

S. Division 15 - Mechanical

1. Products and systems

- a) All underground ductile iron pipe shall have polyethylene encasement IAW. ANSI/AWWA C105/A21.5.
- b) Plumbing Fixtures: (Crane/American Standard/Kohler):
 - 1) Water Closets shall be wall mounted or wall hung with automatic flush valves.
 - 2) Urinals - wall type with shields Waterless urinals should be considered when appropriate. Use Falcon or approved equivalent.
 - 3) Lavatories - 20 inch x 18 inch with automatic flush valves faucets. Comply with ADA required clearances and insulation of hot water lines.
 - 4) Service Sinks - roll rim enameled cast-iron with trap standard, chrome strainer, front rim guard, hose end lever handle bibbs
 - 5) Counter Sinks - stainless steel self rimming with swing spout faucet. Shut-offs on supplies
 - 6) Refrigerated Drinking Fountains - wall hung, stainless steel basin, 8 gph of 50 Deg. F. water, shut-off on supply, ADA compliant. (OASIS; ELKAY)
 - 7) Drinking Fountains - wall hung, shut-off on supply, ADA compliant. (OASIS; ELKAY)
 - 8) Showers - Push Button or infra-red, vandal proof, flow restricted shower head; off push-button control. ADA accessible showers require hand-held shower heads.
- c) Plumbing Accessories
 - 1) Floor Drains - cast-iron body, 6 inch nickel bronze grate, trap primers as required
 - 2) Clean outs - cast-iron body, nickel bronze access plate flush with floor
 - 3) Roof Drains cast-iron body, gravel guard, removable dome, under deck clamp
 - 4) Hose Bibbs (exterior) non-freeze flush mount wall hydrants nickel bronze face and removable key

- 5) Water heaters (gas-fired) - storage type glass lined (Rheem or A.O. Smith) thermometer on outlet
 - 6) Water heating Boilers - Rheem/A.O. Smith/Raypak
- d) Heating/Air Conditioning
- 1) Equipment
 - a) Oil/Gas furnaces - Lennox with spark ignition and at least 90% efficient with sealed combustion
 - b) Roof-top Heating/A.C. Units with economizers and relief air; CO2 sensors, high pressure and low pressure refrigerate cut-outs; crankcase heaters; and liquid line dryers
 - c) Gas infrared heaters - Modine/Reznor
 - d) Electric infrared heaters - G.E./Modine
 - e) Gas unit heaters - force draft units only
 - f) Electric heating equipment - Reznor
 - g) Gas heating boilers - Rheem/Raypak/Laars/Ajax
 - h) Fans-Quality units with bearings accessible for lubrication and maintenance
 - i) Pumps - Armstrong/Taco (Provide Balance Gauges both sides)
 - j) Controls - Compatible to Johnson Controls Metasys. (ASC controllers, DX9100).
 - k) Thermostats - Honeywell (T7300/Q7300 Programmable) or Johnson Controls sensors
 - l) Louvres/Grilles - Hart Colley/Titus
 - m) Radiaters/Convectors - Trane/Dunham
 - n) Redundancy cooling or ventilation should be considered in all computer server and PBX rooms.
2. Variable-Speed Drives
The application of inverters to air handlers, fans, pumps, etc. should be considered. Protect units from transient electrical phenomenon.
3. The installation of Halon 1301 or Halon 1211 systems or other systems using halogenated hydrocarbons is prohibited.