

3.7.3.2 – The connection of foundation beams or foundation walls with vertical elements shall follow the rules of **3.3.4**.

3.7.3.3 – Bends or hooks at the bottom of longitudinal bars of vertical elements should be oriented so that they induce compression into the connection area.

3.7.4. Cast-in-place concrete piles and pile caps

3.7.4.1 – The top of the pile up to a distance to the underside of the pile cap of twice the pile cross-sectional dimension, d , as well as the regions up to a distance of $2d$ on each side of an interface between two soil layers with markedly different shear stiffness (ratio of shear moduli greater than 6), shall be detailed as potential plastic hinge regions. To this end, they shall be provided with transverse and confinement reinforcement following the rules for column critical regions given in **3.3.3**.

3.7.4.2 – Piles required to resist tensile forces or assumed as rotationally fixed at the top should be provided with anchorage in the pile cap to enable the development of the pile design uplift resistance in the soil, or of the design tensile strength of the pile reinforcement, whichever is lower. If the part of such piles embedded in the pile cap is cast before the pile cap, dowels should be provided at the interface where the connection occurs.