

SECTION 15430 - PLUMBING SPECIALTIES

City of San Diego, CWP Guidelines

PART 1 -- GENERAL

1.1 WORK OF THIS SECTION

- A. The WORK of this Section includes providing cast-iron floor drains, floor sinks, roof drains, cleanouts, access covers, frames, hose bibbs, trap primers, shock absorbers, hoses, nozzles, and hose racks.

1.2 RELATED SECTIONS

- A. The WORK of the following Sections applies to the WORK of this Section. Other Sections of the Specifications, not referenced below, shall also apply to the extent required for proper performance of this WORK.

- 1. Section 15410 Plumbing Piping

1.3 CODES

- A. The WORK of this Section shall comply with the current editions of the following codes as adopted by the City of San Diego Municipal Code:

- 1. Uniform Plumbing Code

1.4 SHOP DRAWINGS AND SAMPLES

- A. The following shall be submitted in compliance with Section 01300:

- 1. Calculations for selection of water hammer arrestors.
- 2. Shop drawings showing water hammer arrestors for fixtures and groupings.

1.5 OWNER'S MANUAL

- A. The following shall be included in the OWNER'S MANUAL in compliance with Section 01300:

- 1. Manufacturer's product data.
- 2. Manufacturer's installation instructions.

PART 2 -- PRODUCTS

2.1 GENERAL

- A. Plumbing specialties shall be new products manufactured for the intended usage.
- B. Floor drains shall be installed where equipment drains are indicated.

2.2 ROOF DRAINS

- A. **General:** Except as otherwise indicated, roof drains shall be fabricated with cast-iron body with clamping ring with 4-lb sheet lead flashing (12 inches minimum), gravel stop and aluminum dome.

2.3 FLOOR DRAINS IN TILED FLOORS

- A. **General:** Floor drains in shower rooms, and in other finished or tiled floors, shall be installed with a 5-inch nickel-bronze strainer and cast iron body, in the sizes indicated, and on floors above the first level, a clamping collar with 4-lb sheet lead flashing (12 inches minimum).

2.4 FLOOR DRAINS IN CONCRETE FLOORS

- A. **General:** Floor drains in concrete floors shall be of cast iron, in the sizes indicated, with sediment buckets. Floor drains located on floors above the first level shall have a clamping collar, with 4-lb sheet lead flashing (12 inches minimum).

2.5 FLOOR DRAINS IN CHEMICAL AREAS

- A. **General:** Floor drains in chemical handling areas, shall be made of high silicon content corrosion-resistant cast iron with NO-HUB mechanical joints and in the sizes indicated.

2.6 FLOOR SINKS

- A. **General:** Floor sinks shall be 12-inch by 12-inch by 8-inch and fabricated with acid-resistant white enameled cast iron, with epoxy-coated interior aluminum dome strainer, nickel-bronze or acid-resistant, full-, half-, or quarter-size grating, as indicated, and flashing clamp and 4-lb sheet lead flashing (12-inches minimum) for floors above the first level.

2.7 CLEANOUTS

- A. **General:** Cleanouts shall be heavy plugs with tapered shoulders and caulked lead, or heavy brass plugs. Where underground or concealed, cleanouts shall be brought to floor level and to accessible locations and shall have access covers and frames.

2.8 ACCESS COVERS AND FRAMES

- A. Except as otherwise indicated, access covers with frames shall be provided for inaccessible valves and controls, trap primers and cleanouts.
- B. Access covers and frames in finished floors or walls shall have a clear opening of not less than 8-inch by 8-inch and frames shall be of nickel-bronze with hinged cover.
- C. Access covers in unfinished concrete floors, where exposure to chemicals is not indicated, may be of galvanized cast iron, with a clear opening of not less than 8-inch by 8-inch.
- D. In chemical handling areas, access covers shall be of galvanized cast iron, with a clear opening of not less than 10 inches in diameter.

2.9 HOSE BIBBS

- A. **General:** Hose bibbs in exposed locations shall be of the non-freeze type and, where indicated, shall include vacuum breakers.
- B. Hose bibbs shall comply with the following:

<u>Fixture Type</u>	<u>Description</u>
Non-freeze Post-type	Exposed bronze, post-type, depth of bury minimum 3 feet.
Non-freeze wall-type	Heavy duty bronze with nickel-bronze face, hinged cover, recessed box, and key.
Hose valves	Heavy duty bronze, with composition disc, handwheel, cap and chain, except for sizes 3/4-inch and 1-inch.
Wall box type	Recessed, with nickel-bronze box, hinged cover, and key.

2.10 TRAP PRIMERS

- A. Where indicated, floor drains and floor sinks shall be protected by trap primers. One-half inch copper tubes shall be connected to the traps of floor drains and floor sinks. Trap primers shall be installed in accessible locations.

2.11 SHOCK ABSORBERS

- A. Cold and hot water piping connecting to self-closing faucets and quick-action valves shall be protected by shock absorbers, located at each fixture, or battery of fixtures as recommended by the manufacturer. Shock absorbers shall be of corrosion-resistant construction, permanently sealed, and shall be sized and installed in accordance with the manufacturer's installation instructions.

2.12 WALL-MOUNTED HOSE RACKS

- A. Wall-mounted hose racks shall be installed at locations indicated. Racks shall be of all-welded steel construction, minimum 8-gauge sheet steel, hot-dip galvanized after fabrication, and shall have a capacity to hold 100 feet of 3/4-inch or 1-1/2-inch hose. Where racks are located in open locations, racks shall be supported from two 2- by 2- by 1/4-inch galvanized steel angle posts, and shall be set in a concrete base.

2.13 HOSES AND NOZZLES

A. The WORK includes the following quantities of the lengths indicated:

- [] - 75 ft lengths of [3/4] [one]-inch hose
- [] - 100 ft lengths of 1-1/2-inch hose
- [] - 150 ft lengths of 2-1/2-inch hose

B. Hose shall include male and female connectors and nozzle and shall be seamless, extruded rubber with dacron cotton exterior and shall be designed for a working pressure of at least 200 psi.

C. Nozzles shall be capable of complete shut-off and shall produce a solid straight stream and up to a 90-degree conical fog. Nozzle material shall be brass with polished finish, and nozzles shall include rubber bumper.

2.14 MANUFACTURERS

A. **Manufacturers:** Products of the type or model (if any) indicated shall be manufactured by one of the following (or equal):

1. Roof drains:

Josam Mfg. Co., Series 21500
Jay R. Smith Mfg. Co., Fig. 1010
Zurn Industries, Inc., Series Z-100

2. Floor drains in tiled floors:

Josam Mfg. Co., Series 30 000-A
Jay R. Smith Mfg. Co., Fig. 2010-A
Zurn Industries, Inc., Series ZN-415-C

3. Floor drains in concrete floors:

Josam Mfg. Co., Series 31120
Jay R. Smith Mfg. Co., Fig. 2350
Zurn Industries, Inc., Series Z-520-Y

4. Floor drains in chemical areas:

Duriron Co., Inc., Model 5501-CB, for slab-on-grade drains
Duriron Co., Inc., Model 5501-CBF, for drains on upper floors

5. Floor sinks:

Josam Mfg. Co., Series 49040
Jay R. Smith Mfg. Co., 3150 Series
Zurn Industries, Inc., Series ZN-1806

6. Cleanouts of the series and model number indicated shall be manufactured by one of the following (or equal) and installed in the locations indicated:

Josam Series

J.R. Smith No.

Zurn No.

Exposed locations	58500-20	4405	Z-1440-A
Underground (finished floors)	56010/30	4143	ZN-1400-2
Walls, concealed locations	58790-20	4535	ZN-1445-1-A
Traffic areas	56070	4240	Z-1420-27

7. Access covers and frames in finished floors or walls:

Zurn Industries, Inc.
 Josam Mfg. Co.
 Jay R. Smith Mfg. Co.

8. Access covers in unfinished concrete floors:

Alhambra Foundry Co., Model A-2015
 Neenah Foundry Co. Model R-6687

9. Access covers in chemical handling areas:

Alhambra Foundry Co., Model A-1240
 Neenah Foundry Co., Model R-1977

10. Vacuum breakers:

Crane Co.
 American Standard

11. Non-freeze post-type hose bibbs:

Josam Mfg. Co., Series 71700
 Jay R. Smith Mfg. Co., Series 5910
 Zurn Industries, Inc., Fig. Z-1385 or 1390

12. Non-freeze wall-type hose bibbs:

Josam Mfg. Co., Series 71000
 Jay R. Smith Mfg. Co., Fig. 5510/5511
 Zurn Industries, Inc., Fig. Z-1300

13. Hose valves 3/4-inch and 1-inch:

Chicago Faucet No. 7T
 Ford Meter Box Company, Inc.

14. Hose valves other than 3/4-inch and 1-inch:

Mueller Co., Model H-8260
 James Jones No. J-383

15. Ball valves with hose thread:

Ford Meter Box Co., Model B8H-233HB2
 Apollo (Conbraco Industries, Inc.), Model 78-104

16. Ball valves with hose thread adapters:

Fire-End and Crocker Corp. No. 180
Woodford Manufacturing Co., Models 24P or Y24

17. Wall-Box type hose bibbs:

Josam Mfg. Co., Series 71020
Jay R. Smith Mfg. Co., Series 5710
Zurn Industries, Inc., Figure Z-1385

18. Trap primers:

Josam Mfg. Co., Model 88250
Jay R. Smith Mfg. Co., Model 2699
Zurn Industries, Inc., Model Z-1022

19. Shock absorbers:

Josam "SHOKTROLS"
Jay R. Smith "HYDROTROL"
Zurn, Model Z-1022

20. Nozzles:

W.D. Allen Mfg. Co.
Fire-End and Crocker Corp.
Halprin Supply Co.
Western Fire Equipment Co.

PART 3 -- EXECUTION

3.1 PREPARATION

- A. The WORK includes coordination of roughing-in, locating wall-and floor sleeves, pipe inserts, location of drains to required invert elevations and ensuring that piping below ceilings is held as high as possible.

3.2 INSTALLATION AND APPLICATION

- A. Plumbing specialties shall be installed in accordance with manufacturer's installation instructions.
- B. Cleanouts shall be extended to finished floor or wall surfaces. Threaded cleanout plugs shall be lubricated with mixture of graphite and linseed oil.
- C. Exterior cleanouts shall be encased in concrete flush with pavement, or shall be extended to above finished grade in unpaved locations.

D. Water hammer arrestors with isolation valves shall be installed in accessible locations.

**** END OF SECTION ****