CITY OF NEWPORT
TASK ORDER NO. 14

FILTER RACK EXPANSION PROJECT (2020-018)

This TASK ORDER NO. 14 to the Engineering Services Agreement dated May 5, 2017, hereinafter called Agreement, between the City of Newport, (CITY), and HDR Engineering, Inc., (ENGINEER).

A. SCOPE OF SERVICES

CITY agrees to utilize the services of ENGINEER and ENGINEER agrees to perform engineering services as defined within the scope of work.

This PROJECT will include the scope of work as identified in the attached Task Order No. 14, ADDITIONAL MEMBRANE RACK INSTALLATION AT NEWPORT WTP dated December 4, 2020.

B. CITY'S RESPONSIBILITIES

CITY to provide ENGINEER with the following information:

1. CITY shall assign appropriate reviewers to the project and compile and provide a single consolidated, coordinated, legible, and internally consistent copy of written review comments to Consultant for all draft documents and work products, as appropriate.

2. CITY shall provide timely review of submitted products, as appropriate.

C. COMPENSATION

1. CITY shall pay ENGINEER according to the revised fee schedule set forth in the attached scope of work.

2. Services provided under this Task Order No. 14 shall not exceed $34,677.

D. MISCELLANEOUS

All terms and conditions of the Engineering Services Agreement apply to this Task Order No.14 as though fully set forth therein. In the event of a conflict between previous task orders and the Engineering Services Agreement, the terms of this Task Order No. 14 shall apply.

The parties do mutually agree to all mutual covenants and agreements contained within this Task Order No. 14.

CITY OF NEWPORT:

By: _____

Title: City Manager

Date: 12-14-20

HDR Engineering, Inc.

By: _____ Tracy Ellwein 2020.12.10 10:47:14-08'00'

Title: Vice President

Date: 12/10/2020

HDR

Task Order 14 Scope of Work

Additional Membrane Rack Installation at Newport WTP

City of Newport, Oregon

December 4, 2020

This scope of work is for Task Order 14 to the Professional Services Agreement for Civil Engineering, Geotechnical, Architecture, and Other Related Professional Services dated May 5, 2017.

Introduction

In mid-May 2020, the City experienced a rapid decrease in water production that led to an emergency citywide water curtailment. HDR Engineering, Inc. (HDR) performed emergency services for the City of Newport and prepared a memorandum identifying recommended strategies to mitigate future fouling. One recommendation to address future water treatment issues was to install an additional membrane rack.

During the 2009/2010 treatment plant design, a value engineering process was performed to decide which components of the treatment process and overall water plant could be removed and implemented at a later point in time. One item from the value engineering study was to defer installing a fifth primary membrane rack, but construct features for future installation.

This Task Order 14 scope of work describes engineering services that will be completed for contractor installation of a fifth membrane rack at the Newport Water Treatment Plant (WTP). The header piping to connect the rack to the treatment process is in place. The rack will need to be purchased by the City and installed by a contractor, and the SCADA programming updated by an instrumentation contractor.

The following items are included in this task order:

TASK 1 PROJECT MANAGEMENT 1

TASK 2 ADDITIONAL MEMBRANE RACK IMPLEMENTATION 2

TASK 3 CONTINGENCY 4

Scope of Work

TASK 1 Project Management

Objectives

HDR will provide Project Management to monitor/update the project scope of work, budget, and schedule; and provide appropriate communication with the City of Newport (City). This includes invoicing; coordination with the City and the HDR team; and schedule and budget management. Work activities described below will be provided to cover the Project Management activities.

Work Tasks

- Task order set-up
- Monthly progress reports and invoices
- Coordination with City and Pall Corporation
- Task order close-out

Assumptions

- Total duration of this phase of the project is 8 months.
- City will participate in conference calls and meetings as appropriate.

Deliverables

- Eight monthly progress narrative and invoices

TASK 2 Additional Membrane Rack Implementation

During construction of the WTP in 2010, the piping for a future rack was installed and pipe ends blind flanged. HDR will coordinate with the membrane manufacturer Pall Corporation (Pall) for implementation of the new rack. Rack configuration drawings will be requested from Pall. The new rack will have the XR circulation system included, however the piping connection will take place at a later point in time when the existing primary racks are equipped with the XR system. HDR will verify the piping and valve configurations and flow requirements to verify the existing piping fits the new rack. HDR will develop construction documents.

Work Tasks

- Develop 22 drawings using the existing drawings from the original design as a base file. The 2010 existing drawings were created in an older version of AutoCAD. HDR will convert the drawings that will be used for this project to the AutoCAD version 2018. The following sheets will be part of the deliverable:

Sheet Number	Description	Comments
01 – 0G-01	Cover Sheet, Sheet Index	Reusing the existing drawings, no new sheet to be developed
02 – 0G-02	Abbreviations and General Notes	Reusing the existing drawings, no new sheet to be developed
03 – 0G-03	General Symbols	Reusing the existing drawings, no new sheet to be developed
04 – 0G-04	Mechanical Symbols	Reusing the existing drawings, no new sheet to be developed
05 – 0G-05	Electrical Symbols	Reusing the existing drawings, no new sheet to be developed
06 – 2D-01	Process Floor Plan	Reusing existing drawings and updating the membrane skid section
07 – 2D-05	Process Section	Reusing existing drawings and updating the membrane skid section
08 – 2D-07	Process Details	Reusing the existing drawings, no new sheet to be developed

Sheet Number	Description	Comments
09 – 2E-01	Power Plan (East)	Reusing existing drawings and updating the membrane section
10 – 2E-10	Conduit & Cable Schedule and Fixture Schedule	Reusing existing drawings and updating the membrane section
11 – 2E-15	PLC System Network Diagram	Reusing existing drawings and updating the membrane section
12 – 2E-18	Control One-Line Diagrams III	Reusing existing drawings and updating the membrane section
13 – 2E -19	Telephone and Data Block Diagram	Reusing existing drawings and updating the membrane section
14 – 6I-01	P&ID Legend & Abbreviations	Reusing existing drawings and updating the membrane section
15 – 6I-02	P&ID Equipment & Identification	Reusing existing drawings and updating the membrane section
16 – 6I-06	P&ID MF System	Reusing existing drawings and updating the membrane section
17 – 6I-07	P&ID MF Unit System	Reusing existing drawings and updating the membrane section
18 – 7D-01	Mechanical Standard Details	Reusing existing drawings and updating the mechanical characteristics
19 – 7S-01	Standard Notes	Reusing existing drawings and updating the structural characteristics
20 – 7S-02	Special Inspections	Reusing existing drawings and updating the structural characteristics
21 – 7S-03	Standard Details	Reusing existing drawings and updating the structural characteristics
22 – 7S-04	Plan and Sections	Reusing existing drawings and updating the structural characteristics to include demo of existing pump pedestal in pit as well as in kind extension to pipe rack

- Develop 18 specifications using VisiSpecs, a cloud-based software that utilizes Microsoft Word. The following specifications will be part of the deliverable:

Spec Number	Description	Comments
Division 3 Concrete		
03108	Formwork	Reusing existing specification and updating it
03208	Reinforcement	Reusing existing specification and updating it
03311	Concrete Mixing, Placing, Jointing, and Curing	Reusing existing specification and updating it
03348	Concrete Finishing and Repair of Surface Defects	Reusing existing specification and updating it
03350	Testing	Reusing existing specification and updating it
03151	Anchorage to Concrete	--
Division 5 Metals		
05505	Metal Fabrications	Reusing existing specification and developing performance spec

Spec Number	Description	Comments
Division 13 Special Construction		
13400	Installation of Owner Furnished Equipment	Reusing existing specification and updating it
Division 15 Mechanical		
15060	Pipe and Pipe Fittings: Basic Requirements	Reusing existing specification and updating it
15061	Pipe: Steel	Reusing existing specification and updating it
15062	Pipe: Ductile	Reusing existing specification and updating it
15063	Pipe: Copper	Reusing existing specification and updating it
15064	Pipe: Plastic	Reusing existing specification and updating it
15067	Pipe: Polyethylene (HDPE)	Reusing existing specification and updating it
Division 16 Electrical		
16010	Electrical: Basic Requirements	Reusing existing specification and updating it
16060	Grounding	Reusing existing specification and updating it
16120	Wire & Cable: 600 Volt and Below	Reusing existing specification and updating it
16130	Raceways and Boxes	Reusing existing specification and updating it

- Structural analysis will be revised in accordance with the current building code. Loads will be revisited and verified against existing standard details proposed for the new membrane rack.
- HDR will provide design for the concrete pedestals for the equipment.
- HDR will provide performance specs for the steel pipe rack extension.
- Some of the existing equipment needs to be moved and re-piped as it is currently placed where future rack piping connections will be located. HDR will provide performance specs for the contractor about the connections to the existing air scrub controller and CIP return pump location. Contractor will provide shop drawings for this system.

TASK 3 Contingency

This task serves as a contingency for unforeseen design items that could not be identified during scope writing. The contingency is 15 percent of the design value. Contingency needs to be authorized by the client before it can be used.

Assumptions for all tasks:

- In communication with the membrane manufacturer Pall Corporation and the City, the new membrane rack will be identical to the existing rack, with the one exception that the new rack will have XR capability. The XR will not be connected to the treatment system as part of this scope, but as a future item. Therefore, HDR will be using the existing design documentation from the original design and updating the necessary portions accordingly.
- HDR will reuse the existing drawings, save them in a newer version of AutoCAD and update accordingly. No 3D model, renderings will be created.
- Front End specifications (Division 00 and Division 01) are not part of HDR's scope. The City will handle front end documentations.

- HDR will only provide the specifications necessary for the installation.
- Pipe connection changes to the existing header piping are not anticipated as the membrane manufacturer will design the rack identical to the existing racks.
- Changes to electrical layout of the plant are not included in this scope. If the new rack requires electrical system updates, a contract amendment will be required.
- Design will be in conformance with the 2019 OSSC.
- HDR will not partake in construction efforts. That includes submittal reviews and RFIs and construction-related activities. Those are excluded from this scope. This excludes the shop drawings for the contractor-designed pipe header support and contractor-designed CIP pump rerouted pipes.
- SCADA integration and programming will be done by others and are not HDR's responsibility.
- HDR's scope does not include start-up and commissioning services.
- No changes to existing equipment (for example strainers, feed pumps, CIP system, chemical systems) are required. If changes are necessary, a contract amendment will be required.
- The City will contract with Pall Corporation directly and other required contractors.
- HDR is not responsible for purchasing equipment.
- Pall Corporation will provide rack loads and geometry for the structural design.
- Extension of the existing steel pipe rack and associated anchoring will be designed by the contractor based on performance specification developed by HDR.
- HDR will design the concrete pedestals for the equipment (membrane rack supports and CIP pump support) and pipe rack base.
- HDR will provide details and specifications associated with demolition and patching of the trench floor where the existing pump pedestal is to be removed.
- Probable construction cost estimate is not included in this scope. HDR will also not partake in contractor selection or qualification process.
- This scope does not include record drawings.
- The pipe rack and future piping will be designed to accomplish the future 7th rack which will provide the piping for the last future rack to the T connections. Connections will be blind flanged for this rack and no other connection will be provided.
- If the future 7th rack will require additional electrical expansions and connections that will be under a separate scope of services and is the design of such system is not part of this scope.

Deliverables:

- Stamped construction documents by a professional engineer licensed in Oregon (electronic pdf format and one full size printed set).

Schedule

The overall schedule for this work is 8 months from notice to proceed. HDR will notify the City if adjustments to the schedule are required.

Cost

The costs for this work are presented in the attached fee sheet.

Level of Effort

City of Newport, Oregon - Newport TO14 Addtl membrane

		HDR Engineering																		
		Engineer III	Technical Advisor I	Engineer II	Technical Advisor I	EIT	Engineer IV	Engineer IV	Project Technician I	Project Technician III	Engineer III	Engineer I	Project Technician III	Project Technician I	Hours	Labor	Technology Charge	Printing & Publications	Contingency	Total Expenses	HDR Fee
	Billable Rates	$211.15	$300.33	$174.25	$300.33	$115.83	$231.65	$231.65	$90.20	$152.73	$211.15	$147.60	$152.73	$90.20			$ 3.70				
	Task Description																				
Task 001	**Project Management & Meetings**																				
	Project Management & Meetings (Invoices, coordination)	10											4	12	26	$ 3,805	$ 96			$ 96	$ 3,901
	Sub-total	10	0	0	0	0	0	0	0	0	0	0	4	12	26	$ 3,805	$ 96	$ -	$ -	$ 96	$ 3,901
Task 002	**Additional Membrane Rack Implementaion**																				
	Develop Construction Documents	45	2	14	2		14	2	58	5	5	14			161	$ 25,966	$ 596	$ 200		$ 796	$ 26,762
	Sub-total	45	2	14	2	0	14	2	58	5	5	14	0	0	161	$ 25,966	$ 596	$ 200	$ -	$ 796	$ 26,762
	Hours	55	2	14	2	0	14	2	58	5	5	14	4	12	187						
	Total Non-Contingency (Fee $)	$11,613	$601	$2,440	$601	$0	$3,243	$463	$5,232	$764	$1,056	$2,066	$611	$1,082		$ 29,771	$ 692	$ 200	$ -	$ 892	$ 30,663
Task 003	**Contingency Tasks**																				
	Contingency 15% of design value														0	$ -	$ -		$ 4,014	$ 4,014	$ 4,014
	Sub-total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$ -	$ -	$ -	$ 4,014	$ 4,014	$ 4,014
	Hours	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
	Fee	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0		$ -	$ -	$ -	$ 4,014	$ 4,014	$ 4,014
	Total Contingency (Fee $)																				
	Total Contingency and Non-Contingency	$11,613	$601	$2,440	$601	$0	$3,243	$463	$5,232	$764	$1,056	$2,066	$611	$1,082		$29,771	$692	$200	$4,014	$4,906	$34,677

NEWPORT

AUTHORIZATION FOR AGREEMENTS, MOUs, OR OTHER DOCUMENTS OBLIGATING THE CITY

All contracts, agreements, grant agreements, memoranda of understanding, or any document obligating the city (with the exception of purchase orders), requires the completion of this form. The City Manager will sign these documents after all other required information and signatures are obtained.

Document: HDR Engineering Task Order #14 - Filter Rack Expansion Project Design Services
Date: 12/10/20

Statement of Purpose: Task Order for designing expansion of additional filter rack.

Department Head Signature: _____

Remarks, if any: _____

City Attorney Review and Signature: _____ Date: 12/14/2020

Other Signatures as Requested by the City Attorney: _____
Name/Position

_____ Date: _____
Signature

Budget Confirmed: Yes ☒ No ☐ N/A ☐

Certificate of Insurance Attached: Yes ☐ No ☐ N/A ☒

City Council Approval Needed: Yes ☐ No ☒ Date: ~~12/10/2020~~

After all the above requested information is complete and signatures obtained, return this form, along with the original document to the City Manager for signature. No documents should be executed prior to the City Manager's approval as evidenced by signature of this document.

City Manager Signature: _____ Date: 12-14-20

Once all signatures and certificates of insurance have been obtained, return this document, along with the original, fully-executed agreement, MOU, or other document to the City Recorder. A copy of grant agreement and all project funding documents, must be forwarded to the Finance Department for tracking and audit purposes.

City Recorder Signature: _____ Date: 12/15/2020

Date posted on website: 12/23/20