

Civil & Environmental Engineers

September 20, 2023

Steven Whittlesey  
Senior Civil Engineer  
Department of Public Works and Sanitation  
County of Nevada  
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SUBJECT: NORTH SAN JUAN FIRE SUPPRESSION SYSTEM ENGINEERING SERVICES –  
PROPOSAL FOR AMENDMENT TO PROFESSIONAL SERVICES CONTRACT

Dear Steven:

Thank you for the opportunity to provide this Proposal for Amendment to Professional Services Contract for the North San Juan Fire Suppression System Engineering Services. Having worked with the County on this project for close to three years, Sauers Engineering, Inc. has utilized its original budgets. Most of the pre-design work has been completed, however much of that work was beyond the original scope of the project.

Engineering services for the North San Juan Fire Suppression System were based on the “North San Juan Fireflow Feasibility Study” completed by Sauers Engineering in 2016. The result of the Feasibility Study was a recommend project including a water storage tank and well on BLM property near the transfer station, approximately 1,050 feet of pipeline along Flume Street, and approximately 1,440 feet of pipeline and three fire hydrants along Highway 49. As currently envisioned, the project will include the tank on North San Juan Methodist Church (NSJMC) property, a well on North San Juan Fire Protection District property, approximately 1,040 feet of pipeline along Flume Street, approximately 2,760 feet of pipeline along various streets and parcels, and ten fire hydrants. To be clear, all of the changes have resulted in an improved overall project, however they have also led to increased engineering costs.

### **Project History**

A number of tasks have been added and/or expanded during the course of the project. Most of these additions have been as a result of the new tank location and the increased length of pipe and number of fire hydrants. These include:

- ▶ As a result of the expanded project, the Draft Project Report (DPR) had to be significantly revised, especially the preliminary project plans and cost estimates. In support of the County’s on-going efforts to secure funding for the project, the cost estimates have been revised a number of times, mostly due the volatility in costs of materials and construction over the last two-plus years. Finalizing the DPR will require revisiting and revising the plans, project descriptions, and cost estimates at least one more time.

- ▶ The original scope included evaluation of two tank sites. This task was completed, including meetings with the respective property owners, and in the case of the BLM site, preliminary survey work to establish property corners and preliminary site plans were completed. When the Methodist Church site came into consideration, this work had to be repeated.
- ▶ The 2016 Feasibility Study included pipeline plan/profile sheets for the various pipeline alignments evaluated, including the 1,440 foot Highway 49 alignment which was the recommended project. The original scope anticipated utilizing those plan/profiles for the new pipeline design, however, with the realignment and expansion of the pipeline as currently proposed, new sheets for 2,760 feet of pipeline will have to be prepared.
- ▶ The Fire Suppression Fee Study was anticipated to include a limited number of parcels in the commercial core area along Highway 49 to be served by the original three fire hydrants. The study area zone of benefit has expanded to 135 parcels based on service from ten fire hydrants.
- ▶ The original term of the contract was less than one year. As we approach the three year mark, the time spent on general consulting and ongoing team meetings has also increased significantly from what was originally anticipated.
- ▶ Preparation of exhibits for public meetings was not anticipated in the original scope.
- ▶ Our scope for the environmental review process was to review and comment on documentation to be prepared by others. Preparation of mapping and plans for the environmental review and management plan was not anticipated in the original scope.
- ▶ The additional pipeline and hydrants will require additional survey and design effort for preparation of design drawings, plan/profile sheets, and construction details.
- ▶ Based on the geotechnical investigation of the proposed NSJMC tank site, a more sophisticated foundation design will be required for the tank. We will contract with NV5 as our subconsultant for design of the foundation system including plans, and specifications. This was not anticipated in our original scope.

### **Remaining Scope**

As of today's date, the following work needs to be completed:

Draft Project Report - The most recent version of the Draft Project Report was submitted to the County on 8-26-22. Based on changes in the project since that time, the report will require one more round of revisions and the estimated project costs will have to be updated.

Fire Suppression Fee Study - Depending on the final criteria for determining eligibility of parcels in the Zone of Benefit, the calculation of the fee will have to be revised and the report finalized.

Zone of Benefit Survey Mapping and Description - Following final determination of the Zone of Benefit boundaries, the map and boundary description will have to be prepared. The original scope anticipated a very limited number of commercial properties along the Highway 49 corridor benefitting from the proposed fire system. With the 135 parcels in the Zone of Benefit as currently proposed, the level of effort required for the mapping and boundary description has also expanded.

Waterline Easement Descriptions and Mapping - There are five parcels that will require water pipeline easement descriptions and mapping.

Project Plans and Specifications - Preliminary design is essentially complete including the tank and pipeline layouts and topographic survey. Design drawings for the tank, tank site, pipeline, fire hydrants, and well need to be prepared.

Tank Foundation Design by NV5 - We will engage NV5 as a sub-consultant to Sauers Engineering for the design of the tank foundation.

County Special Provisions and Bid Forms (not a part of the original scope) - Using a template provided by the County, we will prepare Contract Special Provisions, bid forms and documents, as well as an Engineer's Estimate.

Easement Negotiations (not a part of the original scope) - We will assist the County in negotiating pipeline easements on affected properties. Tasks will include contacting property owners, coordinating appraisals, and preparing easement documentation.

Permitting Services (not a part of the original scope) - We will provide services related to permitting including County Well Permit, Construction General Permit (if required), Building Permit (if required), and Caltrans Encroachment Permit.

Bidding Services (not a part of the original scope) - Engineering services during project bidding will include:

- Answering bidder's questions
- Developing addenda to be issued by the County if appropriate
- Attending pre-bid project tours and meetings
- Assisting the County in evaluating bids received

Construction Services (not a part of the original scope) - Engineering services during construction will include:

- Attend Pre-Construction meeting with County and contractor
- Respond to contractor RFIs
- Review shop drawings
- Periodic observations to confirm compliance with project plans and specifications
- Assistance with processing Field Orders and Change Orders if required
- Preparing Record Drawings based on contractor's mark-ups

### **Engineer's Fee**

In order to complete the outstanding project tasks included in the contract along with additional services not covered in the original contract, we are proposing an increase to the project budgets as shown below:

<u>Task</u>	<u>Fee</u>
Draft Project Report	\$ 2,100
Fire Suppression Fee Study	\$ 1,500
Zone of Benefit Survey Mapping and Description	\$ 3,250
Waterline Easements (5 parcels X \$1,250 ea.)	\$ 6,250
Project Plans and Specifications (inc. NV5)	\$ 27,900
Easement Negotiations	\$ 5,000
Bidding Services (inc. Bid Documents)	\$ 5,600
Construction Services	\$ 11,500
On-going Meetings, Public Meeting, BOS Meeting	\$ 3,000
Permitting Services	<u>\$ 11,000</u>
<b>Total Contract Amendment</b>	<b>\$ 77,100</b>

**Closure**

Thank you for the opportunity to provide this Proposal for Amendment to Professional Services Contract for the North San Juan Fire Suppression System Engineering Services. I appreciate the opportunity to continue working on this very important project for the North San Juan community and look forward to its successful completion. I am available to discuss this project and the proposed engineering services with you at your convenience.

Yours truly,



Keith Knibb, P.E.  
Sauers Engineering, Inc.