

REQUEST AUTHORIZATION FOR MAYOR AND FINANCE OFFICER TO SIGN PROFESSIONAL SERVICES AGREEMENT OR AMENDMENT

Date: January 17, 2017

Project Name & Number: Water and Water Reclamation Utility Rate Study; Project No. 16-2191 **CIP #:** 50935

Project Description: Professional services for development of a Water and Water Reclamation Utility Rate Study.

Consultant: HDR Engineering, Inc.

Original Contract Amount: \$199,695.00	Original Contract Date: January 17, 2017	Original Completion Date: October 31, 2017
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Addendum No:

Amendment Description:

Current Contract Amount: _____	Current Completion Date: _____
Change Requested: _____	
New Contract Amount: _____ \$0.00	New Completion Date: _____

Funding Source This Request:

Amount	Dept.	Line Item	Fund	Comments
\$99,847.50	604833	4223	833-601	Wastewater Replacement / Improvements
\$99,847.50	602433	4223	933-602	Water Replacement / Improvements
\$199,695.00	Total			

Agreement Review & Approvals

	12-21-16	
Project Manager	Date	
	12-21-16	
Compliance Specialist	Date	
	12/21/16	
City Attorney	Date	

	12-27-16	
Division Manager	Date	
	12-27-16	
Department Director	Date	

ROUTING INSTRUCTIONS

Route **two** originals of the **Agreement** for review and signatures.
 Finance Office - Retain one original
 Project Manager - Retain second original for delivery to Consultant
 cc: Public Works
 Engineering
 Project Manager

FINANCE OFFICE USE ONLY

(Note to Finance: Please write date of Agreement in appropriate space in the Agreement document)

	Date	Initials	Approved	
Appropriation	12/21/16	SP	Y	N
Cash Flow			Y	N

Agreement Between City of Rapid City and HDR Engineering, Inc. for Professional Services for Water and Water Reclamation Utility Rate Study, Project No. 16-2191

AGREEMENT made January 17, 2017, between the City of Rapid City, SD (City) and HDR Engineering, Inc., (Engineer), located at 703 Main Street, Suite 200, Rapid City, SD 57701. City intends to obtain professional services for Water and Water Reclamation Utility Rate Study, Project No. 16-2191 CIP No. 50935. The scope of services is as described within this document and as further described in Exhibits A, B and C (attached).

The City and the Engineer agree as follows:

The Engineer shall provide professional engineering services for the City in all phases of the Project and as further defined in Exhibits A, B and C (attached), serve as the City's professional engineering representative for the Project, and give professional engineering consultation and advice to the City while performing its services.

Section 1—Basic Services of Engineer

1.1 General

- 1.1.1 The Engineer shall perform professional services described in this agreement, which include customary engineering services. Engineer intends to serve as the City's professional representative for those services as defined in this agreement and to provide advice and consultation to the City as a professional. Any opinions of probable project cost, approvals, and other decisions provided by Engineer for the City are rendered on the basis of experience and qualifications and represent Engineer's professional judgment.
- 1.1.2 All work shall be performed by or under the direct supervision of a professional Engineer licensed to practice in South Dakota.
- 1.1.3 All documents including Drawings and Specifications provided or furnished by Engineer pursuant to this Agreement are instruments of service in respect of the Project and Engineer shall retain an ownership therein. Reuse of any documents pertaining to this project by the City on extensions of this project or on any other project shall be at the City's risk. The City agrees to defend, indemnify, and hold harmless Engineer from all claims, damages, and expenses including attorney's fees arising out of such reuse of the documents by the City or by others acting through the City.



- 1.1.4 The contract will be based on an hourly rate and reimbursable fee schedule with a maximum not-to-exceed amount.

1.2 Scope of Work

The Engineer shall:

- 1.2.1 Consult with the City, other agencies, groups, consultants, and/or individuals to clarify and define requirements for the Project and review available data.
- 1.2.2 Perform the tasks described in the Scope of Services. (See Exhibit A.)

Section 2—Information Provided by City

The City will provide any information in its possession for the project at no cost to the Engineer.

Section 3—Notice to Proceed

The City will issue a written notification to the Engineer to proceed with the work. The Engineer shall not start work prior to receipt of the written notice. The Engineer shall not be paid for any work performed prior to receiving the Notice to Proceed.

Section 4—Mutual Covenants

4.1 General

- 4.1.1 The Engineer shall not sublet or assign any part of the work under this Agreement without written authority from the City.
- 4.1.2 The City and the Engineer each binds itself and partners, successors, executors, administrators, assigns, and legal representatives to the other party to this agreement and to the partners, successors, executors, administrators, assigns, and legal representatives of such other party, regarding all covenants, agreements, and obligations of this agreement.
- 4.1.3 Nothing in this agreement shall give any rights or benefits to anyone other than the City and the Engineer.
- 4.1.4 This agreement constitutes the entire agreement between the City and the Engineer and supersedes all prior written or oral understandings. This agreement may only be amended, supplemented, modified, or canceled by a duly executed written instrument.



- 4.1.5 The Engineer shall make such revisions in plans which may already have been completed, approved, and accepted by the City, as are necessary to correct Engineer's errors or omissions in the plans, when requested to do so by the City, without extra compensation therefore.
- 4.1.6 If the City requests that previously satisfactorily completed and accepted plans or parts thereof be revised, the Engineer shall make the revisions requested by the City. This work shall be paid for as extra work.
- 4.1.7 If the City changes the location from the one furnished to the Engineer, or changes the basic design requiring a new survey for the portions so changed, the redesign will be paid for as extra work.
- 4.1.8 The City may at any time by written order make changes within the general scope of this Agreement in the work and services to be performed by the Engineer. Any changes which materially increase or reduce the cost of or the time required for the performance of the Agreement shall be deemed a change in the scope of work for which an adjustment shall be made in the Agreement price or of the time for performance, or both, and the Agreement shall be modified in writing accordingly. Additional work necessary due to the extension of project limits shall be paid for as extra work.
- 4.1.9 Extra work, as authorized by the City, will be paid for separately and be in addition to the consideration of this Section.
- 4.1.10 For those projects involving conceptual or process development services, activities often cannot be fully defined during the initial planning. As the project does progress, facts and conditions uncovered may reveal a change in direction that may alter the scope of services. Engineer will promptly inform the City in writing of such situations so that changes in this agreement can be renegotiated.
- 4.1.11 This Agreement may be terminated (a) by the City with or without cause upon seven days' written notice to the Engineer and (b) by the Engineer for cause upon seven days' written notice to the City. If the City terminates the agreement without cause, the Engineer will be paid for all services rendered and all reimbursable expenses incurred prior to the date of termination.

If termination is due to the failure of the Engineer to fulfill its agreement obligations, the City may take over the work and complete



it. In such case, the Engineer shall be liable to the City for any additional cost to the extent directly resulting from Engineer's action.

- 4.1.12 The City or its duly authorized representatives may examine any books, documents, papers, and records of the Engineer involving transactions related to this agreement for three years after final payment. All examinations will be performed at reasonable times, with proper notice. Engineer's documentation will be in a format consistent with general accounting procedures.
- 4.1.13 The City shall designate a representative authorized to act on the City's behalf with respect to the Project. The City or such authorized representative shall render decisions in a timely manner pertaining to documents submitted by the Engineer in order to avoid unreasonable delay in the orderly and sequential progress of the Engineer's services.
- 4.1.14 Costs and schedule commitments shall be subject to renegotiation for delays caused by the City's failure to provide specified facilities or information or for delays caused by other parties, excluding sub-contractors and sub-consultants, unpredictable occurrences including without limitation, fires, floods, riots, strikes, unavailability of labor or materials, delays or defaults by suppliers of materials or services, process shutdowns, acts of God, or the public enemy, or acts of regulations of any governmental agency or any other conditions or circumstances beyond the control of the City or Engineer. Temporary delays of services caused by any of the above which results in additional costs beyond those outlined may require renegotiation of this agreement.
- 4.1.15 The City will give prompt written notice to the Engineer if the City becomes aware of any fault or defect in the Project or nonconformance with the Project Documents.
- 4.1.16 Unless otherwise provided in this Agreement, the Engineer and the Engineer's consultants shall have no responsibility for the discovery, presence, handling, removal or disposal of, or exposure of persons to hazardous materials in any form at the project site, including but not limited to asbestos products, polychlorinated biphenyl (PCB), or other toxic substances.
- 4.1.17 In the event asbestos or toxic materials are encountered at the jobsite, or should it become known in any way that such materials may be present at the jobsite or any adjacent areas that may affect the performance of Engineer's services, Engineer may, at their option



and without liability for consequential or any other damages, suspend performance of services on the project until the City retains appropriate specialist CONSULTANT(S) or contractor(s) to identify, abate, and/or remove the asbestos or hazardous or toxic materials.

- 4.1.18 This agreement, unless explicitly indicated in writing, shall not be construed as giving Engineer the responsibility or authority to direct or supervise construction means, methods, techniques, sequences, or procedures of construction selected by any contractors or subcontractors or the safety precautions and programs incident to the work of any contractors or subcontractors.
- 4.1.19 Neither the City nor the Engineer, nor its Consultants, shall hold the other liable for any claim based upon, arising out of, or in any way involving the discharge, dispersal, release or escape of smoke, vapors, soot, fumes, acids, alkalis, toxic chemicals, liquids, or gases, waste materials, or other irritants, contaminants, or pollutants.
- 4.1.20 Neither the City nor the Engineer, nor its Consultants, shall hold the other liable for any claim based upon, arising out of, or any way involving the specification or recommendation of asbestos, in any form, or any claims based upon use of a product containing asbestos.
- 4.1.21 Engineer hereby represents and warrants that it does not fail or refuse to collect or remit South Dakota or City sales or use tax for transactions which are taxable under the laws of the State of South Dakota.

4.2 City of Rapid City NonDiscrimination Policy Statement

In compliance with Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination act of 1975, the Americans with Disabilities Act of 1990, and other nondiscrimination authorities it is the policy of the City of Rapid City, 300 Sixth Street, Rapid City, SD 57701-5035, to provide benefits, services, and employment to all persons without regard to race, color, national origin, sex, disabilities/handicaps, age, or income status. No distinction is made among any persons in eligibility for the reception of benefits and services provided by or through the auspices of the City of Rapid City.

Engineer will permit access to any and all records pertaining to hiring and employment and to other pertinent data and records for the purpose of enabling the Commission, its agencies or representatives, to ascertain compliance with the above provisions.

This section shall be binding on all subcontractors or suppliers.



Section 5—Payments to the Engineer

5.1 Schedule of Pay Rates

The City will pay the Engineer for services rendered or authorized extra work according to the Engineer's hourly and reimbursable rate schedule described in Exhibit C.

5.2 Fee

The maximum amount of the fee for the services as detailed in Section 1.2 shall not exceed \$199,695.00 unless the scope of the project is changed as outlined in Section 4. If expenses exceed the maximum amount, the Engineer shall complete the design as agreed upon here without any additional compensation. Sub task dollar amounts may be reallocated to other tasks as long as the total fee is not exceeded. Prime consultant may not mark up sub-consultant or sub-contractor services.

5.3 Progress Payments

Monthly progress payments shall be processed by the City upon receipt of the claim as computed by the Engineer based on work completed during the month per the hourly rates and allowable reimbursable as established in Section 5.1 and approved by the City.

Net payment to the Engineer shall be due within forty-five (45) days of receipt by the City.

Section 6—Completion of Services

The Engineer shall complete services in accordance with the schedule provided in Exhibit A which may be modified by mutual consent of both parties.

Section 7—Insurance Requirements

7.1 Insurance Required

The Engineer shall secure the insurance specified below. The insurance shall be issued by insurance company(s) acceptable to the City and may be in a policy or policies of insurance, primary or excess. Certificates of all required insurance including any policy endorsements shall be provided to the City prior to or upon the execution of this Agreement.



7.2 Cancellation

The Engineer will provide the City with at least 30 days' written notice of an insurer's intent to cancel or not renew any of the insurance coverage. The Contractor agrees to hold the City harmless from any liability, including additional premium due because of the Contractor's failure to maintain the coverage limits required.

7.3 City Acceptance of Proof

The City's approval or acceptance of certificates of insurance does not constitute City assumption of responsibility for the validity of any insurance policies nor does the City represent that the coverages and limits described in this agreement are adequate to protect the Engineer, its consultants or subcontractors interests, and assumes no liability therefore. The Engineer will hold the City harmless from any liability, including additional premium due, because of the Engineer's failure to maintain the coverage limits required.

7.4 Specific Requirements

- 7.4.1 Workers' compensation insurance with statutory limits required by South Dakota law. Coverage B-Employer's Liability coverage of not less than \$500,000 each accident, \$500,000 disease-policy limit, and \$500,000 disease-each employee.
- 7.4.2 Commercial general liability insurance providing occurrence form contractual, personal injury, bodily injury and property damage liability coverage with limits of not less than \$1,000,000 per occurrence, \$2,000,000 general aggregate, and \$2,000,000 aggregate products and completed operations. If the occurrence form is not available, claims-made coverage shall be maintained for three years after completion of the terms of this agreement. The policy shall name the City and its representatives as an additional insured.
- 7.4.3 Automobile liability insurance covering all owned, nonowned, and hired automobiles, trucks, and trailers. The coverage shall be at least as broad as that found in the standard comprehensive automobile liability policy with limits of not less than \$1,000,000 combined single limit each occurrence. The required limit may include excess liability (umbrella) coverage.
- 7.4.4 Professional liability insurance providing claims-made coverage for claims arising from the negligent acts, errors or omissions of the Engineer or its consultants, of not less than \$1,000,000 each occurrence and not less than \$1,000,000 annual aggregate.



Coverage shall be maintained for at least three years after final completion of the services.

Section 8—Hold Harmless

The Engineer hereby agrees to hold the City harmless from any and all claims or liability including attorneys' fees arising out of the professional services furnished under this Agreement, and for bodily injury or property damage arising out of services furnished under this Agreement, providing that such claims or liability are the result of a negligent act, error or omission of the Engineer and/or its employees/agents arising out of the professional services described in the Agreement.

Section 9—Independent Business

The parties agree that the Engineer operates an independent business and is contracting to do work according to his own methods, without being subject to the control of the City, except as to the product or the result of the work. The relationship between the City and the Engineer shall be that as between an independent contractor and the City and not as an employer-employee relationship. The payment to the Engineer is inclusive of any use, excise, income or any other tax arising out of this agreement.

Section 10-Indemnification

If this project involves construction and Engineer does not provide consulting services during construction including, but not limited to, onsite monitoring, site visits, site observation, shop drawing review and/or design clarifications, City agrees to indemnify and hold harmless Engineer from any liability arising from the construction activities undertaken for this project, except to the extent such liability is caused by Engineer's negligence.

Section 11-Controlling Law and Venue

This Agreement shall be subject to, interpreted and enforced according to the laws of the State of South Dakota, without regard to any conflicts of law provisions. Parties agree to submit to the exclusive venue and jurisdiction of the State of South Dakota, 7th Judicial Circuit, Pennington County.

Section 12-Severability

Any unenforceable provision herein shall be amended to the extent necessary to make it enforceable; if not possible, it shall be deleted and all other provisions shall remain in full force and effect.



Section 13—Funds Appropriation

If funds are not budgeted or appropriated for any fiscal year for services provided by the terms of this agreement, this agreement shall impose no obligation on the City for payment. This agreement is null and void except as to annual payments herein agreed upon for which funds have been budgeted or appropriated, and no right of action or damage shall accrue to the benefit of the Engineer, its successors or assignees, for any further payments. For future phases of this or any project, project components not identified within this contract shall not constitute an obligation by the City until funding for that component has been appropriated.



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

City of Rapid City:

Engineer:

MAYOR



HDR ENGINEERING, INC.

DATE: _____

DATE: 12-20-16

ATTEST:

FINANCE OFFICER

Reviewed By:



DAN COON, OPERATIONS MANAGEMENT ENGINEER

DATE: 12-21-16

CITY'S DESIGNATED PROJECT REPRESENTATIVE

ENGINEERING FIRM'S DESIGNATED PROJECT REPRESENTATIVE

NAME Dan Coon, PE
PHONE (605) 394-4154
EMAIL dan.coon@rcgov.org

NAME Shawn Koorn
PHONE (425) 450-6366
EMAIL Shawn.Koorn@hdrinc.com



City of Rapid City
Water and Water Reclamation Utility Rate Study
Project No. 16-2191/CIP No. 50935

The City of Rapid City (City) has requested technical and professional assistance to independently assess and evaluate the City's water and water reclamation rates by conducting a comprehensive rate study. Provided below is the scope of work to provide the requested services.

Task 1—Project Management

Task Objective: *Manage the overall rate study in accordance with the schedule, budget, and quality expectations established.*

To provide the rate study in a timely manner, and within the stated budget, HDR will provide a monthly progress report and invoice that discusses the progress of the study, identifies any issues or concerns, and provide a status of the budget compared to the overall study progress. The HDR Project Manager will hold monthly conference calls with the City's Project Manager to discuss the status of the study. These monthly calls are in addition to the formal project meetings and other, as necessary, communication to complete the study.

Expected City Staff Support for Task 1:

- Participate in monthly conference calls to discuss the overall project schedule and budget status.

Deliverables as a Result of Task 1:

- Monthly progress reporting, invoice, and budget status updates.
- Monthly conference calls with the City's Project Manager to discuss schedule and budget status.

Task 2—Initial Project (Kick-Off) Meeting

Task Objective: *Bring HDR and the City project team together at the start of the project to provide the opportunity for both parties to have a mutual understanding of the goals, objectives, and concerns related to the study.*

The initial project "kick-off" meeting for the rate study allows both parties to discuss the overall goals and objectives for this study while also discussing any issues and concerns that either party may have. HDR has assumed the initial project meeting will occur at the City's office and be approximately 2 hours in length.

Expected City Staff Support for Task 2:

- Have City project team members attend a two hour initial project meeting.

Deliverables as a Result of Task 2:

- A two-hour initial project meeting.
- Identification of study objectives and any project issues or concerns.

Task 3 – Review of the City’s Existing Data and Information

Task Objective: Review the City’s existing data and information to gain an understanding of the City’s current systems, planning documents, financial policies and rates.

This task is intended to review the City’s existing data and information. This includes the City’s water and water reclamation planning documents, capital plans, current utility rates and the history of those rates, applicable ordinances and policies, and any other relevant data or information. In part, this task will be accomplished in the initial project kick-off meeting, but there will be a significant number of documents to be reviewed to gain a full understanding of the City’s utility systems.

Expected City Staff Support for Task 3:

- Provide existing data and information on the City’s systems.

Deliverables as a Result of Task 3:

- Review of the City’s existing data and information to gain an understanding of the status of the current systems.

Task 4.1 – Written Data Request/Data Collection

Task Objective: Provide a written data request detailing the data and information needed to conduct the technical analyses of the rate study.

Prior to the initial project meeting (Task 2), a written data request will be provided to the City which lists the data required to complete the study. If the data requested is determined to be too time consuming, or costly, to provide, HDR will work with the City to resolve the data issue. HDR will discuss with the City the importance of the data and the potential for using industry standards or substitute/surrogate data.

Expected City Staff Support for Task 4.1:

- Collect and assemble the data requested in the written data request.
- Provide as needed assistance in clarifying or explaining the data provided.

Deliverables as a Result of Task 4.1:

- Provide a detailed written data request of the data needed to conduct the technical analyses of the rate study.

Task 4.2 –Data Collection Assistance

Task Objective: If requested, and authorized, by the City, provide assistance in the development and collection of the necessary data to complete the utility rate study.

If requested by the City, HDR will provide assistance in gathering and developing the data necessary to complete the water and water reclamation utility rate study. This task will provide assistance in gathering and developing the data for the utility rate study. If this task is not necessary it will not be used or billed to the City.

Expected City Staff Support for Task 4.2:

- If requested, authorize HDR to complete this task.
- Coordinate with HDR staff assisting in developing and gathering the necessary data.

Deliverables as a Result of Task 4.2:

- Coordinate with the City and assist with the City's effort to develop and gather the necessary data for the utility rate study.

Task 5 – Financial/Rate Policy Review

Task Objective: *Review the City's existing financial/rate setting policies and revise/develop financial/rate setting policies as appropriate to aid in the water and water reclamation rate setting process.*

The establishment of written financial policies is an important financial planning and rate setting tool. The purpose of this task is to review the City's current financial policies, philosophies, or practices, and as appropriate, recommend/develop additional financial policies/practices. The objective of this task is to develop financial/rate setting policies which are designed and intended to provide financial stability and sustainability to the utilities. The development of the policies will be based, in part, upon industry best management practices (BMP), along with guidance provided by the Government Finance Officers Association (GFOA) and bond rating agencies. Key rate study policies will include a review of the establishment of adequate and appropriate minimum reserve levels for operations, capital construction and rate stabilization, prudent debt service coverage (DSC) target levels, and minimum annual funding from rates for renewal and replacement capital funding from rates. HDR will develop a draft set of financial/rate setting policies for review by the City. Based upon the City's feedback and input the policies will be finalized for presentation to and discussion with the City Council.

Expected City Staff Support for Task 5:

- Discuss the City's current financial/rate setting policies, practices and philosophies.
- Review the draft financial/rate setting policies and provide feedback and input.

Deliverables as a Result of Task 5:

- Develop a set of written financial/rate setting policies.
- Based upon feedback from the City, finalize the written financial policies.

Task 6 – Revenue Requirement Analysis

Task Objective: *Using a generally-accepted rate-setting methodologies, develop the revenue requirement analyses for the water and water reclamation utilities. Develop the revenue requirements for each utility for a projected five-year time period taking into consideration the various capital funding options. The revenue requirement analysis will result in a specific and unique financial plan and rate strategy to adequately fund operations and capital needs of each utility.*

HDR will develop the revenue requirement, for each utility, using generally-accepted rate-setting methodologies. This portion of the study entails reviewing the various sources of funds (revenues) and comparing them to the applications of funds (expenses) of each utility, while considering the prudent and proper funding for O&M and capital expenditures. This analysis determines the need for any future rate adjustments. Provided below is a more detailed discussion of the steps involved and the anticipated approach (methodology).

STEP 1 – SELECTION OF A TIME PERIOD – A projected six year time period of 2017 – 2022 is proposed with the focus for rate setting purposes of 2018 - 2022.

STEP 2 – METHOD OF ACCUMULATING COSTS – Historically, the City has used a “cash basis” methodology which sums for each utility its annual O&M expenses, taxes, debt service (P+I) and capital improvements funded from rates.

STEP 3 – ACCUMULATION OF REVENUES AND EXPENSES – Once the test period and method of accumulating costs has been determined, HDR in conjunction with City management and staff will develop the five-year projected revenue requirements for each utility.

The revenue requirements are composed of two major types of costs; operational and capital expenses. The operational costs are generally projected from historical actuals and budgeted costs, using assumed escalation factors, and adjusted for any known changes (e.g., additional personnel, growth/expansion).

The starting point for projecting capital costs (expenditures) will be the City’s capital improvement plan or capital budgeting documents. At the current time the City is in the process of developing the water and water reclamation capital plans as part of their master planning process. Given the lack of a final capital improvement plan, HDR and the City will develop planning level capital expenditures for use in the development of proposed rates. In summary form, the general approach is to list the annual capital projects for each utility and then determine the various outside funding sources for each of the projects. The balance of projects not funded by the available sources of funds must be financed from a combination of long-term debt and rates. A major component of this capital improvement funding analysis is the attempt to maximize capital improvement projects while minimizing rate impacts to customers.

STEP 4 – FINANCIAL PLAN AND RATE TRANSITION PLAN – Given a better understanding of the overall magnitude of the needed capital projects, a final financing plan and revenue requirement analysis will be developed for each utility to meet the City’s overall financial planning objectives, while attempting to minimize rates and costs over time. If needed, a rate transition plan for each utility can be developed in consultation with the City.

Expected City Staff Support for Task 6:

- Provide “as needed” assistance, via email and telephone, to explain the City’s data and information as it relates to developing the revenue requirements.
- Provide “as needed” data refinements or additional data needs as determined during the process of developing the revenue requirement analyses.
- Attend a half-day project meeting to review the draft revenue requirement analyses for each utility.

Deliverables as a Result of Task 6:

- A water and water reclamation revenue requirement analysis for a projected 5-year period that considers the necessary operating and capital needs.
- Development of a capital improvement funding plan within each utility which attempts to maximize funding for capital improvement projects while minimizing the impacts to customers over time.
- As necessary, a five-year rate transition plan to “phase in” any needed rate adjustments for each utility.
- Recommendations regarding key financial indicators (debt service coverage, capital

replacement, reserve levels, etc.) for each utility.

Task 7 – Cost of Service Analysis

Task Objective: *Develop a water and water reclamation cost of service analysis to equitably allocate the revenue requirements to the customers served by each utility. Develop a methodology that equitably allocates the costs to customers, while considering the varying levels of service.*

In simplified terms, a cost of service study attempts to equitably allocate the revenue requirements between the various customer classes of service. The basis for establishing water and water reclamation rates that are fair, equitable, and defensible has traditionally been cost of service principles and methodologies. Provided below is a discussion of the key steps.

Step 1 – Selection of Test Period – A cost of service analysis typically reviews a one-year period. Allocating the 2017 revenue requirements for cost of service purposes would appear to be appropriate. HDR will discuss the development of the test period during the initial project meeting.

Step 2 – Selection of the Method to Accumulate Costs – Ideally, the “cash basis” revenue requirement will be used within the cost of service analysis. This methodology conforms to the revenue requirements developed in Task 6. However, the City does serve outside City customers and there currently is a resolution in place (2014-092) which addresses the rate differential between inside and outside City customers, along with the use of annexation agreements. HDR will discuss this particular issue with the City to confirm whether a “cash basis” methodology shall be used, or whether an alternative cost of service methodology needs to be used to establish cost allocations between inside and outside City customers.

Step 3 – Functionalization and Classification of Expenses – Functionalization refers to the arrangement of cost data into its basic cost categories. For a water utility, this typically takes the form of source of supply, treatment, transmission, distribution, etc. For a water reclamation utility, this typically is treatment, pumping, collection, etc. Given functionalized costs, the costs are then classified to their various cost components based upon the reason why the cost was incurred. While there are different methods available to classify costs, the classification process for a water utility generally classifies costs to commodity (flow), capacity, customer, or fire protection-related needs. For the water reclamation utility, classification is generally related to volume (flow), strength (BOD and TSS), and customer-related costs. Classification for each utility will be based upon “generally accepted” cost of service techniques and the City’s specific system characteristics.

Step 4 – Determination of Classes of Service – The cost of service will allocate the classified costs to classes of service (e.g., residential, multi-family, commercial). The process of establishing classes of service is to group customers into similar or homogeneous groups based upon similar usage profiles and/or facility requirements. HDR will review with the City the appropriate classes of service for cost of service purposes for each utility.

Step 5 – Allocation of Expenses – The next step is to allocate the classified costs to each class of service using allocation factors. In developing the allocation factors, HDR will develop factors that are “equitable” to all customers, and which rely upon City-specific data. One important issue is the development of the water reclamation volume allocation factor. Wastewater is

obviously not metered by customer, thus water consumption is typically used as a reasonable surrogate. While that information is used as a surrogate, it is cross-checked against the overall flows at the treatment plant which includes both the flows from customers, plus assumed I&I. HDR will work with the City to establish reasonable and equitable allocation factors.

Step 6 – Summary of the Cost of Service – From the above process, a summary page of the cost of service study is developed. The summary page for each utility compares the difference between the current level of rate revenues received from each class of service, and the allocated cost of service for each class. This provides the City with an understanding of the relationship between the costs each customer class of service places on the system and the revenues received from the customers. From this summary, the City can make a determination as to the rate adjustments by class of service which are reflective of cost responsibility.

The cost of service will also provide average unit costs, or cost-based water and water reclamation rates, for each customer class service. Average unit costs are important in that they provide the cost-basis for the eventual development of the City's water and water reclamation rates. From this cost-based information, it can be combined with the City's rate design goals and objectives to produce the final proposed rates for the City.

Expected City Staff Support for Task 7:

- Attend a half-day project meeting to review the findings and results of the draft water and water reclamation cost of service analyses.
- Provide any "as needed" data refinements or additional data needs as determined during the process of developing each utility's cost of service analysis.

Deliverables as a Result of Task 7:

- Review of each utility's customer classes of service and determine any revisions for cost allocation or rate design alternative purposes.
- An equitable allocation of the revenue requirement of each utility to the various classes of service of each utility.
- Development of a cost of service allocation method for each utility that recognizes the various service levels of the City's customers.
- A summary of the average unit costs (cost-based rates) for each utility and the proposed customer classes of service for each utility.
- A half day project meeting at the City's offices to review the approach, summary, and recommendations of the cost of service analysis for each utility.

Task 8 – Rate Design Analysis

Task Objective: *Develop water and water reclamation rate design options utilizing the cost information developed as a part of the previous tasks. Consider alternative rate structures that are contemporary, cost-based, defensible, and meet the specific rate design objectives of the City.*

The starting point for the rate design process is the City's rate design goals and objectives. Understanding the City's rate design objectives will assist HDR in the development of the rate design alternatives. As a part of this task, the City's present rate designs will be reviewed to confirm how well they align (perform) with the City's current rate-setting goals and objectives.

For each class of service, a “status quo” rate structure will be developed, along with up to two alternative rate structures to better align the rate structure to the City’s rate design goals and objectives. Each rate design will meet the targeted revenue level for the projected time periods. A key element of any proposed rate structure alternatives is the ability of the City’s utility billing system to accommodate the proposed alternative. Before pursuing any alternative rate structure, HDR will confirm with the City the billing system compatibility to the rate structure.

For each rate design developed, bill comparisons will be developed which illustrate the financial/bill impact of the proposed rates to the present rates at varying levels of consumptive use.

Expected City Staff Support for Task 8:

- Discuss with HDR the City’s water and water reclamation rate design goals and objectives.
- Review and comment on the appropriateness of the rate design alternatives for each utility.

Deliverables as a Result of Task 8:

- Review of the City’s water and water reclamation rate structure goals and objectives.
- Review of the City’s current rates and develop up to two rate design alternatives per utility and customer class of service.
- Bill comparisons and graphs for the rate design alternatives will be provided.

Task 9 – Review of System Development Charges

Task Objective: *Review the issue of system development charges for water and water reclamation and develop cost-based system development charges (SDCs) for each utility. Compare and contrast the SDCs to the City’s current cost recovery fees and provide a discussion of transition should the City desire to move from cost recovery fees to SDCs.*

The City currently has in place cost recovery fees which are a form of capital recovery fees. There are a number of issues associated with cost recovery fees and the City desires to explore the potential movement to SDCs. SDCs are also a form of capital recovery, but are focused on the entire backbone system of the water and water reclamation systems, and they can also consider the investment in existing assets and future (expansion-related) improvements. Finally, SDCs are easier to administer and do not require extensive recordkeeping. The basis for any SDC is the value or cost of the infrastructure divided by the capacity of the infrastructure to produce a \$/unit of capacity. Unlike cost recovery fees, the value of the unit of capacity within an SDC is administered on a postage stamp basis.

As a part of this task, HDR will review the various methodologies which the City may consider for establishing SDCs. These methodologies primarily center around the valuation of the assets, the inclusion of existing and/or future assets, and defining an equivalent residential unit (ERU).

HDR will develop cost-based water and water reclamation SDCs for the City. The SDCs will allow the City to understand the general approach to administering the fees and the impact to development. As a part of this task, HDR will compare the calculated SDCs to the existing cost recovery fees and discuss how SDCs may be transitioned in for the City.

A separate written report will be developed for this task. Given the unique and stand-alone nature of these fees, it is appropriate to provide a separate report.

Expected City Staff Support for Task 9:

- Review with HDR the City’s water and water reclamation planning documents and planning criteria.
- Review future capital projects and the component related to growth/expansion.
- Attend a project meeting to review the methodology and draft results of the water and water reclamation system development charges.

Deliverables as a Result of Task 9:

- Water and water reclamation system development charges.
- Compare and contrast system development charges to the City’s cost recovery fees.
- Meeting to review the methodology and draft results of the water and water reclamation system development charges.

Task 10 –Written Reports

Task Objective: *Provide a written report to summarize the findings, conclusions and recommendations of the water and water reclamation rate study.*

HDR will develop a written report to document the study’s methodology, results, and recommendations. Within the written report HDR includes a copy of the technical analyses (model worksheets) undertaken as a part of this study. HDR will develop a draft final report of the study for the City’s review. Any comments or corrections will be included within the final report. HDR will provide five (5) bound copies of the final report to the City, along with an electronic copy (PDF).

Expected City Staff Support for Task 10:

- Review and comment on the draft final written report.

Deliverables as a Result of Task 10:

- An electronic copy of the draft final written report.
- Five (5) bound copies of the written final report.
- An electronic copy (PDF) of the final written report.

Task 11 –Review of Rate and Fee Ordinances

Task Objective: *Assist the City as needed in developing/updating/reviewing the rate and fee resolutions/ordinances which may result from the findings, conclusions and recommendations of this study.*

HDR will assist, as requested, in the development, updating and review of the City’s rate and fee resolutions/ordinances. HDR will be limited to providing assistance as it relates to the rate related content of the resolution/ordinance. HDR will not be providing a legal review or legal opinion related to these documents. The City will be responsible for having their legal counsel review all documents as to legal form and content.

Expected City Staff Support for Task 11:

- Provide HDR with the most recent utility rate and fee ordinances.

- Assist, as needed and requested, with the development and update of rate and fee ordinances related to this study.

Deliverables as a Result of Task 11:

- Update and develop the rate and fee ordinances based on the study final direction.

Task 12 –Executive Committee Meetings

Task Objective: Conduct and facilitate Executive Committee meetings to review the key issues associated with the study and gain feedback and policy direction on the study.

This study has included a City formed Executive Committee to review the findings from this study and provide policy direction at key juncture points of the study. For this task, HDR has assumed up to five Executive Committee meetings to review the findings and results of the study. These meetings are assumed to include the following:

1. Overview of the City’s utilities, key goals and objectives of the rate study and an introduction to the rate setting process (i.e., Rates 101) and gain additional policy direction
2. Review of the financial policies and revenue requirement findings, conclusions and preliminary results
3. Review of the cost of service analysis and draft proposed rate designs
4. Review of the issue of system development charges and cost recovery fees
5. Gain Committee policy direction on any final remaining items

Expected City Staff Support for Task 12:

- Establish the Executive Committee.
- Schedule and coordinate Committee meeting dates and materials.
- Review and comment on any proposed handouts for the Committee.

Deliverables as a Result of Task 12:

- Provide presentation materials (e.g., handouts).
- Up to five (5) Executive Committee meetings to review the findings, conclusions and recommendations from the study.

Task 13 –Public Presentations

Task Objective: Provide effective public presentations of the findings, conclusions and recommendations of the water and water reclamation rate study.

The public presentations are the formal public presentations to the City Council (workshops or regularly scheduled City Council meetings) and the general public. HDR has assumed that a limited number of City Council meetings will be needed given the role of the Executive Committee. In this case, HDR has assumed two presentations to the City Council and two presentation to the general public for purposes of communicating the findings, conclusions and recommendations from the rate study. These presentations will be as follows:

1. Provide a summary of the findings, conclusions and recommendations of the study to the City Council.
2. Assist during the City Council meeting to adopt the proposed water and water

reclamation rates.

3. Two (2) presentations to the general public to discuss the study results and recommendations. It is assumed these meetings would occur after the first presentation to the City Council.

Expected City Staff Support for Task 13:

- Schedule and coordinate meeting dates and materials for the public presentations.
- Review and comment on any proposed handouts for public meetings.

Deliverables as a Result of Task 13:

- Provide presentation materials (e.g., handouts).
- Up to two (2) presentations of the study's findings and recommendations to the City Council.
- Up to two (2) public/community presentations to discuss the utility study findings and recommendations.

Task 14 –Rate Models, User Manual and Training

Task Objective: Provide a copy of all rate models developed as part of this study. Develop a user manual and provide a half-day City staff training in the use of, and updating of, the rate model.

As a part of this study, HDR will develop financial and rate models for the City's study. The models will be developed specifically for the City and their utilities. All models will be developed in Excel and will be designed with the intent of being easy to understand and use. HDR will develop a user manual for the models which provide an overview of the model and a discussion of the updating of the model. HDR will provide half day of on-site training in the use of the model.

Expected City Staff Support for Task 14:

- Attend a half-day training session in the use of the models.

Deliverables as a Result of Task 14:

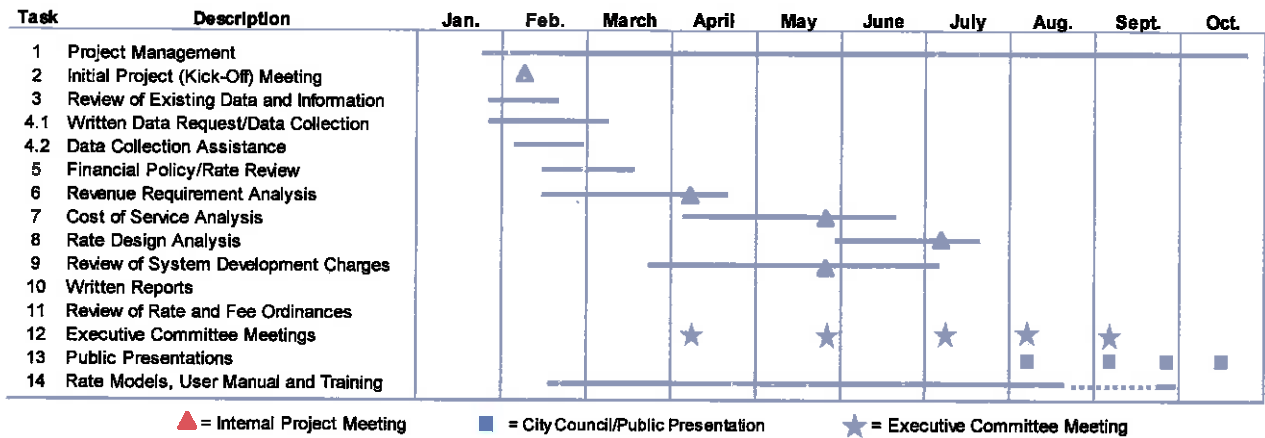
- An Excel-based rate model to calculate the revenue requirement, cost of service, and rate designs for each utility.
- A user's manual for the model.
- A 1/2 day on-site training session in the use of the model.

This concludes the scope of services for the City's comprehensive water and water reclamation rate study.

Estimated Project Time Schedule

Provided below is the estimated time schedule for the City's comprehensive water and water reclamation rate study project. To minimize the time schedule and labor effort, this schedule presumes that the water and water reclamation analysis and tasks will be conducted concurrently and all project meetings and public meeting will jointly address both utilities. HDR will make every reasonable effort to meet this project time schedule. All meetings and presentations will be scheduled in advance at a mutually convenient time.

Exhibit A – Scope of Work



City of Rapid City
 Water and Water Reclamation Utility Rate Study
 Project No. 16-2191/CIP No. 50935

Task Description	Total
Labor:	
Task 1: Project Management	\$5,360
Task 2: Initial Project (Kick-Off) Meeting	5,270
Task 3: Review of City's Existing Data and Information	3,730
Task 4.1: Written Data Request/Data Collection	2,850
Task 4.2: Data Collection Assistance	9,990
Task 5: Financial/Rate Policy Review	18,380
Task 6: Revenue Requirement Analysis	17,390
Task 7: Cost of Service Analysis	28,480
Task 8: Rate Design Analysis	11,080
Task 9: Review of System Development Charges	18,210
Task 10: Written Reports	8,160
Task 11: Review of Rate and Fee Ordinances	4,770
Task 12: Executive Committee Meetings (5)	21,380
Task 13: Public Presentations (4)	15,490
Task 14: Rate Model, User Manual and Training	<u>7,060</u>
Total Labor	\$177,600
Total Expenses	<u>\$22,095</u>
Total "Not to Exceed" Fees	<u>\$199,695</u>

HDR Engineering 2017 Hourly Billing Rates
Water and Water Reclamation Utility Rate Study
Project No. 16-2191 / CIP 50935

Enclosed are the 2017 Hourly Billable Rates for HDR Engineering. These billing rates shall be adjusted annually to reflect any salary adjustments incurred by employees. The rates listed below do not include Reimbursable Expenses or hourly billing rates for equipment as defined below.

<u>Description</u>	<u>Billing Rate/Hour</u>
Managing Principal	\$210
Engineer V	\$170
Engineer IV	\$155
Engineer III	\$135
Engineer II	\$120
Engineer I	\$105
Accountant	\$100
Admin Assistant	\$70

Direct Expenses

Mileage	\$0.75 per mile
Copies:	
24" x 36" Mylar	\$15.00 each
Plots Bond	\$8.00 each
Plain Paper Copies	\$0.15 each
Plain Paper Copies 11" x 17"	\$0.25 each
Color 11" x 17" Copies	\$1.25 each

OTHER REIMBURSABLE EXPENSES

Reimbursable Expense shall mean the actual expenses incurred directly or indirectly in connection with the Project for transportation travel, subconsultants, subcontractors, computer usage, telephone, telex, shipping and express, and other incurred expense. Unless negotiated otherwise in the contract, ENGINEER will add 10% to invoices received by ENGINEER from subconsultants and subcontractors to cover administrative expenses and vicarious liability. Hourly equipment charges apply to specific equipment used on the project.

SPECIALIZED EXPERTISE NOT LISED ON STANDARD RATE SHEET

The following specialized hourly billing rates apply to technical experts that are proposed for specific project needs:

<u>Description</u>	<u>Billing Rate/Hour</u>
Project Manager	\$210
Senior Financial Analyst QA/QC	\$210
Senior Financial Analyst	\$195
Financial Analyst	\$155
Senior Engineer QA/QC	\$195