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Ho "or 1"

DATE:

Finished grade (neathead slope)

3'-0" chamfer

(see CONSTRUCTION NOTES)

SECTION THRU CURB

TYPICAL SECTION

BOTTOM SLAB

PART PLANS

TOP SLAB

The Contractor may replace Bars B, C, D, E, F1, F2, M, Y, and/or Z with deformed welded wire reinforcement (WWR) meeting the requirements of ASTM A1064. The area of required reinforcement may be reduced by the ratio of 40 ksi / 70 ksi. To do so, the area of the required reinforcement is divided by the ratio of 40 ksi / 70 ksi. The area of steel is then compared with the area of the same length required for the equivalent standard bar size, rounded up for bars listed between conventional bar sizes. 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. per 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, the required spacing would be 18". The lap length required is 2'-1" (the same as the lap length required for conventional bars). The lap length of the same length required for the equivalent bar size, rounded up for bars listed between conventional bar sizes. The lap length required for WWR is never less than the lap length required for uncoated #4 bars.

CONSTRUCTION NOTES:

Do not use permanent forms.

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

Optimally, raise construction joints shown at the flow line by a maximum of 6". If this option is taken, Bars Y may be cut off or raised, Bars C and D may be reversed, and Bars B and Z may be reversed.

MATERIAL NOTES:

Provide Grade 60 reinforcing steel.

Provide galvanized reinforcing steel if required elsewhere in the plans.

Provide Class C concrete (f'c = 3,600 psi) for culvert barrel and curb, with the following exceptions: provide Class S concrete (f'c = 4,000 psi) for top slabs of:

- culverts with pedestrian rail or curbs higher than 3'-0"; and

chamfer with an average.

- culverts with the top slab as the final riding surface.

Provide deformed No. 6 Gr 60 reinforcing steel:

- uncoated or galvanized #4 = 1'-8" Min

- uncoated or galvanized #5 = 2'-1" Min

- uncoated or galvanized #6 = 2'-6" Min

GENERAL NOTES:

- Design according to AASHTO LRFD Bridge Design Specifications for the range of F02 heights shown.

Use the Multiple Box Culverts Cast-In-Place Miscellaneous Details (MC-WD) standard when detailing the numerous 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.
## BILLS OF REINFORCING STEEL (For Box Length = 40 feet)

<table>
<thead>
<tr>
<th>Bars A</th>
<th>Bars B</th>
<th>Bars C &amp; D</th>
<th>Bars E</th>
<th>Bars F - #4</th>
<th>Bars G2 - #4</th>
<th>Bars M - #4</th>
<th>Bars Y &amp; Z - #4</th>
<th>Bars H &amp; G4 - #4</th>
<th>Bars K</th>
<th>Per Foot of Barrel</th>
<th>Curb</th>
<th>Total</th>
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