

This is **EXHIBIT A**, consisting of 18 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated March 17, 2015.

## **Engineer's Services**

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Article 1 of the Agreement is amended and supplemented to include the following agreement of the parties. Engineer shall provide Basic and Additional Services as set forth below.

### **PART 1 – BASIC SERVICES**

#### *~~A.1.01 Study and Report Phase~~*

##### ~~A. Engineer shall:~~

- ~~1. Consult with Owner to define and clarify Owner's requirements for the Project and available data.~~
- ~~2. Advise Owner of any need for Owner to provide data or services of the types described in Exhibit B which are not part of Engineer's Basic Services.~~
- ~~3. Identify, consult with, and analyze requirements of governmental authorities having jurisdiction to approve the portions of the Project designed or specified by Engineer, including but not limited to mitigating measures identified in the environmental assessment.~~
- ~~4. Identify and evaluate \_\_\_\_\_ alternate solutions available to Owner and, after consultation with Owner, recommend to Owner those solutions which in Engineer's judgment meet Owner's requirements for the Project.~~
- ~~5. Prepare a report (the "Report") which will, as appropriate, contain schematic layouts, sketches, and conceptual design criteria with appropriate exhibits to indicate the agreed to requirements, considerations involved, and those alternate solutions available to Owner which Engineer recommends. For each recommended solution Engineer will provide the following, which will be separately itemized: opinion of probable Construction Cost; proposed allowances for contingencies; the estimated total costs of design, professional, and related services to be provided by Engineer and its ENGINEERS; and, on the basis of information furnished by Owner, a summary of allowances for other items and services included within the definition of Total Project Costs.~~
- ~~6. Perform or provide the following additional Study and Report Phase tasks or deliverables:~~
- ~~7. Furnish \_\_\_\_\_ review copies of the Report and any other deliverables to Owner within \_\_\_\_\_ calendar days of authorization to begin services and review it with Owner. Within \_\_\_\_\_ calendar days of receipt, Owner shall submit to Engineer any comments regarding the Report and any other deliverables.~~

8. ~~Revise the Report and any other deliverables in response to Owner's comments, as appropriate, and furnish \_\_\_\_\_ copies of the revised Report and any other deliverables to the Owner within \_\_\_\_\_ calendar days of receipt of Owner's comments.~~
- B. ~~Engineer's services under the Study and Report Phase will be considered complete on the date when the revised Report and any other deliverables have been delivered to Owner.~~

*A.1.02 Preliminary Design Phase*

- A. ~~After acceptance by Owner of the Report and any other deliverables, selection by Owner of a recommended solution and indication of any specific modifications or changes in the scope, extent, character, or design requirements of the Project desired by Owner, and Upon written authorization from Owner, Engineer shall:~~
  1. ~~Prepare Preliminary Design Phase documents consisting of final design criteria, (50% effort) preliminary drawings, outline specifications, 50% Opinion of Probable Cost, Quantity Estimates, Reports and written descriptions of the Project as further described in Appendix 1 of EXHIBIT A of the Agreement.~~
  2. ~~Provide necessary field surveys and topographic and utility mapping for design purposes. Utility mapping will be based upon information obtained from utility owners.~~
  3. ~~Advise Owner if additional reports, data, information, or services of the types described in Exhibit B are necessary and assist Owner in obtaining such reports, data, information, or services.~~
  4. ~~Based on the information contained in the Preliminary Design Phase documents, prepare a revised opinion of probable Construction Cost, and assist Owner in collating the various cost categories which comprise Total Project Costs.~~
  5. ~~Perform or provide the following additional Preliminary Design Phase tasks or deliverables:~~
    - a. ~~None~~
  6. ~~Furnish number of review copies of the Preliminary Design Phase documents and any other deliverables to Owner as indicated in Attachment 1 of Exhibit A. within 43 calendar days of authorization to proceed with this phase, and review them with Owner. Within twenty-one (21) calendar days of receipt, Owner shall submit to Engineer any comments regarding the Preliminary Design Phase documents and any other deliverables.~~
  7. ~~Revise the Preliminary Design Phase documents and any other deliverables in response to Owner's comments, as appropriate, and furnish to Owner the revised Preliminary Design Phase documents, revised opinion of probable Construction Cost, and any other deliverables within 10 calendar days after receipt of Owner's comments.~~



- B. ~~Engineer's services under the Preliminary Design Phase will be considered complete on the date when the revised Preliminary Design Phase documents, revised opinion of probable Construction Cost, and any other deliverables have been delivered to Owner.~~

#### *A.1.03 Final Design Phase Phase*

- A. ~~After acceptance by Owner of the Preliminary Design Phase documents, revised opinion of probable Construction Cost as determined in the Preliminary Design Phase, and any other deliverables subject to any Owner directed modifications or changes in the scope, extent, character, or design requirements of or for the Project, and Upon written authorization from Owner, Engineer shall provide the professional services indicated in Appendix 1 of Exhibit A which were outlined in the Request for Proposals and amended herein during the Consultant selection and contract negotiations stages of the project.~~
- B. ~~Engineer's services under the Final Design Phase will be considered complete on the date when the City authorizes approval of a construction contract, following the completion of the bidding tasks, and once the Notice of Award has been executed by the City of Gillette, or upon cessation of negotiations with prospective contractors.~~
- C. ~~In the event that the Work designed or specified by Engineer is to be performed or furnished under more than one prime contract, or if Engineer's services are to be separately sequenced with the work of one or more prime Contractors (such as in the case of fast tracking), Owner and Engineer shall, prior to commencement of the Final Design Phase, develop a schedule for performance of Engineer's services during the Final Design, Bidding or Negotiating, Construction, and Post Construction Phases in order to sequence and coordinate properly such services as are applicable to the work under such separate prime contracts. This schedule is to be prepared and included in or become an amendment to Exhibit A whether or not the work under such contracts is to proceed concurrently. At this time, only one (1) prime construction contract is anticipated.~~
- D. ~~The number of prime contracts for Work designed or specified by Engineer upon which the Engineer's compensation has been established under this Agreement is one (1). If more prime contracts are awarded, Engineer shall be entitled to an equitable increase in its compensation under this Agreement.~~

#### *A.1.04 Bidding or Negotiating Phase*

- A. ~~After acceptance by Owner of the Bidding Documents and the most recent opinion of probable Construction Cost as determined in the Final Design Phase, and upon written authorization by Owner to proceed, Engineer shall perform the following services described in Appendix 1 of this exhibit:~~
- ~~1. Assist Owner in advertising for and obtaining bids or proposals for the Work and, where applicable, maintain a record of prospective bidders to whom Bidding Documents have been issued, organize and conduct pre-Bid conferences, if any, and receive and process contractor deposits or charges for the Bidding Documents.~~



- ~~2. Issue Addenda as appropriate to clarify, correct, or change the Bidding Documents.~~
  - ~~3. Provide information or assistance needed by Owner in the course of any negotiations with prospective contractors.~~
  - ~~4. Consult with Owner as to the acceptability of subcontractors, suppliers, and other individuals and entities proposed by prospective contractors for those portions of the Work as to which such acceptability is required by the Bidding Documents.~~
  - ~~5. Perform or provide the following additional Bidding or Negotiating Phase tasks or deliverables:~~
  - ~~6. Attend the Bid opening, prepare Bid tabulation sheets, and assist Owner in evaluating Bids or proposals and in assembling and awarding contracts for the Work.~~
- ~~B. The Bidding or Negotiating Phase will be considered complete on the date when the City authorizes approval of a construction contract, following completion of the bidding tasks, and once the Notice of Award has been executed by the City of Gillette, or upon cessation of negotiations with prospective contractors. (except as may be required if Exhibit F is a part of this Agreement).~~

#### *A.1.05 Construction Phase*

- ~~A. Upon successful completion of the Final Design and Bidding and Negotiating Phase(s), and upon written authorization from Owner, Engineer shall perform the following services related to the Madison Formation Well described in Appendix 1 of this exhibit:~~
- ~~1. *General Administration of Construction Contract.* Consult with Owner and act as Owner's representative as provided in the General Conditions. The extent and limitations of the duties, responsibilities, and authority of Engineer as assigned in the General Conditions shall not be modified, except as Engineer may otherwise agree in writing. All of Owner's instructions to Contractor will be issued through Engineer, which shall have authority to act on behalf of Owner in dealings with Contractor to the extent provided in this Agreement and the General Conditions except as otherwise provided in writing. Engineer will perform all inspections, test and approvals of samples, materials, and equipment specifically required in this Contract.~~
  - ~~2. *Resident Project Representative (RPR).* Provide the services of an RPR at the Site to assist the Engineer and to provide more extensive observation of Contractor's work. Duties, responsibilities, and authority of the RPR are as set forth in Exhibit D. The furnishing of such RPR's services will not limit, extend, or modify Engineer's responsibilities or authority except as expressly set forth in Exhibit D.~~
  - ~~3. *Selecting Independent Testing Laboratory.* Assist Owner in the selection of an independent testing laboratory to perform the services identified in Exhibit B, Paragraph B2.01.0.~~



4. *Pre-Construction Conference.* Participate in a Pre-Construction Conference prior to commencement of Work at the Site, generate and distribute meeting minutes
5. *Schedules.* Receive, review, and determine the acceptability of any and all schedules that Contractor is required to submit to Engineer, including the Progress Schedule, Schedule of Submittals, and Schedule of Values.
6. ~~*Baselines and Benchmarks.* As appropriate, establish baselines and benchmarks for locating the Work which in Engineer's judgment are necessary to enable Contractor to proceed.~~
7. *Visits to Site and Observation of Construction.* In connection with observations of Contractor's Work while it is in progress:
  - a. Make visits to the Site at intervals appropriate to the various stages of construction, as Engineer deems necessary, to observe as an experienced and qualified design professional the progress and quality of Contractor's executed Work. Such visits and observations by Engineer, and the Resident Project Representative, if any, are not intended to be exhaustive or to extend to every aspect of Contractor's Work in progress or to involve detailed inspections of Contractor's Work in progress beyond the responsibilities specifically assigned to Engineer in this Agreement and the Contract Documents, but rather are to be limited to spot checking, selective sampling, and similar methods of general observation of the Work based on Engineer's exercise of professional judgment as assisted by the Resident Project Representative, if any. Based on information obtained during such visits and observations, Engineer will determine in general if the Work is proceeding in accordance with the Contract Documents, and Engineer shall keep Owner informed of the progress of the Work.
  - b. The purpose of Engineer's visits to, and representation by the Resident Project Representative, if any, at the Site, will be to enable Engineer to better carry out the duties and responsibilities assigned to and undertaken by Engineer during the Construction Phase, and, in addition, by the exercise of Engineer's efforts as an experienced and qualified design professional, to provide for Owner a greater degree of confidence that the completed Work will conform in general to the Contract Documents and that Contractor has implemented and maintained the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents. Engineer shall not, during such visits or as a result of such observations of Contractor's Work in progress, supervise, direct, or have control over Contractor's Work, nor shall Engineer have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected or used by Contractor, for security or safety on the Site, for safety precautions and programs incident to Contractor's Work, nor for any failure of Contractor to comply with Laws and Regulations applicable to Contractor's furnishing and performing the Work. Accordingly, Engineer neither guarantees the performance of any Contractor nor assumes responsibility for any Contractor's failure to furnish and perform the Work in accordance with the Contract Documents.



8. *Defective Work.* Recommend to Owner that Contractor's Work be rejected while it is in progress if, on the basis of Engineer's observations, Engineer believes that such Work will not produce a completed Project that conforms generally to the Contract Documents or that it will threaten the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents.
9. *Clarifications and Interpretations; Field Orders.* Issue necessary clarifications and interpretations of the Contract Documents as appropriate to the orderly completion of Contractor's work. Such clarifications and interpretations will be consistent with the intent of and reasonably inferable from the Contract Documents. Engineer may issue Field Orders authorizing minor variations in the Work from the requirements of the Contract Documents.
10. *Change Orders and Work Change Directives.* Recommend Change Orders and Work Change Directives to Owner, as appropriate, and prepare Change Orders and Work Change Directives for Owner execution. The Engineer shall not approve work outside a construction contract without an executed Change Order. The Engineer shall promptly provide copies of all executed Change Orders, Field Orders, and Work Directives to the Owner.
11. *Shop Drawings and Samples.* Review and approve or take other appropriate action in respect to Shop Drawings and Samples and other data which Contractor is required to submit, but only for conformance with the information given in the Contract Documents and compatibility with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such reviews and approvals or other action will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions and programs incident thereto. Engineer shall meet any Contractor's submittal schedule that Engineer has accepted.
12. *Substitutes and "or-equal."* Evaluate and determine the acceptability of substitute or "or-equal" materials and equipment proposed by Contractor, but subject to the provisions of Paragraph A2.02.A.2 of this Exhibit A.
13. *Inspections and Tests.* Require such special inspections or tests of Contractor's work as deemed reasonably necessary, and receive and review all certificates of inspections, tests, and approvals required by Laws and Regulations or the Contract Documents. Engineer's review of such certificates will be for the purpose of determining that the results certified indicate compliance with the Contract Documents and will not constitute an independent evaluation that the content or procedures of such inspections, tests, or approvals comply with the requirements of the Contract Documents. Engineer shall be entitled to rely on the results of such tests.
14. *Disagreements between Owner and Contractor.* Render formal written decisions on all duly submitted issues relating to the acceptability of Contractor's work or the interpretation of the requirements of the Contract Documents pertaining to the execution, performance, or progress of Contractor's Work; review each duly submitted Claim by Owner or Contractor,



and in writing either deny such Claim in whole or in part, approve such Claim, or decline to resolve such Claim if Engineer in its discretion concludes that to do so would be inappropriate. In rendering such decisions, Engineer shall be fair and not show partiality to Owner or Contractor and shall not be liable in connection with any decision rendered in good faith in such capacity.

15. *Applications for Payment.* Based on Engineer's observations as an experienced and qualified design professional and on review of Applications for Payment and accompanying supporting documentation:
  - a. Determine the amounts that Engineer recommends Contractor be paid. Such recommendations of payment will be in writing and will constitute Engineer's representation to Owner, based on such observations and review, that, to the best of Engineer's knowledge, information and belief, Contractor's Work has progressed to the point indicated, the quality of such Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, and to any other qualifications stated in the recommendation), and the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe Contractor's Work. In the case of unit price work, Engineer's recommendations of payment will include final determinations of quantities and classifications of Contractor's Work (subject to any subsequent adjustments allowed by the Contract Documents).
  - b. By recommending any payment, Engineer shall not thereby be deemed to have represented that observations made by Engineer to check the quality or quantity of Contractor's Work as it is performed and furnished have been exhaustive, extended to every aspect of Contractor's Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in this Agreement and the Contract Documents. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment including final payment will impose on Engineer responsibility to supervise, direct, or control Contractor's Work in progress or for the means, methods, techniques, sequences, or procedures of construction or safety precautions or programs incident thereto, or Contractor's compliance with Laws and Regulations applicable to Contractor's furnishing and performing the Work. It will also not impose responsibility on Engineer to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or to determine that title to any portion of the Work in progress, materials, or equipment has passed to Owner free and clear of any liens, claims, security interests, or encumbrances, or that there may not be other matters at issue between Owner and Contractor that might affect the amount that should be paid.
16. *Contractor's Completion Documents.* Receive, review, and transmit to Owner maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance required by the Contract Documents, certificates of inspection, tests



and approvals, Shop Drawings, Samples and other data approved as provided under Paragraph A1.05.A.11, and the annotated record documents which are to be assembled by Contractor in accordance with the Contract Documents to obtain final payment. The extent of such review by Engineer will be limited as provided in Paragraph A1.05.A.11. ~~Engineer will review completion documents and incorporate them into Operation and Maintenance manuals for the Owner. Engineer will provide any operational recommendations into the Operation and Maintenance manuals. This scope does not include comprehensive technical manuals detailing the operation of the Owner's systems beyond the items specifically listed above.~~

17. *Substantial Completion.* Promptly after notice from Contractor that Contractor considers the entire Work ready for its intended use, in company with Owner and Contractor, conduct an inspection to determine if the Work is substantially complete. If after considering any objections of Owner, Engineer considers the Work substantially complete, Engineer shall deliver a certificate of Substantial Completion to Owner and Contractor.
  18. *Additional Tasks.* Perform or provide the following additional Construction Phase tasks or deliverables: None
  19. *Final Notice of Acceptability of the Work.* Conduct a final inspection to determine if the completed Work of Contractor is acceptable so that Engineer may recommend, in writing, final payment to Contractor. Accompanying the recommendation for final payment, Engineer shall also provide a notice in the form attached hereto as Exhibit E (the "Notice of Acceptability of Work") that the Work is acceptable (subject to the provisions of Paragraph A1.05.A.15.b) to the best of Engineer's knowledge, information, and belief and based on the extent of the services provided by Engineer under this Agreement.
  20. *Final Payment Notices and Advertisements.* Engineer will include the requirement for notices and advertisements for final payment in construction contract documents.
- B. *Duration of Construction Phase.* The Construction Phase will commence with the execution of the first construction Contract for the Project or any part thereof and will terminate upon written recommendation by Engineer for final payment to Contractors. If the Project involves more than one prime contract as indicated in Paragraph A1.03.C, Construction Phase services may be rendered at different times in respect to the separate contracts. Subject to the provisions of Article 3, Engineer shall be entitled to an equitable increase in compensation if Construction-Phase services are required after the original date for final completion of the Work as set forth in the construction Contract.
- C. *Limitation of Responsibilities.* Engineer shall not be responsible for the acts or omissions of any Contractor, or of any subcontractors, suppliers, or other individuals or entities performing or furnishing any of the Work. Engineer shall not be responsible for the failure of any Contractor to perform or furnish the Work in accordance with the Contract Documents.



#### *A.1.06 Post-Construction Phase*

- A. Upon written authorization from Owner to complete work in accordance with A2.01, Engineer, during the Post-Construction Phase, shall:
  - 1. ~~Provide assistance in connection with the adjusting of Project equipment and systems.~~
  - 2. ~~Assist Owner in training Owner's staff to operate and maintain Project equipment and systems.~~
  - 3. ~~Assist Owner in developing procedures for control of the operation and maintenance of, and record keeping for Project equipment and systems.~~
- B. ~~During the Post-Construction Phase, and included in the total fee in Appendix C, the Engineer shall:~~
  - 1. Together with Owner, visit the Project to observe any apparent defects in the Work, assist Owner in consultations and discussions with Contractor concerning correction of any such defects, and make recommendations as to replacement or correction of Defective Work, if present.
  - 2. Perform or provide the following additional Post-Construction Phase tasks or deliverables:  
None
  - 3. In company with Owner or Owner's representative, provide an inspection of the Project within one month before the end of the Correction Period to ascertain whether any portion of the Work is subject to correction.
- B. The Post-Construction Phase services may commence during the Construction Phase and, if not otherwise modified in this Exhibit A, will terminate at the end of the Construction Contract's correction period.

## **PART 2 – ADDITIONAL SERVICES**

#### *A2.01 Additional Services Requiring Owner's Written Authorization*

- A. If authorized in writing by Owner, Engineer shall furnish or obtain from others Additional Services of the types listed below.
  - 1. Preparation of applications and supporting documents (in addition to those furnished under Basic Services) for private or governmental grants, loans, or advances in connection with the Project; preparation or review of environmental assessments and impact statements; review and evaluation of the effects on the design requirements for the Project of any such statements and documents prepared by others; and assistance in obtaining approvals of authorities having jurisdiction over the anticipated environmental impact of the Project.



2. Services to make measured drawings of or to investigate existing conditions or facilities, or to verify the accuracy of drawings or other information furnished by Owner or others.
3. Normal changes due to Owner comments are included in the Basic Services scope and fee. Services resulting from significant changes in the scope, extent, or character of the portions of the Project designed or specified by Engineer or its design requirements including, but not limited to, significant or major scope changes due to Owner comments, changes in size, complexity, Owner's schedule, character of construction, or method of financing; and revising previously accepted studies, reports, Drawings, Specifications, or Contract Documents when such revisions are required by changes in Laws and Regulations enacted subsequent to the Effective Date of this Agreement or are due to any other causes beyond Engineer's control.
4. ~~Services resulting from Owner's request to evaluate additional Study and Report Phase alternative solutions beyond those identified in Paragraph A1.01.A.4.~~
5. Services required as a result of Owner's providing incomplete or incorrect Project information to Engineer.
6. Providing renderings or models for Owner's use.
7. Undertaking investigations and studies including, but not limited to, detailed consideration of operations, maintenance, and overhead expenses; the preparation of feasibility studies, cash flow and economic evaluations, rate schedules, and appraisals; assistance in obtaining financing for the Project; evaluating processes available for licensing, and assisting Owner in obtaining process licensing; detailed quantity surveys of materials, equipment, and labor; and audits or inventories required in connection with construction performed by Owner.
8. Furnishing services of Engineer's Consultant's for other than Basic Services.
9. Services attributable to more prime construction contracts than specified in Paragraph A1.03.D.
10. Services during out-of-town travel required of Engineer other than for visits to the Site, and Owner's office.
11. Preparing for, coordinating with, participating in and responding to structured independent review processes, including, but not limited to, construction management, cost estimating, project peer review, value engineering, and constructability review requested by Owner; and performing or furnishing services required to revise studies, reports, Drawings, Specifications, or other Bidding Documents as a result of such review processes.
12. Preparing additional Bidding Documents or Contract Documents for alternate bids or prices requested by Owner for the Work or a portion thereof.



13. Determining the acceptability of substitute materials and equipment proposed during the Bidding or Negotiating Phase when substitution prior to the award of contracts is allowed by the Bidding Documents.
14. Assistance in connection with Bid protests, rebidding, or renegotiating contracts for construction, materials, equipment, or services, except when such assistance is required by Exhibit F.
15. ~~Providing construction surveys and staking to enable Contractor to perform its work other than as required under Paragraph A1.05.A.6, and any type of property surveys or related engineering services needed for the transfer of interests in real property; and providing other special field surveys. Any re-staking of previously staked construction survey work.~~
16. Providing Construction Phase services beyond the original date for final completion of the Work. Engineer will cause liquidated damages clauses to be placed in the construction contract to cover additional Engineer's services due to Contractor's activities beyond the Substantial and Final Completion date(s). Any of Engineer's additional services due to Contractor's activities beyond the Substantial and Final Completion date(s) that would not be covered by liquidated damages would require written acceptance by the Owner.
17. Providing assistance in responding to the presence of any Constituent of Concern at the Site, in compliance with current Laws and Regulations.
18. ~~Preparing and furnishing to Owner Record Drawings showing appropriate record information based on Project annotated record documents received from Contractor.~~
19. Preparation of operation and maintenance manuals.
20. Preparing to serve or serving as an Engineer or witness for Owner in any litigation, arbitration, or other dispute resolution process related to the Project.
21. Providing more extensive services required to enable Engineer to issue notices or certifications requested by Owner.
22. Other services performed or furnished by Engineer not otherwise provided for in this Agreement.

#### *A2.02 Additional Services Not Requiring Owner's Written Authorization*

- A. Engineer shall advise Owner that Engineer is commencing to perform or furnish the Additional Services of the types listed below. For such Additional Services, Engineer need not request or obtain specific advance written authorization from Owner. Engineer shall cease performing or furnishing such Additional Services upon receipt of written notice from Owner.
  1. Services in connection with Work Change Directives and Change Orders to reflect changes requested by Owner.



2. Services in making revisions to Drawings and Specifications occasioned by the acceptance of substitute materials or equipment other than "or-equal" items; and services after the award of the Construction Contract in evaluating and determining the acceptability of a substitution which is found to be inappropriate for the Project or an excessive number of substitutions.
3. Services resulting from significant delays, changes, or price increases occurring as a direct or indirect result of materials, equipment, or energy shortages.
4. Additional or extended services during construction made necessary by (1) emergencies or acts of God endangering the Work, (2) the presence at the Site of any Constituent of Concern, (3) Work damaged by fire or other cause during construction, (4) a significant amount of defective, neglected, or delayed work by Contractor, (5) acceleration of the progress schedule involving services beyond normal working hours, or (6) default by Contractor.
5. Services (other than Basic Services during the Post-Construction Phase) in connection with any partial utilization of any part of the Work by Owner prior to Substantial Completion.
6. Evaluating an unreasonable claim or an excessive number of claims submitted by Contractor or others in connection with the Work.
7. Services during the Construction Phase rendered after the date stated in A1.05.B, or in excess of the times specified in A1.05.A.18.
8. **Providing construction surveys and staking to enable Contractor to perform its work other than as required under Paragraph A1.05.A.6, and any type of property surveys or related engineering services needed for the transfer of interests in real property; and providing other special field surveys. Any re-staking of previously staked construction survey work.**
9. **Materials testing services during construction including density testing of street subgrade, crushed base, trench backfill, asphalt, and associated services. Concrete testing including temperature, slump, air content, compression tests and associated services.**



This is **Appendix 1 to EXHIBIT A**, consisting of 5 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated March 17, 2015.

## **Scope of Services**

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The following is the scope of services for this project:

For the purposes of this scope Construction Administration tasks are assumed to span from April 2015 to October 2015, generally the anticipated timeframe from Notice to Proceed through Final Completion. This schedule includes 130 days for construction and time associated with submittal review and coordination prior to start of construction and project closeout tasks after construction is finished. One full-time inspector is assumed to be onsite during all construction operations, with attendant support from the project engineer and project manager as appropriate. The following is a brief description of the tasks for this project:

### **1. Project Management, Administration and Closeout**

DOWL will consult with and advise the City of Gillette and act as the City's representative as provided in the Standard General Conditions of the Project Manual. The extent and limitations of the duties, responsibilities and authority of DOWL are covered in the Standard General Conditions and this Amendment. DOWL will act as initial interpreter of the requirements of the Contract Documents and make recommendations as to the acceptability of the work and act upon any claims submitted by the Contractor.

This task includes the following:

- a. **Project Management.** DOWL will provide project management services throughout the project. Project manager will coordinate all project work performed by the project engineer, inspector, and surveyor. Project manager will be responsible for administering project budget and preparing the Engineer's monthly pay requests to the City of Gillette.
- b. **Pre-construction Conference.** DOWL will conduct the Pre-construction Meeting. Responsibilities will include scheduling the meeting, preparing agenda, conducting the meeting, taking and distributing minutes, and providing overall coordination.
- c. **Filing and Correspondence.** All documents, correspondence, submittals, drawings, and other administrative records will be filed in a logical and retrievable filing system. DOWL will receive, log, stamp, route, and file all correspondence from the Contractor, City and other parties. Type, log, stamp, file, and transmit all letters, memoranda, and other correspondence, as necessary, to answer incoming correspondence and/or respond to specific construction issues.



- d. **Photographic Inventory.** Pre-existing site conditions will be documented by taking photographs and digital video. This documentation will be on file at DOWL's office throughout the duration of the project.
- e. **Field Orders.** DOWL will issue Field Orders as required. Field Orders will be issued for all changes in the scope which do not result in either an increase or decrease to the contract price or time. Field Orders may be needed to clarify the work or make adjustments in the work.
- f. **Change Orders and Work Change Directives.** If necessary, DOWL will issue and process Change Orders and Work Change Directives as required during the project. Upon review and agreement by all parties, Change Orders modifying the construction contract will be forwarded to the Contractor and the City for signature.
- g. **Claims.** If necessary, DOWL will review any claims filed by the Contractor or the City. The cost for administering or resolving claims beyond an initial assessment and response is not included in this project budget.

## **2. Resident Project Representative/Field Observation**

DOWL will provide construction observation and quality assurance monitoring during the construction phase of the contract. The purpose of construction observation is to enable DOWL to provide the City a degree of confidence that the completed work conforms to the contract documents, and that the integrity of the design concept as contained in the contract documents is implemented by the Contractor.

While DOWL is observing construction and communicating to the Contractor the observation of work which does not comply with the Contract Documents and any work the Engineer will not accept, we cannot guarantee the performance of the Contractor.

It is assumed one full-time representative will be onsite throughout the duration of construction of the project. In addition, DOWL's project engineer and project manager will be available as needed for construction related services and problem resolution. The following services will be provided as part of construction observation.

- a. **Field Meetings.** Project Engineer and Representative will participate in weekly field meetings (tailgate meetings) with the Contractor to address questions, conflicts, problems, schedules and the like. DOWL will make notes of these meetings; however no meeting minutes will be prepared or distributed.
- b. **Materials and Equipment.** Observe and visually inspect the materials, equipment, and supplies delivered to the project site.



- c. **Workmanship.** Observe the Contractor's work with respect to quality, suitability, and conformance with the requirements and codes of the Contract Documents, as well as with generally accepted levels of workmanship.
- d. **Observe Testing.** Observe test demonstrations of equipment and materials as required by the Contract Documents. This task is limited to observing routine construction tests such as leakage tests, pressure tests, compaction tests, etc.
- e. **Records/Reports.** DOWL's on-site representative will keep daily diaries, quantity ledgers, work force and equipment records, and maintain a photographic record of the work. In addition to the inspector's records, a submittal log and a file for all field notes, calculations, correspondence and test reports that occur during construction will be kept.
- f. **Substantial Completion.** When Contractor has completed installation of all surface features and the water system has been flushed, chlorinated and passed bacteriological tests, DOWL will review the overall project status and make a recommendation as to Substantial Completion. If the project is Substantially Complete, a Certificate of Substantial Completion with an attached punch list of remaining deficiencies and omissions will be prepared.
- g. **Final Completion and Closeout.** When the punch list has been addressed, DOWL's project representative will visit the site and verify completion. DOWL will then coordinate a final inspection with the City and Contractor when requested by the Contractor. When the project is complete, a Certificate of Final Completion will then be prepared for the Contractor's signature. Submittals from the Contractor for lien releases, waiver of claims, consent of surety to final payment, and a Contractor's Affidavit of Payment will be obtained. Upon satisfactory receipt of the Contractor's closeout documents, DOWL will recommend acceptance of the project by the City.
- h. **Submittals/Shop Drawing Review.** Shop drawings, material certificates and product literature are to be submitted by the Contractor. DOWL will index, log, review and distribute the documents as appropriate. The review of the shop drawings will be for compliance with the design concept of the project and in compliance with the information given in the Contract Documents. Such reviews or other action will not extend to means, methods, techniques, sequences or procedures of construction or to safety precautions and programs.
- i. **Monthly Pay Estimates.** Prepare the detailed monthly pay estimate for the construction work, consistent with the Contract Documents. The monthly pay estimate will be forwarded to the City for approval and payment.
- j. **Contractor's Progress Schedule.** Review Contractor's schedule updates for conformance with the contract documents.



### **3. Construction Surveying**

Necessary vertical and horizontal surveying control consistent with the requirement of the contract documents will be established. A listing of the coordinates and elevations of these points will be provided to the Contractor. The Contractor shall provide a minimum of 48 hours advance notice for construction staking. DOWL will provide the construction surveys listed below:

- a. Stake horizontal and vertical alignment of back of curb for corresponding street sections at 25 to 50 foot intervals.
- b. Stake horizontal and vertical alignment of new water lines at 50 foot intervals, as well as fittings, hydrants, valves, and other appurtenances as required for installation.
- c. Stake horizontal and vertical alignment of new sanitary sewer at 50 foot intervals, as well as manholes for installation.
- d. Blue top subgrade at 50 foot intervals on centerline and edge of the roadway where necessary.
- e. Blue top aggregate base course at 50 foot intervals on centerline and edge of the roadway where necessary.

### **4. Materials Testing**

In accordance with the City of Gillette Standard Construction Specifications, DOWL will coordinate and perform density testing of materials to provide quality assurance for this project. Materials testing shall include:

- a. Field compaction testing of trench backfill, street subgrade, crushed base, asphalt, curb and gutter and sidewalks. Approximately 600 tests are anticipated for this project.
- b. Soil sampling and generation of up to 10 modified proctor curves for use on the project.
- c. Sampling and testing of concrete to include up to 51 sets of slump/air/unit weight tests and 38 sets of cylinder molds and breaks.
- d. Sampling and testing of asphalt to include up to 5 Marshall density tests and asphalt gradations and 10 asphalt core samples.

Upon completion of the field tests, results will be reported to the Contractor so corrective actions can be performed, if necessary. This task includes costs for initial tests only. In accordance with the Contract Documents, re-tests due to failure are at the expense of the Contractor.

## **5. Post Construction Services**

DOWL will provide services associated with closeout of the project. This work shall include preparation of necessary closeout forms as required by the City of Gillette Standard Construction Specifications and record drawings in AutoCAD format.

- a. Record Survey. DOWL will perform a record survey of as-constructed surface features installed under this project including curb and gutter, sidewalk, water system appurtenances, storm inlets and manholes, and trickle channels. This information will be incorporated into the record drawings.
- b. Record Drawings. DOWL will prepare record drawings as part of the project closeout. These drawings will be prepared by utilizing record survey information, design drawings, records of authorized changes, field notes, Contractor's red-line drawings of record and photographs taken during construction. DOWL will provide the City of Gillette with three (3) 11x17 copies of the record drawings and one electronic copy of the record drawings in AutoCAD format in accordance with the City's established standards.
- c. Final Report. DOWL will prepare a final report as part of the project closeout. The final report will include combined testing results for street, water main, sewer main and street construction.
- d. Warranty Inspection. Approximately 11 months after Substantial Completion, the City and DOWL will make the warranty inspection of the project. If defects are found, the Contractor will be notified for correction. DOWL will make follow-up inspections.

END OF SCOPE OF SERVICES



This is **Appendix 2** to **EXHIBIT A**, consisting of 1 page, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated March 17, 2015.

## Proposed Schedule

