

PLUMBING SYSTEMS

GENERAL

This narrative provides a brief summary of the proposed plumbing systems. The information contained in this document will be used during the design process.

CODES AND REGULATIONS

The following construction codes and regulations are understood as requirements for this project:

- 2020 Edition of the Building Code of New York State.
- 2020 Edition of the Energy Conservation Code of New York State.
- 2020 Plumbing Code of New York State.
- 2020 NYS Energy Conservation Code.
- National Fire Protection Association (NFPA), including NFPA 101, and NFPA 90A.
- The 2017 edition of the National Electrical Code.
- The 2016 edition of NFPA 72 National Fire Alarm Code.
- ICC/ANSI A117.1: Accessible and Usable Buildings and Facilities

PRIMARY DESIGN ASSUMPTIONS

WATER SERVICE

1. New 4" water service main shall enter the lower level. Plumbing contractor shall extend pipe terminated by site contractor 5'-0" from the building foundation wall. 4" domestic water entrance shall be provided with valve, strainer, water meter and 3" reduce pressure backflow preventer, drain from RPZ shall terminate to grade with a check valve, provide rodent screen.
2. Domestic water piping main shall extend through building to fixtures.
3. Domestic water service piping shall be type L copper with welded fittings mains Provide fiberglass insulation with pvc covers on all domestic water piping 1-1/2" inch and smaller shall be (1" inch thick), 2" and larger shall be (1-1/2") inch thick. All ball valves shall be full port with stainless steel ball and stem.
4. Provide non-freeze wall hydrant with vacuum breaker at six locations around the building.

HOT WATER SYSTEM

1. Domestic hot water system, shall include (1) 120-gallon 34 kw electric water heater, mixing valve and recirculation pump. Located in the Water room.
2. Provide a digital temperature mixing valve on the hot water system in the mech room. Deliver 120-degree hot water to all the fixtures.
3. Domestic hot water and hot water return piping shall extend through the building to serve fixtures, mop basins and sinks.
4. Domestic hot water piping shall be Type L copper with welded fittings mains Provide

fiberglass insulation with pvc covers on all domestic water piping 1-1/2" inch and smaller shall be (1" inch thick), 2" and larger shall be (1-1/2" inch thick). All ball valves shall be full port with stainless steel ball and stem.

SANITARY/VENT SYSTEM

1. 6" Sanitary piping shall leave the building and terminate 5'-0" from building foundation wall.
2. Sanitary piping shall extend with-in the building and connect to all plumbing fixtures.
3. Vent piping from the plumbing fixtures shall be routed and connected and exit the roof.
4. 75 gpm oil water separator shall be provided in the garage area.
5. Provide oil sensor sump pump in elevator pit, 50 gpm. pump discharge shall terminate at 4" sanitary standpipe with check valve and air gap.
6. Sanitary piping shall be Schedule 40 PVC piping below ground and above ground. No-hub cast iron piping with 4-band stainless steel couplings shall be provided in return plenums.

STORM SYSTEM

1. 8" storm (260 gpm) shall terminate 5'-0" from foundation wall.
2. 4" combination roof/overflow drains shall be provided on flat roof. Overflow piping shall terminate through outside wall 18" above grade with downspout nozzle and rodent screen.
3. Storm and overflow piping shall be Schedule 40 PVC piping below ground and above ground. No-hub cast iron piping with 4-band stainless steel couplings shall be provided in return plenums.

PLUMBING FIXTURES

1. Manufacturers of plumbing fixtures, faucets, and trim will be subject to approval by the Owner and architect and will be standard commercial grade water-saving type and designed to meet the Americans with Disabilities Act (ADA) guidelines where required or indicated. All stainless-steel sinks in break rooms, All new plumbing fixtures will be a low-flow water conservation type to minimize water consumption.
2. Sinks - Undermount Stainless steel sink, faucet, swing spout and lever handle with hand spray, McGuire supply pipes and trap. (1.5 gpm). provide dishwasher tailpiece and separate hot water with valve to for dishwasher.
3. Bathrooms - Lavatories bowl integral with counter and wall hung, faucets moen brushed nickel shall be two handle ADA style, with Supplies and offset trap. (1.0 gpm).
4. Bathrooms - Floor mounted ADA elongated flush valve water closet (1.6 gpf).
5. Floor Drain - Mech Rooms, 9" diameter nickel bronze strainer with sediment bucket, Provide trap seal.

6. Showers – ADA showers base with ADA Controls and handheld shower head (1.5 gpm). Clarian/Aquatic.
7. Mop Service Basin – 24x24x10” high molded stone with commercial faucet with vacuum breaker, stainless steel wall and rubber bumper guards, mop hanger and hose hanger.
8. Floor drains – Bathrooms, 7” diameter nickel bronze strainers. Provide trap seal.
9. Water Hammer Arrestor – Basis of design Precision Plumbing Products SC-500 thru Sc-1250.
10. Trench drains and grates located in the garage area shall be rated for heavy loading, with integral catch basin at the end of the trench drain.

POLICE FUEL FILLING STATION

1. Provide a aboveground fuel storage tank and dispensing system. basis of design Envirosafe C-Fleet 5, complete turn-key system, this is a 5000 gallon tank with fuel tank features, (1) UL-142 Flameshield or UL-2085 Fireguard Tank Mounted on Saddles (2) 8" 8 Oz Emergency Vent Male w/O-ring (1) Monitoring Well w/ 2" Cap (1) 3" Stack Vent w/ 3" Updraft Vent (1) High Level Shut-off Valve with test mechanism & 3" Ground Level Fill (Vertical Check Valve, Ball Valve, Fill Pipe w/ Diffuser, Fill Adapter, & Dust Cap) (1) 2" 918 Clock Gauge w/ Alarm & Standard Float for Accurate Fuel Level Reading (1) Ladder w/Safety Shield (1) Total Control 682-15 Piston Meter with 10:1 Pulser.