NAPA SANITATION DISTRICT

CAROLLO - TASK ORDER No. 29
2019 TREATMENT PLANT PROJECT
PROJECT (CIP 18740)

Date: _____

Issued under Professional Services Agreement dated 9/8/2018.

To: CAROLLO

Project Description:

2019 TREATMENT PLANT PROJECT - Professional Design Services.

Description of Scope of Services to be performed by Consultant under this Task Order:

See Attachment A – Scope of Services

Description of Services to be Provided by District:	See Attachment A –Scope of Services
Deliverables:	See Attachment A –Scope of Services
Consultant Project Manager:	DOUG WING/ANNE PRUDHEL, PE
Consultant Quality Control Manager:	RICK CHAN, PE
Schedule to Perform Services:	See Attachment A - Schedule
Time & Materials Not-to-Exceed Cost Limit:	$178,550
	See Exhibit 'B' – Fee Schedule

APPROVALS:

CAROLLO

By: _____ _____
Authorized Representative Date

NAPA SANITATION DISTRICT

By: _____ _____
Purchasing Agent Date

NSD Account No.: CIP 18740

SCOPE OF SERVICES

NAPA SANITATION DISTRICT
2019 TREATMENT PLANT IMPROVEMENTS PROJECT
FINAL DESIGN

PROJECT UNDERSTANDING

Napa Sanitation District (District) has completed a conceptual evaluation of repairs for the hypochlorite corrosion in the existing Chemical Building and rehabilitation of the primary influent pipeline. Carollo Engineers (Carollo) evaluated and identified the required repairs for both facilities in technical memoranda dated September 2018 that outlined the scope of the required improvements. These improvements will be included in the 2019 Treatment Plant Improvement Project. The improvements include:

Chemical Building

- Replacement of the existing under slab drain piping with chemical resistant piping.
- Removal of contaminated concrete and corroded reinforcing steel, replacement of the reinforcing, and placement of repair concrete in both the pump rooms and the tank containment area.
- Coating of the repaired concrete and existing concrete surface not impacted by the repairs with a corrosion resistant coating.
- Replacement of hypochlorite storage tanks (to be evaluated further).

Primary Influent Pipeline

- Rehabilitation of the primary influent pipeline from the headworks grit chamber to the pipe gallery.
- Installation of valves on 3W pipeline(s)
- Identification of the source of the suspected 3W leak, and repair of 3W pipe, as needed (all work for this item to be performed by the contractor)

The Final Design and Bidding Services phase scope of services for this project is outlined below.

SCOPE OF SERVICES

Carollo will provide the following scope of services:

TASK 1.0 – 2019 PLANT IMPROVEMENTS FINAL DESIGN

Project bid package will include District front-end documents and Carollo technical specifications and drawings.

Carollo will prepare construction cost estimates at the 50 and 90 percent design submittal stages. The 90 percent design submittal will be updated for bidding to reflect bid climate and District comments.

Carollo will provide PDF copies of progress submittals and final documents for bidding. District will be responsible for advertising, distribution and printing.

TASK 1.1 – Chemical Building Rehabilitation

Based on the recommendations in the Chemical Corrosion Conceptual Repair Evaluation Technical Memorandum, Carollo will prepare biddable construction documents (drawings and specifications) for the plant improvements listed above for the Chemical Building repairs. Demolition and installation details will be shown on photo markups.

We will perform an evaluation to determine if the existing hypochlorite storage tanks should be replaced as part of this project. The evaluation will be based on tank age, reported issues with the existing tank, tank materials of construction, and other factors to be discussed during the kickoff meeting. The decision on whether or not the tanks will be replaced will be documented in meeting notes. For budget purposes, the fee for this task includes replacement of the tanks.

TASK 1.2 – Primary Influent Pipeline Rehabilitation

Based on the recommendations in the Primary Influent Pipeline Evaluation Technical Memorandum dated September 2018, Carollo will prepare biddable construction documents (drawings and specifications) for the rehabilitation of the Primary Influent pipeline using a cured-in-place liner.

Plans for the pipeline rehabilitation will be based on existing record drawings for the plant and no new survey will be obtained as part of this project. Design of the CIPP liner will be based on existing geotechnical reports available for the area including the original Fugro geotechnical report and the 2016 supplemental geotechnical report.

The bid schedule and specifications will include provisions for the contractor to investigate and, if found, repair the suspected 3W leak occurring near the 90 degree elbow on the primary influent pipeline. New 3W isolation valves will be installed in the existing line(s).

TASK 2.0 – PLANT IMPROVEMENTS PROJECT DESIGN MEETINGS

Carollo will participate in a kickoff meeting and two final design review / workshop meetings. Carollo will prepare agenda and meeting notes for each meeting (3).

TASK 3.0 – BID PERIOD SERVICES

Carollo will provide bid period services for the Plant project, including attendance at pre-bid meeting, responding to contractor questions (up to five requests for information), and preparation of one addenda. District will be responsible for advertising, distribution and printing.

TASK 4.0 – PROJECT MANAGEMENT/QUALITY CONTROL REVIEW

Carollo will provide project management for the project including monthly invoices and budget status letter. One copy of the status report will be submitted to the District in electronic (pdf) format with each invoice.

Carollo will conduct an internal quality control review of design documents prior to and concurrent with District review.

TASK 5.0 – CONCRETE TESTING SUBCONSULTANT (Allowance)

Carollo will provide the services of a concrete testing sub-consultant for one day of field work to

perform non-destructive testing and collect samples. The allowance includes testing of 50 chloride ion samples. The field work and testing will be used to better define the extent of concrete demolition and repair.

TIME OF PERFORMANCE

Anticipated schedule for completion of Carollo Scope of Services is as follows:

- Notice to Proceed (NTP) - One week after Board approval on October 17, 2018.
- Task 1.0 Final Design Submittals - 50%: Within 8 weeks after NTP and 90%: 5 weeks after 50% review comments are received. Bid set documents will be provided 2 weeks after 90% review comments are received. The project is scheduled to advertise for bids before April 2019.
- Task 2.0 Meetings: as agreed with District.
- Task 3.0 Bid Period Services: As needed.
- Task 4.0 Project Management/Quality Control Review: Throughout project duration.
- Task 5.0 Concrete Testing Subconsultant: 3 weeks from NTP.

Deliverables

- Design Submittals at 50 percent, 90 percent and bid set documents including construction cost estimates (PDF).
- Bid period documents (PDF) including addenda as needed.

Assumptions

- District will provide initial draft front end documents for review prior to 50 percent submittal.
- A single set of bid documents will be developed for all proposed plant improvements.
- Pipeline rehabilitation design will be based on record drawings and existing geotechnical reports.
- District will provide access to plant, especially Chemical Building.
- District will review and provide written comments on design submittal packages within 2 weeks of receipt.
- District will manage bid period including advertising, printing, and distribution of bid documents.
- Construction Management will be by a third party CM.

EXHIBIT B
DESIGN LABOR AND FEE ESTIMATE

2019 TREATMENT PLANT IMPROVEMENTS PROJECT
NAPA SANITATION DISTRICT

October 5, 2018

Task	Task Description	Carollo Labor PIC	PM	PE	Struct Eng	Eng	CAD	WP	Total Hours	Labor Cost	PECE	Printing	Mileage Trips	Mileage Amount	Total ODC Cost	Total Cost
		$284	$262	$243	$243	$168	$176	$115			$11.70					
1	**2019 Plant Improvements Final Design**	**12**	**24**	**114**	**48**	**208**	**204**	**20**	**630**	**$122,210**	**$7,371**	**$0**	**0**	**$0**	**$7,371**	**$129,581**
1.1	***Chemical Building Rehabilitation***	**8**	**16**	**72**	**48**	**152**	**160**	**10**	**466**	**$90,470**	**$5,452**	**$0**	**0**	**$0**	**$5,452**	**$95,922**
	a Contract Document Development															
	50% Submittal	2	8	24	16	60	60	4	174	$33,484	$2,036	$0	0	$0	$2,036	$35,520
	90% Submittal	2	2	24	16	60	60	4	168	$31,912	$1,966	$0	0	$0	$1,966	$33,878
	Bid Set Submittal	2	2	16	8	16	40	2	86	$16,882	$1,006	$0	0	$0	$1,006	$17,888
	b Construction Cost Estimate	2	4	8	8	16	0	0	38	$8,192	$445	$0	0	$0	$445	$8,637
1.2	***Primary Influent Pipeline Rehabilitation***	**4**	**8**	**42**	**0**	**56**	**44**	**10**	**164**	**$31,740**	**$1,919**	**$0**	**0**	**$0**	**$1,919**	**$33,659**
	a Contract Document Development															
	50% Submittal	1	2	16	0	16	20	4	59	$11,364	$690	$0	0	$0	$690	$12,054
	90% Submittal	1	2	16	0	16	16	4	55	$10,660	$644	$0	0	$0	$644	$11,304
	Bid Set Submittal	1	2	8	0	16	8	2	37	$7,078	$433	$0	0	$0	$433	$7,511
	b Construction Cost Estimate	1	2	2	0	8	0	0	13	$2,638	$152	$0	0	$0	$152	$2,790
2	**Design Meetings (3)**	**0**	**12**	**12**	**12**	**0**	**0**	**2**	**38**	**$9,206**	**$445**	**$150**	**3**	**$96**	**$691**	**$9,897**
3	**Bid Period Assistance**	**0**	**7**	**15**	**2**	**2**	**4**	**2**	**32**	**$7,235**	$374	**$0**	**1**	**$32**	$407	**$7,642**
	a Attend Pre-Bid Conference	0	3	3	0	0	0	0	6	$1,515	$70	$0	1	$32	$102	$1,617
	b Addenda Preparation (1)	0	2	10	2	2	4	2	22	$4,710	$257	$0	0	$0	$257	$4,967
	c Bid Opening/Evaluation	0	2	2	0	0	0	0	4	$1,010	$47	$0	0	$0	$47	$1,057
4	**Project Management / Quality Control Review**	**18**	**32**	**8**	**0**	**16**	**4**	**2**	**80**	**$20,262**	**$936**	**$200**	**1**	**$32**	**$1,168**	**$21,430**
	a Project Management	2	16	8	0	0	0	0	26	$6,704	$304	$0	1	$32	$336	$7,040
	b Quality Control	16	16	0	16	0	4	2	54	$13,558	$632	$200	0	$0	$832	$14,390
5	**Concrete Testing Subconsultant (Allowance)**															**$10,000**
	Project Totals =	**30**	**75**	**149**	**62**	**226**	**212**	**26**	**780**	**$158,913**	**$9,126**	**$350**	**5**	**$161**	**$9,637**	**$178,550**

Legend:

PIC	Principal-in-Charge
PM	Project Manager
PE	Project Engineer
Struct	Structural Design Engineer
EIC	Electrical/Instrumenation/ Control Engineer
ENG	Staff Engineer
CAD	Drafting Technician
WP	Word Processor
PECE	Project Equipment Communication Expense

ODC Unit Costs:

PECE ($/hr):	$11.70
Mileage ($/mi):	$0.54
Miles per Roundtrip:	60