

**SECTION 02815
HEADERS, CURB, CURB AND GUTTER**

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Reinforced concrete curb, reinforced monolithic concrete curb and gutter, and mountable curb.
- B. Paving headers and railroad headers poured monolithically with concrete base or pavement.

1.2 MEASUREMENT AND PAYMENT

- A. Unit Prices:
 - 1. Payment for curbs, curbs and gutter and esplanade curbs is on a linear foot basis measured along face of curb.
 - 2. Payment for three foot (3 Ft) concrete valley gutter is on a linear foot basis.
 - 3. Payment for mountable concrete curbs is on a square foot basis.
 - 4. Payment for concrete paving headers and concrete railroad headers is on a linear foot basis.
 - 5. Payment for headers is on linear foot basis measured between lips of gutters adjacent to concrete base or measured between backs of curbs adjacent to concrete pavement.
 - 6. 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 SUBMITTALS

- A. Conform to requirements of Section 01330 – Submittal Procedures.
- B. Submit details of proposed form work for approval.

1.4 REFERENCES

- A. CFTS – City of Friendswood Technical Specifications.

PART II: PRODUCTS

2.1 MATERIALS

- A. Concrete: Conform to material and proportion requirements for concrete of Section 02805 – Concrete Paving.
- B. Reinforcing Steel: Conform to material requirements for welded wire fabric of Section 02805 – Concrete Paving.
- C. Grout: Nonmetallic, nonshrink grout containing no chloride producing

- agents conforming to requirements specified in TABLE 4.1 – NONSHRINK GROUT REQUIREMENTS, in PART IV of this Section.
- D. Preformed Expansion Joint Material: Conform to material requirements for preformed expansion joint material of Section 02840 – Concrete Pavement Joints.
 - E. Expansion Joint Filler: Conform to material requirements for expansion joint filler of Section 02840 – Concrete Pavement Joints.
 - F. Mortar: Mortar finish composed of one (1) part Portland cement and one and one-half (1-1/2) parts of fine aggregate. Use only when approved by the Project Manager.

PART III: EXECUTION

3.1 PREPARATION

- A. Prepare subgrade in accordance with applicable portions of sections on excavation and fill, embankment and subgrade and roadbed.

3.2 PLACEMENT

- A. Guideline: Set to follow top line of curb. Attach indicator to provide constant comparison between top of curb and guideline. Ensure flow lines of gutters on monolithic curb and gutters conform to slopes indicated on the Drawings.
- B. Forms: Brace to maintain position during pour. Use metal templates cut to section shown on the Drawings.
- C. Reinforcement: Secure in position so that steel shall remain in place throughout placement. Reinforcing steel shall remain at approximate center of base or pavement as indicated on the Drawings.
- D. Joints: Place in accordance with Section 02840 – Concrete Pavement Joints. Place dummy groove joints at driveways to match concrete pavement joints at right angles to curb lines. Cut dummy grooves one-quarter inch (1/4 In) deep using approved edging tool.
- E. Place concrete in forms to required depth. Consolidate thoroughly. Do not permit rock pockets in form. Entirely cover top surfaces with mortar.
- F. Verify headers are to the depth and the rebar is in place according to the City of Friendswood Standard Details.

3.3 MANUAL FINISHING

- A. For monolithic curb and gutters, remove front curb forms, after concrete is in place. Form exposed portions of curb and of curb and gutter, using mule which conforms to curb shape, as shown on the Drawings.
- B. Thin coat of mortar may be worked into exposed face of curb or curb and gutter using mule and two (2) handled wooden “darby” at least three feet (3 Ft) long.
- C. Before applying final finish move ten foot (10 Ft) straightedge across curb or across gutter and up curb to back form of curb. Repeat until curb and gutter are true to grade and section. Lap straightedge over previous

02815-2

finish operation by five feet (5 Ft).

- D. Steel trowel finish surfaces to smooth, even finish. Make face of finished curb true and straight.
- E. Edge outer edge of gutter with one-quarter inch (1/4 In) edger. Finish edges with tool having one-quarter inch (1/4 In) radius.
- F. Finish visible surfaces and edges of finished curb or curb and gutter free from blemishes, form marks and tool marks. Finished curb or curb and gutter shall have uniform color, shape and appearance.

3.4 MECHANICAL FINISHING

- A. Mechanical curb or curb and gutter forming and finishing machines may be used instead of, or in conjunction with, previously described methods, when approved by the Project Manager. Use of mechanical methods shall provide specified curb or curb gutter design and finish.

3.5 CURING

- A. Immediately after finishing operations, cure exposed surfaces of curb or curb and gutter in accordance with Section 02835 – Concrete Pavement Curing.

3.6 TOLERANCES

- A. Top surfaces of curb or curb and gutter shall have uniform width and shall be free from humps, sags or other irregularities. Surfaces of curb top, curb face and gutter shall not vary more than one-eighth inch (1/8 In) from edge of straightedge laid along them, except at grade changes.

3.7 PROTECTION

- A. Maintain newly placed headers, curbs and curbs and gutters in good condition until completion of the Work.
- B. Replace damaged headers, curbs and curbs and gutters to comply with this Section.

PART IV: TABLES

4.1 NONSHRINK GROUT REQUIREMENTS

Compressive Strength:	
At 7 days	3500 psi
At 28 days	8000 psi
Initial Set Time	45 minutes
Final Set Time	1.5 hours

END OF SECTION