

# Contract for Professional Architectural and Engineering Services

## City of Billings W.O. 21-01 Pioneer Park Area Water Main Replacement

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In consideration of the mutual promises herein, City of Billings and Morrison-Maierle, Inc. 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 8 pages (Basic Services of Contractor);
- Appendix B consisting of 2 pages (Methods and Times of Payment);
- Appendix C consisting of 1 page (Additional Services of Contractor);
- Appendix D consisting of 1 page (Schedule of Professional Fees);
- Appendix E consisting of 1 page (Project Schedule);
- Appendix F consisting of \_\_\_ 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 his designee.
- B. "Billings" means the City of Billings.
- C. "Engineer" and/or "Contractor" means Morrison-Maierle, Inc.
- D. In Appendix A, Contractor is referring to the construction contractor.

#### Section 2. Scope of Services.

- A. The Contractor 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 Contractor 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 Contractor may provide, at its own expense, any other services that are consistent with this Contract.
- D. The Engineer shall provide as-built drawings 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. Requirements for submitting as constructed documents of completed Private Contracts, Work Orders, Special Improvement Districts and Site plans involving any City of Billings infrastructure: a point file; 1 (\*.asc, \*.txt, comma delimited; point number, northing, easting, elevation and description) / 2 (\*.csv, with headings for; point number, northing, easting, elevation and description), with northings and eastings to the nearest tenth of a foot, elevations to the nearest hundredth of a foot, representing new, updated or relocated City of Billings infrastructure features such as, but not limited to Sanitary Sewer Manholes, Storm Drain Manholes, Water Valves, Water Bends, Signals, Street Light, etc., in the coordinates of Montana State Plane, Zone 2500 using NAD83(2011), Horizontal and NAVD88 Vertical, Horizontal units and Vertical units will be International feet, one half size paper copy to scale, one full size paper copy to scale, two CD's or DVD's with PDF files being half size to scale and full size to scale and AutoCAD DWG files as-constructed / as-built, Version 2016, or equivalent.

Section 3. Time for Performance.

- A. This Contract becomes effective when signed on behalf of Billings.
- B. The Contractor 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 March 1, 2022.

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 Contractor 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 Contractor's performance is unsatisfactory, the Administrator must, within ten (10) days of the payment denial, notify the Contractor of the payment denial and set forth, with reasonable specificity, what was unsatisfactory and why. Billings will pay Contractor within 30 days of receiving an acceptable invoice.
- B. The Contractor 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 Contractor shall have paid all City taxes currently due and owing by the Contractor.

Section 5. Termination of the Contractor's Services.

The Contractor'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 Contractor 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 Contractor's services for convenience or Contractor terminates services for cause, Billings shall pay the Contractor 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 Contractor shall become the property of Billings.
- B. If the Contractor's services are terminated for cause, Billings shall pay the Contractor the reasonable value of the services satisfactorily rendered prior to termination, less any damages suffered by Billings because of the Contractor'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 Contractor under this Contract shall become the property of Billings at its option.
- C. If the Contractor 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 Contractor shall not be entitled to any compensation under this Section until the Contractor has delivered to the Administrator all documents, records, Work product, materials and equipment owned by Billings and requested by the Administrator.
- E. If the Contractor's services are terminated for whatever reason the Contractor 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 Contractor'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 Contractor'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 Contractor shall maintain in good standing the insurance described in Subsection B of this Section. Before rendering any services under this Contract,

the Contractor shall furnish the Administrator with proof of insurance in accordance with Subsection B of this Section.

B. The Contractor 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 claim.

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 Contractor 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 Contractor 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 Contractor 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. Contractor shall retain rights to pre-existing proprietary property including but not limited to interactive models. The Contractor shall have the right to include photographic or artistic representations of the design and construction of the Project among the Contractor's promotional and professional materials. The Contractor's materials shall not include Billings' confidential or proprietary information regardless of whether Billings has previously advised the Contractor in writing of the specific information considered by Billings to be confidential and proprietary.
- B. Equipment purchased by the Contractor 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 Contractor 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 design drawings or specifications provided under this Contract must be limited to conceptual or preliminary use for adaptation,

and the original Contractor's or subcontractor's signature, professional seals and dates removed. Such reuse of drawings and specifications, 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

Contractor: Morrison-Maierle, Inc.  
Jill Cook, PE  
315 North 25<sup>th</sup> Street, Suite 102  
Billings, Montana 59101 PHONE: (406) 656-6000

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 Contractor 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 Contractor 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 Contractor'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 Contractor;
- 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 Contractor agrees to abide by those additional requirements immediately upon receipt of written notice thereof from Billings.

Section 15. Subcontracts.

The Contractor 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 Contractor delegates the provision of services shall be subject to review and approval by the Administrator before it is executed by the Contractor.
- 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 Contractor shall perform its obligations hereunder as an independent Contractor of Billings. Billings may administer the Contract and monitor the Contractor's compliance with its obligations hereunder. Billings shall not supervise or direct the Contractor other than as provided in this Section.

### Section 2. Nondiscrimination.

- A. The Contractor 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 Contractor 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 Contractor 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 Contractor 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 Contractor shall comply with any and all reporting requirements that may apply to it which the City of Billings may establish by regulation.
- D. The Contractor 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 Contractor under this Contract.
- E. The Contractor shall comply with all applicable federal, state, and city laws concerning the prohibition of discrimination.
- F. The Contractor and subcontractor shall abide by the requirements of 41 CFR 60-300.5(a) and 41 CFR 60-741.5(a), which prohibit discrimination against qualified protected veterans and/or qualified individuals on the basis of disability, and requires affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified protected veterans and individuals with disabilities.
- G. The Contractor and subcontractor shall abide by the requirements of 41 CRF 60-1.4, which states employees or applicates may not be discharged or in any other manner discriminated against because they have inquired about, discussed, or disclosed their own pay or the pay of another employee or applicant. However, employees who have access to the compensation information of other employees

or applicants as a part of their essential job functions cannot disclose the pay of other employees or applicants to individuals who do not otherwise have access to compensation information, unless the disclosure is (a) in response to a formal complaint or charge, (b) in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or (c) consistent with the contractor's legal duty to furnish information.

Section 3. Permits, Laws, and Taxes.

The Contractor 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 Contractor under this Contract shall comply with all applicable statutes, ordinances, rules and regulations. The Contractor 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:

Contractor: President or Vice President  
(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.

- A. The Contractor 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 Contractor or any agent, employee or subcontractor as a result of the Contractor's or any subcontractor's performance pursuant to this Contract.
- B. The Contractor 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.
- C. Billings shall indemnify, defend, save, and hold the Contractor harmless from any and all claims, causes of action, lawsuits, damages, judgements, 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.
- D. Billings shall not indemnify, defend, save and hold the Contractor 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 Contractor occurring during the course of or as a result of the performance of the Contract.
- E. Where claims, lawsuits or liability, including attorneys' fees and costs arise from wrongful or negligent act of both Billings and the Contractor, the Contractor 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 Contractor's or any subcontractor's wrongful or negligent acts occurring as a result from the Contractor's performance pursuant to this Contract.

Section 10. Inspection and Retention of Records.

The Contractor 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 Contractor is to complete performance in accordance with Section 2 of the Special Provisions. Upon request, and within a reasonable time, the Contractor 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 Contractor 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 Contractor 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

Contractor

\_\_\_\_\_  
William A. Cole, Mayor

\_\_\_\_\_

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

Name: Jill Cook, PE

Title: Vice President

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

ATTEST:

IRS Tax ID # 81-0217149

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

APPROVED AS TO FORM:

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

By \_\_\_\_\_

BRENT BROOKS, City Attorney

## Appendix A

### Basic Services of Engineer City of Billings W.O. 21-01 Pioneer Park Area 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 Kurtis DeShaw, P.E. working under Vice President, Jill Cook, P.E.

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 Travis Harris, P.E.

Section 3. Scope of Work.

The Engineer shall perform the work outlined within this agreement that includes the completion of design and construction phase services for W.O. 21-01 Pioneer Park Area Water Main Replacement. Design and construction work for the W.O. 21-01 Pioneer Park Area Water Main Replacement is based on the following:

- Approximately 4,985 linear feet (LF) of 8-inch to 12-inch water main replacement in Avenues B through E from 3rd Street West to North 32nd Street and in 1st Street West from Grand Avenue to Avenue C
- Reconnect existing water services from the existing 4-inch water main to the new 16-inch water main in Avenue F between 3rd Street West and North 32nd Street
- Approximately 725 LF of 8-inch water main replacement in 2nd Street West from Grand Avenue to Burlington Avenue
- Approximately 1,220 LF of 8-inch water main replacement in Burlington Avenue from 2nd Street West to Division Street
- Approximately 1,550 LF of 8-inch to 12-inch water main replacement in 12th Avenue North from North 26th Street to North 22nd Street
- Replace approximately 130 lead service lines from water main to curb stop

The scope of work is summarized below:

*TASK 000 - PROJECT MANAGEMENT*

Project management for the design and construction phases will include all project coordination between the City and the consultant team members. This management task includes communication of ideas, questions, and issues to ensure the design encompasses the input from the project personnel for both the City and Morrison-Maierle. Project management also includes the effort necessary to control the quality, schedule, and budget of the project.

### TASK 030 – SURVEY

Design phase survey services will consist of the following:

- Establish horizontal and vertical control for the project areas. The horizontal and vertical datums for this project shall be approved by the City.
- The City GIS information will be used to draw in existing water, sewer, and storm drain mains. The plans will show owner addresses and approximate lot lines based on City GIS information. Property corner searches are not included.
- Design survey will be completed using an unmanned aerial vehicle (UAV) to collect surface data. Utility locates will be requested prior to the UAV survey using the One-Call service and the located private utilities will be drawn in from the UAV survey imagery. It is assumed that the City staff will locate all water services prior to the UAV survey such that survey of curb stops is not required. The water service records will be used to draw in services that are not visible in the UAV survey due to tree cover, cars, or other obstructions. The plans will utilize the aerial imagery from the UAV survey as a background and features such curb, sidewalk, drive approaches, trees, etc. will not be drawn in. If snow cover prevents the use of a UAV survey during the winter months, or if utilities in all areas are not located in a manner that will allow for UAV survey, a limited conventional survey will be required (for all or a portion of the project) to keep the project on schedule. If a conventional survey is required, it will be limited to surveying the ground surface along the centerline of the new water main alignment.
- Obtain approval from the Billings Airport for the UAV survey.
- Up to two days of ground survey with a GPS are included as needed to survey features that could not be obtained from the UAV survey.

Construction phase survey services will consist of the following:

- Provide personnel, equipment, and supplies for construction layout and control.
- Construction layout shall include layout, measurements, lines, locations, and grades necessary for construction of the water main replacement and associated appurtenances. Staking shall include centerline locations and offsets for the principal components of the work (valves, hydrants, horizontal fittings) and intermediate points at approximately 100 feet between principal components for the water main.
- Survey shall reference and preserve all existing survey monuments and benchmarks. All monuments required within the project shall be punched and elevations shown on as-built drawings.

### TASK 039 – GEOTECHNICAL EVALUATION

Geotechnical engineering will be provided by a sub-consultant and shall include field sampling, laboratory testing and review of subsurface soils to determine appropriate pavement section design alternatives, sub-grade treatment, groundwater conditions, foundations and backfill recommendations for utility installations, and thrust block recommendations. Recommendations for specific construction materials established

in this review will be included in the project plans and specifications. Design geotechnical work will include 12 soil borings to a depth of 10 feet and two shallow borings (less than 18-inches deep) to identify existing asphalt and base course thickness. Additional soil borings in the project area from recent projects will be incorporated into the project specifications for reference only to reduce overall geotechnical design costs.

Quality assurance density tests, proctors, asphalt, and concrete testing are included in the construction materials testing scope up to \$25,000. Since actual geotechnical testing fees may vary based on the contractors means and methods, the Engineer shall notify the City immediately if we believe the budget is going to be exceeded.

#### TASK 040 – DESIGN

The following work will be performed under this task:

- Review existing record drawings to verify depths and locations of existing utilities. Perform valve and manhole measure downs to verify depths of existing water, sewer and storm drain mains where this information is not available on record drawings, or to verify depths where there is minimal clearance at utility crossings.
- Identify lead water services to be replaced from the water main to curb stop and show these on the plans based on water service records provided by the City. The City will conduct the communication with property owners and necessary testing during construction for the lead service replacements.
- Review pros and cons of an offset water main alignment to save on temporary water costs and other benefits such as local access during construction and trench restoration of half the street width rather than down the middle of the street. Review temporary water options for the water main in 12th Avenue North, which is the only supply to Zone 2. A memo summarizing the pros and cons of an offset water main alignment will be submitted to the City for review at the 30% design stage.
- Verify water model for sizing of water main in 12th Avenue North.
- Review existing leaking underground storage tank (LUST) sites in the project areas from the MDEQ database to determine if the potential for contaminated soil and groundwater needs to be addressed in the project specifications.
- Include specifications and details for cathodic protection using sacrificial anodes at metallic valves, fittings, and hydrants. Details and specifications from a previous City project will be repurposed and no new design of cathodic protection is included.
- Traffic control will be addressed with written specifications and referencing the traffic control drawings in the City of Billings Standard Modifications to MPWSS. No traffic control plans will be prepared by the Engineer for this project.
- Prepare preliminary plans and specifications. Deliverables will include preliminary plans at 30% complete, and preliminary plans, specifications, and opinion of probable cost at 60% complete for review by the City. An electronic file (PDF) of each review set will be provided to the City for review. In addition, one (1) 11"x17" copy of 30% plans, and one (1) 22"x34" copy and one (1)

11"x17" copy of 60% plans and specifications will be provided to the City. One copy of the 60% plans will be provided to each utility in the area. The 60% plans provided to the utilities will be annotated with potential conflicts noted as part of the design. Engineer will follow up with the utilities to ensure they received the plans sent to them. Engineer will hold a meeting for utilities to attend to discuss potential conflicts, if any occur.

- Coordinate with permitting agencies including MDEQ and public/private utilities.
- Hold separate review meetings to review 30%, 60%, and 90% submittals with City staff before development of next stage plan documents.
- Perform field review(s) with City and other agencies, as required.
- Meet with up to two local contractors and suppliers to discuss constructability issues.
- Develop 90% plans, specifications, quantity summaries, and opinion of probable cost for final review by City staff. Engineer will meet with City staff to review 90% comments. One (1) 22"x34" copy and two (2) 11"x17" copies will be provided to the City, as well as an electronic file (PDF).
- Seal and sign all final plans, specifications, submitted calculations, and reports with the seal of the Montana licensed Professional Engineer in responsible charge of the work.
- Submit plans, specifications, design summary, certified checklist, and any required deviations for the water main replacement to MDEQ for review. The City will pay respective permitting fees directly. Coordinate with MDEQ on any follow-up comments/requirements.
- Prepare informational letter and send to property owners adjacent to the project areas. Attend one public informational meeting during design.
- Potholing or other exploratory may be required during design and/or construction of this project. This scope includes up to \$6,000 for potholing or exploratory services as required.

Bidding services will be provided as follows:

- Provide bid advertisement text to City for publication. Submission of the advertisement to publications and the cost for advertising will be responsibility of the City.
- Distribution of plans and specifications will be done electronically using the City's Quest CDN service and through [www.montanabid.com](http://www.montanabid.com). No hard copies of the plans and specifications will be provided to the bidders. Two (2) 11"x17" copies will be provided to the City, as well as an electronic file (PDF).
- The plan holder's list will be maintained through Quest CDN.
- Answer prospective bidders' questions regarding the project.
- Schedule and hold a pre-bid conference with interested contractors and suppliers. Prepare agenda and minutes for the meeting.
- Prepare and distribute addenda as necessary.
- Attend bid opening, analyze bid proposals, publish a bid tabulation, and make recommendations on awarding a construction contract.

## Construction Manager/General Contractor (CMGC)

If a CMGC alternative delivery method is chosen by the City, services will be provided as follows:

- Assistance in preparation of Request for Proposals (RFP) after 30% design for contractor selection, in lieu of bidding phase services as described above. These services include:
  - Prepare RFP for contractor selection
  - Provide bid advertisement text to City for publication. Submission of the advertisement to publications and the cost for advertising will be responsibility of the City.
  - Distribution of plans and RFP will be done electronically using the City's Quest CDN service and through [www.montanabid.com](http://www.montanabid.com). No hard copies of the plans and specifications will be provided to the bidders. Two (2) 11"x17" copies will be provided to the City, as well as an electronic file (PDF).
  - The plan holder's list will be maintained through Quest CDN.
  - Answer prospective bidders' questions regarding the project.
  - Schedule and hold a pre-bid conference with interested contractors and suppliers. Prepare agenda and minutes for the meeting.
  - Prepare and distribute addenda as necessary.
- Attend construction meetings with the contractor and owner (in lieu of just attending them with the owner)

## TASK 050 – CONSTRUCTION ADMINISTRATION

Construction administration will include the following tasks:

- Prepare four (4) copies of construction contract documents and distribute to Contractor and City.
- Schedule and hold a pre-construction conference prior to commencement of work at the site. Issue meeting minutes to Contractor and City.
- Take preconstruction photos of proposed work areas.
- Coordinate appropriate quality assurance testing of materials intended for incorporation into the project and require documentation of testing results.
- Provide review of construction to check the Contractor's work for general conformance with the drawings, specifications, and other applicable documents, codes, or standards. Review of work shall be made on a full-time basis while any major item of work is in progress. Major items of work shall include, but not be limited to, water main installation; lead service replacement; subgrade preparation; gravel base course preparation; asphalt trench restoration; and concrete pouring and finishing. Each daily review shall be documented in permanent reproducible form and kept in consecutive order with the project file. Copies of the daily review reports shall be furnished to Billings as requested during construction. Engineer will notify Billings immediately of contract problems or deviation from approved plans.

- Coordinate and administer weekly progress meetings for a 100-calendar day project.
- Prepare weekly construction update email and project map showing work areas to include on the City's website.
- This project is planned based on a construction contract time of 100-calendar days. It is assumed that two (2) construction crews will be allowed to work in separate project areas, which may require two (2) full time resident project representatives (RPR) for the work. This project is planned for one (1) full time RPR at ten (10) hours per working day for 72 working days and a second full time RPR is planned at ten (10) hours per working day for 58 working days out of the 100-calendar day contract. Additional time for both RPRs includes 14 hours of preparation, pre-con meeting, and contract review and 20 hours for punch list items for a total of 1,334 hours.
- Interpret geotechnical test results and recommendations and coordinate with field observations.
- The Engineer shall record the location and depth, where available, of all underground utilities.
- Engineer shall ascertain that the Contractor has all needed permits to accomplish his work during construction.
- Check shop drawings, samples, equipment, temporary water plans, traffic control plans, valve operation requests, asphaltic concrete mix design, concrete mix design, aggregate, and other data submitted by the Contractor for compliance with drawings and specifications.
- Evaluate and respond to Requests for Information (RFI) from Contractor.
- Prepare monthly pay estimates and final pay estimates for construction and prepare contract administration forms on a monthly basis. These will be submitted in Billings' approved format.
- Engineer shall provide City with geotechnical testing reports after construction.
- Issue notice to the Contractor to suspend work in whole or part when, in the opinion of the Engineer, and when directed by the Owner, work is not being, or cannot be performed in accordance with the contract documents and specifications.
- Contact Billings for any proposed plan or specification changes when required due to initial design and engineering deficiencies to complete the project in its original concept. Plan and specification changes shall be prepared by the design engineer and implemented via change order.
- Prepare and recommend field orders and change orders when necessary due to conditions encountered during construction. Work resulting in contract overage will be processed by approved change orders using Billings' standard format.

#### TASK 060 – CLOSEOUT

Closeout services will be provided as follows:

- Following receipt of red-lined drawings from the general contractor and any review comments from Billings, make necessary changes and furnish Billings

with record drawings as indicated in Section 2D of Part I of this contract. Record drawings shall include, but not be limited to:

- Locations of water services, bends, fittings, valves and hydrants will be surveyed with a GPS by the RPR.
- All above elevations shall be referenced to a permanent benchmark elevation that is clearly shown on the plans.
- Record drawings are due within 60 days of Contractor's final payment and before final payment to the Engineer.
- Schedule and make final inspection with Billings and certify to Billings all construction items were constructed according to plans and specifications and are acceptable to the Engineer.
- Issue Certificate of Substantial Completion.
- Schedule and inspect with Billings prior to the expiration of construction warranty period and provide a certification of final acceptance. If any problems are found, send a list of deficiencies to Billings and Contractor and continue until acceptable.
- Approximately eleven (11) months after construction is completed, a one-year walkthrough will be attended by a representative of the design team with the City. A follow-up letter of findings and recommendations will be provided to the City.

#### TASK 88 – QUALITY ASSURANCE

Internal quality assurance will be provided for all reports, plans and specifications furnished to the City or other agencies.

## Appendix B

### Methods and Times of Payment City of Billings W.O. 21-01 Pioneer Park Area 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.

Partial payment shall be made to 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 as described in Appendix A, the Engineer shall be paid based upon actual time accrued, but not to exceed the following total fee:

1. Task 000 – Project Management	\$19,268.00
2. Task 030 – Survey	\$43,840.00
3. Task 039 – Geotechnical	\$44,982.00
4. Task 040 – Design	\$177,492.00
5. Task 050 – Construction Administration	\$264,363.00
6. Task 060 – Project Closeout	\$23,925.00
7. Task 088 – Quality Assurance	<u>\$11,984.00</u>
<b>TOTAL</b>	<b>\$585,854.00</b>

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

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

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 by a negotiated fee.

#### Section 3. Corrections.

Costs of Billings work that is required for corrections to the Engineer's work which requires redoing by Billings 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 City of Billings W.O. 21-01 Pioneer Park Area 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 City of Billings W.O. 21-01 Pioneer Park Area Water Main Replacement**

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Not used on this Contract.

## Appendix E

### Project Schedule

#### City of Billings W.O. 21-01 Pioneer Park Area Water Main Replacement

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Based on a notice to proceed by Billings date no later than December 15, 2020, the completion date for the Engineer's work through final design shall be:

1. Preliminary Engineering Services (30% Design): January 2021
2. Preliminary Engineering Services (60% Design): February 2021
3. Preliminary Engineering Services (90% Design): March 2021
4. Final Engineering Services (100% Design): April 2021
5. 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 City of Billings W.O. 21-01 Pioneer Park Area Water Main Replacement**

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**(Attach Certificate(s) of Insurance)**