

**SECTION 22 14 00
FACILITY STORM DRAINAGE**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this Section.
- B. Division-22 Basic Plumbing Requirements sections apply to work of this section.

1.2 DESCRIPTION OF WORK

- A. The drawings, schedules, and this section define the extent of storm water systems work.
- B. The trenching and backfill requirements in conjunction with underground building drain piping are in applicable Division-22 sections, and included as work in this section.

1.3 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Firms regularly engaged in manufacture of storm water systems products of types, materials, and sizes required whose products have been satisfactory use in similar service for not less than 5-years.
- B. Installer Qualifications: Firms with at least 3-years of successful installation experience on projects with storm water systems work similar to that required for project.
- C. Codes and Standards
 - 1. Plumbing Code Compliance: Comply with applicable portions of FBC pertaining to plumbing materials, construction, and installation of products.
 - 2. ANSI Compliance: Comply with applicable ANSI Standards pertaining to materials, products, and installation of storm water systems.

1.4 SUBMITTALS

- A. Submit manufacturer's technical products data for storm water systems, materials, and products.
- B. At project closeout, submit record drawings of installed storm water systems, in accordance with requirements of Division 1.
- C. Submit maintenance data and parts lists for storm water systems materials and products. Include this data, product data, shop drawings, and record drawings in maintenance manual, in accordance with requirements of Division 1.

PART 2 PRODUCTS

2.1 MATERIALS AND PRODUCTS

- A. Provide piping materials and factory-fabricated piping products of sizes, types, pressure ratings, and capacities as indicated in section 22 10 00.
- B. Where not indicated, the Installer makes proper selection in per installation requirements.
- C. Provide sizes and types matching piping and equipment connections; provide fittings of materials, which match pipe materials used in storm water systems.
- D. Where more than one type of materials or products is indicated, selection is Installer's option.

2.2 BASIC IDENTIFICATION

- A. Provide identification complying with sections 22 05 00 and 22 05 53.

PART 3 EXECUTION

3.1 INSPECTION

- A. Examine substrate and conditions for installation of storm water system being.
- B. Do not proceed with work until all conditions are in an acceptable condition to Installer.

3.2 INSTALLATION OF BASIC IDENTIFICATION

The School District of Palm Beach county

Project Name:

SDPBC Project No.:

A. Install mechanical identification in accordance with sections 22 05 00 and 22 05 53.

3.3 INSTALLATION OF BUILDING DRAIN PIPING

A. Install storm-building drains as indicated and in accordance with Florida Building Code.

B. Lay storm-building drains beginning at low point of systems, true to grade and alignment indicated with unbroken continuity of invert.

C. Place bell ends of piping facing upstream.

D. Install required gaskets in accordance with manufacturer's recommendations for use lubricants, cements, and other special installation requirements.

E. Clear interior of all pipes form dirt and other superfluous material as work progresses.

F. Maintain swab or drag in line and pull past each joint as it is completed.

G. Place plugs in ends of uncompleted piping at end of day or whenever work stops.

H. On HVAC condensate drains connected to system, provide check valves to prevent water flow reversal from entering the building mechanical room.

3.4 INSTALLATION OF ABOVE GRADE STORM DRAINS

A. Do not install roof drains of piping above electrical equipment.

B. Insulate all horizontal roof drain, including secondary drains.

3.5 FIELD QUALITY CONTROL

A. TESTING

1. Flush-out piping systems with clean water before proceeding with required tests.

a. Inspect each run of each system for completion of joints, supports, and accessory items.

2. Hydraulically pressure test each section or segment of system prior to backfilling, encasing, enclosing or otherwise preventing visual observation of the section or segment being tested.

a. Contractor shall backfill the underground systems.

b. Exposing joints only, permitted on all systems and required on systems having a pressure test exceeding 30 psig.

3. Water test storm water system at 10' of head for 4 hours.

a. The test standpipe shall be a minimum of 10' above the highest point of section tested.

3.6 PROTECTION

A. Protect roof drains during remainder of construction period, to avoid clogging with construction materials and debris, and to prevent damage from traffic and construction work.

END OF SECTION