The Contractor may replace Bars B, C, D, F1, F2, M, Y, and/or Z with deformed welded wire reinforcement (WWR) meeting the requirements of ASTM A1064. The length of the WWR required is based on the bar size used. The Spacing of WWR is limited to 4'/0" and 5'/0" Max. When required, provide lap splices in the WWR of the same length required for the equivalent bar size, rounded up for wire sizes between conventional bar sizes. The lap length required for WWR is never less than the lap length required for uncoated #5 bars.

Example conversion: Replace No. 6 Gr 60 at 6'0" spacing with WWR. The lap length required for WWR is 12.75". The lap length required for No. 6 Gr 60 is 6.75". For this example, replace No. 6 Gr 60 with WWR that is 6.75" longer.

For structures without bridge rail, construct curbs no more than 3' above 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.

For vehicle safety, the following requirements must be met:
- For structures without bridge rail, construct curbs no more than 3' above 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.
- For curbs less than 3' high, tilt Bars K or reduce bar height as necessary to maintain cover. For curbs less than 3' high, Bars K may be omitted.
- If 1'-0" typical, 2'-0" when the Rail Anchorage Curb (RAC) standard sheet is referred to elsewhere in the plans.

Do not use permanent forms.

Provide Class C concrete (f'c = 3,600 psi) for culvert barrel and curb.

Provide galvanized reinforcing steel if required elsewhere in the plans.

Provide Grade 60 reinforcing steel.

MATERIAL NOTES:

Transposed reinforcing bar dimensions shown are out-to-out of bar. Conversely, Bars M may be cut off or raised, Bars C and D may be reversed, and Bars E and F may be omitted.

Construction joint (Typ)

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

CONSTRUCTION NOTES:

Do not use permanent forms.

Chamfer the bottom edge of the top slab 3" at the entrance.

Optimally, make construction joints shown at the flow line by a maximum of 6". If this option is not taken, Bars Y and/or Z may be reversed.

Bar laps, where required, as follows:

- Uncoated or galvanized - #5 = 2'-5" Min
- #4 = 1'-11" Min
- #3 = 1'-0" Min
- #2 = 6'-0" Min
- #1 = 10'-0" Min

For curbs less than 1'-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 omitted.

For curbs less than 3' high, tilt Bars K or reduce bar height as necessary to maintain cover. For curbs less than 3' high, Bars K may be omitted.

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Construction joint (Typ)

Reinforcing bar dimensions shown are out-to-out of bar.
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<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>
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**Notes:**
- For Box Length = 40 feet
- Bar lengths over 60' include one bar lap; refer to MATERIAL NOTES for minimum lap lengths.

**Sections:**
- Bars B
- Bars C & D
- Bars E
- Bars F1 - #4
- Bars F2 - #4
- Bars M - #4
- Bars Y & Z - #4
- Bars X

**Per Foot of Bar:**
- Conv (CTY): 4,248
- Resp (RBP): 4,248
- Resp (RBP): 4,248

**Total:**
- 3,796

**Additional Information:**
- BMP: 60
- 10'
- 5'
- 18''
- 6''
- 929
- 11"
- 9"