

**AMENDMENT NO. 18
TO
CONTRACT FOR PROFESSIONAL ENGINEERING SERVICES**

THIS AMENDMENT, by and between the City of Okanogan, Washington, hereinafter referred to as the Agency, and Gray & Osborne, Inc., hereinafter referred to as the Engineer, hereby modifies the contract for engineering services dated (by Agency) July 16, 2013, for additional services related to the Agency's On-Call Engineering Services.

Water System Plan

See attached Exhibits A and B for scope and fee. The total estimated engineering cost to provide these services is \$60,000 as shown on Exhibit B.

IN WITNESS WHEREOF, the parties hereto have executed, or cause to be executed by their duly authorized officials, this AMENDMENT to the Contract for Engineering Services in duplicate on the respective dates indicated below.

GRAY & OSBORNE, INC.

CITY OF OKANOGAN

By: 
(Signature)

By: _____
(Signature)

Name: Michael B. Johnson, P.E., President
GRAY & OSBORNE, INC.

Name: _____
(Print)

Date: 12/19/23

Date: _____

"Equal Opportunity/Affirmative Action Employer"

EXHIBIT A

SCOPE OF WORK

CITY OF OKANOGAN WATER SYSTEM PLAN

This Scope of Work presents the professional engineering services requested by the City of Okanogan (City) for updating the City's Water System Plan (Plan). The updated Plan will be prepared in accordance with Washington State Department of Health (DOH) regulations (WAC 246-290). Per current DOH rules, the new Plan will be developed with a 10-year planning period, in lieu of the 6-year planning period under which the previous plan was developed. It is our understanding that this Plan update will be funded by the City. The project will include the following tasks:

TASK 1 – PROJECT MANAGEMENT

This task will incorporate overall project management, as well as in-house quality assurance and quality control (QA/QC) reviews of all documents. Project management includes oversight of the project budget, schedule, and deliverables. QA/QC reviews of the Plan documents will include review of project milestones, deliverables, budget, and schedule by both project and non-project engineers. This task will also include attending the pre-planning meeting with the City and DOH and one intermediate review/coordination meeting with City staff.

TASK 2 – WATER SYSTEM PLAN

The Plan will incorporate previous capital improvements completed by the City, and will provide a regulatory update based on water quality regulations and DOH compliance actions. The following outline is proposed for the Plan:

Chapter 1 – Description of Water System

This chapter will describe general background of the City's existing water system, an inventory of the City's water system infrastructure, and information on current service area, water rights, and service area policies.

Chapter 2 – Basic Planning Data

This chapter will identify current population and water consumption and will project future water demands based on growth projections for the City.

Chapter 3 – System Analysis

This chapter of the Plan will evaluate the ability of the City's existing water system to meet current and future water demands. This evaluation will include analysis of water quality, water rights, sources (wells), storage (reservoirs), booster pumping, distribution, treatment, and telemetry. The results of the analyses will be used to identify improvements necessary to satisfy existing and

future needs. The distribution system analysis will include development of a water system hydraulic model to evaluate pressures and fire flows under current and projected water demands. For the purposes of this scope, it is assumed that one day of hydrant flow testing will be required with assistance from City staff for data acquisition to be used in calibration of the water system model.

Chapter 4 – Water Use Efficiency

This chapter will summarize steps the City has taken toward meeting the requirements of the Water Use Efficiency Rule and will assist the City in identifying water use efficiency goals and measures to achieve them, which are consistent with WAC 246-290-810. Other water use efficiency program requirements as outlined in the DOH Water Use Efficiency Guidebook will be addressed in this chapter.

Chapter 5 – Wellhead Protection Plan

This chapter will provide an update of the City’s wellhead protection plan and wellhead protection areas using the calculated fixed radius (CFR) method. It will also include supporting the City in updating the potential contaminant source inventory, and assisting the City with template letters to agencies and potential contaminant source owners.

Chapter 6 – Operations and Maintenance

This chapter will include the City’s most current Operation and Maintenance (O&M) procedures. It will also include a summary of the City’s responses to DOH’s last sanitary survey and a summary of O&M deficiencies. This scope of work assumes that only minor updates will be required for this chapter and that all associated O&M documents (e.g., Coliform Monitoring Plan) will be provided by the City.

Chapter 7 – Construction Standards

This chapter will provide a copy of the City’s current water system construction standards. These standards will enable the City to construct future distribution related projects without having plans reviewed by DOH. The City’s current standards are assumed to be sufficient for this submittal.

Chapter 8 – Capital Improvement Plan

This chapter will summarize improvements needed to correct the deficiencies identified in previous chapters and will provide a schedule for implementing the improvements needed for the 10- and 20-year planning periods. It will also include an estimate of probable project costs for each of the improvements.

Chapter 9 – Financial Analysis

This chapter will summarize the City’s water rates, connection charges, revenues and expenditures for the last 5 years. It will also provide a financing plan for the 10-year planning period that will show how the improvements identified in Chapter 8 will be financed, and how rates might be affected over the next ten years.

Appendices – Supporting Documentation

Supporting documents including the City’s Water Facilities Inventory form, water quality monitoring report, consistency statements, a SEPA checklist, and cost estimates will be included in the Plan.

TASK 3 – REGULATORY APPROVAL

Copies of the draft Plan and necessary supporting documentation will be submitted to DOH and other interested entities such as the Department of Ecology, Okanogan County Planning Department, and subsequent to incorporation of public and City input. To obtain that input, this scope of work includes one meeting each with City staff and the City Council prior to submittal of the draft Plan.

After receiving agency review comments, the comments will be incorporated into the final draft, in coordination with City staff and the agencies. Once complete, assistance will be provided to the City in the adoption of the Plan and with final submittal to DOH. After receipt of DOH approval, the City will be furnished with two hard copies of the final Plan and one digital copy in pdf format.

DELIVERABLES

The following deliverables will be provided to the City and the appropriate agencies, as noted below, for review and approval:

- Draft Water System Plan (90-percent completion)
 - City of Okanogan
- Draft Water System Plan (for agency review)
 - Department of Health
 - Department of Ecology
 - Okanogan County Planning Department
- Final Water System Plan
 - City of Okanogan
 - Department of Health

SCOPE EXCLUSIONS

The following services are not included in this contract. If desired by the City, they will be added under a future agreement.

- A. Update of the City’s Construction Standards.
- B. Update of City planning or O&M documents (i.e., Cross-Connection Control Plan, Coliform Monitoring Plan, Lead and Copper Monitoring Plan, Disinfection Byproducts Monitoring Plan, Shortage Response Plan, etc.).
- C. Field survey or mapping of City facilities.
- D. Consumption, production, or finance data collection or extensive manipulation on behalf of the City.
- E. Operation of hydrants and valves for hydrant flow testing associated with calibration of hydraulic model.
- F. Posting to Ecology’s SEPA registry and publication of a SEPA checklist and DNS and associated costs.
- G. Review costs associated with the regulatory agencies’ review of the Plan.

SCHEDULE

<u>Task</u>	<u>Date</u>
Anticipated Notice to Proceed:	January 2, 2024
City-provided information provided to G&O:	February 1, 2024
90 Percent Draft to City:	October 1, 2024
Draft Submittal to Health:.....	November 1, 2024

Note: The ability to meet this schedule largely depends on a timely response to the request for City-Supplied Information as noted in the following section.

CITY-SUPPLIED INFORMATION

Information provided for previous planning documents and reports will be used as a foundation for the Plan. However, up-to-date information from City's records will also be necessary. This information will include, but not necessarily be limited to, the following:

Planning Information

A. Related Documents

A current copy of the following plans, agreements, or documents that the City has available:

1. Comprehensive Plan
2. Copies of all interagency and interlocal agreements
3. Copies of all water sharing or wholesale agreements
4. Land Use and Zoning Mapping
5. Service Area Policies
6. Cross-Connection Control Plan
7. Coliform Monitoring Plan
8. Lead and Copper Monitoring Plan
9. Disinfection Byproducts Monitoring Plan
10. Operation and Maintenance Plan
11. Wellhead Protection Plan
12. Emergency Response Plan
13. Shortage Response Plan
14. Construction Standards
15. Copies of City water rights and/or Colville Nation permits documentation
16. Consumer Confidence Report

B. General Planning Information

1. Number of service connections for each customer classification.
2. The City's anticipated growth rate or expected future water use for each non-residential customer classification.
3. The City's best estimate as to where growth will occur in the next 10 and 20 years.

C. Water Production Data

The following records for the years 2015-2023:

1. Monthly water production records from each source, including daily production readings for the maximum usage days.
2. Monthly and annual metered water consumption records by customer classification and meter size, and pressure zone.
3. Monthly consumption records for the 15 largest water users.

D. Fire Flow Data

1. Required fire flow as determined by City ordinance or the Fire Chief.
2. System operating information during fire flow testing including well status and flow rates, reservoir levels, control valve settings, and water consumption by large users.

E. Mapping

Hardcopies or electronic copies of the following mapping:

1. Updated mapping of the City's water system, including water main size and type, hydrants, isolation valves, control valves, booster pumps, wells, treatment facilities, reservoirs, and interties.
2. Updated mapping, as available, of the City, showing property lines, easements, roads, topographic information, and land use and zoning information.
3. Maps showing new or planned developments.

Operation and Maintenance

- A. Up-to-date information on the City's wells and booster pumps, including pump type, pump manufacturer, pump history, pump speed, motor type and size, rated head, rated flow, available pump curves, trim diameters, and number of stages.
- B. Up-to-date information on the City's telemetry system.
- C. Set points for all water system facilities, including reservoirs, well pumps, booster pumps, and control valves.
- D. Any corrections to the City's Water Facilities Inventory form.
- E. A copy of the City's cross connection control ordinance, the City's cross connection control plan, a list of identified, installed backflow prevention devices, and a summary of the testing results of each.
- F. Any known problems or deficiencies in the water system including areas of unacceptably high or low pressure, storage or pumping limitations, insufficient pipe sizes, etc.
- G. A copy of the City's most recent sanitary survey and measures taken to resolve deficiencies.
- H. The City's current potential contaminant source inventory associated with the Wellhead Protection Plan.

- I. A copy of the City's existing Water Use Efficiency program (if altered since previous Plan) and most recent Water Use Efficiency Report.
- J. Any recent available water quality monitoring data, including bacteriological, inorganics, asbestos, VOCs, SOCs, lead/copper data, radionuclides, nitrates, and chlorine residual data.

Financial Information

The following financial information for the fiscal years from 2015-2023:

- A. Year-end revenue and expense reports for the water fund, applicable capital improvement funds, and bond payment/reserve funds.
- B. Revenue by customer class for the most recent year.
- C. Any water system debt schedules, terms of debt services, and ordinances.
- D. Copies of water rates and connection charges.

BUDGET

The maximum amount payable to the Engineer for completion of work associated with this Scope of Work, including contingencies, salaries, overhead, direct non-salary costs, and net fee shall be as shown in Exhibit B. This amount shall not be exceeded without prior written authorization of the City.

EXHIBIT B

ENGINEERING SERVICES SCOPE AND ESTIMATED COST

City of Okanogan - Water System Plan

Tasks	Principal Hours	Project Manager Hours	Civil Eng. Hours	AutoCAD/ GIS Tech./ Eng. Intern Hours
1 Project Management				
Project Management		16		
QA/QC	6	16	16	
2 Water System Plan				
Description of Water System		2	16	40
Basic Planning Data	2	4	40	
System Analysis	2	4	64	
Water Use Efficiency		2	4	
Wellhead Protection Plan		2	4	4
Operation and Maintenance			4	
Construction Standards			4	
Capital Improvement Plan	2	8	40	16
Financial Analysis	2	4	24	
Supporting Documentation			4	
3 Regulatory Approval				
Regulatory Response	2	4	8	4
Plan Finalization		2	8	
Hour Estimate:	16	64	236	64
Fully Burdened Billing Rate Range:*	\$150 to \$235	\$140 to \$235	\$115 to \$155	\$60 to \$165
Estimated Fully Burdened Billing Rate:*	\$205	\$195	\$144	\$140
Fully Burdened Labor Cost:	\$3,280	\$12,480	\$33,984	\$8,960

Total Fully Burdened Labor Cost: \$ 58,704

Direct Non-Salary Cost:

Mileage & Expenses (Mileage @ current IRS rate) \$ 1,296

TOTAL ESTIMATED COST: \$ 60,000

* Actual labor cost will be based on each employee's actual rate. Estimated rates are for determining total estimated cost only. Fully burdened billing rates include direct salary cost, overhead, and profit.