

## TOWN OF CASTLE ROCK SERVICES AGREEMENT

(Plum Creek to Rueter-Hess Reservoir Pipeline Infrastructure Final Design)

DATE:	<u> </u>											
PARTIES:	<b>TOWN OF CASTLE ROCK</b> , a Colorado municipal corporation, 100 N. Wilcox Street, Castle Rock, Colorado 80104 (the "Town").											
	<b>PROVIDENCE INFRASTRUCTURE CONSULTANTS, INC.</b> , a Colorado corporation, 300 Plaza Drive, Suite 320, Highlands Ranch, Colorado 80129 ("Consultant").											

#### **RECITALS:**

A. Town wishes to engage Consultant to provide the services more fully described in the following Agreement and Exhibits.

#### **TERMS:**

- **Section 1.** Scope of Services. Consultant shall provide final design and bid phase services in accordance with the scope of services attached as *Exhibit 1* ("Services").
- **Section 2.** Payment. Consultant shall invoice Town upon completion of the Services rendered in accordance with the rate and fee scheduled identified in *Exhibit 1*. The Town shall pay such invoices within 30 days receipt of such invoice. In no event shall the cumulative payment to Consultant exceed \$1,262,595.00, unless authorized in writing by Town.
- Section 3. <u>Term.</u> Consultant shall commence the Services upon execution of this Agreement and complete the Services by December 31, 2023. Consultant shall devote adequate resources to assure timely completion of the Services. Consultant shall perform the Services under this Agreement using a standard of care, skill and diligence ordinarily used by reputable professionals performing under circumstances similar to those required by this Agreement.

The Town shall have the right to terminate this Agreement at any time with 30 days written notice to Contractor. The Town's only obligation in the event of termination shall be payment of fees and expenses incurred up to and including the effective date of termination. Contractor shall turn over all work product produced up to the date of termination.

**Section 4.** Annual Appropriation. The continuance of this Agreement is contingent upon the appropriation of funds to fulfill the requirements of the Agreement by the Town. If the Town fails to appropriate sufficient monies to provide for the continuance of the Agreement, the Agreement shall terminate on the final day preceding the date of the beginning of the first fiscal year for which funds are not appropriated. The Town's only obligation in the event of termination shall be payment of fees and expenses incurred up to and including the effective date of termination.



- **Section 5.** <u>Subcontractors.</u> Consultant may utilize subcontractors to assist with specialized works as necessary to complete the Services. Consultant will submit any proposed subcontractor and the description of their services to the Town for approval.
- **Section 6.** Assignment. This Agreement shall not be assigned by Consultant without the written consent of the Town.
- **Section 7.** <u>Notice.</u> Any notice required or permitted by this Agreement shall be in writing and shall be deemed to have been sufficiently given for all purposes if sent by certified mail or registered mail, postage and fees prepaid, addressed to the party to whom such notice is to be given at the address set forth on the first page of this Agreement, or at such other address as has been previously furnished in writing to the other party or parties. Such notice shall be deemed given when deposited in the United States mail.
- **Section 8.** <u>Insurance.</u> Consultant agrees to procure and maintain, at his own cost, the following policy or policies of insurance. Consultant shall not be relieved of any liability, claims, demands or other obligations assumed pursuant to this Agreement by reason of its failure to procure or maintain insurance, or by reason of its failure to procure or maintain insurance in sufficient amounts, durations, or types.
- A. Consultant shall procure and maintain, and shall cause each subcontractor of the Consultant to procure and maintain a policy with the minimum insurance coverage listed below. Such coverage shall be procured and maintained with forms and insurers acceptable to the Town. All coverage shall be continuously maintained from the date of commencement of services hereunder. In the case of any claims-made policy, the necessary retroactive dates and extended reporting periods shall be procured to maintain such continuous coverage.
  - 1. Workers Compensation insurance to cover obligations imposed by the Workers Compensation Act of Colorado and any other applicable laws for any employee engaged in the performance of Work under this contract, and Employer's Liability insurance with minimum limits of FIVE HUNDRED THOUSAND DOLLARS (\$500,000) each accident, FIVE HUNDRED THOUSAND DOLLARS (\$500,000) disease-policy limit, and FIVE HUNDRED THOUSAND DOLLARS (\$500,000) disease-each employee.
  - 2. Comprehensive General Liability insurance with minimum combined single limits of ONE MILLION DOLLARS (\$1,000,000) each occurrence and ONE MILLION DOLLARS (\$1,000,000) aggregate. The policy shall be applicable to all premises and operations. The policy shall include coverage for bodily injury, broad form property damage (including for contractual and employee acts), blanket contractual, independent contractors, products, and completed operations. The policy shall contain a severability of interests provision.
  - 3. Comprehensive Automobile Liability Insurance with minimum combined single limits for bodily injury and property damage of not less than ONE MILLION DOLLARS (\$1,000,000) each occurrence and ONE MILLION DOLLARS (\$1,000,000)



aggregate with respect to each of Consultant 's owned, hired and/or non-owned vehicles assigned to or used in performance of the services. The policy shall contain a severability of interests provision.

- 4. Professional Liability insurance with minimum limits of ONE MILLION DOLLARS (\$1,000,000) per claim and ONE MILLION DOLLARS (\$1,000,000) aggregate.
- B. The policies required above, except Workers' Compensation insurance, Employers' Liability insurance and Professional Liability insurance shall be endorsed to include the Town, its officers and employees, as an additional insured. Every policy required above, except Workers' Compensation and Professional Liability insurance, if applicable, shall be primary insurance, and any insurance carried by the Town, its officers, or its employees, shall be excess and not contributory insurance to that provided by Consultant. The additional insured endorsement for the Comprehensive General Liability insurance required above shall not contain any exclusion for bodily injury or property damage arising from completed operations. The Consultant shall be solely responsible for any deductible losses under each of the policies required above.
- C. Certificates of insurance shall be completed by Consultant's insurance agent and submitted at the time of execution of this Agreement as *Exhibit 2* as evidence that policies providing the required coverage, conditions and minimum limits are in full force and effect, and shall be subject to review and approval by the Town. Each certificate shall identify the Project and shall provide that coverage afforded under the policies shall not be cancelled, terminated or materially changed until at least 30 days prior written notice has been given to the Town. If the words "endeavor to" appear in the portion of the certificate addressing cancellation, those words shall be stricken from the certificate by the agent(s) completing the certificate. The Town reserves the right to request and receive a certified copy of any policy and any endorsement thereto.
- D. Failure on the part of Consultant to procure or maintain policies providing the required coverage, conditions, and minimum limits shall constitute a material breach of contract upon which at the Town's discretion may procure or renew any such policy or any extended connection therewith, and all monies so paid by the Town shall be repaid by Consultant to the Town upon demand, or the Town may offset the cost of the premiums against any monies due to Consultant from the Town.
- **Section 9.** Colorado Governmental Immunity Act. The parties understand and agree that the Town is relying on, and does not waive or intend to waive by any provision of this contract, the monetary limitations (presently \$424,000 per person, \$1,195,000 for two or more persons, per occurrence) or any other rights, immunities, and protections provided by the Colorado Governmental Immunity Act, \$24-10-101, et seq., C.R.S., as from time to time amended, or otherwise available to Town, its officers, or its employees.
- **Section 10.** <u>Indemnification.</u> Consultant expressly agrees to indemnify and hold harmless Town or any of its officers or employees from any and all claims, damages, liability, or court awards including attorney's fees that are or may be awarded as a result of any loss, injury or



damage sustained or claimed to have been sustained by anyone, including, but not limited to, any person, firm, partnership, or corporation, to the extent caused by the negligent acts, errors or omissions of Consultant or any of their employees or agents in performing work pursuant to this Agreement. In the event that any such suit or action is brought against Town, Town will give notice within ten (10) days thereof to Consultant.

- **Section 11.** <u>Delays.</u> Any delays in or failure of performance by any party of his or its obligations under this Agreement shall be excused if such delays or failure are a result of acts of God, fires, floods, strikes, labor disputes, accidents, regulations or orders of civil or military authorities, shortages of labor or materials, or other causes, similar or dissimilar, which are beyond the control of such party.
- **Section 12.** Additional Documents. The parties agree to execute any additional documents or take any additional action that is necessary to carry out this Agreement.
- **Section 13.** Entire Agreement. This Agreement represents the entire agreement between the parties and there are no oral or collateral agreements or understandings. This Agreement may be amended only by an instrument in writing signed by the parties. If any other provision of this Agreement is held invalid or unenforceable, no other provision shall be affected by such holding, and all of the remaining provisions of this Agreement shall continue in full force and effect.
- **Section 14.** <u>Time of the Essence.</u> Time is of the essence. If any payment or any other condition, obligation, or duty is not timely made, tendered or performed by either party, then this Agreement, at the option of the party who is not in default, may be terminated by the non-defaulting party, in which case, the non-defaulting party may recover such damages as may be proper.
- Section 15. <u>Default and Remedies</u>. In the event either party should default in performance of its obligations under this agreement, and such default shall remain uncured for more than 10 days after notice of default is given to the defaulting party, the non-defaulting party shall be entitled to pursue any and all legal remedies and recover its reasonable attorney's fees and costs in such legal action. In addition, no Party will be entitled to lost profits, economic damages, or actual, direct, incidental, consequential, punitive or exemplary damages in the event of a default.
- **Section 16.** Waiver. A waiver by any party to this Agreement of the breach of any term or provision of this Agreement shall not operate or be construed as a waiver of any subsequent breach by either party.
- **Section 17.** <u>Governing Law.</u> This Agreement shall be governed by the laws of the State of Colorado in the Douglas County District Court.
- Section 18. <u>Independent Contractor.</u> Consultant and the Town hereby represent that Consultant is an independent contractor for all purposes hereunder. Consultant represents and warrants that they are free from the Town's direction and control in the performance of their work or services and that they have an independent business doing the specific type of work or services



which are the subject of this Agreement. More specifically, Consultant represents and warrants that the Town does not control what work or services they will perform or the manner in which such work or services will be performed. As such, Consultant is not covered by any worker's compensation insurance or any other insurance maintained by Town except as would apply to members of the general public. Consultant shall not create any indebtedness on behalf of the Town.

Section 19. No Third Party Beneficiaries. It is expressly understood and agreed that enforcement of the terms and conditions of this Agreement, and all rights of action relating to such enforcement, shall be strictly reserved to Town and Consultant, and nothing contained in this Agreement shall give or allow any such claim or right of action by any other third party on such Agreement. It is the express intention of the parties that any person other than Town or Consultant receiving services or benefits under this Agreement shall be deemed to be an incidental beneficiary only.

ATTEST:	TOWN OF CASTLE ROCK
Lisa Anderson, Town Clerk	Jason Gray, Mayor
Approved as to form:	Approved as to content:
Michael J. Hyman, Town Attorney	David L. Corliss, Town Manager
CONSULTANT:	
PROVIDENCE INFRASTRUCTURE CO	ONSULTANTS, INC.
By:	
Its:	

#### **EXHIBIT 1**



#### SCOPE OF SERVICES AND FEE SCHEDULE

# Plum Creek to Rueter – Hess Reservoir Pipeline Infrastructure Project (Pipeline, Pump Station, and Reservoir Outlet) Phase 2 Scope of Work – Final Design and Bid Phase Services

The following describes the scope for the final design of a raw water transmission system (storage, pump station, pipeline, outlet structure, etc.) needed to convey raw water from a point of connection on the Castle Rock Water's (CRW) existing 30-inch pipeline Plum Creek Raw Water Return Pipeline (PCRWRPL) to Reuter-Hess Reservoir (RHR). Phase 2 of the Plum Creek to Rueter-Hess Reservoir Pipeline Infrastructure Project (PCRHRPLP) will involve the Consultant (Providence Infrastructure Consultants Inc. or PIC) completing the final design and bidding of a new raw water transmission pipeline, booster pump station, reservoir outlet structure needed to properly convey raw water from the existing PCRWRPL to RHR as generally shown in Exhibit 2

The Phase 2 project tasks are described below along with associated task numbers. These task numbers correlate with the attached Labor Hour and Fee Schedule Structure (Exhibit 3).

#### Task Series 600 - 60% Design

#### Task 601 – Project Management (7 months)

This task covers seven (7) months of project management including communication with CRW on the progress and direction of the project. This task also includes time to prepare and submit monthly invoices and supporting monthly progress reports to CRW. Invoices will be submitted within the first two weeks of each month and cover through the last Friday of the preceding month.

#### Task 602 – Bi-Weekly Progress Meetings (14)

PIC's scope is based on the 60% Design efforts taking seven months to complete starting from the time CRW provides PIC with a Notice-to-Proceed (NTP) and ending at the initiation of the 100% Design phase. Biweekly progress meetings will take place to document progress and action items and to maintain project momentum. The following scope clarifications apply to this Task:

1. Most to all of the project progress meetings will be via video conference call with CRW to reduce time

- 1. Most to all of the project progress meetings will be via video conference call with CRW to reduce time and expense.
- 2. Up to fourteen (14) bi-weekly meetings will take place during the 60% Design. These will include meetings for the review of the 60% Design documents.
- 3. For project consistency, PIC's Project Principal, Project Manager, Assistant Project Manager, and Project Engineer will attend the meetings as each of these team members will have key responsibilities on the Project.
- 4. Regular progress meetings will last no longer than one (1) hour. Project meetings that are dedicated to reviewing documents will last no longer than 2 hours.
- 5. General Notes will be prepared and distributed by PIC, via email, documenting any significant decisions made during these meetings.

#### Task 603 – Meeting and Coordination with CDOT

The Project corridor will involve a crossing of Interstate 25 and State Highway 85. Prior to finalizing the 60% Drawings at these crossing locations, PIC will initiate a meeting with CDOT to get feedback on the location, crossing alignment, and profile design. Feedback received from CDOT will be reflected on the 60% drawings.

#### Task 604 - Project Survey Coordination

PIC will coordinate with Precision Survey and Mapping (PSM) to help the Project's survey be completed. PSM, under separate contract with CRW, will provide the necessary field survey, using local survey control points. In addition to providing topography at 1-foot contour intervals, property lines, and easement lines, the Project survey shall also identify ROW and site improvements; landscape elements including fences, gates, trails, trees, plant materials, sprinkler vaults, water features, streams, etc.; surface treatments including pavements, curb and gutter, curb ramps, driveways, drainage swales, steps, etc.; all structures; and all utilities, including water lines, sanitary sewer lines, storm sewer lines, irrigation lines, poles, vaults, hydrants, cabinets, oil and gas lines, special district water lines, fiber optic, electrical etc. PSM hall also provide location for all required soil borings within the survey limits. All survey information shall be provided to PIC in AutoCAD file format. PIC will coordinate with PSM on the completion and delivery of the survey. PIC's scope fee for coordinating with PSM is approximately 10-15% of PSM's fee that will be charged directly to CRW.

#### Task 605 – Utility Locating and Potholing (100)

PIC, in coordination with Colorado Utility Finders (CUF), will obtain pothole depths of all utilities along the pipeline design alignment in accordance with Subsurface Utility Engineering (SUE) quality Level A. This task will involve physically locating existing utilities that could impact the design of the Project. PIC's scope involves performing up to 100 utility potholes. Traffic control will likely be required to complete utility potholing within road right-of-ways (ROW). All utility crossings shall either be identified and verified for adequate clearance, or PIC shall provide recommendations for relocation of existing utilities. Utility locating shall be in compliance with Colorado Subsurface Utility Engineering Law (Senate Bill 18-167). Many of these potholes are likely to be located within the urban area of Promenade Parkway, therefore, the PIC's utility locating and potholing costs are based on \$500 per utility pothole. As part of Task 605, PIC will have a staff engineer accompany CUF to document utility locations for design purposes.

#### Task 606 Geotechnical Borings and Testing

Task 606 will involve PIC's geotechnical exploration subconsultant, Cesare Inc, locating, drilling, and testing up to forty-five (45) geotechnical borings along the Project. Twenty seven (27) of the borings will be used to support the design of the open cut installation portion of the Project's pipeline. These 27 geotechnical borings will be drilled to an average boring depths of 15 feet deep and test samples collected at 5-foot intervals. Eighteen (18) of the borings will be used to support the design of the trenchless portions of the Project. The 18 geotechnical borings will be drilled to depths ranging from 25 to 150 feet deep and test samples collected at 5-foot intervals. For the trenchless exploration, PIC has accounted for seven (7) tunnel or horizontal directional drill (HDD) installations on the Project. These trenchless locations are at the following locations: (1) East Plum Creek, (2) UPRR/Highway 85, (3) Promenade Parkway/Castlegate Intersection, (4) Interstate 25, (5) Sapphire Point and (6, 7) two crossings of South Newlin Gulch. For each tunnel or HDD location, geotechnical borings will be drilled at each end of the trenchless crossing, with several crossings having an additional geotechnical boring between the two ends of the crossing. Soil samples at the trenchless crossings will be collected using the Standard Penetration Test (SPT), the California Sampler, or Shelby tube. Soil samples will be tested for natural moisture content, grain size distribution, Atterberg limits, Proctor compaction test, and swell/consolidation tests, as appropriate to fully classify soil type, and to help determine bearing pressure, settlement potential, slope stability, corrosion potential, unconfined compressive strength, triaxial testing, and hydrometer analyses. At five (5) of the tunnel crossings, groundwater monitoring and observation wells will be permitted and installed to be used for monthly water level monitoring. Monthly measurements will be taken for up to twelve (12) months.

#### Task 607 Geotechnical Data and Engineering Report (GDR)

PIC's geotechnical exploration subconsultant, Cesare Inc, will develop a Geotechnical Data and Engineering Report (GDR) that presents the results of the geotechnical exploration will be developed for the Project. The GDR will contain descriptions of the field work performed, boring logs using the guidelines presented in ASTM D2487, laboratory test results, data summaries, data histograms, geologic profiles, and other relevant data compiled during the geotechnical exploration and testing. The GDR will also include all the standard engineering design parameters for the pipeline trench construction outside of the tunnel or HDD locations.

#### Task 608 Geotechnical Baseline Report

PIC's geotechnical engineering subconsultant, Lithos Engineering, will develop a Geotechnical Baseline Report (GBR) for the tunnel or HDD crossings for the Project. The purpose of the GBR is to set the baselines for the geotechnical conditions that are anticipated to be encountered during underground construction. Preparation of the GBRs will be in general accordance with the latest version of the Guideline for Geotechnical Baseline Reports developed by the Underground Research Council.

#### Task 609 – Environmental and Cultural Evaluations and Permitting

PIC will retain ERO Resources Corporation (ERO) as a subconsultant to perform environmental studies and investigations related to wetlands, threatened and endangered species, and historic or archeological resources of importance. PIC will support ERO in preparing exhibits for agency consultation. PIC will also attend up to two (2) coordination meetings with ERO and regulatory agencies. The pipeline corridor will also be reviewed for conformance with the Rueter-Hess Reservoir's Environmental Impact Statement (EIS) Programmatic Agreement with the Corps of Engineers and the State Historic Preservation Office. PIC believes that project clearances will be needed through the U.S. Army Corps of Engineers (Corps), the U.S. Fish & Wildlife Service (USFWS), the Colorado Parks and Wildlife (CPW), and the State Historic Preservation Office (SPHO). PIC believes that the Project will require a jurisdictional wetlands determination from the Corps, a habitat assessment through the USFWS and CPW, and a cultural evaluation through SHPO. As part of this task, PIC will coordinate and provide ERO with mapping limits and construction information needed for discussions with regulatory agencies.

#### Task 610 – Property Owner Meetings and Easement Acquisition Assistance

PIC will assist CRW and its land agent in obtaining both permanent and temporary easements and purchased land for construction of the Project. PIC expects easement and land acquisition to take place during the 60% and 100% Design Phases. PIC will identify the easement needs as early as possible in the 60% Design process once the project survey is received. PIC will incorporate individual landowner requirements resulting from easement negotiations into the Contract Documents. PIC shall coordinate with CRW associated with the need for additional permanent or temporary construction easements at the Project's tunnel locations, staging areas, and laydown areas. If needed, PIC will support CRW with any eminent domain proceedings necessary for securing easements or land for the Project. PIC's scope fee includes ninety (90) hours of assistance under this Task. Task activities may include, but are not limited to, meeting with land representatives, property owners, the preparation of exhibits, and providing materials for legal proceedings if needed.

#### Task 611 – 60% Alignment and Profile Development

Based on the outcome of the property owner meetings and easement acquisition activities, PIC will develop the 60% design alignment and profile. This task may also include determining the final location for the Project's booster pump station and outlet structure location.

#### Task 612 – Hydraulic System Modeling

PIC will develop a hydraulic model for the conveyance system with the purpose of supporting the final sizing of the pipeline, the sizing of the pumps in the booster pump station, and design pressures (static, operating, and surge). The model will be used to evaluate potential surge pressures and the means or devices needed for mitigating high and low system pressures. The model will also evaluate hydraulic conditions associated with 2-way flow should CRW have need in the future to pump water from Rueter-Hess Reservoir back to the Plum Creek Basin.

#### Task 613 Determine Pipe Material, Thickness, Coatings and Linings

PIC will evaluate pipe material options for the pipeline and calculate the thickness for each pipe material. Pipe materials are likely to be either PVC or ductile iron pipe (DIP). The Project's pipe size is anticipated to be between 16- and 24-inches in diameter. For DIP, the PIC will develop recommended exterior coatings and linings for consideration by CRW In addition, should DIP be chosen as the pipeline material, the appropriate corrosion protection measures will be determined based upon the field testing of the soil resistivity.

#### Task 614 Isolation, Air/Vacuum, and Drain Valve Locations, Types and Sizes

This task will involve determining valve locations and their sizes. The locations of these valves will take into consideration pipeline filling, draining, and operations; as well as ease of access for CRW maintenance staff. The location and sizes of the air & vacuum valves will also be guided by the hydraulic modeling performed in Task 612 and engineering industry calculations, standards, and guidance.

#### Task 615 Thrust Restraint Design

Using the pipeline's horizontal and vertical alignment, the thrust restraint needs will be determined. Operating and surge pressures will be used to specify the length of restrained pipe needed to prevent pipe movement. Thrust restraint may also involving the sizing and placement of concrete thrust blocks. Based on the available joint technologies of PVC and DIP, the design may incorporate both restrained joints as well as thrust blocks.

#### Task 616 Utility Crossing Designs

The Project will cross a variety of utilities including communication, water, sewer, storm, gas, and electric lines. PIC will plan, organize, conduct, and document coordination meetings with utilities to present the scope of the Project, identify existing utilities that are within close proximity to the Project, identify lines of communication and determine crossing and/or relocation requirements, including required permits and agreements. PIC will identify the need for utility relocations as early as possible in order to begin coordination activities with utility owners. PIC will prepare crossing designs, including drawings and specifications for any utility required to be protected, relocated, or adjusted as determined by PIC or the owner of the utility. PIC's scope includes up to five (5) utility specific crossing designs where protection, relocation, or adjustments are needed.

#### Task 617 Determine Access, Construction Limits and Staging Areas

PIC will coordinate with CRW in selecting access locations for the Project that will be used be used during construction and for future operations and maintenance. If these access locations will require the acquisition of additional permanent easement, expanded easement limits will be determined and provided to CRW and CRW's land agent. In addition, PIC will determine the construction limits for the project, including contractor staging areas. These temporary use areas will be defined and their limits will provided to CRW's land agent for acquisition purposes.

#### Task 618 Develop Pressure Testing Plan

PIC will prepare and submit a pipeline testing plan for CRW review that will cover alternative pipe testing methods (single section, multiple sections, etc.). The plan will identify the volume of water needed, potential sites to obtain test water, and methods of disposal - including discharge into E. Plum Creek and Rueter-Hess Reservoir.

#### Task 619 Pavement Design for Roadway Replacement

Portions of the pipeline will need to be installed in existing roads and parking lots. As such, the Project will require the removal and replacement of existing pavements during the open cut placement of the pipe. PIC will research Town and County pavement replacement requirements; as well as design the replacement pavement sections to meeting applicable standards and requirements.

#### Task 620 Preparation of 60% Drawings

PIC will prepare 60% Design Drawings for CRW review and for cost estimating purposes. The drawing set will include General, Civil, Plan and Profile, Process, Architectural, Structural, Mechanical, Electrical, and Instrumentation Drawings. The Plan and Profile Drawings will be scaled at 1-inch equals 100-feet horizontal and 1-inch equals 10 feet vertical. The pipeline profile portions of the drawings will show all pipes, valves, other appurtenances, and existing utilities and surface features. The drawing set will also include the booster pump station needed for conveying water to Reuter-Hess Reservoir (RHR) and the outlet structure at RHR. A complete list of the proposed drawings is shown in the table below. Note that the Project's Grading, Erosion, and Sediment Control (GESC) drawings will be developed during the 100% Design Phase.

#### **Proposed Drawing List**

Sheet Number	Dwg No.	Title
General Drawings (G)		
1	G-001	Cover Sheet
2	G-002	Drawing List
3	G-003	General and Town of Castle Rock Right-of-Way Notes
4	G-004	Symbols and Abbreviations
5	G-005	Pump Station Site Access, Construction Limits, and Geotechical Borings
6	G-006	Pump Station Survey Control
7 & 8	G-007 & 008	Pipeline Sheet Index, Location Map, and Survey Control
9 & 10	G-009 & 010	Pipeline Geotechnical Borings Location Map
11	G-011	Utility Pothole Data
Civil Drawings (C)		
12	C-101	Pump Station - Site Civil, Grading, and Drainage Plan
13	C-102	Pump Station - Site Piping Plan
14	C-103	Pump Station - Site Piping Profiles
15	C-104	Pump Station - Horizontal Control Data
16	C-105	Pump Station - Final Site Layout Plan
17	C-106	Reservoir Outlet Structure - Site Civil, Grading, and Drainage Plan
18	C-107	Reservoir Outlet Structure - Horizontal Control Data
19	C-108	Reservoir Outlet Structure Plan and Profile
20	C-109	Reservoir Outlet Structure Sections
21	C-501	Site Paving, Grading, and Drainage Details
22	C-502	Fence and Gate Details
23	C-503	Entrance/Exit Gate
24	C-504	Pump Station Surge Tank
Plan and Profile Drawings	and Details (PP)	
25	PP-100	Condensed Profile
26 to 51	PP-101 to 126	Plan and Profile
52 to 54	PP-401 to 403	Enlarged Plan and Profiles
55	PP-501	Trench and Pavement Replacement Details
56 to 60	PP-502 to 507	PVC Pipeline Details

Exhibit 1

Plum Creek to Rueter – Hess Reservoir Pipeline Infrastructure Project

Phase 2 Scope of Work

Sheet Number	Dwg No.	Title
62 & 63	PP-508 & 509	Cathodic Protection / Tracer Details
		- TO BE PREPARED DURING THE 100% DESIGN PHASE
64	EC-001	GESC Notes
65 & 66	EC-002 & 003	GESC Sheet Index
67	EC-100	GESC Plan - Pump Station
68 to 78	EC-101 to 111	GESC Plan
79 to 83	EC-501 to 505	GESC Details
Process Drawings (P)	20 301 10 303	CLOC Details
84	P-001	Process Notes, Legends, Abbreviations, and Symbols
85	P-101	Pump Station Lower Level Plan
86	P-102	Pump Station Ground Level Plan
87 to 89	P-201 to 203	Pump Station Sections
90 to 92	P-501 to 503	Process Details
Architecture Drawings (A)		
93	A-001	Building Code Information, Legend, and Symbols
94	A-101	Building Lower Floor Plan
95	A-102	Building Ground Level Plan
96	A-103	Building Roof Plan
97	A-201	Building Sections
98	A-202	Building Sections
99 & 100	A-301 & 302	Building Elevations
101 & 102	A-501 & 502	Building Details
103	A-503	Building Door Schedule, Door and Window Details
Structural Drawings (S)		
104	S-001	Structural Notes
105	S-002	Structural Design Criteria and Legend
106	S-101	Pump Station Lower Floor Plan
107	S-102	Pump Station Ground Level Plan
108	S-103	Pump Station Roof Plan
109 to 111	S-201 to 203	Pump Station Sections
112	S-301	Reservoir Outlet Structural Plan and Profile
113	S-302	Reservoir Outlet Structural Sections
114	S-501	Lift Station Structural Details
114 to 118	S-502 to 505	Standard Structural Standard Details
Mechanical Drawings (M)		
119	M-001	HVAC Notes, Symbols, and Abbreviations
120	M-002	Plumbing Notes, Symbols and Abbreviations
121	M-101	HVAC Plan
122	M-102	Plumbing Plan
123	M-201	HVAC Section
124	M-301	HVAC and Plumbing Schedules
125	M-501	HVAC Details
126	M-502	Plumbing Details
Electrical Drawings (E)		
127	E-001	Electrical Notes, Legend, and Abbreviations
128	E-002	One-Line Diagram Main Switch
129	E-003	One-Line Diagram MCC
130	E-004	Equipment One-Line Diagrams
131	E-005	Equipment One-Line and Communications Diagram
132	E-006	Electrical Schematics
133	E-007	Electrical Schematics
134	E-101	Pump Station Electrical Site Plan
135	E-102	Pump Station Electrical Lower Level Plan
426	E-103	Pump Station Electrical Ground Level Plan
136	L 103	Tump Station Electrical Ground Ecver Flan
137	E-201	Electrical Schedules

Exhibit 1 Plum Creek to Rueter – Hess Reservoir Pipeline Infrastructure Project Phase 2 Scope of Work

Sheet Number	Dwg No.	Title
Instrumentation Drawings		
(1)		
141	I-001	Instrumentation Legend and Symbols
142	E-101	Pump Station Process and Instrumentation Diagram

#### Task 621 Prepare of 60% Technical Specifications List

The 60% Drawings will be accompanied by a specification list and a list of all major materials and equipment. Detailed project specifications will be developed during final design of the project.

#### Task 622 Quality Control and Constructability Review

Before 60% document submission, PIC will perform a quality control review of the drawings for clarity and completeness; and to evaluate the functional coordination of the varied disciplines of the Project. PIC's quality reviews will be conducted by staff that have experience on water pipeline and pump station projects of a similar degree of complexity and size. The quality control reviews will include checking dimensions, sizes, detail, section, and elevation references; coordination between PIC and Subconsultant's drawings; compatibility of materials; references within technical specifications to other sections and to drawings; and constructability.

#### Task 623 – Develop AACE Class 2 Estimate (Project Definition 30-75%)

PIC will develop an AACE Class 2 estimate (budget authorization/control) for the Project based on the 60% design. An AACE Class 2 estimate has an expected accuracy range between (-5 to -15%) and (+5 to +30%). In addition to customary pipeline and pump station line items, the Class 2 will also include land acquisition, permitting, new utility services for facilities, and other incidentals.

#### Task Series 700 – 100% Design

#### <u>Task 701 – Project Management (7 months)</u>

This task covers seven (7) months of project management including communication with CRW on the progress and direction of the project. This task also includes time to prepare and submit monthly invoices and supporting monthly progress reports to CRW. Invoices will be submitted within the first two weeks of each month and cover through the last Friday of the preceding month.

#### Task 702 – Bi-Weekly Progress Meetings (14)

PIC's scope is based on the 100% Design efforts taking seven months to complete starting from the time the 60% Design Phase is completed and the beginning of the Project's Bid Phase. Bi-weekly progress meetings will take place to document progress and action items and to maintain project momentum. The following scope clarifications apply to this Task:

- 1. Most to all of the project progress meetings will be via video conference call with CRW to reduce time and expense.
- 2. Up to fourteen (14) bi-weekly meetings will take place during the 100% Design Phase. These will include meetings for the review of the 100% Design documents.
- 3. For project consistency, PIC's Project Principal, Project Manager, Assistant Project Manager, and Project Engineer will attend the meetings as each of these team members will have key responsibilities on the Project.
- 4. Regular progress meetings will last no longer than one (1) hour. Project meetings that are dedicated to reviewing documents will last no longer than 2 hours.

5. General Notes will be prepared and distributed by PIC, via email, documenting any significant decisions made during these meetings.

#### Task 703 Preparation of 100% Drawings

PIC will progress the 60% Design drawings to 100% Final for Bid Drawings for CWR review and cost estimating purposes. The Final 100% drawing set will finalize the design including General, Civil, Plan and Profile, GESC, Process, Architectural, Structural, Mechanical, Electrical, and Instrumentation. The GESC drawings will be finalized in accordance with both the Town of Castle Rock and Douglas County requirements as part of the bid set.

#### Task 704 Municipal Permitting

A variety of outside coordination and permitting will be necessary due to sections of the Project being constructed within the municipal boundaries of the Town of Castle Rock and the City of Castle Pines. These municipalities may require floodplain encroachment permits, building permits, right-of-way permits, access permits, or grading and erosion control permits. As part of the 100% Design Phase, PIC will assist CRW with obtaining these permits, including development of technical memos and drawings, and/or defining requirements for the Construction Contractor to obtain applicable permits. PIC shall plan to participate in up to four (4) separate meetings with municipality staff. Because permitting activities are difficult to define, PIC's scope includes 160 hours to be used for municipal permitting efforts.

#### Task 705 Douglas County Location and Extent (L&E) Permit Coordination and Submittal

PIC will coordinate with Douglas County and prepare and submit a Location and Extent (L&E) Permit Submittal. The submittal will be provided to County planning and engineering staff. As part of finalizing the 100% Design, PIC will complete the GESC Drawings, Details, and Report which will be key documents for the County submittal. This task also includes one (1) pre-submittal meeting and attending one (1) public hearing. PIC will address any comments received by Douglas County from their review of the draft submittal prior to finalizing the submittal for final approval. As with all regulatory and permit review activities, PIC will not have control over the agencies schedule, but will work closely with them and CRW to expedite things as much as possible.

#### Task 706 Technical Specifications for 100% Design

PIC will assembly the Contract Specifications which will include developing the Project's technical specifications and obtaining CRW's Division 0 and 1 "front-end" Specifications. The Contract Specifications will be prepared in the 6-Digit CSI Master Spec format. CRW shall provide PIC with the Division 0 and Division 1 Documents including General and Special Conditions. In finalizing the Project's Technical Specifications, PIC will work with CRW to determine the operational and maintenance preferences for the completion of the pipeline design and the booster pump station.

#### Task 707 Quality Control Review

Before the 100% Design Phase submission, PIC will perform a quality control review of the drawings for clarity and completeness; and to evaluate the functional coordination of the varied disciplines of the Project. PIC's quality reviews will be conducted by staff that have experience on water pipeline and pump station projects of a similar degree of complexity and size. The quality control reviews will include checking dimensions, sizes, detail, section, and elevation references; coordination between PIC and Subconsultant's drawings; compatibility of materials; references within technical specifications to other sections and to drawings; and constructability.

#### <u>Task 708 – Develop AACE Class 1 Estimate (Project Definition 65-100%)</u>

PIC will progress the 60% AACE Class 2 estimate to a Class 1 estimate (budget authorization/control) based on the 100% design. An AACE Class 1 estimate has an expected accuracy range of -3 to -10% to +3 to +15%. In addition to customary pipeline and pump station line items, the Class 1 will also include land acquisition, permitting, new utility services for facilities, and other incidentals.

#### Task Series 800 -Bid Phase Services

#### Task 801 Pre-Bid Conference

PIC will prepare for, facilitate, and document a Pre-Bid Conference for the Project; and shall provide assistance to CRW in responding to inquiries by the prospective bidders during the bidding period. PIC's scope and fee is based on a 4-week bid period.

#### Task 802 Addenda Assistance

PIC shall prepare all necessary Document corrections and provide additional information based on prospective bidder inquiries. All answers to prospective bidder questions shall be coordinated with CRW and issued by CRW. PIC will assist CRW with preparation of addenda and CRW will issue all addenda.

#### Task 803 Review Bids

PIC will assist CRW in the review of Bids received, and the qualification of bidders, as deemed appropriate by CRW. PIC will issue a contract award recommendation to CRW.

#### Task 804 Prepare "For Construction" Documents

At the end of the Bid Phase, PIC will make final revisions to the Contract Documents based on addenda issued during the Bid Phase for each construction package. PIC will provide CRW with revised electronic documents within fourteen (14) calendar days following the opening of the Bids. The revised final drawings will be labeled "Issued For Construction" and shall be dated with the Contractor's date of Notice of Award. PIC will provide the "Issued For Construction" documents to the successful Contractor for use during the Construction Phase.

#### **Labor and Fee Estimate Summery**

Attached to this Scope of Work is Exhibit 2 which is PIC's Work Breakdown Structure and Labor/Fee Estimate and Standard 2022 Rate Sheet. PIC will invoice CWR monthly for the services provided. The total maximum fee for Phase 2 of the Project is \$1,262,595.

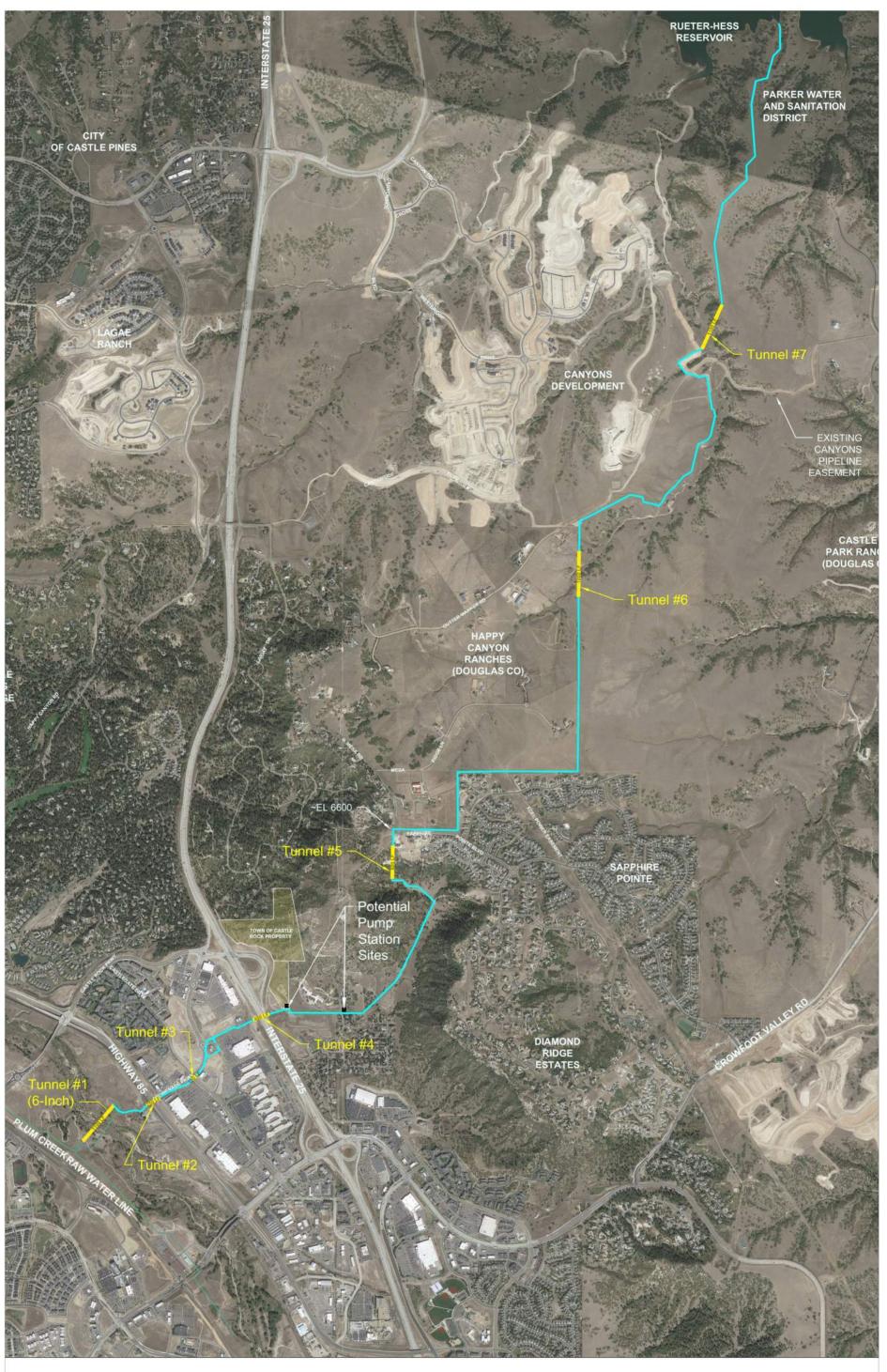


EXHIBIT 2 - PLUM CREEK TO RUETER-HESS RESERVOIR PIPELINE PROJECT

### Castle Rock Water

# Plum Creek to Rueter-Hess Reservoir Pipeline Infrastructure Project - Final Design and Bid Phase Services Work Breakdown Structure and Labor/Fee Estimate

Work Breakdown Structure and Labor/Fee Estimate																								
Personnel Hours Sub Consultants																								
Project Task	Task Descriptions	Principal Engineer	Project Manager / Principal Engineer	QA/QC/ Senior Engineer IV	Assitant PM / Staff Engineer IV	Project Engineer / Staff Engineer II	Process / Hydraulic Engineer/ Senior Engineer II	Structural	Architectural	Mechanical	Electrical/SCADA	Senior CAD Designer 1	CAD 1	Clerical	Total Hours	Providence Labor	Expenses	PIC Total	Utility Potholing (CUF)	Geotechnical Exploration (Cesare)	Geotechnical Engineering (Lithos)	Environmental (ERO)	Subconsultant Totals	Project Totals
	TASK SERIES 600 - 60% DESIGN																							
	Project Management (7 months)	56	56		56									40	208	\$36,241		\$36,241					\$0	\$36,241
602	Bi-Weekly Progress Meetings (14 meetings)	14	14		28	14								14	84	\$13,055	\$250	\$13,305			\$4,480		\$4,480	\$17,785
	Meeting and Coordination with CDOT (1)		4		8	4									16	\$2,506	\$100	\$2,606			\$2,090		\$2,090	\$4,696
604 605	Project Survey Coordination Utility Locating and Potholing (100)		8		40	60 160						20			128 160	\$17,242 \$18,570	\$500	\$17,242 \$19,070	\$50,000				\$0 \$50,000	\$17,242 \$69,070
	Geotechnical Borings & Testing	2	16		24								8		110	\$18,370	\$200	\$19,070	\$50,000	\$141,970	\$16,438		\$158,408	\$173,924
	Geotechnical Dorings & Testing  Geotechnical Data Report (GDR)		2		4	8								1	14	\$1,949	Ş200	\$13,510		\$19,250	710,430		\$19,250	\$21,199
	Geotechnical Baseline Report	1	2		8	8									19	\$2,762		\$2,762		Ψ13,230	\$27,240		\$27,240	\$30,002
609	Environmental and Cultural Evaluations and Permiting		2		4	8						8			22	\$3,020		\$3,020			1 , -	\$16,500	. ,	\$19,520
610	Property Owner Meetings & Easement Acquisition Assistance		10		40	40									90	\$12,678	\$500	\$13,178					\$0	\$13,178
	60% Alignment and Profile Development	4	16	2	40	40	10					40	Ţ		152	\$22,393		\$22,393			\$13,020		\$13,020	\$35,413
	Hydraulic System Modeling	16	8				120								144	\$26,358	\$200	\$26,558					\$0	\$26,558
	Determine Pipe Material, Thickness, Coatings and Linings	2	4	4	32		6								88	\$12,509		\$12,509					\$0	\$12,509
	Isolation, Air & Vaccum and Drain Valve Locations, Types and Sizes	2	4	4	16	56	8					-			90	\$12,370		\$12,370					\$0	\$12,370
615	Thrust Restraint Design Utility Crossing Designs	1	10	4	24 20		8								70	\$9,870		\$9,870 \$13,304					\$0 \$0	\$9,870 \$13,304
617	Determine Access, Construction Limits and Staging Areas	1	10	3	12	-	8								92 50	\$13,304 \$7,247		\$13,304					\$0	\$13,304
618	Develop Pressure Testing Plan		2		36									1	62	\$9,205		\$9,205					\$0	\$9,205
619	Pavement Design for Roadway Replacement	2	4		12	24									42	\$5,867		\$5,867					\$0	\$5,867
620	Preparation of 60% Design Drawings															12,22		1 = / = =					\$0	\$0
620.1	General Drawings		4		22	13	4					33	33		110	\$14,638		\$14,638					\$0	\$14,638
620.2	Civil Drawings		10		52	31	10					52	52		208	\$28,173		\$28,173					\$0	\$28,173
620.3	Prepare 60% Plan & Profile Design Drawings and Details		31		156	94	31					195	195		704	\$94,610		\$94,610			\$8,702		\$8,702	\$103,312
620.4	Grading, Erosion, and Sediment Control Drawings and Details											0	0		0	\$0		\$0					\$0	\$0
620.5	60% Booster Pump Station Design (Process Drawings / Details)	2	7		36	22	7		60			45	45		164	\$22,182		\$22,182					\$0	\$22,182
620.6	60% Booster Pump Station Design (Architectural)		3				/	171	63			75	44		161	\$22,149		\$22,149					\$0 \$0	\$22,149
620.7 620.8	60% Booster Pump Station and Outlet Structure Design (Structural) 60% Booster Pump Station Design (Mechanical)	1	9				18	171		46		32	22		348 117	\$49,287 \$16,109	+	\$49,287 \$16,109					\$0 \$0	\$49,287 \$16,109
620.9	60% Booster Pump Station Design (Mechanical)		6				11			40	106		56		235	\$32,974		\$32,974					\$0	\$32,974
620.10	60% Booster Pump Station Design (Instrumentation)	2	1								15	6	6		30	\$4,390		\$4,390					\$0	\$4,390
621	Prepare 60% Technical Specifications List	1	2		6	8	4	4	4	4	4				37	\$5,569		\$5,569					\$0	\$5,569
622	Quality Control and Constructablity Review	8		32			4								44	\$8,937		\$8,937					\$0	\$8,937
623	Perform AACE Class 2 OPC (Project Definition 30-75%)	4	4			222	8								16	\$3,175	4 . ===	\$3,175	4	4	\$2,405	4	\$2,405	\$5,580
	Subtotal	119	250	51	676	806	290	175	67	50	126	606	546	54	3,815	\$544,653	\$1,750	\$546,403	\$50,000	\$161,220	\$74,375	\$16,500	\$302,095	\$848,498
701	TASK SERIES 700 - 100% DESIGN/BID DOCUMENTS Project Management (7 months)	56	56		56									40	208	\$36,241		\$36,241					\$n	\$36,241
701	Bi-Weekly Progress Meetings (14)	14	14		28									14	84	\$13,055	\$250	\$13,305					\$0	\$13,305
703	Preparation of 100% Design Drawings															\$0	7_55	<del>+ 10,000</del>					\$0	\$0
703.1	General Drawings		1		6	3	1					11	11		33	\$4,339		\$4,339					\$0	\$4,339
703.2	Civil Drawings		7		33		7					39	39		143	\$19,214		\$19,214					\$0	\$19,214
703.3	Prepare 100% Plan & Profile Design Drawings	4	20		98		20					137	137		472	\$63,369		\$63,369			\$4,351		\$4,351	\$67,720
703.4	Grading, Erosion and Sediment Control Drawings	2	4		20		4					40	40		122	\$16,232		\$16,232					\$0	\$16,232
703.5	100% Booster Pump Station Design (Process Drawings and Details)	2	5		23	14	5					32	32		110	\$14,868		\$14,868					\$0	\$14,868
703.6	100% Booster Pump Station Design (Architectural)		2					111	42			33	33		110	\$14,903		\$14,903					\$0 \$0	\$14,903
703.7 703.8	100% Booster Pump Station and Outlet Structure Design (Structural)  100% Booster Pump Station Design (Mechanical)		6					114		30		45	20		210 72	\$29,523 \$9,850		\$29,523 \$9,850					\$0 \$0	\$29,523 \$9,850
703.8	100% Booster Pump Station Design (Mechanical)  100% Booster Pump Station Design (Electrical)		4							30	67	35	35		140	\$9,830		\$9,850					\$0 \$0	\$9,850
703.10	100% Booster Fump Station Design (Electrical)		1								10	4	4		20	\$2,976		\$2,976					\$0	\$2,976
	Municipal Permitting		16		80	80							40		216	\$29,019	\$400	\$29,419					\$0	\$29,419
705	Douglas County Location and Extent Permit Coordination and Submittal	6	12		80	80	8					40			226	\$31,734	\$50	\$31,784					\$0	\$31,784
706	Technical Specifications for 100% Design	2	4		40	80	40	32	24	24	32		Ţ	16	294	\$41,539		\$41,539					\$0	\$41,539
	Quality Control Review	20		32											52	\$10,959		\$10,959			\$4,351		\$4,351	\$15,310
708	Perform AACE Class 1 OPC (Project Definition 65-100%)	8	8	22	460	364	16	4.4.0		F 4	400	435	425	70	32	\$6,350	6700	\$6,350	4.0	4.0	\$2,405	4.0	\$2,405	\$8,755
	Subtotal TASK SERIES 800 - BID PHASE SERVICES	116	159	32	462	361	100	146	66	54	108	435	435	/0	2,544	\$363,554	\$700	\$364,254	\$0	\$0	\$11,107	\$0	\$11,107	\$375,361
	Pre-Bid Conference		6		12	16								2	36	\$5,078		\$5,078					\$0	\$5,078
	Addenda Assistance		4		32	32		4	4	8	8	16		4	112	\$15,333		\$15,333					\$0	\$15,333
	Review Bids	2	6		8	8			·			<del>  -3 </del>			24	\$3,858		\$3,858					\$0	\$3,858
	Prepare "For Construction" Documents	<u> </u>	16		16	32						32		8	172	\$14,451	\$16	\$14,467					\$0	\$14,467
	Subtotal	2	32	0	68		0				8	48		14	344	\$38,719	\$16	\$38,735	\$0		\$0			\$38,735
		237	442	83	1,206	1,254	389	321	133	104	242	1,089	981	138	6,703	\$946,927	\$2,466	\$949,393	\$50,000	\$161,220	\$85,482	\$16,500		\$1,262,595
																		75.2%					24.8%	100%

#### 2022 Providence Infrastructure Schedule of Billing Rates

	Hourly
Position	Billing
<u>Classification</u>	<u>Rate</u>
Administration I	\$79.33
Administration II	\$105.77
Administration III	\$142.79
CADD I	\$77.50
CADD II	\$113.27
Senior Designer I	\$133.85
Senior Designer II	\$148.15
Resident Project Representative I	\$106.73
Resident Project Representative II	\$134.70
Data Analyst	\$70.05
Asset Management Specialist I	\$103.85
Asset Management Specialist II	\$135.58
GIS Specialist	\$128.37
Engineering Intern	\$64.90
Staff Engineer I	\$95.19
Staff Engineer II	\$116.06
Staff Engineer III	\$131.15
Staff Engineer IV	\$146.63
Senior Engineer I	\$159.01
Senior Engineer II	\$174.94
Senior Engineer III	\$187.50
Senior Engineer IV	\$200.71
Principal I	\$217.07
Principal II	\$226.80

#### Notes

- 1. Position classifications listed above refer to PROVIDENCE's standardized classification system for employee compensation.
- 2. The hourly rates shown above are for services through December 31, 2022 and are subject to annual revision after that date.
- 3. Non-exempt personnel will be billed at 1.5 times hourly rate and exempt personnel will be billed at the standard hourly rate for any overtime.
- 4. Expenses will be billed at actual cost and business mileage will be billed at the current Federal mileage reimbursement rate.



#### **EXHIBIT 2**

#### CERTIFICATE OF INSURANCE