

Proposal for BDDM – Maximum Spiral Spacing

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Modify Section 1.1.9.5 as follows:

1.1.9.5 Column Design, General - (continued)

Specify ASTM A 706 reinforcement for vertical column bars when columns are supported on drilled shafts or when plastic hinging is anticipated in either the top or bottom of the column.

Specify 3/4" maximum aggregate size in footings, columns and crossbeams. To maintain the shape of the spirals, use a maximum vertical bar spacing of 8".

Deleted: This will allow use of the AASHTO vertical bar spacing requirement which means 3½" center-to-center for #11 bars.

Containing an 8" dia. drain pipe within the column and taking it out between spread bars at the bottom is not an option since confinement requirements would be violated.

Deleted: Maximum clear spacing for spirals is 3" (or a pitch of 3½ ").

Background

The deleted sentences above were originally inserted into the ODOT Bridge Office Practice based on requirements in previous editions of the AASHTO Standard Specifications for Highway Bridges. The current edition of the AASHTO LRFD Bridge Design Specifications does not have these same requirements. ODOT is satisfied with the bar spacing provisions currently required in LRFD. Removing the sentences above will result in bar spacing requirements defaulting to the LRFD values. In the case of spiral reinforcement, Article 5.10.6.2 in LRFD allows center-to-center spiral spacing up to 6.0 inches when the longitudinal bar size is #8 and above.