3.5.2.6 – Top or bottom bars passing through interior joints, shall terminate in the members framing into the joint at a distance not less than l_{cr} (length of the member critical region from the face of the joint (see **3.2.3.1**).

3.5.3. Splicing of rebars

3.5.3.1 – There shall be no lap-splicing by welding within the critical regions of structural elements.

3.5.3.2 – There may be splicing by mechanical couplers in columns and walls, if these devices are covered by appropriate testing under conditions compatible with the selected ductility class.

3.5.3.3 – The transverse reinforcement to be provided within the lap length shall be calculated in accordance with EN 1992-1-1:2004. In addition, the following requirements shall also be met:

(a) If the anchored and the continuing bar are arranged in a plane parallel to the transverse reinforcement, the sum of the areas of all spliced bars shall be used in the calculation of the transverse reinforcement.

(b) If the anchored and the continuing bar are arranged within a plane normal to the transverse reinforcement, the area of transverse reinforcement shall be calculated on the basis of the area of the larger lapped longitudinal bar.

(c) The spacing, s, of the transverse reinforcement in the lap zone (in millimetres) shall not exceed

$$s = \min\{h/4\,,\,100\} \qquad \textbf{(3.26)}$$

3.5.3.4 – The required area of transverse reinforcement A_{st} within the lap zone of the longitudinal reinforcement of columns spliced at the same location (as defined in EN 1992-1-1:2004), or of the longitudinal reinforcement of boundary elements in walls, may be calculated from the following expression:

$$A_{st} = s\frac{d_{bl}}{50}\frac{f_{yld}}{f_{ywd}} \qquad \textbf{(3.27)}$$