

**SECTION 02240
REINFORCED CONCRETE BOXES (RCB)**

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Precast reinforced concrete box sewers.

1.2 MEASUREMENT AND PAYMENT

A. Unit Prices:

- 1. No separate payment will be made for precast reinforced concrete box sewer under this Section. Include payment in the unit price for Section 02600 – Storm Sewers.
- 2. Refer to Section 01270 – Measurement and Payment for unit price procedures.

B. Stipulated Price (Lump Sum):

- 1. If Contract is Stipulated Price Contract, payment for work in this section is included in Total Stipulated Price.

1.3 REFERENCES

A. ASTM – American Society for Testing and Materials.

- 1. ASTM C1433 – Standard Specification for Precast Reinforced Concrete Box Sections for Culverts, Storm Drains and Sewers.

B. CFTS – City of Friendswood Technical Specifications.

1.4 SUBMITTALS

A. Conform to requirements of Section 01330 – Submittal Procedures.

- B. Submit shop drawings and data on box sections, fittings, gaskets and appurtenances for approval. Indicate conformance to reference standards.

1.5 QUALITY ASSURANCE

- A. Provide manufacturer's affidavits that pipe was manufactured in compliance with standards referenced in this Section.

PART II: PRODUCTS

2.1 PRECAST REINFORCED CONCRETE BOX SEWERS

A. Conform to ASTM C1433, as indicated on the Drawings.

- B. Pipe and boxes shall be machine-made or cast by process which shall provide for uniform placement of concrete in forms and compaction by mechanical devices to produce dense, structurally sound concrete.

2.2 CONCRETE

- A. Conform to requirements of Section 03300 – Structural Concrete.

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- B. Use concrete mixed in central batch plant or other batching facility from which quality and uniformity of concrete can be assured. Transit-mixed concrete is not acceptable.

2.3 SOURCE QUALITY CONTROL

- A. The Project Manager shall inspect manufacturer's plant and casting operations as deemed necessary.

PART III: EXECUTION

3.1 BEDDING

- A. Bed box sections on foundation of firm and stable material accurately shaped to conform to their bases. Install bedding as specified in Section 02125 – Excavation and Backfill for Utilities. When required by the Drawings, use special bedding material. When single-cell box sections are placed in parallel for multi-cell installation, place in conformance with details shown on the Drawings.

3.2 PLACEMENT

- A. Carefully lower box sections to bottom of trench and lay accurately in line and grade, with spigot or tongue end downstream entering bell or groove end to full depth and in such manner as not to drag foreign material into annular space.

3.3 JOINTING

- A. Join box sections together and match so that they shall form continuous smooth and uniform invert.

3.4 BACKFILLING

- A. After box has been properly jointed and bedded, commence backfilling.
- B. Backfill in accordance with Section 02125 – Excavation and Backfill for Utilities.

END OF SECTION