



Scope of Work

Washoe County Cold Springs Water Reclamation Facility Headworks and South Truckee Meadows Water Reclamation Facility Clarifier Coating Construction Period Services

January 30, 2019

Project Overview

Brown and Caldwell (BC) has prepared the following scope of work for engineering services during construction for the Cold Springs Water Reclamation Facility (CSWRF) Headworks and the South Truckee Meadows Water Reclamation Facility (STMWRF) Clarifier Coating Project.

At CSWRF, the Influent Pump Station wet well, headworks screening and grit channels, and three nearby manholes will be coated to mitigate concrete corrosion and extend the service life of the structures. The Contractor will install permanent bypass tees in the Woodland Village force main and the Influent Pump Station force main to route temporary bypass piping around the on-site structures while they are coated.

At STMWRF, the interior clarifier concrete from just below the water level to the top of the outer wall, including the launders, will be recoated. Two clarifiers have steel mechanisms that will be recoated, including bridge beams and steel appurtenances. Two clarifiers have stainless steel mechanisms and appurtenances that will not be recoated.

Project elements include:

- Manage BC staff, including any subconsultants, and coordinate with Washoe County (County) personnel
- Review submittals
- Review requests for information (RFIs)
- Inspect the bypass piping installation and the coating application on a part-time basis
- Attend project meetings

Phase 100 – Project Management

BC will manage internal staff, monitor project status, prepare project billings, and coordinate with County personnel. Efforts for this task assume the project will last a maximum of 24 weeks from Notice to Proceed to Final Completion.

Phase 200 – Engineering Services During Construction

The County will perform all project Construction Management services, including coordinating the Contractor's work with plant operations; reviewing payment applications; handling project correspondence; receiving and distributing submittals and RFIs; and conducting project meetings. BC will assist the County as described in the following paragraphs.

Task 200.1 – Submittal Review

BC will review the coating and concrete repair submittals and provide recommended responses to the County. The budget associated with this task assumes reviewing a maximum of six total submittals and resubmittals.

Task 200.2 – Requests for Information

BC will review RFIs and provide recommended responses to the County. The budget associated with this task assumes reviewing a maximum of five formal RFIs (written and submitted as RFIs) and five informal RFIs (telephone or email questions).

Task 200.3 – Part-Time Construction Inspection

The contract construction duration is 145 calendar days. It is anticipated that construction will take 21 weeks. BC will provide part-time inspection, develop a Field Work Safety Plan for BC personnel, and provide Design Engineer support during construction.

This task budget assumes an average of 20 hours per week of inspection time to monitor general construction activities; travel to the project site; coordinate with the Contractor; review the coating work at key hold points; prepare field reports for

each day the inspector is on site; attend project meetings; and prepare a corrective items list for project closeout. This task also provides for an average of 5 hours per week for the Design Engineer to coordinate with field staff. In addition, a National Association of Corrosion Engineers (NACE) certified Quality Assurance Coating Inspector will provide an average of 8 hours per week for 20 weeks. These efforts assume that work will be performed by a competent contractor.

Task 200.4 – Attend Meetings

BC will attend meetings at the County's request, including the preconstruction meeting. This task provides for attending up to twenty (20) meetings by the BC project manager and inspector, assuming that sixteen (16) meetings will be held at STMWRF and four (4) meetings will be held at the CSWRF.

Phase 200 Deliverables:

- Daily Field Reports in PDF format, submitted at the end of the project, or sooner upon request
- Corrective Items List in PDF format

Phase 300 – Contingency

Unanticipated issues may arise during the progress of work. The contingency is provided so the County can have BC address minor out-of-scope items up to the contingency amount without amending the Agreement. These funds will not be expended without written or email approval by Washoe County's Project Manager.

Assumptions and Exclusions:

- County will provide Construction Management services and serve as the primary contact for the Contractor and facility operations staff
- County will receive and route submittals and RFIs
- Excludes material testing, compaction testing, and Building Department special inspections, if required

Schedule

The schedule will be governed by the County issuing the construction project Notice to Proceed. BC staff will be available to support the County's schedule.

Compensation

BC will perform the scope of work described herein on a time-and-materials basis for a not-to-exceed fee of \$159,800. BC will not exceed this fee without prior authorization from the County. A breakdown of the estimated fee is shown in the table below and will be in accordance with the rate table provided in Exhibit B. Although fees are estimated by task, BC may transfer funds between tasks, except for the Contingency funds, as project developments require.

Phase	Phase Description	Total Labor Effort	Total Expenses	Total Subconsultants	Contingency	Total Effort
100	Project Management	\$10,300	\$0	\$0	\$0	\$10,300
200	Engineering Services During Construction	\$121,200	\$2,400	\$20,900	\$0	\$144,500
300	Contingency	\$0	\$0	\$0	\$5,000	\$5,000
Total		\$131,500	\$2,400	\$20,900	\$5,000	\$159,800

Exhibit B

Brown and Caldwell Schedule of Hourly Billing Rates

Level	Engineering	Technical/Scientific	Administrative	Hourly Rate
A			Office/Support Services I	\$55
B	Drafter Trainee	Field Service Technician I	Word Processor I Office/Support Services II	\$73
C	Assistant Drafter	Field Service Technician II	Word Processor II Office/Support Services III	\$80
D	Drafter Engineering Aide Inspection Aide	Field Service Technician III	Accountant I Word Processor III Office/Support Services IV	\$96
E	Engineer I Senior Drafter Senior Illustrator Inspector I	Geologist/Hydrogeologist I Scientist I Senior Field Service Technician	Accountant II Word Processor IV	\$116
F	Engineer II Inspector II Lead Drafter Lead Illustrator	Geologist/Hydrogeologist II Scientist II	Accountant III Area Business Operations Mgr Technical Writer Word Processing Supervisor	\$137
G	Engineer III Inspector III Senior Designer Supervising Drafter Supervising Illustrator	Geologist/Hydrogeologist III Scientist III	Accountant IV Administrative Manager	\$163
H	Senior Engineer Principal Designer Senior Construction Engineer Senior Engineer	Senior Geologist/Hydrogeologist Senior Scientist	Senior Technical Writer	\$186
I	Principal Engineer Principal Construction Engineer Supervising Designer	Principal Geologist/Hydrogeologist Principal Scientist	Corp.Contract Administrator	\$211
J	Supervising Engineer Supervising Constr. Engineer Supervising Engineer	Supervising Scientist Supervising Geologist/ Hydrogeologist	Assistant Controller	\$223
K	Managing Engineer	Managing Geologist/Hydrogeologist Managing Scientist	Area Bus Ops Mgr IV	\$243
L	Chief Engineer Executive Engineer	Chief Scientist Chief Geologist/Hydrogeologist	Corp Marketing Comm. Mgr.	\$263
M	Vice President			\$289
N	Senior Vice President			\$325
O	President/Executive Vice President			\$325
P	Chief Executive Officer			\$325

OTHER DIRECT COSTS

Identification	Rate
Subcontractors	Cost plus 10%
Other Direct Costs and Outside Services	At Cost