

SECTION 221319.13 - SANITARY DRAINS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Floor drains.

1.3 DEFINITIONS

- A. ABS: Acrylonitrile-butadiene styrene.
- B. FRP: Fiberglass-reinforced plastic.
- C. HDPE: High-density polyethylene.
- D. PE: Polyethylene.
- E. PP: Polypropylene.
- F. PVC: Polyvinyl chloride.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.

PART 2 - PRODUCTS

2.1 DRAIN ASSEMBLIES

- A. Sanitary drains shall bear label, stamp, or other markings of specified testing agency.
- B. Comply with NSF 14 for plastic sanitary piping specialty components.

2.2 FLOOR DRAINS

- A. Cast-Iron Floor Drains :

1. Refer to drawing P0.01 "PLUMBING LEGEND, NOTES AND SCHEDULES" for basis of design floor drains.
2. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Commercial Enameling Company.
 - b. Jay R. Smith Mfg Co; a division of Morris Group International.
 - c. Josam Company.
 - d. MIFAB, Inc.
 - e. Prier Products, Inc.
 - f. Sioux Chief Manufacturing Company, Inc.
 - g. Wade; a subsidiary of McWane Inc.
 - h. WATTS; A Watts Water Technologies Company.
 - i. Whitehall Manufacturing; a division of Morris Group International.
 - j. Zurn Industries, LLC.
3. Standard: ASME A112.6.3.
4. Pattern: Floor drain.
5. Body Material: Gray iron.
6. Seepage Flange: Not required .
7. Anchor Flange: Not required .
8. Clamping Device: Not required.
9. Outlet: Bottom .
10. Backwater Valve: Not required.
11. Coating on Interior and Exposed Exterior Surfaces: **Not required.**
12. Sediment Bucket: Not required on general duty floor drains. Provide sediment bucket on floor drains located in mechanical spaces.
13. Top or Strainer Material: Gray iron for mechanical floor drains, Nickel bronze for general duty floor drains.
14. Top of Body and Strainer Finish: same as strainer material noted above.
15. Top Shape: Round.
16. Top Loading Classification: Light Duty.
17. Funnel: Not required, unless general duty floor drain is receiving condensate. Not required on mechanical floor drains.
18. Inlet Fitting: Not required.
19. Trap Material: PVC or ABS.
20. Trap Pattern: Deep-seal P-trap.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install floor drains at low points of surface areas to be drained. Set grates of drains flush with finished floor, unless otherwise indicated.
 1. Position floor drains for easy access and maintenance.
 2. Set floor drains below elevation of surrounding finished floor to allow floor drainage.
 3. Set with grates depressed according to the following drainage area radii:
 - a. Radius, 30 Inches or Less: Equivalent to 1 percent slope, but not less than 1/4-inch total depression.
 - b. Radius, 30 to 60 Inches: Equivalent to 1 percent slope.

- c. Radius, 60 Inches or Larger: Equivalent to 1 percent slope, but not greater than 1-inch total depression.
- 4. Install individual traps for floor drains connected to sanitary building drain, unless otherwise indicated.

- B. Install open drain fittings with top of hub 2 inches above floor.

3.2 CONNECTIONS

- A. Comply with requirements in Section 221316 "Sanitary Waste and Vent Piping" for piping installation requirements. Drawings indicate general arrangement of piping, fittings, and specialties.
- B. Comply with requirements in Section 221319 "Sanitary Waste Piping Specialties" for backwater valves, air admittance devices and miscellaneous sanitary drainage piping specialties.
- C. Install piping adjacent to equipment to allow service and maintenance.

3.3 LABELING AND IDENTIFYING

- A. Distinguish among multiple units, inform operator of operational requirements, indicate safety and emergency precautions, and warn of hazards and improper operations, in addition to identifying unit. Nameplates and signs are specified in Section 220553 "Identification for Plumbing Piping and Equipment."

3.4 PROTECTION

- A. Protect drains during remainder of construction period to avoid clogging with dirt or debris and to prevent damage from traffic or construction work.
- B. Place plugs in ends of uncompleted piping at end of each day or when work stops.

3.5 FINAL TURN OVER

- A. Prior to final turnover, all drains, their strainers and associated traps shall be cleaned of any accumulated construction debris. If strainers are damaged (gouged, excessively worn or displaying wear) this contractor shall replace the strainer at no additional cost to the owner.
- B. Confirm that all drains are set level and flush with the surrounding floor surfaces.
- C. Confirm that all set screws are installed in the strainer and that none are missing.
- D. Confirm that all drains have been provided with trap seal protection.

END OF SECTION 221319.13