

231100 FACILITY FUEL PIPING

included (y/n)

GAS PIPING

Gas Piping Requirements & Locations (with Drawing References):

1/2" Gas Riser Down to Kitchen Cook Line

Provide isolation valve, solenoid valve, interconnect to fire alarm and Ansul system

Locations: 2 Details, P4.3, P3.7

1/2" Gas Connection to Domestic Gas Boiler

Provide solenoid valve (CO monitor/FA system interface), gas cock, union, 6" dirt leg

Reference: 2 Details, Detail 13/P6.1, P4.3

1-1/2" Gas Riser Down to Kitchen Cook Line

Provide isolation valve, solenoid valve, interconnect to fire alarm and Ansul system

Locations: 2 Details, P4.3, P3.7, P3.6, P2.14

1-1/2" Gas Line Through/Up Exterior Wall

Pipe penetration below cast stone trim, lockable isolation valve on exterior

Locations: 2 Details, P4.3, P2.1A2

1-1/2" Gas Up to Roof

Vertical riser to roof

Locations: 3 Details, P2.1A2, P2.5, P2.1B

1-1/4" Gas Riser Down to Kitchen Cook Line

Provide isolation valve, solenoid valve, interconnect to fire alarm/Ansul, gas pressure regulator (5.0-0.5 PSIG, vented through roof)

Reference: 2 Details, Detail 14/P6.1, P4.3, P3.10

1-1/4" Gas to Kitchen Equipment (#31 - Hot Plate)

Provide per Detail 13/P6.1

Locations: P3.6

3/4" Gas to Kitchen Equipment (#30, #33, #34, #504, #506, #508, #509, #510, #K19, #K20, #K22, #K23, #K24, #K26)

Provide per Detail 13/P6.1

Locations: P3.6, P3.7, P3.10

3/4" Gas to Pool Boiler (400 CFH)

Provide solenoid valve (CO monitor/FA system interface), gas pressure regulator (5.0-0.5 PSIG, vented through roof), gas cock, union, 6" dirt leg

Reference: 2 Details, Detail 14/P6.1, P4.3, P3.11

1" Gas to Kitchen Equipment (#503 Fryer, #34 Gas Floor Fryer) & Dryer

Provide per Detail 13/P6.1

Locations: P3.6, P3.8, P3.10

2" Gas Tap for Future Restaurant Tenant (1500 CFH)

Provide lockable isolation valve and cap

Locations: 2 Details, P2.1A2

2" Gas Up to Roof

Vertical riser to roof

Locations: 4 Details, P2.4, P2.6

3" Gas Line Through/Up Exterior Wall

Pipe penetration below cast stone trim, lockable isolation valve on exterior

Locations: 2 Details, P2.1A2

3" Gas Up to Roof

Vertical riser to roof

Locations: 7 Details, P2.1A2, P2.3

4" Gas Line Through/Up Exterior Wall

Pipe penetration below cast stone trim, lockable isolation valve, gas pressure regulator (5.0-0.5 PSIG) on exterior

Locations: 2 Details, P4.3

General Gas Piping Requirements

Conceal piping in walls unless otherwise noted; use quick-disconnect hoses for equipment (FS-3.2, FS-2.2, FS-1.2)

Provide supports per SCFGC T.415.1 (P000, P002)

Paint exterior piping with rust inhibitor (P002)

All gas pressure regulators individually vented to exterior (P0.2)

Provide accessible shut-off valves at each equipment gas inlet (P0.2)

Provide necessary offsets/supports, expansion, and firestopping at penetrations (P0.2, P6.1)

Coordinate with fire alarm, Ansul, and CO monitoring systems as required (P4.3, P3.13)

Comply with NFPA 54 and all applicable codes (P0.2)

Reference all gas connection details for specific equipment (P6.1, P3.10, P3.6, P4.3)

Civil/Utility Coordination

Gas service and meter per civil drawings (C501, C002)

Use existing service where indicated; coordinate with utility provider before paving (C501, P0.2)

Note:

All installations must follow referenced details and drawings for exact requirements and locations.

Coordinate all connections, supports, and terminations per project specifications and code.

GAS VALVES

Quick-Disconnect Gas Hoses:

Provided by Food Service Equipment Contractor (FSEC) for supplied equipment; installed by plumbing unless otherwise specified (FS-2.2, FS-3.2).

Plumbing contractor to finish gas piping with fitting for appropriate quick-connect hose at equipment locations (FS-2.2, FS-3.2).

Gas Shut-Off Valves:

Required in the main gas supply line to food service cooking equipment; typically provided by FSEC unless noted otherwise (FS-2.2, FS-3.2, P0.2, 2 Details, 3 Details, P003, P6.1).

Valve location and pipe size to be verified by plumbing contractor (FS-2.2, P0.2).

Gas shut-off valve to be interconnected with fire protection system for fuel shut-off to cooking equipment beneath exhaust hoods upon system activation (FS-2.2, FS-3.2, P6.1).

Lockable isolation valves required on gas risers and exterior gas lines (P4.3, P6.1).

Gas shut-off valve upstream of each Ansul valve (P003).

Gas Pressure Regulators:

Required at all gas-fired equipment (P000 , P4.3, P6.1, FS-2.2, FS-3.2).

Regulators to be set to manufacturer's recommendations and sized per equipment requirements (P4.3, P002).

Pressure regulators must be individually vented to the building exterior; vents to terminate with elbow turned down and insect screen, minimum 5'-0" from ignition sources and 15'-0" from air intakes (P0.2, P6.1, P3.10, P4.3, 2 Details).

Where installed inside, extend atmospheric vent full size and terminate outside (P002).

Pressure regulators for generators to be located no less than 10'-0" from fuel inlet (P002 , 2 Details).

Pressure reducing valves (e.g., 2 psi to 0.5 psi) typical for kitchen and rooftop unit connections (FS-1.2, P4.3).

General/Locations:

Gas valves, regulators, and quick-connects located at food service equipment, kitchen lines, rooftop units, and generator connections (FS-2.2, FS-3.2, FS-1.2, P4.3, P002).

All gas piping and valves to be concealed from public view unless otherwise noted (A0.1).

Plumbing/mechanical/general contractors must coordinate with food service contractor for all in-wall valve/component requirements before wall closure (FS-2.2, FS-3.2, 3 Details).

All work to comply with local codes and referenced standards (P000 , P6.1).

GAS METERS

Gas meter location and installation details are shown on civil and plumbing drawings (2 Details, P0.2, P2.1A2).

Gas meter to provide service pressure of 5 PSI (P4.3, P0.2, P2.1A2).

Gas meter serves all gas-fired equipment, including generator and most remote appliances (P4.3, P000).

Total gas load at meter is 13,452 CFH (P4.3).

Developed length from gas meter to generator is 210' and to most remote appliance is 484' (P4.3).

Pipe sizes from gas meter are based on initial pressure of 5 PSI with a 10% loss considered (P0.2, P000).

Plumbing contractor to provide shut-off valve, dirt trap, and pressure regulator at all gas-fired equipment downstream of the meter (P4.3, P000).

Coordinate gas meter location and service with civil drawings and site utilities (2 Details, P2.1A2, P0.2).

All work to comply with local code requirements and referenced fuel gas codes (P000).