



30 East 60th Street, New York, NY 10022

Cellar/Ground Floor Restaurant/Kitchen Upfit in Existing Shell Space

Mechanical, Electrical, Plumbing, Fire Sprinkler, Fire Alarm Infrastructure Support Assessment

Mechanical

The new heating and air conditioning equipment for the restaurant/kitchen space will be connected to the existing building's closed-loop water system. Separate water-source heat pumps (WSHPs) with high-pressure (250 psig) coils will distribute conditioned air to the occupied spaces through externally-insulated galvanized sheet steel ductwork. The WSHPs shall be connected with 2" uninsulated welded schedule 40 steel piping (250 psig operating pressure) to the building's supply and return closed-loop water risers. The WSHPs shall be located outdoors on the roof setback and ducted to the spaces; smaller units may be located in the ceiling of the spaces they condition.

Outdoor air for the spaces shall be provided through a water-source heat pump with a natural gas pre-heating coil, located on the roof setback between the 30th and 36th buildings.

Make-up air for the kitchen exhaust hood shall be delivered to the kitchen exhaust hood through ductwork and conditioned (heating only) through a natural gas-fired make-up air unit.

The kitchen exhaust shall be delivered to the outdoor via welded 10-gauge black iron or stainless-steel ductwork with calcium silicate exterior insulation. The kitchen exhaust fan shall be located on the cellar roof setback, angled at a 45-degree offset, pointed away from the building, toward the adjacent property to maintain code-required clearances.

A moisture-proof exhaust fan and liquid-tight aluminum or stainless steel welded ductwork shall be provided for the dishwasher exhaust.

An upblast fan shall be provided for toilet room exhaust.

Direct-digital controls of the HVAC systems for the upfit shall be stand-alone and not connected to the building's control system.

Walk-in coolers, walk-in freezers, refrigerated trash rooms, etc. shall have rooftop-mounted air-cooled condensing units.

Electrical

Normal Electrical Power - The main electrical room is located in the Cellar level of the building. The building's main service is 120/208 V 3P 60 Hz 4000 A. A new 1200-amp connection shall be made to the ConEdison electrical service, ahead of the building's main electrical service, with a new 1200-amp current transformer (CT) cabinet, utility submeter and disconnect switch. New conduit/conductors shall be extended to the upfit area, to be connected to new restaurant/kitchen electrical distribution subpanels. Refer to the detail on sheet E-100.00.

Emergency Electrical Power – There is no additional capacity on the building's emergency electrical distribution system. Exit signage and emergency lighting shall be self-contained battery back-up only.

Plumbing

The connection points for the water systems are shown on the attached plan P-100.00.

Domestic cold water: Connect a new 2" domestic cold water line to the existing distribution; provide a new water submeter and extend 2" piping to the upfit space.

Domestic hot water: Provide new natural gas-fired instantaneous domestic hot water heaters. Two heaters shall be selected for 120 deg F supply water for general purpose, and two shall be selected for 140 deg F water for dishwashing. Provide a 2" line for extension to the kitchen equipment and fixtures.

Sanitary sewer: A lift station with duplex 3 horsepower sump pumps shall discharge the sanitary waste into the house trap at the Cellar level via a 4" pressurized main.

Where possible, there are existing 4" sanitary sewer risers around the perimeter of the first floor upfit space that can be interconnected to limit extensive underground sanitary piping.

Sanitary vent: Existing 4" sanitary vents are located around the upfit space for connection to the new vent piping for the upfit space.

Kitchen grease disposal: A new 500-gallon grease interceptor shall be connected to the sanitary waste lines of the grease-generating equipment and devices (dishwasher, compartment sinks, floor drains in front of the hot line). The discharge of the interceptor shall be into sanitary sewer piping at the inlet side of the lift station.

Natural Gas: A 3" natural gas line shall be extended from a point ahead of the house main gas meter and brought to the upfit space to provide natural gas for the kitchen equipment, gas-fired HVAC equipment, and domestic hot water heaters. A separate natural gas meter shall be installed to submeter the gas consumption of the tenant.

Fire Sprinkler

The building is served by an electric fire pump on emergency generator power and a Class I standpipe system with sprinklers on every floor.

For the Cellar level, there is an existing 2-1/2 zone control valve, flow/tamper switch and drain. New sprinkler piping and sprinkler heads will need to be installed in the upfit area.

For the Ground Floor, a new 2-1/2 fire sprinkler pipe should be connected into the sprinkler piping near the standpipe, downstream of the existing floor valves and flow/tamper switches, and brought to the upfit area for interconnection to the new sprinkler distribution piping and sprinkler heads.

See plan FP-100.00.

Fire Alarm

The building is fully protected by a new addressable fire alarm system. All new fire alarm system devices for the restaurant/kitchen shall connect to the building's fire alarm control panel (located on the Ground Floor – see sheet FA-100.00) through a new data gathering panel, which will interface between the new fire alarm devices and the fire alarm system.

The building's fire alarm riser diagram, showing all connected devices, for the floors from the Cellar to the 5th floor, is attached for reference on sheet FA-200.00