

Section 02629**SAFETY END TREATMENTS****1.0 GENERAL****1.01 SECTION INCLUDES**

- A. Safety End Treatments for storm sewers.
- B. References to Technical Specifications:
 - 1. Section 01200 - Measurement and Payment Procedures
 - 2. Section 01350 - Submittals
 - 3. Section 01450 - Testing Laboratory Services
 - 4. Section 03300 - Cast-in-Place Concrete
 - 5. Section 02255 - Bedding, Backfill and Embankment Materials
 - 6. Section 02318 - Excavation and Backfill for Utilities
 - 7. Section 02630 - Storm Sewers
 - 8. Section 02631 - Precast Inlets, Headwalls and Wingwalls
 - 9. Section 02633 - Cast-in-Place Inlets, Headwall and Wingwalls
- C. Referenced Standards:
 - 1. American Society for Testing and Materials (ASTM)
 - a. ASTM C 76, "Standard and Specification for Reinforced Concrete Culvert, Storm Drain and Sewer Pipe"
 - 2. Texas Department of Transportation (TX-DOT)
 - a. Item 467, Safety End Treatment.

1.02 MEASUREMENT AND PAYMENT

- A. Safety End Treatments of all types will be measured by each barrel of each structure end.
- B. Payment for Safety End Treatments includes materials, earthwork, connections, and accessories.
- C. Refer to Section 01200 – Measurement and Payment Procedures.

1.03 SUBMITTALS

- A. Make submittals in accordance to Section 01350 - Submittals.
- B. Submit manufacturer's literature for product specifications and installation instructions.

1.04 TESTING

- A. Testing shall be performed under the provisions in Section 01450 - Testing Laboratory Services.

2.0 PRODUCTS**2.01 MATERIALS**

- A. Concrete: Class A concrete with minimum compressive strength of 4000 psi.
- B. Reinforcing Steel: Conform to requirements of Section 03300 - Cast-in-Place Concrete.
- C. Corrugated Metal Pipe: Prefabricated metal end sections.

2.02 PRECAST CONCRETE UNITS

- A. Fabricate Precast Units in accordance with Section 02631 - Precast Inlets, Headwalls and Wingwalls.
- B. Furnish Precast Concrete Units as indicated on the plans.
- C. Provide adequate lifting devices based on size and weight of the unit.

2.03 REINFORCED CONCRETE PIPE

- A. Provide RCP mitered to the proposed slope.
- B. Reinforced Concrete Pipe shall conform to Section 02630 - Storm Sewers.

2.04 CORRUGATED METAL PIPE

- A. Provide galvanized steel prefabricated metal end sections.

- B. Corrugated Metal Pipe and Fittings shall conform to Section 02630 - Storm Sewers.

3.0 EXECUTION

3.01 STORAGE AND SHIPMENT

- A. Store Precast Units on a level surface.
- B. Do not place any loads or ship Precast Units until the design strength is reached.

3.02 CAUSES FOR REJECTIONS

- A. Individual Units may be rejected due to fractures, cracks passing through the wall surfaces, surface defects or damages to galvanizing. Remove rejected Units from project and replace with acceptable Units at no additional cost to City.

3.03 EXCAVATION, BEDDING AND BACKFILL

- A. Conform to requirements in Section 02318 - Excavation and Backfill for Utilities.
- B. Take special precautions in placing and compacting the backfill to avoid any movement or damaged to the Units.
- C. Bed Units on foundations of firm and stable material accurately shaped to conform to the Units.
- D. Provide adequate means to lift and place the Units.

3.04 CONNECTIONS

- A. Make connections to new or existing facilities as needed, at no additional cost to City.

END OF SECTION