documented in the TM1. Some drawings will be more complete than others, but overall the level of completion for this submission will be approximately 60 percent. The 60 percent submittal will include:

- General Symbols, Legends, and Abbreviations for the UV System essentially complete.
- UV Design Data and Criteria essentially complete.
- Schematic structural plans and sections to show structural modifications required by the selected UV manufacturer's equipment and the effluent pump station.
- Mechanical plans, sections, and details with proposed final location of UV and effluent pump station equipment, piping, and appurtenances. Location of equipment maintenance features finalized.
- Proposed routing of the site piping from the secondary clarifiers to the check valve at the outfall structure.
- Proposed final electrical one-line diagrams and major equipment panel layouts.
- Proposed final lighting plan.
- P&IDs developed to greater detail including revisions based on proposed final equipment selection and configuration.
- Update preliminary loop reports.
- Draft Specifications of Divisions 1 through 17 coordinated such that project specific major equipment information has been included.
- Equipment list that includes equipment number (based on current WWTP # scheme), equipment size, equipment power requirements and basic controls and operating strategies.

90 Percent Design Submittal: The 90 percent submittal will incorporate City comments to the 60 percent Design Submittal. The engineering design will be complete, and the plans will show all sections and details required for implementation of the project. The 90 percent submittal will be made when the drawings and specifications have been checked by a multidisciplinary review team, and the check comments have been incorporated. The only major changes to the documents following the 90 percent submittal will be to address City comments.

Final Bid Set Submittal: The Final Bid Set Submittal will be made when the project is 100 percent complete, including incorporation of final City comments to the 90 percent submittal.

Subtask 005-100 – 60 Percent Design Submittal

Continue development of the construction documents (plans and specifications) to advance the level of detail in the documents. Develop technical specifications based on preliminary design information using Consultant master specifications.

Submit 60 percent design documents for City review. Consultant will provide a response to each City comment, indicating status and whether or not it will be incorporated into the design, and why. A summary of changes will be issued. Items included in the summary will be considered final.

Assumptions:

1. The 60 percent design submittal will show the project in graphical format, but dimensions and callouts may not be shown.
2. The 60 percent specifications will include the majority of Divisions (Division 2 - Division 17) as required for UV System.
3. Comments on the 60 percent submittal will be provided by the City within three (3) weeks after the submittal. Comments will be compiled by the City Project Manager into summary format that is acceptable to Consultant and the City.

Deliverables:

1. 60 percent Design Documents (two (2) hard copies and one (1) PDF copy).
 - a) Drawings: Progress Plans (sheet size 11"x17").
 - b) Specifications: Preliminary table of contents and major equipment specifications.

Subtask 005-200 – 90 Percent Design Submittal

Develop the 90 percent Design Submittal based on the 60 percent submittal and corresponding review and comments. Finalize drawings and technical specifications for all Divisions (Division 2 through 17).

Conduct an internal, multi-discipline check of the documents. Incorporate internal check comments prior to submitting documents for City review. The 90 percent Design Submittal will be considered final, except for final comments from the City collected during the 90 percent review.

Assumptions:

1. The 90 percent submittal will be made when the drawings and specifications are substantially complete and checked, including incorporation of check comments by the multidisciplinary review team. No new drawings and/or specification sections are anticipated after this stage.
2. Comments on the 90 percent submittal will be provided by the City within three (3) weeks after the submittal.
3. Incorporate comments from the 90 percent design into the Final Bid Set.
4. Any required permits will be obtained by the City.

Deliverables:

1. 90 percent Design Documents (four (4) hard copies and one (1) PDF copy).
 - a) Drawings: Progress Plans (sheet size 11"x17").
 - b) Specifications: Preliminary table of contents and technical specifications.

Subtask 005-300 – Final Bid Set

Develop Bid Set documents based on the 90 percent submittal review and comments. Finalize drawings and technical specifications including all Divisions (Division 2 through 17).

Conduct initial multidisciplinary check of modifications from 90 percent submittal.

Deliverables:

1. Bid Set Design Documents (five (5) hard copies and one (1) PDF copy).
 - a) Drawings: One (1) Mylar hard copy final, stamped Plans (sheet size 24"x36").
 - b) Specifications: Final, Stamped table of contents and technical specifications.

Regarding ENGINEER's Opinions of Probable Cost:

Consultant will develop an initial Engineers Opinion of Probable Costs based on preliminary design quantities. Estimates will be compared to historic bid records of City projects and Consultant's records. With each submittal the quantities and unit bid costs will be updated as necessary. Since Consultant has no control over the cost of labor, materials, equipment, or services furnished by others, or over the contractor(s) methods of determining process, or over competitive bidding or market conditions, Consultant's opinions of probable construction cost are to be made on the basis of Consultant's experience and qualifications and represent Consultant's best judgment as an experience and qualified profession engineering, familiar with the construction industry; but Consultant cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from the opinions of probable cost prepared by the

Consultant. If the City wishes assurance as to construction costs, City shall employ an independent cost estimator. Consultant's services to modify the Project to bring the construction costs within any limitation established by the City will be considered Additional Services and paid for as such by the City. Cost opinions will include the following contingency amounts:

- 30 percent TM and Concept Plans Preliminary Opinion of Probable Cost will include a 20 percent contingency.
- 60 percent Opinion of Probable Cost will include a 15 percent contingency.
- 90 percent Opinion of Probable Cost will include a 10 percent contingency.
- Bid Set Opinion of Probable Cost will include a 10 percent contingency.

TASK 200 – BID AND AWARD PHASE SERVICES

The City will advertise the project and perform all Construction Administration services during the Bid and Award Phase. The Project Advertisement and Bid Documents will direct all questions during the Bid & Award Phase to the City. Consultant will provide construction and design staff who worked on the project to be available in responding to City-directed contractor questions during the bidding process. Consultant will attend one (1) pre-bid meeting, if requested by the City. Consultant will provide assistance during review of bids, as requested by the City. City will prepare a summary tabulation of bidders' responses and recommendation of award.

Deliverables:

- Responses to Bidder Questions (as directed from the City)

TASK 300 –CONSTRUCTION PHASE AND POST-CONSTRUCTION PHASE SERVICES

Construction Phase and Post-Construction Phase Services to be determined at a later date.

CITY'S RESPONSIBILITIES: In addition to other responsibilities of the City as set forth in this Agreement, the City shall at its expense:

1. Design Phase:
 - a. Provide Consultant with all criteria and full information as to the City's requirements for the Project, including design objectives and constraints, space, capacity and performance requirements, flexibility, and expandability, and any budgetary limitations; and furnish copies of all design and construction standards which the City will require to be included in the Drawings and Specifications; and furnish copies of City's standard forms, conditions, and related documents for the Consultant to include in the Bidding Documents, when applicable.

- b. Furnish to the Consultant any other available information pertinent to the Project including reports and data relative to previous designs, Visual Hydraulics Model prepared for the Facility Plan and investigation at or adjacent to the Site.
- c. Following the Consultant's assessment of initially-available Project information and data and upon Consultant's request, furnish or otherwise make available such additional Project related information and data as is reasonably required to enable the Consultant to complete its Basic and Additional Services.
- d. Give prompt written notice to the Consultant whenever the City observes or otherwise becomes aware of the presence at the Site of any Constituent of Concern, or of any other development that affects the scope or time of performance of the Consultant's services, or any defect or nonconformance in the Consultant's services, the Work, or in the performance of any Contractor.
- e. Arrange for safe access to and make all provisions for the Consultant to enter upon public and private property as required for Consultant to perform services under the Agreement.
- f. Examine all alternatives, studies, reports, sketches, Drawings, Specifications, proposals, and other documents presented by the Consultant (including obtaining advice of an attorney, insurance counselor, and other advisors or consultants as the City deems appropriate with respect to such examination) and render in writing timely decisions pertaining thereto.
- g. Provide and pay for reviews, approvals, and permits from all governmental authorities having jurisdiction to approve all phases of the Project designed or specified by the Consultant and such reviews, approvals, and consents from others as may be necessary for completion of each phase of the Project.
- h. Provide and pay for sampling, testing, monitoring, etc. that may be deemed necessary during the course of the work.
- i. Complete SEPA permitting and all necessary City planning and permitting requirements.
- j. Recognize and acknowledge that the Consultant services do not include the following services, and provide, as required for the Project:
 - a) Accounting, bond and financial advisory, independent cost estimating, and insurance counseling services.
 - b) Legal services with regard to issues pertaining to the Project as City requires, Contractor raises, or Consultant reasonably requests.
 - c) Such auditing services as the City requires to ascertain how or for what purpose Contractor has used the moneys paid.
- k. Negotiate and acquire all required property and easements,
- l. PLC, HMI, and SCADA programming.

2. Bid/Award Phase:

- a. Advertise for and obtain bids or proposals for the Work and, where applicable, maintain a record of prospective bidders to whom the Bidding Documents have been issued, schedule and attend pre-bid conferences, if any, and receive and process contractor deposits or charges for the bidding documents.
- b. Issue addenda as appropriate to clarify, correct, or change the bidding documents.
- c. Determine the acceptability of subcontractors, suppliers, and other individuals and entities proposed by the prospective contractors for those portions of the Work as to which such acceptability is required by the bidding documents.

Coordinate and administer the Bid opening, prepare Bid tabulation sheets, and evaluate Bids or proposals and assemble and award contracts for the Work.

- 3. Construction Phase:
 - a. Provide observation and coordination of inspections and testing of all Construction Phase Services.
- 4. Post-Construction Phase:
 - a. Provide all Post-Construction Phase Services.

SCHEDULE OF SERVICES

Predicated upon timely receipt of City-provided information, typical review periods, and active direction during work, Consultant anticipates the following schedule for the Services listed:

Task Number	Task Name	Anticipated Schedule
100	Design Phase Services	<p>30% Concept Plans and Design Memorandum: Work will start when Notice to Proceed is provided by the City. 30% Submittals will be provided within 120 calendar days from the Kick-Off Meeting with the City.</p> <p>UV Procurement Bid Package Development: 60 calendar days from receipt of comments from the City on 30% Concept Plans and Design Memorandum.</p> <p>60% Submittal: 30 calendar days from receipt of Design Drawings from selected UV manufacturer.</p> <p>90% / Agency Review Submittal: 60 calendar days from receipt of comments from the City on 60% submittal.</p> <p>Final Bidding Documents: 30 calendar days from receipt of comments from City on 90% Submittal.</p>

200	Bidding and Award Phase Services	On-call as requested
300	Construction Phase Services	To be determined

BASIS OF FEE

City shall pay J-U-B for Basic Services set forth in Attachment 1 as follows:

- Cost Reimbursable not to exceed fees:
 - City shall pay J-U-B an amount equal to the cumulative hours charged to the Project by each class of J-U-B’s personnel times Standard Hourly Rates for each applicable billing class for all services performed on the Project, plus Reimbursable Expenses and J-U-B’s charges, if any.
 - The Standard Hourly Rates and Reimbursable Expenses Schedule will be adjusted annually in January of each year to reflect equitable changes in the compensation payable to J-U-B.

The fee types and amounts for each task are presented in the following table:

Task Number	Task Name	Fee Type	Amount
100	Design Phase Services	Cost Reimbursable	\$697,300
200	Bidding and Award Phase Services	Cost Reimbursable	\$18,400
300	Construction Phase Services	To be determined	To be determined

PERIOD OF SERVICE

The compensation amount stipulated above is conditioned on a period of service not exceeding 12 months. If such period of service is extended, the compensation amount for J-U-B's services shall be appropriately adjusted.

Task Number / Sub-Task	Task	Principal	Project Manager	Project Engineer	Sanitary Engineer	Senior Engineer / QC	Structural Engineer	Professional Land Surveyor	Survey Crew	Survey Tech	CAD Design	Critical	Expenses	Events	Subtask Total
100 DESIGN PHASE SERVICES															
STAFF															
-001	PROJECT ADMINISTRATION, CLIENT MEETINGS	Jim Kimball	Corey Bane	To Be Assigned	Scott Krahnman	To Be Assigned	David Barnett	Jeremy Russell							\$24,400
	Task management: invoices	2	30									1			
	Project bid-off meeting with City staff	4	6		16							4	\$300	8	
	Workshop: Concept / Design Memo review	8	8		8							4	\$300	0	
	Workshop: 60% Progress Print review	8	8		8							4	\$300	0	
	Workshop: 90% / Agency Review meeting	8	8		8							4	\$300	0	
	Submit Bid Set	4	2	2	2							2	\$500	0	
-002	BACKGROUND DATA, BASE PLAN GEOTECHNICAL EVALUATION														\$18,400
	Coordinate survey	2	2	8											
	Topographical survey	4	2	12	4				30	40	24		\$750		
	Yard piping: integrate record drawing information for utilities	4	2	12	4		4								
	Geotechnical report review	2	6	6	16							14	\$1,000	16	
-003	UV Disinfection Evaluation and Selection														\$170,800
-10	Develop Design Criteria	4	1	4											
	Existing condition design criteria	4	4	4	12										8
	Future condition design criteria	4	16												20
	TML UV Bus of Design	2	6	6	16										48
-20	Preliminary EIBC Assessment														
	Review of existing EIBC	2	2	4	2										4
	Planned EIBC assessment	1	1	2	2										4
	Summary document	2	2	4	4										8
-30	Preliminary Design Documents														
	Design data, criteria and process flow diagrams for UV system	2	2	8	8										10
	Process control strategies for UV system	2	2	4	4										8
	Confirm as-built for the existing disinfection system	4	4	16	16										20
	Preliminary structural plans	6	6	8	8		24								24
	Mechanical plans depicting location of major mechanical equipment	2	2	4	4										8
	Preliminary one-line diagrams	2	2	4	4										8
	Preliminary layout of UV and EIBC	4	4	4	8										12
	Preliminary equipment list	4	4	4	4										16
	Preliminary construction cost estimates and construction schedule	4	4	4	4										16
-40	OM/QC Review														
	Preliminary Design Workshops and Meetings	12	12												16
	TML - Review workshop	16	16												24
	Draft design workshops														
-50	UV Equipment Procurement														
-51	UV equipment evaluation guidelines development	2	8	4	8										8
	Development of evaluation criteria and weighting factors for bid	2	4	4	4										12
	Sensitivity analysis to refine criteria and weighting factors	4	4	4	4										20
-52	TM 2 - UV System Evaluation Guidelines														
	UV equipment bidding and selection	4	8	8	24										100
	Preliminary layout drawings	2	2	12	12										24
	Technical specifications	16	16	8	8										32
	Contract terms, conditions and contract lines	8	8	4	12										10
	UV manufacturer questions during bidding	4	4	4	4										16
	Pre-bid conference with manufacturers	8	8												16
-53	Design coordination														
	Shop drawing review	1	1	2	12										16
	Design coordination with UV equipment supplier	1	4	4	16										24

Task Number / Sub-task	Task	Principal	Project Manager	Project Engineer	Sanitary Engineer	Senior Engineer / QC	Structural Engineer	Professional Land Surveyor	Survey Crew	Survey Tech	CAD Design	Critical	Expenses	Event	Subtask Total
-004	DESIGN TECHNICAL MEMORANDUM AND 30 PERCENT CONCEPT PLANS														\$45,300
	Yard piping overview sheet	2	4	12	16						8			4	
	Develop HGL - existing and new facility (Visual Hydraulics)	2	2	2	8						12		\$100	2	
	Establish preliminary routing (horizontal only)				8										
	Site visit				8										
	Cost opinion	1	1	2	8									2	
	Effluent pumping station preliminary design				12									2	
	Establish design criteria and siting requirements	1	8	12	4										
	Vendor coordination	1	4	4							16				
	Prepare exhibits showing general pump station configuration	1	4	16							8			2	
	P&ID	1	1	4							8			2	
	Cost opinion	1	1	2	4										
	UV System	2	2	12	8									16	
	Establish design criteria for process design	2	8	4	8									12	
	Future reclaimed water/filtration considerations	4	4	2	8									8	
	Influent/effluent structures	2	4	4	6									16	
	Disinfection redundancy requirements	4	4	6										8	
	Chlorine disinfection for process water	4	8	16										16	
	Evaluation of structures (utilize existing vs. new)	2	8	12										24	
	P&ID	2	4	8										8	
	Cost opinion	2	1	4	4						4				
	Complete standard details	2	2	4	12								\$200	8	
	TW and concept plan production	1	1	2	4	24								12	
	QC Review	1	1	4											
-005	FINAL DESIGN DEVELOPMENT														\$294,500
	-100 60% design submittal														
	General Sheets	2	2	6	8						16				
	Cover Sheet, site overview, legends	1	2	6	8						8				
	Design criteria; process schematic; hydraulic profile	4	4	8	8						8				
	Schedules; valves, instruments, equipment	1	1	4	8						8				
	Demolition plan	1	1	4	8						8				
	Update standard details	2	2	4	4						4				
	Yard Piping	1	1	4	4						8				
	Yard piping overview sheets; general notes	1	2	4	12						40				
	Update HGL - existing and new facility (Visual Hydraulics)	4	4	8	24										
	Horizontal and vertical routing of utilities; initial sheet development	1	1	2	8										
	Cost opinion	1	1	2	8						16				
	Effluent Pump Station	1	2	16											
	Plan and major sections	1	2	8											
	Equipment specifications	1	2	4	4						4				
	P&ID - update	1	2	4	4						2				
	Electrical coordination & loop reports	1	2	4											
	Cost opinion	1	2	4											
	UV Disinfection	4	4	8	24						60				
	Plan and major sections for basins, hydraulic structures	2	1	2	8						40				
	Plan and major sections for building	1	4	12											
	Equipment specifications	2	4	16							4				
	P&ID - update	1	8	2	8						2				
	Electrical coordination & loop reports	1	2	8											
	Cost opinion	1	1	2	8										
	Specifications	1	8	4											
	Final end specifications (i.e. front end specifications)	1	8	4	32										
	Technical specifications (based on 16 Divisions)	1	8	4											
	Incorporate funding agency inserts and requirements	2	2	4											
	QC Review	1	1	4	24									40	

Task Number / Subtask	Task	Principal	Project Manager	Project Engineer	Sanitary Engineer	QC	Structural Engineer	Professional Land Surveyor	Survey Crew	Survey Tech	CAD Design	Critical	Expenses	Event	Subtask Total
	>200 90% design submittal														
	General Sheets														
	Cover sheet, site overview, legends		1								8				
	Design criteria; process schematic; hydraulic profile	1	4	4	6						4				
	Schedules; valves, instruments, equipment		4	7	8						4				
	Demolition plan		1	1	4						4				
	Update standard details		2	2	4						4				
	Yard piping														
	Yard piping overview sheet; general notes			1	2						4				
	Update HGL - existing and new facility (Visual Hydraulics)	1	2	4	8						40				
	Profiles, sections, details, and keyed notes		2	8	24										
	Cost opinion		1	2	8										
	Effluent Pump Station														
	Finalize plan, sections, and details		2	4	8		8				16				
	Equipment specifications		1	2	12							4			
	PIED - update		1	1	4										
	Electrical coordination & loop reports		1	2							2				
	Cost opinion		1	1	2										
	UV Disinfection														
	Finalize plan, sections, and details		4	8	24		40				80				
	Equipment specifications		2	2	8							6			
	PIED - update		2	1	4										
	Electrical coordination & loop reports		1	8	2						2				
	Cost opinion		1	2	8										
	Specifications														
	Address CLIENT and Funding Agency comments		2	8	4							4			
	Prepare PDF copy of entire specification book - Agency Review		2									14			
	QC Review		1	1	4									40	
	300 Final Bid Set														
	General Sheets														
	Cover sheet, site overview, legends		1		2						8				
	Design criteria; process schematic; hydraulic profile	1	2	4	8						4				
	Schedules; valves, instruments, equipment		1	4	8						4				
	Demolition plan		1	1	4						4				
	Update standard details		1	2	4						4				
	Yard piping														
	Yard piping overview sheet; general notes			1	2						4				
	Update HGL - existing and new facility (Visual Hydraulics)	1	2	4	4										
	Profiles, sections, details, and keyed notes		1	4	16						24				
	Cost opinion		1	2	8										
	Effluent Pump Station														
	Finalize plan, sections, and details		2	4	8		2				16				
	Equipment specifications		2	4	8							4			
	PIED - update		2	1	4										
	Electrical coordination & loop reports		2	4	2						2				
	Cost opinion		1	4	2										
	UV Disinfection														
	Finalize plan, sections, and details	2	4	6	16		4				24				
	Equipment specifications		1	2	4							4			
	PIED - update		1	2	4										
	Electrical coordination & loop reports		2	8	2						2				
	Cost opinion		2	4	2										
	Specifications														
	Prepare PDF copy of entire specification book - Final Bid Set		4	2								12			
	QC Review	1	1	2	4		12								12

J-U-B ENGINEERS, Inc. Fee Schedule – Pullman UV and Misc. Projects

J-U-B ENGINEERS, Inc. – Coeur d’Alene, Sandpoint and Lewiston

September 1, 2016

(Subject to change January 2017)

LABOR BY TYPE

RATE/HR. RANGE

KEY STAFF:

PRINCIPAL	James Kimball	\$192.60
PROJECT MANAGER	Cory Baune	\$176.89
SANITARY ENGINEER	Scott Krallman	\$159.86

GENERAL:

PRINCIPAL	\$175.00	to	\$250.00
PROJECT MANAGER	\$125.00	to	\$195.00
PROJECT ENGINEER/P.E.	\$ 90.00	to	\$165.00
STRUCTURAL ENGINEER	\$ 90.00	to	\$165.00
DESIGN ENGINEER/E.I.T.	\$ 75.00	to	\$110.00
PLANNER	\$125.00	to	\$130.00
LAND SURVEYOR, P.L.S.	\$100.00	to	\$150.00
2-MAN SURVEY CREW	\$145.00	to	\$165.00
3-MAN SURVEY CREW	\$200.00	to	\$250.00
SURVEY TECHNICIAN	\$ 55.00	to	\$ 85.00
CONSTRUCTION OBSERVER	\$ 60.00	to	\$ 90.00
ENGINEERING TECHNICIAN	\$ 60.00	to	\$ 90.00
DRAFTSPERSON (CAD)	\$ 60.00	to	\$ 90.00
CLERICAL/ADMINISTRATIVE	\$ 30.00	to	\$ 85.00

MATERIALS & OUT-OF POCKET EXPENSES

SUB-CONSULTANTS	COST PLUS 10%
MATERIALS	COST PLUS 10%
LODGING	COST PLUS 10%
DAILY PER DIEM	\$ 40.70
VEHICLE COST PER MILE (adjusted if fuel increases)	\$ 0.565
ROBOTIC SURVEY INSTRUMENT	\$50.00/HR.
GPS EQUIPMENT	\$50.00/HR.