

AMENDMENT NO. 5
TO
CONTRACT FOR PROFESSIONAL ENGINEERING SERVICES
W.O. 19-42
WEST END WATER TREATMENT PLANT PROJECT

THIS AGREEMENT, made and entered into on _____, by and between the following:

CITY OF BILLINGS, a Municipal Corporation,
Billings, Montana 59103,
Hereinafter designated the City

and

Burns & McDonnell Engineering Company, Inc.
9785 Maroon Circle, Suite 400
Centennial, CO 80112
Hereinafter designated the Contractor

WITNESSETH:

WHEREAS, the City and Contractor have entered into a contract dated August 26, 2019, for Contractor to provide engineering services to the City for Work Order 19-42 West End Water Treatment Plant Project, and;

WHEREAS, the City has need for additional engineering services, and;

WHEREAS, the City has authority to contract for consulting engineering services, and;

WHEREAS, the Contractor represents that he is qualified to perform such services, is in compliance with Montana Statutes relating to the registration of professional engineers and is willing to furnish such services to the City;

NOW, THEREFORE, in consideration of the terms, conditions, covenants and performance contained herein, or attached and incorporated herein, the Parties hereto agree as follows:

Appendix A, Section 3. Include the attached Construction Phase Scope of Work additions based on a total project duration of 40 months:

- Construction Administration to include: running progress meetings; making periodic site visits; responding to RFIs; reviewing and approving Submittals; processing Contingency Use Requests, Field Change Directives, Engineer's Orders and Change Orders; preparing invoices; completing and following-up on substantial and final completion punchlists.
- Resident Project Representative and Start-Up Services to include a full time RPR (33 months), start-up assistance and equipment operations and training.
- Producing Conforming to Construction Records (As-Builts) and Project Closeout.

Appendix B, Section 1, Paragraph A. replace with the following:

ORIGINAL CONTRACT (August 26, 2019)

1. Task Series 100-800 – Preliminary Design	\$883,732
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AMENDMENT NO. 1 (April 26, 2021)

2. Task Series 1000 – Meetings and Project Management	\$444,614
3. Task Series 1100 – 30% Design	\$572,386
4. Task Series 1200 – CM/GC Selection	\$35,850
5. Task Series 1300 – Work Package 1	\$915,901
6. Task Series 1400 – Work Package 2	\$1,244,726
7. Task Series 1500 – Permitting	\$64,344
8. Task Series 1600 – Issued for Construction	<u>\$153,058</u>
WATER TREATMENT PLANT PROJECT TOTAL	\$3,430,879
9. Task Series 1700 – Pipelines Design	<u>\$347,463</u>
TOTAL, Amendment No. 1	\$3,778,342

AMENDMENT NO. 2 (August 27, 2021)

10. Task Series 1400 – Work Package 2	\$58,237
11. Task Series 1500 – Permitting	\$3,836
12. Task Series 1600 – Issued for Construction	<u>\$7,205</u>
TOTAL, Amendment No. 2	\$69,278

AMENDMENT NO. 3 (March 2, 2023)

A. Bidding services: Sanitary sewer mains	\$15,015
B. Membrane filter procurement & submittal review:	\$79,869
C. Rate escalation	\$87,506
D. Value engineering design efforts	\$76,309
E. Survey & Geotech for new WEWTP Site	<u>\$48,021</u>
TOTAL, Amendment No. 3	\$306,720

AMENDMENT NO. 4 (August 25, 2023)

13. Task Series 1800 – Design Scope Services	\$129,163
14. Task Series 1900 – Meetings and Early Construction Support	<u>\$218,794</u>
TOTAL, Amendment No. 4	\$347,957

AMENDMENT NO. 5

15. Task Series 3000 – Construction Administration Services	\$2,858,440
16. Task Series 3100 – RPR and Start-Up Services	\$2,303,544
17. Task Series 3200 – Conforming to Construction Records	<u>\$235,129</u>
TOTAL, Amendment No. 5	\$5,397,113

All other terms and conditions of the contract to which this amendment applies shall remain in full effect.

CONSULTANT

NAME: _____

BY: _____

TITLE: _____

DATE: _____

CITY OF BILLINGS, MONTANA

BY: _____

Mayor

DATE: _____

Basic Services of Engineer, Amendment No 5. City of Billings W.O. 19-42, West End Water Treatment Plant Project

Scope of Services

The following tasks summarize the scope of services for construction phase services for the West End Water Treatment Plant. The Zone 3 Pipeline construction phase services will be included in a separate amendment.

TASK 3000 SERIES - CONSTRUCTION ADMINISTRATION SERVICES

The Scope of Services described herein represents the Engineer's professional engineering activities necessary for engineering services during construction and post-construction activities. Engineer's construction administration services will in no way relieve the City's Contractor(s) of their obligations for complete compliance with the drawings and specifications. Engineer shall not make exhaustive or continuous on-site assessments to check the quality or quantity of such work. Engineer shall not be responsible for the means, methods, techniques, sequences, or procedures of Contractor, or for their safety precautions and programs incident to their work. Engineer shall not be responsible for the failure of Contractor to perform the work in accordance with their Contract Documents. Notwithstanding the foregoing, if Engineer becomes aware of any deficiencies or defects in the work, or any lack of conformity of the work to the drawings and specifications, Engineer will bring such deficiencies, defects, or lack of conformity to Owner's attention.

Insofar as job site safety is concerned, Engineer is only responsible for its employees' activities on the job site, and this shall not be construed to relieve Owner or any Contractors from their responsibilities for maintaining a safe job site. Neither the professional activities of Engineer, nor presence of Engineer or its employees and subcontractors shall be construed to imply Engineer has any responsibility for methods of work performance, superintendence, sequencing of construction, or safety in, on or about the job site. Owner agrees that the Contractors are solely responsible for job site safety, and this intent shall be made evident in Owner's agreement with all Contractors. Owner and Engineer shall be made additional insureds under the Contractors' general liability insurance policy.

Engineer will not be a party to any construction contract and all authority and responsibility to stop work belongs to the Owner. Engineer shall not be liable for the results of any interpretations or decisions rendered by it in good faith when acting as an arbitrator or interpreter of the design documents; provided, however, that all interpretations and decisions of Engineer shall be consistent with the intent of, and reasonably inferable from, the design documents and shall be in writing or in the form of drawings.

By recommending any payment to others, Engineer will not thereby be deemed to have represented that continuous or exhaustive examinations have been made by Engineer to check the quality or quantity of the work or to review the means, methods, sequences, techniques or procedures of construction or safety precautions or programs incident thereto or that Engineer has made an examination to ascertain how or for what purposes any person(s) has used the

moneys paid on account, or that title to any of work, materials or equipment has passed to the Owner free and clear of any lien, claims, security interests or encumbrances, or that others have completed their work exactly in accordance with the Contract Documents. Notwithstanding the foregoing, it is agreed that, by recommending any payment to others, Engineer does thereby represent that, based on Engineer's evaluation of the work and the data comprising the Contractor's Application for Payment, that, to the best of Engineer's knowledge, information and belief, the work has progressed to the point indicated, the quality of the work is in accordance with the design documents, that the Contractor is entitled to payment in the amount certified by Contractor, and that Engineer knows of no legitimate reason that such payment or any part thereof may or should be withheld.

Task 3001 – Overall Project and Construction Administration

This task includes office administrative tasks to be performed throughout the construction phase including:

- Receive and review submittals provided by the Contractor in accordance with the Issued for Construction design documents. Maintain and transmit reviewed documents to the City and copy the City's project manager with test results.
- Provide the City's project manager with observations regarding defects or deficiencies in the Contractor's work relating to compliance with Issued for Construction design documents.
- Preparation of Engineer's monthly invoices and cover sheet.

The total construction phase for this project is anticipated to be 40 months in duration. If the Contractor's approach to the project requires more than 40 months to complete, the additional work related to this task shall be considered as additional services.

Task 3002 – Pre-Construction Conference

Engineer will prepare the pre-construction conference agenda, attend and run the meeting, and take, prepare, and distribute meeting minutes. It is anticipated that the pre-construction meeting will be in-person and attended by the City, the Contractor's project manager and the Engineer's project manager, process engineer, and resident project representative.

Task 3003 – Construction Progress Meetings

Engineer will prepare the meeting agendas, attend and run the meetings, and take, prepare, and distribute minutes for a 174 week construction period on a weekly basis. It is anticipated that the construction meetings will be attended by the City's project manager, the Contractor's project manager, the Engineer's project manager, the Engineer's project engineer, and the Engineer's resident project representative. The Engineer's project manager will attend 25% of the meetings in-person and 75% remotely. The Engineer's resident project representative will attend the meetings in-person. The level of effort assumes that every other meeting may also be attended by a support discipline remotely. The resident project representative hours are included in Task 3101. Labor assumptions for project manager, project engineer, and support disciplines are a total of six and a half (6.5) hours per meeting. Labor assumptions assume that the in-person meetings for the project manager will coincide with Task 3004.

Task 3004 – Periodic Site visits by Project Manager or Project Engineer

This includes one (1) site visit per month for one (1) discipline engineer, one (1) site visit per month for the project manager and two (2) site visits per month for the project engineer for a 174 week construction period. Each site visit is assumed to be twelve (12) hours in duration, including travel.

Task 3005 – Answer Contractor’s Question through written RFI process

Engineer will provide formal responses to RFI’s to the Contractor and the City. This includes written response to 160 RFI’s with a review, determination, and response time of approximately four (4) hours per RFI.

Task 3006 – Submittal and Resubmittal Reviews

Engineer will review material submittals for the project and provide a response and status for each submittal. Engineer expects approximately 400 different submittals from the Contractor. It is assumed that each submittal will require an average of three (3) hours review and response time for the first submittal and one (1) hours for resubmittals (two resubmittal per submittal).

Task 3007 – Contingency Use Requests, Field Change Directives, Engineers Orders, and Change Order Preparation for Owner Approval and Execution

At the request of the City’s project manager, Engineer will review Contractor’s requests for work change directives and change orders and provide a summary of their review and/or recommendations to the City. The Engineer’s review will be focused on whether or not the scope associated with the change order should have been originally contemplated and included in the Contractor’s price. This task assumes ten (10) change orders, forty (40) contingency use requests, and twenty (20) engineers’ orders at an average review and response time of fifteen (15) hours per order.

Task 3008 – Substantial Completion Inspection and Punchlist

Engineer will participate in the field walks of the site with the City and the Contractor. Engineer will generate a punchlist of incomplete and construction items to correct in the field and prepare the substantial completion letter with final completion requirements outlined. The fee assumes twelve (12) hours each for four (4) discipline engineers, the project engineer, and the project manager to perform the inspections. The task also includes punch list preparations, and certificates of substantial completion.

Task 3009 – Final Completion Inspection and Punchlist

Once the Contractor has indicated that they have corrected the punchlist items, a final field visit will be conducted to confirm that the work is complete. Based on the findings, final punch list letters of completion will be prepared and submitted. The fee assumes two (2) discipline engineers, the project engineer, and the project manager each require twelve (12) hours to perform the final inspection and develop final completion letter.

TASK 3100 SERIES - RESIDENT PROJECT REPRESENTATIVE AND START-UP SERVICES

Provide a full time Resident project representative as indicated below:

Task 3101 – Full-Time Resident Project Representative

Engineer will provide a resident project representative to observe and record the construction progress and quality of the work as is reasonably necessary at various stages of construction to determine if the work is proceeding in general accordance with the design documents. The resident project representative will be on site for 33 months of the construction period. It is assumed the RPR will be on-site for 9 hours a day, 5 days a week for 75% of the project. For the remaining 25% of the project, it is assumed the RPR will be on-site for 8 hours a day, 6 days a week. The construction period assumes 6,543 hours.

The resident project representative will:

- Provide observation of construction progress and of the quality of the work as is reasonably necessary at various stages of construction to determine if the work is proceeding in general accordance with the design documents.
- Examine and review delivered and on-site materials for conformance with the design documents and approved submittals.
- Prepare and submit daily construction observation reports to the City on a weekly basis.
- Provide construction photos of construction activities.
- Conduct weekly progress meetings, provide meeting agendas, and take and distribute meeting minutes.
- Participate with Contractor and Owner regarding start-up, testing, and commissioning. The Contractor will be responsible for start-up, testing, and commissioning.
- Report to Project Engineer, opinions and suggestions based on observations regarding defects or deficiencies in the work and compliance with drawings and specifications.
- Advise Project Engineer and Contractor immediately of any work requiring shop drawing review prior to work commencement.
- Observe and document differing subsurface and physical conditions encountered.
- Review Contractor's construction schedule for conformance with milestones, and other project requirements.
- Observe onsite quality assurance testing and maintain copies of testing results on site.
- Review as-built construction mark-ups on a weekly basis to observe if contractor is accurately documenting field changes to the work in a common set of drawings/specifications.
- Conduct special inspections of the following:
 - Reinforced steel
 - Anchors cast in concrete
 - Anchors post installed in concrete
 - Concrete mix design
 - Concrete placement
 - Inspection of formwork
- The following special inspections will be provided by the Contractor and are not the responsibility of Engineer:
 - Fabricate specimens for strength, perform slump, air content and temperature.
 - Verification and inspection of soils by the geotech.
 - Verification of f'm
 - Verifications of grout and mortar are in compliance with the specifications
 - Structural steel welding

Task 3102 – Pre-Start-Up Workshop:

To aide in the start-up planning, the project manager and project engineer will conduct a pre-start-up planning workshop with the Owner and Contractor prior to introducing water into each process at the facility.

Task 3103 – Start-up Assistance

This task includes assisting City staff and the Contractor in starting up the treatment facility. It is assumed that this task will involve reviewing the Contractor's procedures for bringing the facility online. Labor assumptions for this task includes twelve weeks of start-up assistance, broken into twelve trips each of a one-week duration. It is assumed the process engineer will attend all the visits and half of the visits will include the project manager or the electrical engineer.

Task 3104 – Equipment Operations Training:

Equipment training requirements shall be included within the contract documents. The Contractor shall be responsible for ensuring that equipment vendors complete the training requirements as outlined in the contract documents.

TASK 3200 SERIES - CONFORMING TO CONSTRUCTION RECORDS

Task 3201 – Prepare and Furnish Conforming to Construction Records:

Following the construction of the West End Water Treatment Plant, and prior to recommendation of the final payment to the Contractor, the Contractor will be required to provide a complete set of red lined drawings indicating any changes that took place in the field during construction of the project.

Burns & McDonnell will prepare conforming to construction drawings from the Contractor supplied redlines. A hard copy, pdf copy, point files and/or AutoCAD files of the information will be provided to the City.

Task 3202 – Project Closeout

This task includes provisions for the project manager to close out each projects documentation. This task will be conducted in the office and will include final coordination with the Contractor, punch list items, final payment, conforming to construction drawings, and other documents required by the contract documents for final completion and final payment.