

Our ref: 12591518

September 15, 2022

Brendan Byrd PE
Director of Public Works/City Engineer
City of Fortuna
180 Dinsmore Drive
Fortuna, CA 95540

Hillside and Campton Tanks Recoating Project Scope of Work

Dear Brendan,

The Campton Heights water storage tank (1 Million Gallon Steel Welded Potable Water Reservoir 75' Diameter x 32' Height Build Date 1989) and Hillside water storage tank (250K Gallon Steel Welded Potable Reservoir 37' Diameter x 32' Height Build Date 1989) exteriors were inspected by DB Gaya on April 2020, and interiors inspected by MIT Diving and Coating in June 2022.

Based on the inspections of the interior, Gaya Coating Consulting, Inc recommended stripping the interior coatings and apply a new coating system. Complete removal for both interiors and exterior with SSPC-SP#10 (near white metal) surface preparation. Recoating of the interior may use either a 3 coat thin film system with a zinc primer or a 100% solids coating system from the water line down and use a thin film system in the ceiling utilizing zinc primer in conjunction with 2 coats NSF -61-600 epoxy including a stripe coat.

Based on the inspection of the exteriors and roofs, Gaya Coating Consulting, Inc recommended complete removal of the existing coating from the roof of both the Hillside & Compton tanks, with a surface preparation of SSPC-SP#10 (Near White Metal). Three different options for coating removal are proposed: Option #1 Perform surface preparation with a centrifugal blast machine and "Slurry Blasting" outer perimeter and appurtenances on the roof; Option #2 "Slurry Blast" the entire roof without the use of centrifugal blast machine; and Option #3 Dry abrasive blasting with nozzles under full containment. The exterior shell re-coating consists of pressure washing the entire shell with 3500 PSI Potable water and "HoldTight 102" soluble salt remover per the manufacturer's recommendations, Dual Action Orbital Sanders on entire exterior shell and "Feather Back" areas of mechanical damaged and spot prime coat with epoxy. Then apply a full epoxy for intermediate coat, followed by polysiloxane finish coat.

Recommendations for the roof coating system is to apply Moisture Cure Zinc Primer, Epoxy stripe & intermediate Coat, and Polysiloxane finish coat. The zinc primer for the roof is to be applied by spray application. The subsequent epoxy and finish coat could be applied by roller applications unless open air spraying is permitted without the use of containment.

The following is a scope and cost estimate to provide bidding and construction management and inspection services for the Hillside and Campton Tanks Recoating Project. It includes the development of specifications for the bid and contract documents associated with the preparation and painting of the inside and outside of this tanks. It also includes Construction Monitoring of the coating of the tank. The detailed scope is as follows:

Task 1 – 1,000,000 Gallon and 250,000 Gallon Domestic Reservoir Interior and Exterior Coating Removal and Replacement, Bidding & Construction Management

GHD will prepare project technical specifications and complete contract documents and bid package using the City's front end boiler plates, and assist in releasing the work for bid to the newspaper as well as the Builder's Exchanges, the notification of contractors of the availability of the bid documents, distributing bid documents to contractors and other interested parties, maintaining plan holders list, responding to contractor's questions and issuing bid addendum, presiding over the bid opening and assisting the City in the issuing the Notice of Award and Notice to Proceed documents.

This task would also include construction observation services and well as responding to contract change orders, approving contractor requests for payment, and documenting the actual construction. Construction phase services will be completed in cooperation with Gaya Coating Consulting, Inc (GCC), who are certified National Association of Corrosion Engineers (NACE) coating inspectors. GHD will be responsible for project management, including coordination with City staff, pay request review and processing, submittal review, response to requests for information, preparation of requests for quotes, and change orders (if necessary) as well as structural inspections of the roof replacement.

DBG will be responsible for providing daily construction observation and documentation of the coating operations to verify the project is being constructed in general conformance with the specifications, and will provide the necessary oversight and testing services. GCC will coordinate with the contractor's superintendent and all personnel to ensure project continuity. Their inspection tasks will generally consist of:

- Documenting start-up and completion of tasks daily
- Monitoring the number of crew and key personnel
- Conducting surface assessment prior to cleaning, including:
 - Checking visible moisture, contaminant, and irregularities
 - Checking for flash rusting
 - Checking the condition of all edges, welds, welds spatter, etc
 - Grease & oil removal and protective coverings used
- Verifying & recording the surface preparation system
- Recording ventilation system and equipment configuration monitoring interior and exterior ambient conditions using data loggers
- Monitoring weather and temperature conditions to ensure specification conformance
- Conducting surface assessments prior to coating application
- Monitoring mixing of the coating to ensure specification conformance
- Recording the application system
- Recording application irregularities including overspray, drips, runs, sags, orange peel, mud cracking, uneven coating, excessive thickness, visible holidays, foreign matter embedded in coating
- Documenting & photographing all corrective measures
- Conducting dry film thickness measurements
- Conducting holiday detection
- Verifying completion of cure
- Documenting & photographing all remedial work required and daily work performed.

Daily and weekly Inspection Reports will be submitted to the City staff. A final Report will also be completed and will include all notices, progress payments, change orders, daily inspection reports and other pertinent documentation.

Deliverables:

- Draft electronic copies in MS Word format of the final Bid Package including specifications, bid forms and other contract documents to the City

- Final electronic copies in pdf format of the final Bid Package including plans, specifications, bid forms and other contract documents to the District as well as one electronic copy of the Bid Package to the Humboldt Builders Exchange.
- Up to two bid package addenda
- Oversight of bid opening and preparation of award memo and bid summary for City and City Council Review
- Notice of Award, Notice to Proceed and reviewed Contract Documents & Insurance from Contractor in electronic pdf format
- All construction deliverables will be submitted in electronic format
- Final Notice of Completion in electronic format.

General Assumptions/Exclusions

This proposal is based on the following assumptions:

1. The Domestic Water Reservoirs will be taken out of service and dewatered by the City to allow the recoating work to proceed. City will make all the arrangements necessary including customer notification, scheduling, tank dewatering, shut down and protection of the cathodic protection anodes and system, and initial superficial cleaning of the tanks to allow the recoating to proceed.
2. The existing coating on the tank will be tested for lead, chromium and cadmium and if levels are detected above regulatory thresholds, an additional scope/budget may be required to prepare abatement specifications and performing the regulatory notifications required.
3. Assumes the City will submit and pay for any bid notification advertisements run in the newspaper or other advertising forums.
4. Assumes City will coordinate contract execution, payment and closeout with the selected Contractor.
5. Assumes the new coating will be an epoxy coating and a maximum project construction duration of 80 calendar working days and minimum of 65 working days.
6. Scope does not include a final warranty inspection, typically performed one year after project completion. This will likely fall within the City's 2023/24 Fiscal Year and should be scoped and budgeted for under next year's budget.
7. Does not include additional follow-up meetings or any other tasks not specifically outlined above.

Schedule

GHD proposes to complete this work as outlined below:

- Preparation of final bid documents - October 2022
- Bid/contract award - November 2022
- Construction - weather dependent Winter 2022/Spring 2023

Professional Service Fee

GHD will provide the above described scope of services on a Time and Material Basis at our Standard Labor Rates in place at the time of execution of the work. Two estimates are provided below. One estimate assumes 85 working days and the second assumes 65 working days.

Table 1. Fee Estimate Based on 85 Working Days (17 weeks)

Task 1	GHD Hrs	Gaya Hrs	GHD Fee	Gaya Fee	Per Diem (\$200/day)	Sub Markup Labor Markup 5%	Total
Develop Specifications	2	12	\$380.00	\$1,500.00		\$75.00	\$1,955.00
Prepare Bid Package	16		\$3,040.00			\$ -	\$3,040.00
Bid Period Services	16		\$3,040.00			\$ -	\$3,040.00
Construction Management & Inspection	34	680	\$6,460.00	\$85,000.00	\$17,000.00	\$4,250.00	\$112,710.00
Daily Vehicle Charge (\$30/day)				\$2,550.00			\$2,550.00
Vehicle Mileage (\$0.585/mile)				\$5,505.00			\$5,505.00
Total	68	692	\$12,920.00	\$94,555.00	\$17,000.00	\$4,325.00	\$128,800.00

Table 2. Fee Estimate Based on 65 Working Days (13 weeks)

Task 1	GHD Hrs	Gaya Hrs	GHD Fee	Gaya Fee	Per Diem (\$200/day)	Sub Markup Labor Markup 5%	Total
Develop Specifications	2	12	\$380.00	\$1,500.00		\$75.00	\$1,955.00
Prepare Bid Package	16	4	\$3,040.00	\$500.00		\$25.00	\$3,565.00
Bid Period Services	16	4	\$3,040.00	\$500.00		\$25.00	\$3,565.00
Construction Management & Inspection	26	520	\$4,940.00	\$65,000.00	\$13,000.00	\$3,250.00	\$86,190.00
Daily Vehicle Charge (\$30/day)				\$1,950.00			\$1,950.00
Vehicle Mileage (\$0.585/mile)				\$4,185.00			\$4,185.00
Total	60	540	\$11,400.00	\$73,635.00	\$13,000.00	\$3,375.00	\$ 101,410.00

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United States
www.ghd.com



As always, we appreciate the opportunity to assist you on this project. Please do not hesitate to call me if you have any questions.

Regards

A handwritten signature in blue ink, which appears to read "Brett Vivyan". The signature is fluid and cursive, written on a light-colored background.

Brett Vivyan
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Copy to: Dana Gaya