

**10.7.1.2 PILE SPACING, CLEARANCES, AND EMBEDMENT**

Spacing, clearances, and embedment of piles shall be in accordance with AASHTO Article 10.7.1.2, except as follows:

1. If there is calculated uplift on a pile, positive means of anchorage and 12" of embedment shall be provided.
2. If there is a possibility of scour under footings, use 12" of embedment.
3. Use 24" embedment in the case of stubby abutments where the superstructure is integral with the pile cap and rotation is accomplished by bending in the piles.
4. For encased pile bents, the cut-off elevation should be a minimum of 1' above normal water elevation to avoid cutting off piles under water.
5. The concrete cover at the sides of piles in encased pile bents shall be a minimum of 12".

Pile spacing greater than 10' should be avoided. Consult your Group Leader on designs with proposed pile spacing exceeding 10'.

**Commentary**

The 12" side cover requirement is based on AASHTO Article 10.7.1.2 requirement of a minimum 6" plus an allowance for pile misalignment but not less than 9". The ITD Standard Specifications 505 O specifies pile location at cutoff are within 6" of plan location. The 12" side cover is derived from 6" minimum plus 6" misalignment.

**Revisions:**

November 2006	Corrected the article number to agree with the 2006 Interims.
April 2008	Revised the concrete cover in note 5 from 8" to 9".
Sept 2021	Changed the minimum side cover in note 5 from 9" to 12" and added Commentary.