

SECTION 22 30 00

PLUMBING FIXTURES AND TRIM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

- A. The Conditions of the Contract and applicable requirements of Division 1, "General Requirements", and Section 23 01 00, "Mechanical General Provisions", govern this Section.

1.2 DESCRIPTION OF WORK:

- A. Work Included: Provide water conserving plumbing fixtures, trim, and accessories specified. Fixtures shall be complete with carriers, trim brass, flush valves, seats, stops, and other required accessories as specified herein or required. Trim for all sinks, lavatories, urinals, water closets, and showers shall comply with applicable water conservation standards.

1.3 QUALITY ASSURANCE:

- A. Acceptable Manufacturers: The model numbers listed in the Specifications establish a level of quality and material. The following manufacturers are acceptable subject to compliance with the requirements of these Specifications. **Note to Specifier: Sloan has been approved as an acceptable manufacturer of vitreous china fixtures as of July 2014.**

1. Fixtures:

- a. American Standard.
- b. Eljer Plumbing Ware
- c. Crane Company

2. Faucets and Accessories:

- a. American Standard
- b. PricePfister
- c. Crane
- d. T & S Brass and Bronze Works, Inc.
- e. Moen (kitchen faucets)
- f. Zurn (shower faucets)

3. Electronic Faucets

- a. Sloan
- b. Moen
- c. Toto

4. Flush Valves:

- a. Sloan Valve Company.
- b. Zurn Aquaflush Valves.
- c. Toto

5. Seats:

- a. Church Products, Forbes-Wright Ind., Inc.
- b. Olsonite Corporation.
- c. Beneke Corporation.
- d. Bemis.
- e. Zurn.

6. Carriers:

- a. Zurn Industries, Inc.
- b. J. R. Smith Mfg. Co.

- c. Wade Div./Tyler Pipe.
- d. Mifab.
- 7. Drinking Fountains:
 - a. Elkay Mfg. Company.
 - b. Sunroc.
 - c. Oasis Water Coolers
- 8. Stainless Steel Sinks:
 - a. Moen.
- 9. Emergency Showers:
 - a. Halsey Taylor - Div. Household Int. Co.
 - b. Bradley.
- 10. Hose Bibbs:
 - a. Chicago Faucet Company.
 - b. Woodford.
 - c. Zurn Industries, Inc.
- 11. Trim (Traps, Supplies, Stops, Etc.):
 - a. American Standard.
 - b. Eljer Plumbing Ware.
 - c. Kohler Company.
 - d. McGuire.
 - e. Zurn.
- 12. Residential Showerheads
 - a. Airjet FM chrome (281-859-9888)

1.4 SUBMITTALS:

- A. Shop drawing submittals shall include, but not be limited to, the following:
 - 1. Fixture, brass, trim, closet seat, flush valve, water cooler and carrier cut sheets showing all features, finishes and options.
 - 2. Additional items as required in Section 23 01 00.

1.5 PRODUCT DELIVERY, STORAGE AND HANDLING:

- A. Deliver plumbing fixtures and trim in factory-fabricated water resistant wrapping.
- B. Handle plumbing fixtures and trim carefully to avoid damage to material component, enclosure and finish.
- C. Store plumbing fixtures in a clean, dry space and protect from the weather.

PART 2 - PRODUCTS

[EDIT TO SUIT PROJECT]

2.1 MATERIALS

- A. Material or equipment containing a weighted average of greater than 0.25 percent lead shall not be used in any potable water system intended for human consumption, and shall be certified in accordance with NSF/ANSI 61, 01-01-14:

22 40 00 – 3, or
NSF 372.

Endpoint devices used to dispense water for drinking must meet the requirements of NSF/ANSI 61, Section 9.

2.2 WATER CLOSETS

- A. Water Closet (WC-_____): Wall hung flush valve, standard height, white vitreous china, elongated bowl, siphon jet, 1-1/2" top spud, **[polished] [brushed]** chrome Sloan Royal **[110-F-3 (11-1/2" rough-in)] [114-F-3 (24" rough-in)]** flush valve, Church [9500NSSC] [9400-KNSSC] white open front anatomical seat with self-sustaining and concealed check hinges.
1. Eljer No. 111-1405 "Auburn Watersaver".
 2. American Standard No. 2477.016 "Afwall".
 3. Crane:
- B. Water Closet WC-_____: Wall hung flush valve, standard height, white vitreous china, elongated bowl, siphon jet, 1-1/2" top spud, 1.6 gallon flush, **[polished] [brushed]** chrome Sloan Royal **[111 (11-1/2" rough-in)] [115-1.5 (24" rough-in)]** flush valve, Church 9500NSSC white open front anatomical seat with self-sustaining and concealed check hinges.
1. Eljer No. 111-1505 "Auburn Watersaver".
 2. American Standard No. 2257.103 "Afwall EL 1.6".
 3. Crane
- C. Water Closet (WC-_____): Wall hung, flush valve, handicapped mounting height, white vitreous china, elongated bowl, siphon jet, 1-1/2" top spud, **[polished] [brushed]** chrome Sloan Royal 110-F-3 (11-1/2" rough-in) flush valve, Church [9400-KNSSC] [9500NSSC] white open front anatomical seat with self-sustaining and concealed check hinges.
1. Eljer No. 111-1405 "Auburn Watersaver".
 2. American Standard No. 2477.016 "Afwall".
 3. Crane:
- D. Water Closet WC-_____: Wall hung, flush valve, handicapped mounting height, white vitreous china, elongated bowl, siphon jet, 1-1/2" top spud, 1.6 gallon flush, **[polished] [brushed]** chrome Sloan Royal 111 (11-1/2" rough-in) flush valve, Church 9400-KNSSC white open front anatomical seat with self-sustaining and concealed check hinges.
1. Eljer No. 111-1505 "Auburn Watersaver".
 2. American Standard No. 2257.103 "Afwall EL 1.6".
 3. Crane
- E. Water Closet (WC-_____): Floor mounted flush valve, standard height, white vitreous china, elongated bowl, siphon jet, 1-1/2" top spud, **[polished] [brushed]** chrome Sloan Royal **[110-F-3 (11-1/2" rough-in)] [114-F-3 (24" rough-in)]** flush-valve, Church [9500NSSC] [9400-KNSSC] white open front anatomical seat with self-sustaining and concealed check hinges.
1. Eljer No. 111-1115 "Sanus Watersaver".
 2. American Standard No. 2221.018 "Madera".
 3. Crane
- F. Water Closet (WC-_____): Floor mounted flush valve, handicapped height, white vitreous china, elongated bowl, siphon jet, 1-1/2" top spud, **[polished] [brushed]** chrome Sloan Royal 110-F-3 (11-1/2" rough-in) flush valve, Church [9400-KNSSC] [9500NSSC] white open front anatomical seat with self-sustaining and concealed check hinges.
1. Eljer No. 111-1245 "Hi-san Watersaver".
 2. American Standard No. 9468.018 "Elongated Cadet Watersaver".
 3. Crane

- G. Water Closet (WC-_____): Floor mounted, one piece, white vitreous china toilet, elongated siphon vortex action bowl. Solid plastic contour styled closed front seat with cover, **[polished] [brushed]** chrome 1/2" stop and supply and **[polished] [brushed]** chrome actuator button.
1. Eljer No. 081-1580 "Windsor".
 2. American Standard No. 2009.017 "Roma".
 3. Crane:

2.3 URINALS:

- A. Urinal (U_____): Texas ADA and ANSI A117.1 complying, wall hung flush valve, extended front, white vitreous china siphon jet, 1-1/4" top spud, 1 gallon flush, with integral flushing rim, integral trap and **[polished] [brushed]** chrome Sloan Royal 186-1-F flush valve.
1. Eljer No. 161-1190 "Bedfordshire".
 2. American Standard No. 6541-132 "Allbrook 1.0".
 3. Crane
- B. Urinal (U-_____): Wall hung flush valve, white vitreous china, blowout, 1-1/4" top spud, **[polished] [brushed]** chrome Sloan Royal 180-F flush valve.
1. Eljer No. 161-1100 "Terminal",
 2. American Standard No. 6570.014 "Jetbrook".
 3. Crane:
- C. Urinal (U-_____): Wall hung flush valve, white vitreous china blowout, 1-1/4" top spud, **[polished] [brushed]** chrome Sloan Royal 180-F flush valve.
1. Eljer No. 161-1060 "Correcto".
 2. American Standard No. 6531.019 "Lynbrook".
 3. Crane
- D. Urinal (U-_____): Wall hung flush valve, extended front, white vitreous china siphon jet, 1-1/4" top spud, with integral flushing rim, integral trap and **[polished] [brushed]** chrome Sloan Royal 180-1.5-F flush valve.
1. Eljer No. 161-1160 "Dover".
 2. American Standard No. 6540.017 "Allbrook".
 3. Crane

2.4 LAVATORIES:

- A. Lavatory (L-_____): Undercounter mounted, white vitreous china fixture, support clips for under counter mounting, American Standard No. 0470.039 "Ovalyn", 8" centerset **brushed** chrome faucet with **4" wrist blade** handles, 2 gpm flow restrictor, **[polished] [brushed]** chrome grid strainer drain/tailpiece assembly, stops and trap.
1. Eljer No. 051-3390 "Barrow".
 2. Kohler No. K-2210 19" x 15" "Caxton".
- B. Lavatory (L-_____): White vitreous china lavatory, front overflow, concealed arms American Standard No. 0194.076 "Roxalyn", 8" centerset **[polished] [brushed]** chrome faucet, with **4" wrist blade** handles, 2 gpm flow restrictor, **[polished] [brushed]** chrome grid strainer drain/ tailpiece assembly, stops and trap. **[Refer to Architectural Drawings for chrome wall spacers.]**
1. Eljer No. 051-2548 "Mayburne".
 2. Kohler No. K-2053 "Jamestown".
- C. Lavatory (L-_____): Countermounted, white enameled cast iron fixture, self-rimming, American Standard No. 3302.015 "Oval Horizon", 8" centerset **brushed** chrome faucet with **4" wrist blade** handles, 2 gpm flow restrictor, **[polished] [brushed]** chrome grid strainer drain/tailpiece assembly, stop and trap.
1. Eljer No. 052-0278 "Edwin".

2. Kohler No. K-2905 "Farmington".

- D. Lavatory (L-_____): Refer to Architectural specifications for lavatory top and bowl. 8" centerset **brushed** chrome faucet with 4" wrist blade handles, 2 gpm flow restrictor, **[polished] [brushed]** chrome grid strainer drain/wheelchair offset drain assembly, stops and trap.
- E. Lavatory (L-_____): Refer to Architectural specifications for lavatory top and bowl. 8" centerset **brushed** chrome faucet, with wrist blade handles, **[polished] [brushed]** chrome pop-up drain/wheelchair offset assembly, stops and trap.

2.5 SINKS:

- A. Coffee Bar Sink (SK-_____): 15" x 15" nominal size, Type 302 stainless steel, 18 gauge, brush finish bowl; chrome gooseneck faucet, **[polished] [brushed]** chrome crumb cup strainer drain/tail piece, stops and trap.
- B. Single Compartment Sink (SK-_____): 19" x 18" overall 18 gauge stainless steel self-rimming sink, 7-1/2" deep, sound dampened brush finish bowl. **Brushed** chrome 8" centerset faucet with swivel goose-neck spout, 4" wrist blade handles, 2 gpm flow restrictor, Elkay LK-99 **[polished] [brushed]** stainless steel grid strainer, drain/tailpiece, stops and trap.
- C. Two-Compartment Sink (SK-_____): 29" x 18" overall, 18 gauge stainless steel self-rimming sink, 7-1/2" deep bowls, sound deadened and with satin finish, **Brushed** chrome 8" centerset faucet with swivel gooseneck spout, 4" wrist blade handles, 2 gpm flow restrictor, Elkay LK-99 **[polished] [brushed]** stainless steel grid strainer, drain/tailpiece, stops and traps.

2.6 ELECTRIC DRINKING FOUNTAINS:

- A. Electric Drinking Fountain (EDF-_____): Fully recessed, all stainless steel with capacity to furnish 8 gph of 50°F of water at 90°F ambient temperature using 1/5 hp, 120 volt, 1 phase, 60 Hz motor, with mounting frame.
1. Elkay No. EFRC-8.
- B. Electric Drinking Fountain Cooler (EDF-_____): Wall hung, surface mounted, all stainless steel, capacity to furnish 8 gpm of 50°F water at 90°F ambient temperature using 1/5 hp, 120 volt, 1 phase, 60 Hz motor.
1. Elkay No. ESWA-8-S - All stainless steel.
- C. Electric Drinking Fountain (EDF-_____): Surface mounted, all stainless steel with capacity to furnish 8 gph of 50°F water at 90°F ambient temperature using 1/5 hp, 120 volt, 1 phase, 60 Hz motor.
1. Elkay No. EWCA-8-S.
- D. Electric Drinking Fountain (EDF-_____): Wall-hung, semi-recessed, barrier-free dual height round bowl cooler, all stainless steel with concealed trap and stop and integral chilling system capacity to furnish 8 gph of 50°F water at 90°F ambient temperature using a 1/5 hp, 120 volt, 1 phase, 60 Hz motor.
1. Elkay No. ERPBM28K.

2.7 DRINKING FOUNTAINS:

- A. Drinking Fountain (DF-_____): Wall hung, semi-recessed, all stainless steel, barrier-free dual height round bowl type with stop and trap.
1. Elkay No. EDFP-117-C (Basis of Design)
2. Sunroc
3. Oasis

2.8 DRINKING WATER CHILLER UNIT:

- A. Drinking Water Chiller Unit (DWCU-_____): Packaged drinking water chiller with integral **[6] [30]** gallon storage tank and recirculating pump. Condensing unit shall be air cooled hermetic with dehydrator, adjustable thermostat and manual starter. Cooling tank shall be welded stainless steel with internal copper evaporator coil. Recirculating pump shall be bronze fitted and provided with an internal bypass valve. Unit shall produce **[15] [35]** gph of 50°F water using a **[one half] [one]** horsepower compressor

and a [1/25] [1/3] hp recirculating pump with a single 120 volt, 60 Hz, 1-phase, [20] [40] ampere power feed. **[The unit shall include a factory-wired 7-day dial electronic time switch to control hours of operation.]** The complete unit shall be factory-assembled in a painted steel cabinet with angle iron frame, suitable for wall mounting. Filtrine Model [M-6-BWPA] [M-30-BWP] or approved equal.

2.9 SERVICE SINKS:

- A. Service Sink (SS-_____): Stern-Williams No. SB 300 Series, "Serviceceptor" 36" x 24" x 12" mop service basin with stainless steel cap, tiling flanges as required, 12" high, 20 gauge, Type 304 stainless steel splash guard on all adjacent wall surfaces, and a cast brass drain with nickel bronze strainer cast integral for 3" pipe connection. Speakman No. SC-5811-RCP, chrome-plated combination service sink faucet with vacuum breaker, 3/4" hose thread spout, four arm handles, wall brace, pail hook, rigid spout and integral stops. Provide 12" high, 20 gauge type 304 stainless steel splash guards on all walls adjacent to the service sink. Provide and install internal wall supports in accordance with the Architects requirements for the wall brace attachment. **[Provide Model T-35 36" hose with 3/4" chrome hose connections and stainless steel wall bracket and Model T-40 24" long stainless steel mop hanger with three spring loaded grips.]**
- B. Service Sink (SS-_____): Stern-Williams No. SB 900 Series, "Serviceceptor" 24" x 24" x 12" mop service basin with stainless steel cap, tiling flanges as required, 12" high, 20 gauge, Type 304 stainless steel splash guard on all adjacent walls, and a cast brass drain with nickel bronze strainer cast integral for 3" pipe connection. Speakman No. SC-5811-RCP, chrome-plated combination service sink faucet with vacuum breaker, 3/4" hose thread spout, four arm handles, wall brace, pail hook, rigid spout and integral stops. Provide 12" high, 20 gauge type 304 stainless steel splash guards on all walls adjacent to the service sink. Provide and install internal wall supports in accordance with the Architects requirements for the wall brace attachment. **[Provide Model T-35 36" hose with 3/4" chrome hose connections and stainless steel wall bracket and Model T-40 24" long stainless steel mop hanger with three spring loaded grips.]**
- C. Mop Sink (MS-_____): American Standard #7740.020 Florwell or approved equal service sink with 3" outlet, acid resistant, enameled cast iron. Removable vinyl-coated rim guard #7745.011. American Standard No. 8344.111 faucet with top brace stops with vacuum breaker, brass 4-arm handles, 3/4" hose outlet and chrome finish. Provide 12" high, 20 gauge type 304 stainless steel splash guards on all walls adjacent to the service sink. Provide and install internal wall supports in accordance with the Architects requirements for the wall brace attachment.
- D. Janitor Sink (JS-_____): Fiat precast terrazzo basin Model TSBC-6010 with tiling flange and stainless steel caps, No. 1453-BB 3" 16 gauge drain Type 302 stainless steel flat strainer, E-77-AA rigid vinyl bumper guard, Speakman SC-5811-USA chrome-plated combination service sink faucet with bucket hook and wall brace, check stops, vacuum breaker and hose-end spout. Provide and install internal wall supports in accordance with the Architects requirements for the wall brace attachment. Provide and install internal wall supports in accordance with the Architects requirements for the wall brace attachment.

2.10 HOSE BIBS AND WALL HYDRANTS:

- A. Hose Bibb, (HB-_____) Interior: Chrome-plated surface wall hydrant with hardened stainless steel interior parts, chrome-plated vacuum breaker and loose operating key. Hydrant shall be Woodford No. 24 or an approved equal.
- B. Hose Bibb, (HB-_____) Interior or Moderate Climate Exterior: Enclosed flush wall hydrant with hardened stainless steel interior parts, brass chrome plated box face and hinged cover with operating key lock and operating key. Hydrant shall be Woodford No. **B74 Series with vacuum breaker** or an approved equal.
- C. Hose Bibb, (HB-_____) Exterior Wall, Nonfreeze: Enclosed flush, anti-contamination wall hydrant with vacuum breaker, hardened stainless steel interior parts, brass chrome plated box face and hinged cover with operating key lock, operating key and non-freeze valve. Hydrant shall be Woodford No. **B65 Series with vacuum breaker** or an approved equal.

- D. Hose Bibb, (HB-_____) Exterior Floor or Grade, Nonfreeze: Enclosed flush grade or floor hydrant with hardened stainless steel interior parts, 2'bury depth, non-freeze valve, and chrome plated brass box face and hinged cover, operating key lock and operating key. Hydrant shall be Woodford No **Y95 with vacuum breaker** or an approved equal.
- E. Hose Bibb (HB-_____) Hot and Cold Water Mixer: Automatic draining freeze-less wall hydrant with vacuum breaker backflow preventer enclosed in a chrome plated brass wall box with hardener stainless steel interior parts, operating key lock and operating key. Hydrant shall be Woodford No. HCB65 or an approved equal.

2.11 SHOWERS:

- A. Shower (SH-_____): Cast brass valve body, ceramic disc valve cartridge, polished chrome, lever handle, pressure balanced shower valve with shower head and arm as specified. Provide with integral check valve stops and Type **[FD-1]** floor drain. Refer to Architectural drawings and specifications for shower pan and enclosure.
 - a. American Standard
 - b. Price Pfister
 - c. Zurn

2.12 EMERGENCY SHOWERS:

- A. Emergency Shower (ES-_____): Bradley free-standing shower and eye/face wash, complete with deluge shower head, one inch (1") chrome-plated brass NPT stay-open ball valve actuated by stainless steel pull rod and ring, barrier-free design, high-performance corrosion-resistant stainless steel showerhead, floor flange, and interconnecting fittings. Unit shall be securely anchored to wall and floor.
- B. Emergency Shower/Eyewash (ES-_____): Haws No. 8308 stay-open ball valve emergency shower with foot treadle/push flag operated eye wash station and emergency sign. Chrome, painted galvanized and stainless steel construction.
- C. Emergency Eye Wash (EW-_____): Western Emergency Equipment Model No. 906, hand held eye/face wash with 12'recoiling hose, squeeze type valve, chrome plated brass spray head.

2.13 UNDERCOUNTER WATER HEATERS:

- A. Water Heater (WH-_____): Self-contained, point of use type, **[0.3] [0.5]** gpm, **[32°F] [40°F] [52°F] [63°F] [68°F] [105°F]** temperature rise, **[2300] [3000] [4600]** watts, **[120] [208]** volts, Chronomite Laboratories, Inc. No. S-**[23] [30] [46]** L/**[110] [208]** volt. Provide served faucet with a **[0.3] [0.5]** gpm flow restrictor.

2.14 FIXTURE CARRIERS:

- A. All wall-hung plumbing fixtures shall be supported from floor-mounted and bolted carriers. No wall-hung water closet, lavatory, urinal, drinking fountain or sink shall depend upon its support from the vertical building system.
- B. All fixture carriers in the building shall be the product of one manufacturer unless otherwise noted on the Drawings. In special instances and with the approval of the Engineer the foregoing may be waived in order to meet special building conditions.
- C. Carriers for wall-hung water closets shall be adjustable.
- D. Carriers for wall-hung lavatories shall be concealed and be constructed of rectangular steel. **[Carriers shall be suitable for use with chrome spacers where detailed on the Architectural Drawings.]**

2.15 PROHIBITED LABELS AND IDENTIFICATION:

- A. In all public [and tenant] areas of the project, fixtures or accessories with markings or insignias intended to identify the manufacturer, vendor, or source must be out of plain view. It is strictly prohibited for installation of any fixture or accessory which bears evidence that markings or insignias have been removed to meet this requirement. Certification, testing, and approval labels are exceptions to this requirement.]

2.16 EXPOSED PIPING:

- A. All exposed piping for supply waste and vent connections to plumbing fixture and connected equipment in finished areas shall be polished chrome-plated unless noted otherwise on the Drawings. This shall include piping, fittings, and valves. Polished chrome-plated sleeves may be used over supply, waste, and vent piping provided that the finished installation presents the appearance of a fully chrome-plated system.

2.17 FIXTURE TRIM:

- A. General: Trim shall be furnished as required for all fixtures.
- B. Faucet Trim: Trim shall be constructed of all metal exposed components. All trim components on the pressure side of the faucet valves shall be metal construction.
- C. Stops, Supplies and Traps: All stop valves shall be loose key. All risers shall be flexible smooth tube type with flare connections. All P-traps shall be adjustable and have cleanout plugs. All stops, supplies, and traps shall have a finish to match the fixture brass.
- D. Adjustable Cast Brass "P" Trap with Clean Out Plug:
1. 1-1/4" x 1-1/4": Eljer 804-1100
Kohler K-9004
McGuire 8088
 2. 1-1/4" x 1-1/2": Eljer 804-1105
Kohler K-9004
McGuire 8090
 3. 1-1/2" x 1-1/2": Eljer 804-1110
Kohler K-9004
McGuire 8089
- E. Closet Supply-Loose Key:
1. Eljer 802-0325
 2. Kohler K-7639
 3. McGuire H-2169-LK
- F. Lavatory and Sink Supply-Loose Key:
1. Eljer 802-0325
 2. Kohler K-7607
 3. McGuire H-2165-LK
- G. Offset Drain Assembly for [Handicapped] [all] Lavatories:
1. Eljer 803-530
 2. Kohler K-13885
 3. McGuire 155-WC

2.18 TRAP PRIMING PROVISIONS:

- A. General: Provide **[flush valves and lavatory traps with diverter fittings for trap priming] [Trap Guard]** where shown or noted on the Drawings.

PART 3 - EXECUTION

3.1 INSTALLATION:

- A. General: Install and adjust all fixtures in accordance with manufacturers written instructions.
- B. Heights: Installation heights shall be specified in Section 15100 or shown on the Architectural Drawings.
- C. Carriers: All wall hung fixtures shall have floor-mounted carriers.

- D. Fixture Setting: Opening between fixture and floor/wall finish shall not exceed 1/8" and shall be caulked with **[white]** silicone caulk. Urinal and water closet sealing rings shall be resilient rubber. Wax sealing rings will not be acceptable.
- E. Supports and Fastening: Secure all fixtures, equipment and trimmings to partitions, walls, etc., with brass through bolts, toggle bolts, expansion bolts, or power set fasteners, as required. Exposed heads of bolts and nuts in finished rooms to be hexagonal, polished chromium-plated brass with rounded tops.
- F. Protection: Tightly cover and protect fixtures and trim from damage during construction. Replace any components which are damaged prior to Project Acceptance.
- G. Cleaning: At completion of all work, fixtures, exposed materials and equipment shall be thoroughly cleaned.
- H. Adjustment: Flush valves and other flow control devices shall be adjusted for proper operation prior to Project Acceptance.
- I. Keys: Provide all loose stop and hose bibb keys to the Owner at Project Acceptance.
- J. Insulation: Refer to Section 23 07 00 for insulation of **[handicapped] [all exposed]** lavatory traps, tailpieces and hot and cold water supplies.

END OF SECTION 22 30 00