

CONTRACT # N40085-10B-0446  
PROJECT# 10M048CN  
MACC # 10-0446  
MAXIMO # 4276620

TITLE: BLDG M413- ABATE ASBESTOS & REPLACE HOT WATER TANK

ATTACHMENTS: None

**SCOPE OF WORK:** The contractor shall provide all material, labor, equipment, and supervision required to accomplish the following:

**General description:** The contractor shall abate asbestos containing materials (ACM), demo the existing steam hot water heater components, and replace with an electric hot water heater.

**Detailed requirements and specifications** – The contractor shall:

**Demolition:**

1. Demo all pipe insulation on steam, condensate and water piping in mechanical room. All removed pipe insulation shall be treated as asbestos.
2. Demo existing hot water tank, tank stand and components located in mechanical room in rear of building.
3. Demo existing steam supply piping and supports back to the header, tee and cap or plug. All piping to be demolished is marked with fluorescent paint.
4. Demo the existing domestic hot water condensate piping and supports from the existing domestic hot water heater to the condensate tank. Plug or cap at the existing tee. The piping is marked with fluorescent paint.

**Plumbing:**

1. Install 3-Phase, 208 Volt, 6000 watt upper and lower element, wired for non-simultaneous operation, 80 gallon commercial electric hot water heater and stand located in mechanical room. Type hot water heater desired is listed in the specifications below.
2. Connect to existing hot and cold water lines. The piping shall be no less than 1 inch type “L” copper.
3. Contractor shall install a Thermal Expansion tank at water heater per manufactures specifications.
4. Insulate all new and existing piping with self sealing all service (ASJ) vapor retarder jacket fiberglass insulation. The insulation shall meet all model code fire ratings.
5. Clean up work area and remove debris. Contractor shall be responsible for disposing of all debris.
6. All plumbing work shall comply with the latest edition of the National plumbing Code and Base regulations.

**Electrical:**

1. Install (1ea) 3 phase NEMA 3R non-fusible disconnect for the water heater and a three pole circuit breaker in distribution panel for water heater circuit. Size disconnect and circuit breaker to manufacture specifications for water heater.
2. Install EMT from the disconnect to the G.E. electrical Distribution panel in the Mechanical Room.
3. Install THHN conductors and THHN EGC sized for water heater branch circuit from Distribution Panel to the 30 amp disconnect for the water heater.

4. Install flexible metal conduit with THHN conductors and THHN EGC sized for water heater circuit from the disconnect to the water heater.
5. Label disconnect and circuit in panel.
6. All Electrical work shall comply with the latest edition of the National Electrical Code and Base regulations.

**Water Heater Specifications:**

1. Hot Water Heater – Water heater shall be equal to or greater than model ELD80-B, manufactured by Ruud-Rheem, having an electrical output of 6 KW and a recovery rate of 49 GPH at a 100 F temperature rise. Water heater shall have a storage capacity of 80 gallons. Water heater shall have the UL seal of certification and be factory equipped with an AGA/ASME rated temperature and pressure relief valve. Tank interior shall be coated with a high temperature porcelain enamel and furnished with a R-Tech resistered magnesium anode rod rigidly supported. Water heater shall meet or exceed the energy factor requirements of ASHRAE. Tanks shall have a working pressure rating of 150 psi, and shall be completely assembled. Water heater shall be equipped with copper, resistor, screw in type elements. Tanks shall be insulated with 2-1/2” of rigid polyurethane foam insulation. Water Heater shall be equipped with surface mounted thermostats each with an integral, manual reset, high limit control. Water Heater shall be covered by a three year limited warranty against tank leaks.
2. Water Heater Stand – the contractor shall install heavy duty, galvanized steel stand for mounting the 80 gallon hot water heater. Height- 16”.

**Submittals:**

1. The contractor is required to submit a schedule detailing when they and/or any subcontractors will be working. The schedule must be approved by the government before beginning work.
2. The contractor shall provide the government with a copy the manufacturer’s spec sheet for the hot water heater to ensure it meets the requirements above.
3. The contractor is required to submit an Asbestos Abatement Plan prior to work start date if the material removed exceeds 260 lf, 160 sqft, 35 cuft.
4. Prior to final Government acceptance, the contractor shall provide all documentation from this asbestos abatement to the OICC Project Manager and Mr. Billy Parkin, Camp Lejeune Asbestos Program Manager, Environmental Compliance Branch, I&E/EMD/ECB/EAS, Camp Lejeune, NC 28542, (910) 451-7018, william.parkin@usmc.mil.

Asbestos data to include:

- a. Copies of disposal manifests from the Base Landfill.
  - b. Copy of the Abatement/Demolition Permit if above the 260 lf, 160 sqft, 35 cuft threshold.
  - c. Sketch showing where the asbestos materials were removed and the square footage
  - d. Negative Exposure Assessment form for all employees performing the abatement indicating work processes do not exceed PEL.
  - e. Clearance Letter from the third party Supervisor Air Monitor that took the re-occupancy clearance samples.
  - f. Copies of the North Carolina accreditation/certificates for personnel performing the asbestos abatement
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**Scheduling and Access:**

1. Contractor shall notify building occupant 24 hour prior to cutting water off.

2. Contractor shall notify Camp Lejeune Asbestos Manager and the building occupant 48hrs prior to commencement of Asbestos abatement.

**Hazardous Materials:**

Asbestos: The piping and hot water tank insulation contains asbestos. Perform all work in accordance with state and federal asbestos abatement requirements. The Base Landfill can be utilized for disposal of asbestos containing materials that are properly packaged and tagged. The contractor shall provide the Camp Lejeune Asbestos Manager all documentation associated with this abatement as noted in the Submittals Section above.