1. 8" Min to 0'-0" Max. Estimated curb heights are shown elsewhere in the plans. For structures with pedestrian rail or curbs taller than 8'-0", refer to the Skewed Curb Details (SCD) standard sheet. For structures with T631 or T631LS bridge rail, refer to the Mounting Details for T631 & T631LS Rails (T631-120) standard sheet. Refer to the Rail Anchorage Curb (RAC) standard sheet for structures with bridge rail other than T631 or T631LS.

2. For vehicle safety, the following requirements must be met:
   - For structures without bridge rail, construct curbs no more than 3' above finished grade.
   - For structures with bridge rail, construct curbs flush with finished grade. Reduce curb heights, if necessary, to meet the above requirements. No changes will be made in quantities and no additional compensation will be allowed for this work.

3. For curbs less than 3'-0" high, tilt Bars K or reduce bar height as necessary to maintain cover. For curbs less than 1'-0" high, Bars K may be deleted.

4. 0'-0" typical, 2'-3" when the Rail Anchorage Curb (RAC) standard sheet is referred to elsewhere in the plans.

**CONSTRUCTION NOTES:**
- Do not use permanent forms. Chamfer the bottom edge of the top slab 3" at the entrance.
- Optimal chamfer construction joints shown at the flow line by a maximum of 4". If this option is taken, Bars M may be cut off or raised, Bars C and D may be reversed, and Bars K and Z may be reversed.

**MATERIAL NOTES:**
- Provide Class 60 Grade 60 reinforcing steel.
- Provide galvanized reinforcing steel if required elsewhere in the plans.
- Provide Class C concrete (f'c = 3,600 psi) for curb, barrier, and parapet, and with the following exceptions: Provide Class C concrete (f'c = 4,000 psi) for top slabs of:
   - Chained with overhead barriers with 1 to 2 course surface treatment, or
   - Chained with the top slab as the final rating surface

- Provide Class C concrete (f'c = 3,600 psi) for:
  - Uncoated or galvanized — #4 = 2'-6" Min
  - Uncoated or galvanized — #5 = 2'-1" Min
  - Uncoated or galvanized — #6 = 1'-8" Min

- Provide Grade 60 reinforcing steel. Optionally, raise construction joints shown at the flow line by a maximum of 6". If D30.6 wire is used to meet the 0.755 sq. in. per ft. requirement in this example, the required spacing = (0.44 sq. in./0.5 ft.) x (60 ksi / 70 ksi) = 0.755 sq. in. per ft. If D30.6 wire is used to meet the 0.755 sq. in. per ft. requirement in this example.

- Provide welded wire reinforcement (WWR) meeting the requirements of ASTM A1064. The lap length required for WWR is never less than the lap length required for uncoated #4 bars.

- Example conversion: Replacing No. 6 Gr 60 at 6" Spacing with WWR.
  - Required WWR = (0.44 sq. in./0.5 ft.) x (60 ksi / 70 ksi) = 0.755 sq. in. per ft. 0.0625" wire is used to meet the 0.755 sq. in. per ft. requirement in this example. WWR is limited to 4" Min and 18" Max. When required, provide lap splices in the WWR of the same length required for the equivalent bar size, rounded up for bars sizes between conventional bar sizes. The lap length required for WWR is never less than the lap length required for uncoated #4 bars.

- Spacing of WWR is limited to 4" Min and 18" Max. When required, provide lap splices in the WWR of the same length required for the equivalent bar size, rounded up for bars sizes between conventional bar sizes. The lap length required for WWR is never less than the lap length required for uncoated #4 bars.

- The Contractor may replace Bars B, C, D, E, F1, F2, M, Y, and/or Z with deformed uncoated wire reinforcement (WWR) meeting the requirements of ASTM A1064. The area of required reinforcement may be reduced by the ratio of 16 ksi / 70 ksi.

- Permissible construction joint (Typ) 1'-0" typical. 2'-3" when the Rail Anchorage Curb (RAC) standard sheet is referred to elsewhere in the plans.

- COVER DIMENSIONS:

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<tbody>
<tr>
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<td>4'-7&quot;</td>
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**GENERAL NOTES:**
- Designed according to AASHTO LRFD Bridge Design Specifications for the range of Fill heights shown.

See the Multiple Box Culverts Cast-In-Place Miscellaneous Details (MC-MD) standard sheet for details pertaining to skewed ends, angle sections, and lengthening.

Cover details are clear dimensions, unless noted otherwise.

Reinforcing bar dimensions shown are out-to-out of bar.
### Tables

#### BILLS OF REINFORCING STEEL (For Box Length = 40 feet)

<table>
<thead>
<tr>
<th>Bars</th>
<th>Bars C &amp; D</th>
<th>Bars E</th>
<th>Bars F1 - #4</th>
<th>Bars F2 - #4</th>
<th>Bars M - #4</th>
<th>Bars Y &amp; Z - #4</th>
<th>Bars H &amp; #4 - #4</th>
<th>Bars K</th>
<th>Per Foot of Barrel</th>
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#### SHEET 2 OF 2

**MULTIPLE BOX CULVERTS**

CAST-IN-PLACE

6'-0" SPAN

8' TO 16' FILL

**MC-6-16**

**Bridge Rating:**

- N: 0\%
- 0\%:
- 0\%:
- 0\%
- 0\%:
- 0\%

**HLS93 Loading:**

- SHEET 2 OF 2