

# **Contract for Professional Engineering Services**

## **City of Billings W.O. 17-01, Schedule 1 South 24<sup>th</sup> Street West Water Main Replacement**

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In consideration of the mutual promises herein, City of Billings and DOWL agree as follows. This Contract consists of:

- Part I, consisting of 15 Sections of Special Provisions;
- Part II, consisting of 11 Sections of General Provisions;
- Appendix A consisting of 7 pages (Basic Services of Engineer);
- Appendix B consisting of 1 page (Methods and Times of Payment);
- Appendix C consisting of 1 page (Additional Services of Engineer);
- Appendix D consisting of 4 pages (Schedule of Professional Fees);
- Appendix E consisting of 1 page (Project Schedule);
- Appendix F consisting of 3 pages (Certificate(s) of Insurance)

### **PART I SPECIAL PROVISIONS**

#### **Section 1. Definitions.**

In this Contract:

- A. "Administrator" means the City Engineer of the Engineering Division of the Public Works Department or the designee.
- B. "Billings" means the City of Billings.
- C. "Engineer" means DOWL.
- D. "Contractor" means the third party responsible for the physical construction of the project.

#### **Section 2. Scope of Services.**

- A. The Engineer shall perform professional services in accordance with Appendix A, which is attached hereto and incorporated in this Section by reference.
- B. Billings shall pay the Engineer in accordance with the Schedule of Professional Fees attached as Appendix D and incorporated herein by reference for services actually performed under this Contract.
- C. Billings shall not allow any claim for services other than those described in this Section. However, the Engineer may provide, at its own expense, any other services that are consistent with this Contract.

- D. The Engineer shall provide as-built drawings as specified hereafter, as approved by the City of Billings, to the Administrator within 30 days after the project completion date. Final payment will be withheld until the as-built drawings are received by the City of Billings.
- E. ~~The Engineer shall provide certified construction payrolls to the Administrator stating in writing that the payrolls have been reviewed and are acceptable.~~

Section 3. Time for Performance.

- A. This Contract becomes effective when signed on behalf of Billings.
- B. The Engineer shall commence performance of the Work described in Section 2 on receipt of written Notice to Proceed and complete that performance in accordance with the schedule set forth in Appendix E.
- C. This Contract shall terminate at midnight on December 31, 2016.

Section 4. Compensation; Method of Payment.

- A. Each month, or at the conclusion of each phase of the Work for which payment is due, as negotiated on a per-task basis, the Engineer shall present a bill to the Administrator describing the Work for which it seeks payment and documenting expenses and fees to the satisfaction of the Administrator. If any payment is withheld because the Engineer's performance is unsatisfactory, the Administrator must, within ten (10) days of the payment denial, notify the Engineer of the payment denial and set forth, with reasonable specificity, what was unsatisfactory and why. Billings will pay Engineer within 30 days of receiving an acceptable invoice.
- B. The Engineer is not entitled to any compensation under this Contract, other than is expressly provided for in this Section.
- C. As a condition of payment, the Engineer shall have paid all City taxes currently due and owing by the Engineer.

Section 5. Termination of the Engineer's Services.

The Engineer's services under Section 2 of this Part may be terminated:

- A. By mutual consent of the parties.
- B. For the convenience of Billings, provided that Billings notifies the Engineer in writing of its intent to terminate under this paragraph at least 10 days prior to the effective date of the termination.
- C. For cause, by either party where the other party fails in any material way to perform its obligations under this Contract. Termination under this Subsection is subject to the condition that the terminating party notifies the other party of its intent to terminate, stating with reasonable specificity the grounds therefor, and the other party fails to cure the default within 30 days after receiving the notice.

Section 6. Duties Upon Termination

- A. If Billings terminates the Engineer's services for convenience, Billings shall pay the Engineer for its actual costs reasonably incurred in performing before termination and Billings shall pay for services rendered prior to termination. Payment under this

Subsection shall never exceed the total compensation allowable under Section 4 of this Part. All finished and unfinished documents and materials prepared by the Engineer shall become the property of Billings.

- B. If the Engineer's services are terminated for cause, Billings shall pay the Engineer the reasonable value of the services satisfactorily rendered prior to termination, less any damages suffered by Billings because of the Engineer's failure to perform satisfactorily. The reasonable value of the services rendered shall never exceed ninety percent (90%) of the total compensation allowable under Section 4 of this Part. Any finished or unfinished documents or materials prepared by the Engineer under this Contract shall become the property of Billings at its option.
- C. If the Engineer receives payments exceeding the amount to which it is entitled under Subsections A or B of this Section, he shall remit the excess to the Administrator within 30 days of receiving notice to do so.
- D. The Engineer shall not be entitled to any compensation under this Section until the Engineer has delivered to the Administrator all documents, records, Work product, materials and equipment owned by Billings and requested by the Administrator.
- E. If the Engineer's services are terminated for whatever reason the Engineer shall not claim any compensation under this Contract, other than that allowed under this Section.
- F. If a final audit has not been performed before the Engineer's services are terminated, Billings may recover any payments for costs disallowed as a result of the final audit.
- G. Except as provided in this Section, termination of the Engineer's services under Section 5 of this Part does not affect any other right or obligation of a party under this Contract.

#### Section 7. Insurance.

- A. The Engineer shall maintain in good standing the insurance described in Subsection B of this Section. Before rendering any services under this Contract, the Engineer shall furnish the Administrator with proof of insurance in accordance with Subsection B of this Section.
- B. The Engineer shall provide the following insurance:
  - 1. Workers' compensation and employer's liability coverage as required by Montana law.
  - 2. Commercial general liability, including contractual and personal injury coverage's -- \$1,500,000 per occurrence.
  - 3. Commercial automobile liability -- \$1,500,000 per accident.
  - 4. Professional liability in the amount of \$1,500,000 per occurrence.
- C. Each policy of insurance required by this Section shall provide for no less than 30 days' advance notice to Billings prior to cancellation.
- D. Billings SHALL be listed as an additional insured on all policies except Professional Liability and Worker's Compensation Policies. In addition, all policies except Professional Liability and Worker's Compensation shall contain a waiver of subrogation against Billings.

Section 8. Assignments.

Unless otherwise allowed by this Contract or in writing by the Administrator, any assignment by the Engineer of its interest in any part of this Contract or any delegation of duties under this Contract shall be void, and an attempt by the Engineer to assign any part of its interest or delegate duties under this Contract shall give Billings the right immediately to terminate this Contract without any liability for Work performed.

Section 9. Ownership; Publication, Reproduction and Use of Material.

- A. Except as otherwise provided herein, all data, documents and materials produced by the Engineer under this Contract shall be the property of Billings, which shall retain the exclusive right to publish, disclose, distribute and otherwise use, in whole or in part, any such data, documents, or other materials. Exclusive rights shall not be attributed to portions of such materials presently in the public domain or which are not subject to copyright. The engineer shall retain rights to pre-existing proprietary property including but not limited to interactive models. The Engineer shall have the right to include photographic or artistic representations of the design and construction of the Project among the Engineer's promotional and professional materials. The Engineer's materials shall not include Billings' confidential or proprietary information regardless of whether Billings has previously advised the Engineer in writing of the specific information considered by Billings to be confidential and proprietary.
- B. Equipment purchased by the Engineer with Contract funds: See Appendix A, Section 3. Scope of Work.
- C. Should Billings elect to reuse Work products provided under this Contract for other than the original project and/or purpose, Billings will indemnify and hold harmless the Engineer from any and all claims, demands and causes of action of any kind or character arising as a result of reusing the documents developed under this contract. Additionally, any reuse of work product provided under this Contract must be limited to conceptual or preliminary use for adaptation, and the original Engineer's or subcontractor's signature, professional seals and dates removed. Such reuse of work product, which require professional seals and dates removed, will be signed, sealed, and dated by the professional who is in direct supervisory control and responsible for adaptation.

Section 10. Notices.

Any notice required pertaining to the subject matter of this Contract shall be either sent via facsimile (FAX) or mailed by prepaid first class registered or certified mail, return receipt requested to the following addresses:

Billings: City Engineer (Debi Meling, PE)  
City of Billings  
Public Works Department  
2224 Montana Avenue  
Billings, Montana 59101 FAX: (406) 237-6291 / PHONE : (406) 657-3097

Engineer: DOWL  
Wade Irion, PE, Regional Manager  
222 North 32<sup>nd</sup> Street, Suite 700  
Billings, Montana 59101 FAX: (406) 656-6398 / PHONE: (406) 656-6399

Notices are effective upon the earlier of receipt, proof of good transmission (facsimiles only), or 5 days after proof of proper posting.

Section 11. Contract Budget.

In connection with its performance under this Contract, the Engineer shall not make expenditures other than as provided in line items in the Contract budget.

Section 12. Force Majeure.

- A. Any failure to perform by either party due to force majeure shall not be deemed a violation or breach hereof.
- B. As used in this Contract, force majeure is an act or event of substantial magnitude, beyond the control of the delayed party, which delays the completion of this Contract, including without limitation:
  - 1. Any interruption, suspension or interference resulting solely from the act of Billings or neglect of Billings not otherwise governed by the terms of this Contract.
  - 2. Strikes or Work stoppages.
  - 3. Any interruption, suspension or interference with the project caused by acts of God, or acts of a public enemy, wars, blockades, insurrections, riots, arrests or restraints of governments and people, civil disturbances or similar occurrences.
  - 4. Order of court, administrative agencies or governmental officers other than Billings.

Section 13. Financial Management System.

The Engineer shall establish and maintain a financial management system that:

- A. Provides accurate, current, and complete disclosure of all financial transactions relating to the Contract;
- B. Maintains separate accounts by source of funds for all revenues and expenditures and identifies the source and application of funds for the Engineer's performance under this Contract, including information pertaining to subcontracts, obligations, unobligated balances, assets, liabilities, outlays and income;
- C. Effectively controls and accounts for all municipal funds and Contract property;
- D. Compares actual expenditures with budgeted amounts and relates financial information to performance or productivity data including unit cost information where applicable;
- E. Allocates administrative costs to direct service delivery units;
- F. Minimizes the time between receipt of funds from Billings and their disbursement by the Engineer;
- G. Provides accounting records supported by source documentation; and
- H. Provides a systematic method assuring the timely and appropriate resolution of audit findings and recommendations.

Section 14. Funding Requirements.

In the event that any funding source for this Contract should impose additional requirements upon Billings for the use of those funds, the Engineer agrees to abide by those additional requirements immediately upon receipt of written notice thereof from Billings.

Section 15. Subcontracts.

The Engineer may enter into subcontracts for the purchase of goods and services necessary for the performance of this Contract, provided:

- A. Every subcontract shall be reduced to writing and contain a precise description of the services or goods to be provided and the nature of the consideration paid therefor.
- B. Every subcontract under which the Engineer delegates the provision of services shall be subject to review and approval by the Administrator before it is executed by the Engineer.
- C. Every subcontract in an amount exceeding \$1,000 shall require reasonable access to business records of the subcontractor relating to the purchase of goods or services pursuant to the subcontract.

**PART II**  
**GENERAL CONTRACT PROVISIONS**

Section 1. Relationship of Parties.

The Engineer shall perform its obligations hereunder as an independent Engineer of Billings. Billings may administer the Contract and monitor the Engineer's compliance with its obligations hereunder. Billings shall not supervise or direct the Engineer other than as provided in this Section.

Section 2. Nondiscrimination.

- A. The Engineer will not discriminate against any employee or applicant for employment because of race, color, religion, national origin, ancestry, age, sex, or marital status or who is a "qualified individual with a disability" (as that phrase is defined in the Americans With Disabilities Act of 1990). The Engineer will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, or mental or physical impairment/disability. Such action shall include, without limitation, employment, upgrading, demotion or transfer, recruitment or recruiting advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training including apprenticeship. The Engineer agrees to post, in conspicuous places available to employees and applicants for employment, notices setting forth the provisions of this non-discrimination clause.
- B. The Engineer shall state, in all solicitations or advertisements for employees to Work on Contract jobs, that all qualified applicants will receive equal consideration for employment without regard to race, color, religion, national origin, ancestry, age, sex or marital status, or mental or physical impairment/disability.
- C. The Engineer shall comply with any and all reporting requirements that may apply to it which the City of Billings may establish by regulation.
- D. The Engineer shall include the provisions of Subsections A through C of this Section in every subcontract or purchase order under this Contract, so as to be binding upon every such subcontractor or vendor of the Engineer under this Contract.
- E. The Engineer shall comply with all applicable federal, state, and city laws concerning the prohibition of discrimination.

Section 3. Permits, Laws, and Taxes.

The Engineer shall acquire and maintain in good standing all permits, licenses and other entitlements necessary to its performance under this Contract. All actions taken by the Engineer under this Contract shall comply with all applicable statutes, ordinances, rules and regulations. The Engineer shall pay all taxes pertaining to its performance under this Contract.

Section 4. Nonwaiver.

The failure of either party at any time to enforce a provision of this Contract shall in no way constitute a waiver of the provision, nor in any way affect the validity of this Contract or any part hereof, or the right of such party thereafter to enforce each and every provision hereof.

Section 5. Amendment.

- A. This Contract shall only be amended, modified or changed by a writing, executed by authorized representatives of the parties, with the same formality as this Contract was executed.
- B. For the purposes of any amendment modification or change to the terms and conditions of this Contract, the only authorized representatives of the parties are:

Engineer: Wade Irion, PE, Regional Manager  
(title of position)

Billings: City Council or Authorized Designee

- C. Any attempt to amend, modify, or change this Contract by either an unauthorized representative or unauthorized means shall be void.

Section 6. Jurisdiction; Choice of Law.

Any civil action rising from this Contract shall be brought in the District Court for the Thirteenth Judicial District of the State of Montana, Billings. The law of the State of Montana shall govern the rights and obligations of the parties under this Contract.

Section 7. Severability.

Any provision of this Contract decreed invalid by a court of competent jurisdiction shall not invalidate the remaining provisions of the Contract.

Section 8. Integration.

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

Section 9. Liability.

The Engineer shall indemnify, defend, save, and hold Billings harmless from any and all claims, causes of action, lawsuits, damages, judgments, liabilities, and litigation costs and expenses including reasonable attorneys' fees and costs, arising from any wrongful or negligent act, error or omission of the Engineer or any agent, employee or subcontractor as a result of the Engineer's or any subcontractor's performance pursuant to this Contract.

- A. The Engineer shall not indemnify, defend, save and hold Billings harmless from claims, causes of action, lawsuits, damages, judgments, liabilities, and litigation costs and expenses or attorneys' fees and costs arising from wrongful or negligent acts, error or omission solely of Billings occurring during the course of or as a result of the performance of the Contract.
- B. Where claims, lawsuits or liability, including attorneys' fees and costs arise from wrongful or negligent act of both Billings and the Engineer, the Engineer shall indemnify, defend, save, and hold Billings harmless from only that portion of claims, causes of action, lawsuits, damages, judgments, liabilities, and litigation costs and expenses including attorneys' fees and costs, which result from the Engineer's or any subcontractor's wrongful or negligent acts occurring as a result from the Engineer's performance pursuant to this Contract.

Billings shall indemnify, defend, save, and hold the Engineer harmless from any and all claims, causes of action, lawsuits, damages, judgments, liabilities, and litigation costs and expenses including reasonable attorneys' fees and costs, arising from any wrongful or negligent act, error or omission of Billings or any agent, employee or subcontractor as a result of Billings' or any subcontractor's performance pursuant to this Contract.

- A. Billings shall not indemnify, defend, save and hold the Engineer harmless from claims, causes of action, lawsuits, damages, judgments, liabilities, and litigation costs and expenses or attorneys' fees and costs arising from wrongful or negligent acts, error or omission solely of the Engineer occurring during the course of or as a result of the performance of the Contract.
- B. Where claims, lawsuits or liability, including attorneys' fees and costs arise from wrongful or negligent act of both Billings and the Engineer, Billings shall indemnify, defend, save, and hold the Engineer harmless from only that portion of claims, causes of action, lawsuits, damages, judgments, liabilities, and litigation costs and expenses including attorneys' fees and costs, which result from Billings' or any subcontractor's wrongful or negligent acts occurring as a result from Billings' performance pursuant to this Contract.

#### Section 10. Inspection and Retention of Records.

The Engineer shall, at any time during normal business hours and as often as Billings may deem necessary, make available to Billings, for examination, all of its records with respect to all matters covered by this Contract for a period ending three years after the date the Engineer is to complete performance in accordance with Section 2 of the Special Provisions. Upon request, and within a reasonable time, the Engineer shall submit such other information and reports relating to its activities under this Contract, to Billings, in such form and at such times as Billings may reasonably require. The Engineer shall permit Billings to audit, examine and make copies of such records, and to make audits of all invoices, materials, payrolls, records of personnel, and other data relating to all matters covered by this Contract. Billings may, at its option, permit the Engineer to submit its records to Billings in lieu of the retention requirements of this Section.

#### Section 11. Availability of Funds.

Payments under this Contract may require funds from future appropriations. If sufficient funds are not appropriated for payments required under this Contract, this Contract shall terminate without penalty to Billings; and Billings shall not be obligated to make payments under this Contract beyond those which have previously been appropriated.

IN WITNESS WHEREOF, the parties have executed this Contract on the date and at the place shown below.

City of Billings

Engineer

\_\_\_\_\_  
City Council or Designee

\_\_\_\_\_

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

ATTEST:

IRS Tax ID # \_\_\_\_\_

\_\_\_\_\_  
City Clerk

APPROVED AS TO FORM:

Date: \_\_\_\_\_

By \_\_\_\_\_

BRENT BROOKS, City Attorney

STATE OF MONTANA            )  
  :ss.  
COUNTY OF YELLOWSTONE )

On this \_\_\_\_ day of \_\_\_\_\_, 2016, before me, the undersigned, a Notary Public for the State of Montana, personally appeared \_\_\_\_\_, known to me to be the \_\_\_\_\_ of \_\_\_\_\_, and acknowledged to me that they executed the foregoing instrument on behalf of said corporation having first been authorized to do so.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Notarial Seal the day and year first above written.

\_\_\_\_\_  
Notary Public for the State of Montana  
Residing at Billings, Montana  
My Commission Expires: \_\_\_\_\_

**Note: Final contract documents will require the Engineer's signature to be notarized.**

**Appendix A**  
**Basic Services of Engineer**  
**W.O. 17-01, Schedule 1**  
**South 24<sup>th</sup> Street West Water Main Replacement**

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Section 1. Engineer's Rights and Duties.

- A. To furnish all labor, materials, equipment, supplies, and incidentals necessary to conduct and complete the Engineer's portion of the project as defined in the scope of work and to prepare and deliver to Billings all plans, specifications, bid documents, and other material as designated herein.
- B. Ascertain such information as may have a bearing on the work from local units of government, utility companies, and private organizations and shall be authorized to procure information from other authorities besides Billings, but shall keep Billings advised as to the extent of these contacts and the results thereof.
- C. Prepare and present such information as may be pertinent and necessary in order for Billings to pass critical judgment on the features of the work. The Engineer shall make changes, amendments or revisions in the detail of the work as may be required by Billings. When alternates are being considered, Billings shall have the right of selection.
- D. Engineer's work shall be in accordance with the standards of sound engineering and present City, State, and National standards and policies currently in use.
- E. Conform to the requirements of the Montana Code Annotated Title 18 "Public Contracts" and more particularly Sections 18-2-121 and 18-2-122, and all other codes of the State of Montana applicable to providing professional services including codes and standards nationally recognized.
- F. The Engineer shall certify with the submission of final plans that the plans are in conformance with applicable sections of Title 69, Chapter 4, Part 5, of the Montana Code Annotated as pertaining to existing utilities.
- G. To perform professional services in connection with the project and will serve as Billings' representative in those phases of the project to which this agreement applies.
- H. Where Federal funds are involved, the necessary provisions to meet all requirements will be complied with and documents secured and placed in the bidding documents.
- I. Submit an estimated progress schedule as to time and costs at the beginning of the work, and monthly progress reports thereafter until complete. The reports will include any problems, potential problems, and delays as foreseen by the Engineer. Reports will be submitted in a timely manner to permit prompt resolution of problems.

- J. Name a Task Director who shall be the liaison between Billings and the Engineer. For this project, the Task Director designated for the Engineer is Paul Swenson, PE working under the Principal-in-Charge, Wade Irion, PE.

Section 2. Billings Rights and Duties.

- A. To furnish all labor, materials, equipment, supplies, and incidentals necessary to conduct and complete Billings' portion of the project as designated in the scope of work.
- B. Name a Task Director who shall be the liaison between the Engineer and Billings. For this project, the Task Director designated is Randy Straus, PE working under the City Engineer, Debi Meling, PE.

Section 3. Scope of Work.

**SCOPE OF WORK:**

The scope of work includes the following items:

The project consists of design, bidding, and construction phase services for the '*City of Billings W.O. 17-01, Schedule 1: South 24<sup>th</sup> Street West Water Main Replacement*' project. The project includes approximately 3,600 LF of water main replacement on 24<sup>th</sup> Street West from Central Avenue to Lampman Drive. It also includes two short segments of water main replacement (assumed  $\leq 100$  LF each) on Central Avenue at 16<sup>th</sup> Street West and at the alley west of 17<sup>th</sup> Street West. There is no sanitary sewer main or storm drain replacement associated with this contract. Any additional segments of work requested by the City beyond the total project length indicated above shall be considered an Additional Service, which shall be added to the project by a Contract amendment.

Professional services generally include design of replacement of water mains, design surveys, geotechnical investigations and report preparation, traffic control design, preparation of contract plans and specifications, assistance with competitive bidding, administration of the construction contract, construction oversight, field staking, quality assurance testing, and closeout services. Engineer will coordinate work efforts with other related or unrelated improvement projects expected to be completed concurrently in the project areas. The scope of work covered by this Contract shall include the following tasks:

*A. Preliminary Design Phase*

- A. Assist the City with finalizing water main alignments in the project area. If necessary, conduct a field review of final project areas with City staff to review routes and project objectives. The preliminary water main replacement extent identified by the City in the Request For Proposals is the assumed basis of this scope of work. This work also includes replacement of all side-street water main laterals, large-diameter services, and hydrant stubs within the right-of-way width of 24<sup>th</sup> Street West.
- B. Conduct field design surveys within the project limits. Data collection shall include establishment of permanent horizontal and vertical control, topographic features, existing utilities, measure-downs, and existing property pins. Utilize

the One-Call service to locate and demarcate buried utilities for survey. Field survey data will be used by Engineer to develop preliminary project base mapping.

- C. Perform research to verify existing right-of-way locations utilizing platted information, ownership records, and found property pins. Incorporate information into base mapping. Determine locations where additional right-of-way or easements must be secured by the City. All work is currently expected to be within existing City right-of-way, so this scope of work does not include any assistance with easement acquisition, such as additional legal survey, preparation of easement exhibits, or other related tasks.
- D. Perform geotechnical engineering tasks, including field bore hole explorations, groundwater monitoring well installations, shallow asphalt cores, sampling, and laboratory testing to determine appropriate pavement section designs, subgrade treatment, groundwater conditions, utility foundations, and pipe material selections. This scope assumes 8-10 bore holes will be drilled, one of which will be finished with a piezometer for groundwater monitoring. Perform literature review of documented environmental issues directly adjacent to project areas; no additional drilling, sampling, or testing is included in this environmental review. Prepare a geotechnical report with recommendations to be incorporated into the construction specifications.
- E. Collect from City and review available utility as-builts, service line records, and other information and studies as applicable. Incorporate available information into design drawings and specifications.
- F. Design utility alignments, profiles, and sections for water mains. Confirm appropriate utility sizing within the project limits with City staff and the Master Plan document. Assist the City with analyzing their hydraulic model if necessary to determine utility sizing or routing. No independent system modeling, field flow metering, or other sizing studies are included in this scope. It is assumed that all water mains will be 20-inch diameter or smaller.
- G. Evaluate project segments for the feasibility of utilizing trenchless utility replacement methods. Design trenchless alternatives as applicable.
- H. Prepare preliminary plans, specifications, and opinion of probable cost using all data gathered.
- I. Coordinate the identification and evaluation of potential private utility conflicts, including overhead and underground power, cable TV, natural gas, telephone and communications. Send preliminary construction plans to private utilities for review and comment.
- J. Coordinate with City staff, adjacent property owners, and other private and public stakeholders in the development of utility improvements.
- K. Compile property owner and occupant information for adjacent parcels and create address database. Prepare and send one (1) comprehensive information mailing to all database entries, which shall include general project information, notification of the public meeting, general construction information, business questionnaires, and notification of the construction informational website and email list. Plan and facilitate one public informational meeting. Conduct one-on-one follow-up discussions with individual businesses as requested or determined to be necessary to address questions or design considerations.

- L. Identify locations to perform subsurface potholing at critical utility crossings or conflicts to identify specific utility elevations or locations. Survey the elevations and locations in the field for incorporation into the design, and restore the surfacing. Due to the uncertainty of the amount of potholing that will be required, this scope and the associated professional fee includes an allowance of \$10,000 for the subcontracted costs of a vacuum truck and any traffic control required to perform the potholing. Any additional potholing costs above this allowance shall be considered an Extra Service.
- M. Create preliminary traffic control plans for project areas. Coordinate with other City construction projects as applicable. Traffic control plans will generally be a combination of specific layouts for arterial and collector streets and generic layouts for residential streets and/or alleys. It is assumed that there will be no full street closures of 24<sup>th</sup> Street West, but adjacent side streets may include full closures as long as business access can be maintained.
- N. Identify potential construction staging areas, disruptions to private access and parking, and other site constraints and issues relating to construction. Coordinate zone construction work hours, work sequencing, and other related construction scheduling issues with City. Coordination shall include the planning of water main test sections with system operators. Incorporate appropriate Special Provisions into the project specifications.
- O. Attend 30% design review, 70% design review, traffic control design review, and other necessary design review and coordination meetings with City staff.
- P. Provide project management and internal quality assurance throughout this phase.
- Q. Deliverables for this phase include:
  - a. 30% design drawings (typically base mapping and preliminary plan alignments only); 11"x17" and/or PDF format
  - b. 70% design drawings (typically preliminary plan & profile drawings without detailed labeling); 11"x17" and/or PDF format, or full size drawings upon request
  - c. Preliminary specifications; PDF format
  - d. Preliminary geotechnical report; PDF format
  - e. Preliminary traffic control plans; hard copy and/or PDF format
  - f. Preliminary opinion of probable cost; PDF format

**B. Final Design and Bidding Phase**

- 1. Prepare final plans and specifications using all input received during preliminary design. Plans and specifications will be prepared in accordance with MPWSS and City of Billings Standard Modifications, latest editions. Stamp and sign all plans and specifications with the seal of a Professional Engineer.
- 2. Finalize geotechnical report.
- 3. Finalize traffic control plans.
- 4. Design and prepare temporary water schematic drawings for all temporary systems requiring pipelines 4-inch and larger that serve high-volume water users and/or exterior fire department connection (FDC) systems.
- 5. Tabulate project quantities and create bid schedule. Finalize the Engineer's opinion of probable cost based on final quantities.
- 6. Prepare design report for the City, and as required for Montana Department of Environmental Quality approval.

7. Apply for all permits, licenses, and approvals necessary to construct the project, including approvals from the Montana Department of Environmental Quality. The budget includes \$1,500.00 for MDEQ review fees, which is estimated using their current fee schedule. All other permit and licensing fees, if required, will be paid by the City, including any overage of the MDEQ amount above. Construction stormwater permits shall be the responsibility of the construction Contractor and are excluded from this scope; Engineer will only prepare basic erosion and sedimentation control plans for inclusion in the project specifications.
8. Supply all bidding documents necessary for bidding and construction. Provide bid advertisement text to the City for publication. Schedule and conduct a pre-bid conference, publish meeting minutes, answer bid questions, and prepare any necessary addenda. Conduct a pre-bid field review with bidders as necessary.
9. Attend the bid opening, analyze the bids, prepare and distribute a bid tabulation, and make a construction contract award recommendation.
10. Assist the City in procurement of the final contract agreement, review bonds and insurance provided by the contractor, assemble and distribute conforming copies of contract documents, and issue a notice to proceed for construction.
11. Provide project management and internal quality assurance throughout this phase.
12. Deliverables for this phase include:
  - a. 95% design drawings for final review; 11"x17" and/or PDF format
  - b. 100% design drawings and Project Manual for approval and bidding
  - c. Design report and other MDEQ submittal requirements
  - d. Final geotechnical report (in Project Manual)
  - e. Final opinion of probable cost
  - f. Bid advertisement
  - g. Pre-bid meeting minutes
  - h. Addenda, as required
  - i. Bid tabulation
  - j. Recommendation of Award letter; Notice of Award
  - k. Conforming copies of the construction contract; 6 sets total
  - l. Notice to Proceed
  - m. Contractor's construction plans and specifications; up to 10 sets; 11"x17" format (2 full-size plan sets upon request)

*C. Construction Administration and Services Phase*

1. This scope and the associated professional fee assume:
  - a. One (1) construction contract/Contractor for this project, split into two (2) separate work schedules, with construction contract durations of 80 calendar days (24<sup>th</sup> Street West work) and 15 calendar days (Central Avenue work).
  - b. Engineer shall consult with the City and act as representative for the City as defined in the construction contract documents, which will incorporate the MPWSS, and specifically the General Conditions contained therein as modified by the City of Billings Standard Modifications, latest edition.

- c. The extent and limitation of the duties, responsibilities, and authority of the Engineer will be as assigned in the construction contract documents and shall not be modified, except as Engineer may otherwise agree in writing.
2. Schedule and conduct a pre-construction conference, publish meeting minutes, and answer contractor questions. Conduct a pre-construction field review with contractors as necessary.
3. Take pre-construction photos and videos of the project areas.
4. Provide full-time construction observation utilizing a Resident Project Representative (RPR) to assist Engineer in observing progress, quality of work, and conformance to the contract documents and other applicable codes and standards. One (1) full-time RPR will be provided for the duration of the construction contract. The budget assumes 50 hours per week of RPR time during the contract time. Inspection activities shall include review of all major work items, including traffic control set-ups. RPR will prepare daily inspection reports, daily quantity summaries, weekly progress reports, weekly workforce and equipment reports, and other reports as required. RPR responsibilities are further defined in the General Conditions contained in the City of Billings Standard Modifications, latest edition.
5. Develop and implement a quality assurance testing plan for materials testing in accordance with the City of Billings Standard Modifications, latest edition. Conduct a pre-construction testing meeting with RPR, field testing personnel, and lab manager to coordinate testing requirements. Provide qualified personnel, equipment, and supplies for field testing of materials throughout construction. Monitor and collect results from contractor's separate quality control materials testing program.
6. Provide personnel, equipment, and supplies for field staking of principal elements of the construction layout to give the contractor measurements, lines, locations, and grade necessary for construction. The contractor will be responsible for any detailed layouts, such as laser and/or other line and grade establishment techniques for laying pipe between Engineer's staking intervals.
7. Review contractor's submittals, such as shop drawings, samples, equipment, mix designs, aggregates, and other data, for conformance to the contract documents. This review does not include acceptance review of any dewatering plans, and shall not extend to contractor's means, methods, techniques, sequences, procedures, or safety programs.
8. Attend and conduct a weekly construction meeting with the City and contractor. Following the meeting, conduct a walk-through of selected businesses in the vicinity of the current and upcoming work areas to address questions and concerns, as necessary. Allow up to 3 hours per week for the weekly construction meeting and any related follow-up activities.
9. Respond to contractor requests for information. Issue necessary clarifications and interpretations of the contract documents. Notify the City immediately of any contract problems or deviations from the approved contract documents. Issue notices as required by the construction contract. Recommend and prepare Work Change Directives and Change Orders for the City as necessary. Change orders that require additional design or construction services by Engineer will be considered Additional Services and compensated in accordance with the provisions of this Contract.
10. Receive, review, and transmit to City all contractor requests for City staff involvement and approvals, such as valve and hydrant operation requests, water quality sampling requests, traffic control reviews, etc. Assure required

advance notice requirements are being met by contractor for all requests to the City for reviews, inspections, operations, and testing.

11. Prepare weekly website and email informational update content, including current project maps and work descriptions. The City will host and maintain the website, with content provided by the Engineer. The Engineer will collect email addresses from mailing and meeting responses, and disseminate the same content to the email list.
12. Make visits to the site at intervals appropriate to various stages of construction to observe, as an experienced and qualified design professional, the progress of the contractor's work. Visits by the Engineer shall be limited to spot checking and similar methods of general observation of the work as assisted by the RPR.
13. Review and recommend monthly contractor payment requests.
14. Conduct substantial completion and final inspections with City and contractor. Prepare and monitor punchlist items required for completion of the work by contractor.
15. Maintain documentation of all field installations, including the location of all underground utilities encountered during construction, for assistance with preparation of project record drawings. Prepare record drawings by incorporating all field modifications to the construction drawings. Allow review by City of record drawings prior to issuing final record drawings. Record drawings will include, at a minimum:
  - a. Offset distances measured from the right-of-way to all public water mains
  - b. Locations of water services based on measurements from property lines.
  - c. Elevations indicating the depth of bury of all water mains. These elevations shall be shown at each street or right-of-way intersection and at such intervals along these utilities as may be deemed appropriate by the City Engineer.
  - d. Permanent bench marks shown.
16. Conduct a one-year anniversary inspection of the project. Identify deficiencies and warranty items requiring correction, and provide notification to contractor.
17. Provide project management and internal quality assurance throughout this phase.
18. Deliverables for this phase include:
  - a. Pre-construction meeting minutes
  - b. Pre-construction photos and videos, upon request
  - c. Contractor submittals; electronic copy to City
  - d. Weekly RPR inspection reports, upon request
  - e. Monthly quality assurance materials testing reports, upon request
  - f. Miscellaneous construction forms, as required
  - g. Review set of record drawings; 11"x17" and/or PDF format

Final record drawings, consisting of two (2) sets of as-built drawings on half-size paper (11"x17") and in digital format (DWG; half-size PDF; full-size PDF), in accordance with Part I, Section 2, Article D of this Contract, and as required by Montana Department of Envir

**Appendix B**  
**Methods and Times of Payment**  
**W.O. 16-01, Schedule 1**  
**South 24<sup>th</sup> Street West Water Main Replacement**

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Section 1.    Payments for Basic Services.

Billings shall authorize payment to the Engineer for services performed under Appendix A of this Agreement. Partial payment shall be due the Engineer upon receipt of the Engineer's pay estimate, said estimate being proportioned to the work completed by the Engineer.

Billings shall deduct five percent (5%) from each monthly pay estimate to be held until the completion of the final scope of work. The final payment shall be made only after acceptance of final documents by Billings, and determination that the scope of work has been satisfactorily completed.

A. For services rendered prior to construction, Appendix A, the Engineer shall be paid based upon actual time accrued, but not to exceed \$377,800.00 (Three Hundred Seventy Seven Thousand Eight Hundred and 00/100 dollars) based on the following tasks:

Task 1	Preliminary Design Phase	<u>\$131,600.00</u>
Task 2	Final Design and Bidding Phase	<u>\$52,800.00</u>
Task 3	Construction Phase	<u>\$193,400.00</u>

B. Final payment shall be the above stated basic fee less all previous payments.

Section 2.    Payments for Extra Services when Authorized by Billings.

Work requests made or conditions identified by interested groups at the agency or public meetings which are beyond the scope and intent of this project shall be paid for on an hourly basis at the applicable fees in Appendix D or by an addendum to the agreement.

Section 3.    Corrections.

Costs of Billings' work that is required for the purpose of correcting the Engineer's work shall be deducted from any payments due the Engineer if the Engineer fails to make the required corrections.

Section 4.    Fee Increases

For contracts and services that are expected to require more than one (1) year to complete, the above stated basic services payments may be reviewed and adjusted annually by mutual agreement of the parties, based upon documented evidence that the Engineer's costs and hourly rates as shown in Appendix D have increased for all comparable clients.

## **Appendix C**

### **Additional Services of Engineer W.O. 17-01, Schedule 1 South 24<sup>th</sup> Street West Water Main Replacement**

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Extra Services of the Engineer will be paid only with written prior authorization by Billings.

- A. Requests made or conditions identified which are beyond the scope and intent of the services identified under Appendix A.

## **Appendix D**

### **Schedule of Professional Fees W.O. 17-01, Schedule 1 South 24<sup>th</sup> Street West Water Main Replacement**

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Current agreements for engineering services stipulate that the standard hourly rates are subject to review and adjustments. Hourly rates for services effective on the date of this Agreement are included below.

The itemized schedule provided below includes direct labor costs, normal payroll and overhead costs, transportation, furnishing equipment and materials normally required for performance of the work and reasonable profit. Direct project costs not itemized herein shall be paid for at actual cost.

The cost of Professional Liability Insurance coverage is included in the hourly rates of personnel.



## Personnel Billing Rates

### MONTANA FEE SCHEDULE

Personnel are identified on our invoices by name and/or labor category.

Senior Manager IV	\$250.00	Planner VIII	\$195.00
Senior Manager III	\$220.00	Planner VII	\$165.00
Senior Manager II	\$210.00	Planner V	\$160.00
Senior Manager I	\$195.00	Planner IV	\$145.00
Project Manager VI	\$190.00	Planner III	\$125.00
Project Manager V	\$170.00	Planner II	\$105.00
Project Manager IV	\$165.00	Planner I	\$75.00
Project Manager III	\$130.00	Geologist IV	\$140.00
Project Manager II	\$120.00	Geologist III	\$120.00
Project Manager I	\$115.00	Geologist II	\$110.00
Project Administrator	\$80.00	Hydrologist III	\$115.00
Project Quality Assurance Manager	\$160.00	Hydrologist	\$110.00
Field Project Representative	\$95.00	Hydrogeologist	\$110.00
Project Assistant II	\$100.00	Cultural Resources Specialist V	\$155.00
Project Assistant I	\$85.00	Cultural Resources Specialist IV	\$135.00
Engineer X	\$225.00	Cultural Resources Specialist III	\$110.00
Engineer IX	\$210.00	Cultural Resources Specialist I	\$85.00
Engineer VIII	\$185.00	Intern	\$50.00
Engineer VII	\$175.00	Engineering Technician V	\$115.00
Engineer VI	\$160.00	Engineering Technician IV	\$110.00
Engineer V	\$150.00	Engineering Technician III	\$85.00
Engineer IV	\$125.00	Engineering Technician II	\$75.00
Engineer III	\$105.00	Engineering Technician I	\$65.00
Engineer II	\$90.00	Public Involvement Program Manager	\$125.00
Engineer I	\$85.00	Public Involvement Coordinator	\$110.00
Civil and Transportation Designer	\$90.00	Public Involvement Planner	\$95.00
Environmental Specialist X	\$225.00	Public Involvement Assistant	\$80.00
Environmental Specialist IX	\$210.00	Real Estate Services Manager	\$150.00
Environmental Specialist VIII	\$185.00	Right of Way Agent VI	\$185.00
Environmental Specialist VII	\$180.00	Right of Way Agent IV	\$150.00
Environmental Specialist VI	\$165.00	Right of Way Agent III	\$125.00
Environmental Specialist V	\$150.00	Right of Way Agent II	\$110.00
Environmental Specialist IV	\$115.00	Right of Way Agent I	\$95.00
Environmental Specialist III	\$110.00	Right of Way Assistant	\$85.00
Environmental Specialist II	\$105.00	Professional Land Surveyor X	\$180.00
Environmental Specialist I	\$90.00	Professional Land Surveyor IX	\$170.00
Biologist IV	\$155.00	Professional Land Surveyor VIII	\$155.00
Biologist III	\$115.00	Professional Land Surveyor VII	\$145.00
Archaeologist	\$85.00	Professional Land Surveyor VI	\$135.00
Landscape Architect VII	\$180.00	Professional Land Surveyor V	\$130.00
Landscape Architect V	\$160.00	Professional Land Surveyor IV	\$120.00
Landscape Architect IV	\$145.00	Professional Land Surveyor III	\$110.00
Landscape Architect III	\$120.00	Professional Land Surveyor II	\$100.00
Landscape Architect II	\$105.00	Professional Land Surveyor I	\$90.00
Landscape Architect I	\$100.00	Crew Chief V	\$120.00
Landscape Planner	\$105.00	Crew Chief IV	\$110.00
Planner X	\$250.00	Crew Chief III	\$100.00
Planner IX	\$210.00	Crew Chief II	\$95.00



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Crew Chief I	\$85.00	Technical Coordinator	\$135.00
Survey Crew Surveyor V	\$100.00	Systems Administrator	\$125.00
Survey Crew Surveyor IV	\$90.00	Accounting Manager	\$145.00
Survey Crew Surveyor III	\$80.00	Accounting Technician	\$75.00
Survey Crew Surveyor II	\$70.00	Corporate Development Manager	\$150.00
Survey Crew Surveyor I	\$60.00	Marketing & Administrative Manager	\$125.00
Survey Technician VI	\$100.00	Marketing Coordinator	\$85.00
Survey Technician V	\$90.00	Marketing Assistant	\$75.00
Survey Technician IV	\$85.00	Proposal Manager	\$110.00
Survey Technician III	\$70.00	Risk Manager	\$170.00
Survey Technician II	\$60.00	Materials Supervisor	\$105.00
Survey Technician I	\$50.00	Materials Manager	\$100.00
Platting/Survey Technician	\$120.00	Laboratory Supervisor	\$105.00
Survey Technician - Supervisor	\$120.00	Laboratory Manager	\$95.00
GIS Coordinator	\$120.00	Senior Materials Technician	\$75.00
GIS Specialist	\$85.00	Lead Materials Technician	\$65.00
GIS Technician	\$75.00	Materials Technician	\$60.00
Graphics Designer	\$100.00	Inspector - Supervisor	\$130.00
Administrative Manager	\$90.00	Inspector II	\$100.00
Administrative Assistant	\$55.00	Inspector I	\$90.00
Document Production Supervisor	\$110.00	Dispatcher	\$85.00



**Survey Crews**

**Equipment, Materials, & Supplies**

One-Person Survey Crew	=	\$120/hour	One-Person Survey Crew GPS Robotics	=	\$130/hour
Two-Person Survey Crew w/o GPS Robotics	=	\$160/hour	Two-Person Survey Crew	=	\$180/hour
Two-Person Survey Crew GPS Robotics	=	\$190/hour	Two-Person Survey Crew (PLS + LSIT)	=	\$225/hour
Three-Person Survey Crew	=	\$260/hour			

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ATVs/Trailer	=	\$150.00/day		
Boat/Trailer	=	\$150.00/day		
		<u>DAY</u>	<u>WEEK</u>	<u>MONTH</u>
2 GPS Receivers (Survey Quality)		\$425.00	\$1,600.00	\$4,320.00
Single/Each Additional Receiver		\$250.00	\$900.00	\$2,700.00

**Travel, Mileage, & Miscellaneous**

Per diem will be billed when travel is more than 50 miles from the office during a meal allowance period of three or more consecutive hours or involves an overnight stay. The three meal allowance periods are breakfast (midnight to 10 am), lunch (10 am – 3 pm) and dinner (3 pm to midnight).

Per diem (per person, per day Montana)	=	\$51.00/day
Lodging	=	cost per night
Airfare	=	cost
Vehicle Usage – Automobiles	=	0.75/mile
Vehicle Usage – Pickups, Suburban	=	1.00/mile
Printing/Supplies/Phone/Fax/Postage	=	Note 2
Specialized Software/Hardware	=	Note 3
Subcontractors	=	Cost + 10%
Laboratory Analysis	=	Cost + 10%
Other/Miscellaneous	=	Cost + 10%

**Notes**

1. DOWL's Professional Fee Services Fee Schedule is subject to adjustment each year or at the end of a contract period, whichever is appropriate. Should adjustments be anticipated or required, such adjustments will not affect existing contracts without prior agreement between Customer and DOWL.
2. Costs included in overhead rates for reasonable requests. Requests beyond those considered reasonable by the project manager billed at Cost + Agreed Upon Mark-up.
3. Specialized computer software or hardware necessary for a unique application for will be billed at a negotiated rate or unit cost.
4. Late charges will be assessed on the unpaid balance of all accounts not paid within 30 days of the billing date, at a rate of 1.0 percent per month (12% per year).

## Appendix E

### Project Schedule W.O. 17-01, Schedule 1 South 24<sup>th</sup> Street West Water Main Replacement

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Based on a notice to proceed by Billings date no later than October 25, 2016, the completion date for the Engineer's work through final design shall be:

1. Preliminary Engineering Services (30% Design): December 23, 2016
2. Preliminary Engineering Services (70% Design): January 27, 2017
3. Final Engineering Services (100% Design): March 17, 2017
4. Construction Services to be based on Contractor Schedule.

Delays affecting the completion of the work within the time specified of more than ninety (90) days, not attributable to or caused by the Parties hereto, may be considered as cause for the renegotiation or termination of this Contract.

If the Engineer is behind on this Contract due to no fault of Billings, then the Engineer hereby acknowledges the right of Billings to withhold future Contracts to the Engineer in addition to any other remedy until this Contract is brought back on schedule or otherwise resolved.

## **Appendix F**

### **Certificate(s) of Insurance W.O. 17-01, Schedule 1 South 24<sup>th</sup> Street West Water Main Replacement**

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Attach Certificate(s) of Insurance