

Contract: N40085-09-R-0454

Project: 9M077CN

Maximo: 4219077

Bldg. 904,905, & 916 Hot Water Heater Conversion

General Intent:

The intent of this project is to demo the existing steam hot water heater system and replace with an electric hot water heater system in buildings 904 and 916 and to demo the existing steam hot water system in building 905.

Project Area Descriptions

- 1.) Bldg. 904 is a general warehouse located at 904 Sneads Ferry Road. The steam hot water system is located in the mechanical room on the backside of the building.
- 2.) Bldg. 905 is a general warehouse located at 905 Sneads Ferry Road. The steam hot water system is located in the mechanical room located on the backside of the building.
- 3.) Bldg. 916 is a general warehouse located at 916 Duncan Street. The steam hot water system is located in the mechanical room no. 1 located on the backside of the building.

Contractor Responsibility and Requirements

Bldg. 904

- 1.) Steam
 - a.) Demo existing hot water tank and stand.
 - b.) Demo steam piping and cap off at the main line.
 - c.) Demo the condensate line and plug at $\frac{3}{4}$ " tee.
 - d.) The existing hot water tank and associated piping to be demo'd, are marked with orange paint.



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2.) Plumbing

- a.) Install 3-Phase, 208 Volt, 5500 watt element, 80 gallon commercial electric hot water heater and stand.
- b.) Connect to existing hot and cold water lines. The piping shall be no less than 1 inch type "L" copper.

3.) Electrical

- a.) Run 208 volt circuit approximately 250 feet from Panel MDP to the hot water heater. Run 208 volt circuit approximately 150 feet from Panel MDP 2 to the hot water heater. The wiring shall be run in hard conduit and sized according to the specifications of the hot water heater. All work to completed as per NEC.
- b.) Install disconnect to hot water heater and connect power to heater.

4.) Insulation

- a.) Insulate all new lines with 1" thick, self sealing all service (ASJ) vapor retarder jacket fiberglass insulation. The insulation shall meet all model code fire ratings.

5.) Disposal

- a.) Dispose of all demo material. The base landfill can be utilized.

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Bldg. 905

1.) Steam

- a.) Demo the hot water tank and the stand.
- b.) Demo the hot water lines back to the wall inside the mechanical room and cap.
- c.) Demo the cold water lines and cap off at the first tee.
- d.) Demo the recirculation line, with associated pump, back to the wall inside the mechanical room, and cap.
- e.) Demo the existing relief valve discharge piping and associated hangers to termination point out side of the mechanical room.
- f.) The existing hot water tank and associated piping to be demo'd, are marked with orange paint.



2.) Electrical

- a.) Demo the existing recirculation pump wiring and circuit back to the first junction box.

3.) Disposal

- a.) Dispose of all demo material. The base landfill can be utilized.

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Bldg. 916

1.) Steam

- a.) Demo existing hot water tank and stand. Supports for the building heat exchanger shall be modified and run to the floor for complete support. Care shall be taken to temporarily support the building heat exchanger during removal of stand, removal of tank, and installation of new permanent supports.
- b.) Permanent supports shall consist of flanges bolted to the mech room concrete floor.
- c.) Demo the cold water line back to the building heat exchanger.
- d.) Demo the steam reducing station from the hot water tank to the steam header and cap off.
- e.) Demo the condensate line and plug off at the first tee.
- f.) The existing hot water tank and associated piping to be demoed are marked with orange paint.



2.) Plumbing

- a.) Install 3-Phase, 208 Volt, 5500 watt element, 80 gallon commercial electric hot water heater and stand. The hot water heater shall be installed in rear right corner of the mechanical room.
- b.) Connect to existing hot and cold water lines. The piping shall be no less than 1 inch type "L" copper.

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3.) Electrical

- a.) Run 208 volt circuit approximately 150 feet from Panel MDP 2 to the hot water heater. The wiring shall be run in hard conduit and sized according to the specifications of the hot water heater. All work to completed as per NEC.

4.) Insulation

- a.) Insulate all new lines with 1 “ thick, self sealing all service (ASJ) vapor retarder jacket fiberglass insulation. The insulation shall meet all model code fire ratings.

5.) Disposal

- a.) Dispose of all demo material. The base landfill can be utilized.