

MEMO



To: Mayor and Board of Trustees
From: Ted Cherry, Town Manager
Date: 09/10/2024
Re: NSA WTP CHANGE ORDER / TOWN MANAGER
7:10 PM
Department Town Manager
Time of Agenda Item 7:10 PM
Agenda Request No. 4.

Subject
NSA WTP CHANGE ORDER / TOWN MANAGER
7:10 PM

Summary

SGM has been workign through the design on the new Norsth Service Area Water Plant. We are currently in the final phases of the design and working on the funding items needed for the plant.

There has been some extra work performed by SGM on the design and a change order is needed to fund those items. Specifically at the 30% design point there was value engineering done based on estimated costs that reduced the cost of the plant. The change order presented represents approximately 9% of the original contract costs.

A memo from SGM has been provided explaining each section of the costs involved with the change order.

Financial

\$129,025 in additional costs on the design of the NSA Water Treatment Facility

Recommendation

Manager would recommend the change order for services provided by SGM for the design of the Water Treatment Facility for the NSA.

Attachments

NSA Design Change Order Request

August 13, 2024

Ted Cherry
Town Manager
Town of Granby
P O Box 440
Granby, CO 80446

RE: North Service Area WTP Design – Proposed Amendment

Dear Ted:

This letter seeks formal authorization from the Town for changes to SGM's work scope and budget for this project. By way of background, SGM's work for NSA WTP final design, permitting, funding, and bidding services was authorized by the Town's Work Order 2023-013 on August 23, 2023 with an overall budget of \$1,398,500.

With a project of this scale and complexity, it is not uncommon for the need for the scope of a design professional to change in order to achieve the owner's overall project goals and deliver value. It is also not uncommon for important work efforts to be completed expeditiously in advance of formalizing changes to the professional services contract scope and budget. This is often done in the interest of achieving progress on a project schedule, the maintenance of which has yet greater cost implications. Such is the context of this request. The vast majority of the work for which additional contract scope and budget is being requested, has, in fact, already been completed.

The remainder of this proposed contract amendment describes the scope changes and requested budget amounts.

Scope Additions.

Existing Phase 02B, Open Space Parcel Subdivision - Scope Increase. This is the phase under which the Town originally authorized SGM to work on a time and materials basis to help it with re-zoning and platting of what has been a single Town-owned Open Zone-designated parcel that contains the existing NSA WTP, multiple ballfields, Park Lane, the land that the train museum occupies, and other adjacent ground. We estimated a budget of \$22,500 for the original work scope, which assumed, based on early discussions with Town staff, that a Minor Subdivision process would suffice. Such a process is primarily a land survey exercise to get to an approved Final Plat. However, the process evolved significantly along the way, most notably with a determination by the Town Attorney that a Major Subdivision process instead was more appropriate.

With a Major Subdivision process comes the need for evaluating and mapping the floodplain limits over the entire parcel, which created significant additional mapping, topography, hydraulic engineering, and reporting work. It also entailed additional utility research, coordination and drawing production work. The Major Subdivision process requires a Sketch Plan and a Preliminary Plat. While the Town eventually decided to waive the Sketch Plan process, that was only after SGM's efforts to meet this requirement had begun. Furthermore, SGM participated in numerous discussions and meetings and performed research during the Town's process to determine its final approach related to zoning. Initially, the thought was that there would be a zone district change, but that ultimately turned into changing the uses allowed in the Open zone designation. Finally, there was coordination and work, not originally envisioned, to appropriately carve out the parcel just west of Hwy 40 and east of the ballfields for the planned kennel property (Lot 4). This created the

need for new easements for raw and drinking water transmission lines to be platted on Lot 4.

Through August 13, which includes the generation and submission of a Final Plat for Town Planning Commission and BOT review and consideration, total fees accumulated are \$36,100 of which \$31,638 have been invoiced. We recommend the Town budget an additional \$3,000 (also to be invoiced on a T&M basis) in future SGM support to get to the point of Final Plat approval. That brings the revised total budget for this work to \$39,100. *We are seeking a budget modification for this work of \$39,100 - \$22,500 = \$16,600.*

New Phase 12, Task 01, Contractor Cost Estimating Services Research. Following a November 20, 2023 meeting with Town staff and several board members at which the original 30% design and cost estimate were reviewed, it was determined that value engineering (VE) of the design would be required in order to reduce the estimated construction cost. Because of the time required to complete such VE work, the design schedule needed to extend out, which would not allow for bidding to occur before the then-target June 2024 SRF application date. Before it was later determined for additional reasons that an SRF application date of January 2025 would be better, the Town was interested in exploring the engagement of a potential 3rd party construction cost estimator to inform the amount of its SRF loan request for a June 2024 application.

For this reason, SGM contacted three Colorado-based water treatment plant contractors and one professional construction cost estimating firm to inquire about availability, interest, turnaround time and rough cost of preparing an independent, or reviewing an SGM-prepared, construction cost opinion. SGM also coordinated with State Revolving Fund (SRF) representatives about procurement requirements for such services, particularly if the provider ultimately wanted to maintain eligibility to bid the construction project later on. SGM summarized the results of the work in an email to Town staff and discussed pros/cons. Due to the cost of the 3rd party cost estimating services and the fact that the Town ultimately decided to pursue a January 2025 SRF application date that would allow it to acquire hard bids on project construction before submitting a loan request, the Town decided not to pursue the 3rd party construction cost estimating services.

SGM completed this work on a T&M basis and is seeking a \$1,310 budget modification, which equals the total amount invoiced under this task.

New Phase 12, Task 02, Value Engineering Analysis & Decision Support. As a result of the same November 20, 2023 meeting noted above, SGM interrupted the design progress after submission of the 30% milestone package and shifted to identifying and evaluating options to reduce project construction costs. These included eliminating the planned raw water intake improvements and dedicated raw/irrigation water pump station as well as significant changes to the treatment building footprint and materials as well as the treatment process layout, production capacity, provisions for future expansion, extent of occupied spaces, extent of driveways, type of soda ash storage/feed system, and others. The work involved developing the concepts for the changes, quantifying their associated construction scope impacts, estimating construction cost reductions from those impacts, modeling project cash flow differences with those cost reductions in order to estimate the resulting reductions in monthly water cost per tap, identifying pros/cons, and working through the list of possibilities with Town staff. The process identified a preferred set of design changes to maximize cost savings while maintaining the Town's ability to achieve the most important project objectives. The work resulted in an estimated project capital cost savings of \$5M to \$6M from the November 2023 30% design milestone cost estimate.

Under this same task, SGM also prepared an evaluation of potential impacts on water rates of deferring project construction for two to ten years under different prevailing economic conditions. SGM captured the results in a memo and provided the spreadsheet model to Town staff for its own further explorations of this concept. SGM also trained Town staff on the tool.

SGM completed this work on a T&M basis and is seeking a \$25,040 budget modification, which equals the total amount invoiced under this task.

New Phase 12, Task 03, Revised 30% Design. SGM delivered the 30% design package per its original (current) scope in November 2023. As a result of the value engineering work described above, Town staff and SGM determined that SGM would implement a certain set of preferred VE savings measures and submit a revised 30% design, which it did in early February 2024, including a revised construction cost estimate and basis of design report. Because the changes were substantial and affected almost all design disciplines, this was a significant effort that fell outside of the original scope of engineering services.

SGM completed this work on a T&M basis and is seeking a \$74,620 budget modification, which equals the total amount invoiced under this task.

New Phase 12, Task 04, Existing WTP As-Built Data Collection. The original 30% design included a new raw (and irrigation) water pump station. And, it did not include modifications to the existing water treatment plant building. Therefore, SGM's design scope did not include any detailed as-building of the existing water treatment building to support design modifications to it. However, one of the most significant value engineering changes identified was to modify the raw and irrigation water pumping systems within existing water treatment plant lieu of constructing a dedicated new raw (and irrigation) water pump station. Therefore, SGM needed to invest effort in collecting detailed, field-verified as-built data on the raw water pumping system and other relevant aspects of the existing WTP. *SGM completed this work on a T&M basis and is seeking a \$10,100 budget modification, which equals the total amount invoiced under this task.*

New Phase 10F, USDA Funding Investigation. Also as a result of the November 20, 2023 meeting with the Town to discuss the 30% design and associated construction cost estimate, the Town requested that SGM evaluate USDA funding as an option for the project. SGM reviewed the most recent USDA funding program documentation, coordinated with USDA staff, held a videoconference to discuss key aspects in more detail, and reported back to Town staff. Because of burdensome project administrative requirements that add both costs and time as well as Build America/Buy America (BABA) requirements, it was determined with Town staff that USDA funding would not be pursued. *SGM completed this work on a T&M basis and is seeking a \$1,355 budget modification, which equals the total amount invoiced under this task.*

Changed Phase 10C, from CO River District Grant Assistance to Congressional Direct Spending (CDS) Funding Assistance. Because a selected value engineering item was to eliminate raw water intake-related improvements from the scope, River District grant funding, the potential for which was capped at \$50K, would no longer be applicable (note that the cost of those improvements would have exceeded more than 2-3 times the \$50K limit). However, the Town has chosen to pursue a CDS earmark for this project through its US Senate representatives. SGM reviewed the application materials, provided responses for select questions, analyzed the amounts of recent Colorado W/WW projects receiving these awards, coordinated with Senate staff on BABA requirements, coordinated with WesTech on BABA schedule/cost implications for its scope, and coordinated with several W/WW contractors on their experience with the effects of meeting BABA requirements on their projects. SGM identified a ballpark BABA construction contract cost impact of 5 to 15% based on its conversations with construction contractors.

SGM is proposing to utilize the \$8,000 budget for Phase 10C to cover the cost of services rendered related to assistance with CDS funding acquisition pursuit instead of a CO River District grant.

Budget Modification Request.

SGM is requesting the following budget adjustments for the work.

Phase/Task	Fee
Phase 02B – Open Space Parcel Zoning/Plat Modifications	\$16,600
Phase 12, Task 01 – Contractor Cost Estimating Services Research	\$1,310
Phase 12, Task 02 – Value Engineering Analysis & Decision Support	\$25,040
Phase 12, Task 03 – Revised 30% Design	\$74,620
Phase 12, Task 04 – Existing WTP As-Built Data Collection	\$10,100
Phase 10C – CDS Support	No Change
Phase 10F – USDA Funding Investigation	\$1,355
Total Budget Request	\$129,025

The values shown above are based on actual fee billings and reflect the 10% discount SGM currently provides the Town on its hourly rates for Town-funded capital projects.

Updated Project Schedule

Value engineering and 30% design revisions required about 2.5 months to complete from mid- to late-November 2023 to early February 2024. The project team’s goal remains to have the design, permitting, funding, and permitting elements of the project completed and able to support a construction contractor starting physical construction work on-site as soon as weather permits in 2025 (likely April). This still appears feasible. The main schedule impact from the VE and 30% redesign effort involved not being able to receive bids prior to having to finalize an SRF loan request amount with an SRF loan application date of June 2024. However, in order to maximize grant funding potential through SRF, provide time for other funding streams to be secured, and to allow for bids to be received prior to SRF loan amount finalization, the Town has decided to target a January 2025 SRF loan application date. The table below summarizes the revised project milestone date targets.

Milestone	Original Target Date	Revised Target Date
Town Issues NTP for this Contract	8/22/2023	8/22/2023
30% Design	10/6/2023	2/2/2023
SRF PNA, Env. Checklist & EA Submittals to CDPHE	11/10/2023	11/29/2023
60% Design	1/5/2024	4/15/2024
EIAF Grant Application to DOLA	4/1/2024	8/1/2024
CFP Grant Application to CRWCD	3/12/2024	N/A
90% Design	4/5/2024	6/28/2024
Construction Approval Application to CDPHE	4/5/2024	8/1/2024
100% Design	6/7/2024	9/1/2024
Construction Bid Advertisement	6/14/2024	10/1/2024
EIAF Grant Award Decision by DOLA	8/1/2024	12/1/2024
SRF Loan Application to State	6/14/2024	1/5/2025
Construction Bid Opening	7/26/2024	12/5/2024
EIAF Grant Funds Available from DOLA	10/1/2024	2/1/2025
Award Construction Contract No. 1 (Early Work)	N/A	2/11/2025
Execute Construction Contract No. 1 (Early Work)	N/A	2/25/2025
SRF Board Meeting for Loan Approval	8/21/2024	TBD (3/2025?)


SRF Loan Funds Available	11/27/2024	TBD (6/1/2025?)
Award Construction Contract No. 2 (Balance of Work)	9/10/2024	TBD (6/10/25?)
Execute Construction Contract No. 2	2024 Q4	TBD (6/24/25?)

If the Town approves of the proposed changes above, please provide a signed Town Work Order for what SGM is tracking as Amendment #6 related to NSA WTP planning and design services.

If you have any questions on this proposal, please contact me. Thank you.

Sincerely,

SGM



Digitally signed
by Warren J
Swanson
Date: 2024.08.13
17:04:29-06'00'

Warren Swanson, PE
Project Manager
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