Department of Design and Construction

DDC M/WBE Small Purchase

PW77198CT - 198 E161 ST - Cooling Tower Replacement - Special Inspections

Greetings,

The **Department of Design and Construction** is seeking a Special Inspector to provide special inspection services for the PW77198CT - 198 E161 ST - Cooling Tower Replacement - **Special Inspections** project.

Scope Overview:

Replacement of existing cooling tower with (2) cells of 400 ton each. Selective demolition of existing cooling tower and auxiliaries; crane to hoist the tower, rehabilitation of existing dunnage, installation of new cooling tower and provide new heat trace; performing all associated electrical, controls, plumbing and GC work.

Scope of Work:

Architectural
Remove and replace cooling tower enclosure. Remove and replace roofing under and adjacent to the cooling towers where ponding occurs. (Approved by DCAS on 04/10/20).

Structural
Cooling tower steel dunnage:
Restore/rebuild rusted beams and replace if they are in beyond repairable condition. Remove and replace rusted bolts as required. Install missing bolts as required. Remove and replace rusted vibration isolators. New isolators to be sized based on the new cooling tower specification. Provide temporary structural support and shoring for removing/replacing rusted beams as required.

Electrical
Remove all existing wiring and control conduit associated with the existing cooling towers and replace with new conduit/wiring serving the new cooling towers. Remove exiting cooling towers' shut-off disconnect switches installed on the cooling tower enclosure. Provide and install new water proof safety shut-off disconnects on the mechanical penthouse wall adjacent to the new cooling tower. Remove and replace all conduits and wiring from the motor control center to the new condenser water pumps. Provide water-tight flexible conduits for electrical

wiring serving new cooling tower. Provide a dedicated electrical feed including dedicated circuit, conduit and wire for cooling tower heat tracing.
Remove and reinstall existing lightning protections on cooling tower. Provide dedicated GFI outlets for electrical devices on the roof.

Plumbing
Remove and replace existing cooling tower domestic cold-water supply make-up piping. Provide piping accessories, outdoor pipe insulation jackets, insulations and electric heat tracing. Provide a new sanitary drain for cooling tower blow-down piping and connect it to an existing sanitary/waste stack as required by code. Existing cooling tower blow-down piping to be removed and replaced with new piping which connects to the new dedicated sanitary drain.

Mechanical

Remove existing cooling towers including all associated piping. Provide new cooling towers including new Variable Frequency Drive (VFD) and tower fan motors. Provide insulated heat tracing on all exposed piping. Remove and replace condenser water piping from cooling tower to pumps. Removed and replace existing (3) condenser water pumps and provide new pumps with variable speed controller. Provide a full flow bypass for winter operation of cooling tower. Cooling tower to be connect to the existing BMS system. Existing cooling tower to be tied into the fire alarm system.

Additional Scope Requested by DCAS on 05/06

AC units serving IT Rooms:
Provide new Glycol dry cooling unit on the roof. Disconnect AC units serving IT rooms from the existing cooling tower and tie them into the new rooftop Glycol cooler. Provide risers from the existing AC units serving IT rooms to the new roof-top Glycol unit. It is proposed to use the telephone closets in the Mechanical Equipment Room for the new risers (if required).

Existing Condenser Water Risers:
Remove and Replace existing condenser water risers connecting the AC units to the cooling tower.
Note: During the site visit, DDC team did not observed any water leaks from the condensers .

Cooling Tower/Condenser Water Chemical Treatment System:
Existing Chemical treatment system should be handled through the maintenance program.

Special Inspections Required:

- 1705.14 Sprayed Fire-Resistant Materials
- 1705.17 Fire Resistant Penetrations and Joints
- 110.3.4 Fire Resistance Rated Construction
- 110.5 Final

- 1705.2.1 Structural Steel - Welding
- 1705.2.2 Structural Steel Details
- 1705.2.3 Structural Steel High Strength Bolting
- 1705.25 structural Stability - Existing Building
- 1705.21 Mechanical Systems, Directive 14-1975

Anticipated Construction Start Date: 12/9/2026

Anticipated Construction End Date: 8/19/2028

Not to exceed amount: $134,224.00

CCDs: 619

DOB-approved job application numbers:

- X01141830-11
- X0114830-S1
- X01141830-S2
- X0114830-S3

Please Note: Proposers are required to submit all required documents using the

Department of Design and Construction

RFI Response Form as a single PDF file.