One way Slab

If a slab is supported on all the four sides but the ratio of longer span (l) to shorten span (b) is greater than 2, then the slab will be considered as one way slab. Because due to the huge difference in lengths, load is not transferred to the shorter beams. Main reinforcement is provided in only one direction for one way slabs.

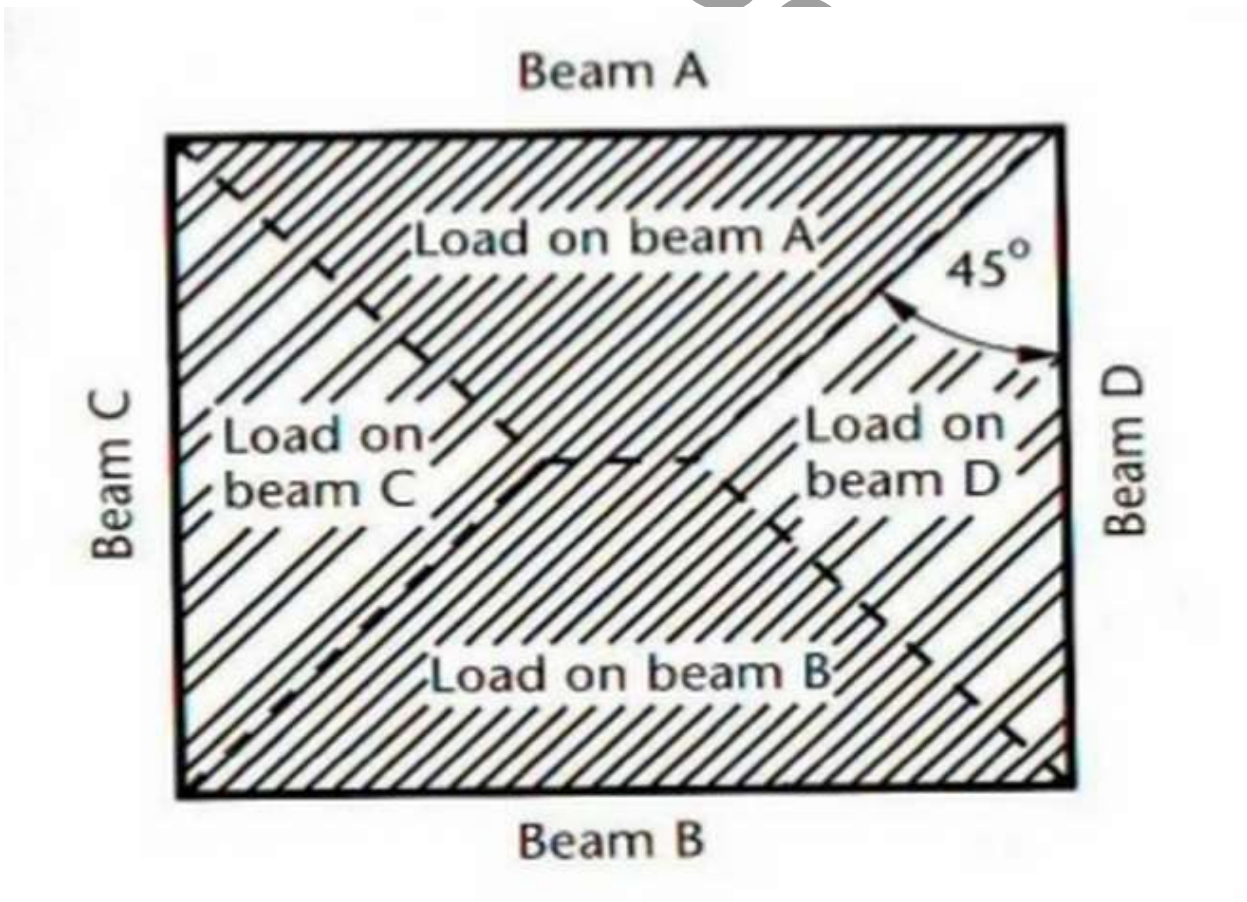
$$L/B >= 2$$

Two Way Slab

Two way slabs are the slabs that are supported on four sides and the ratio of longer span (l) to shorter span (b) is less than 2. In two way slabs, load will be carried in both the directions. So, main reinforcement is provided in both direction for two way slabs.

$$L/B < 2$$

Load Distribution in Slabs



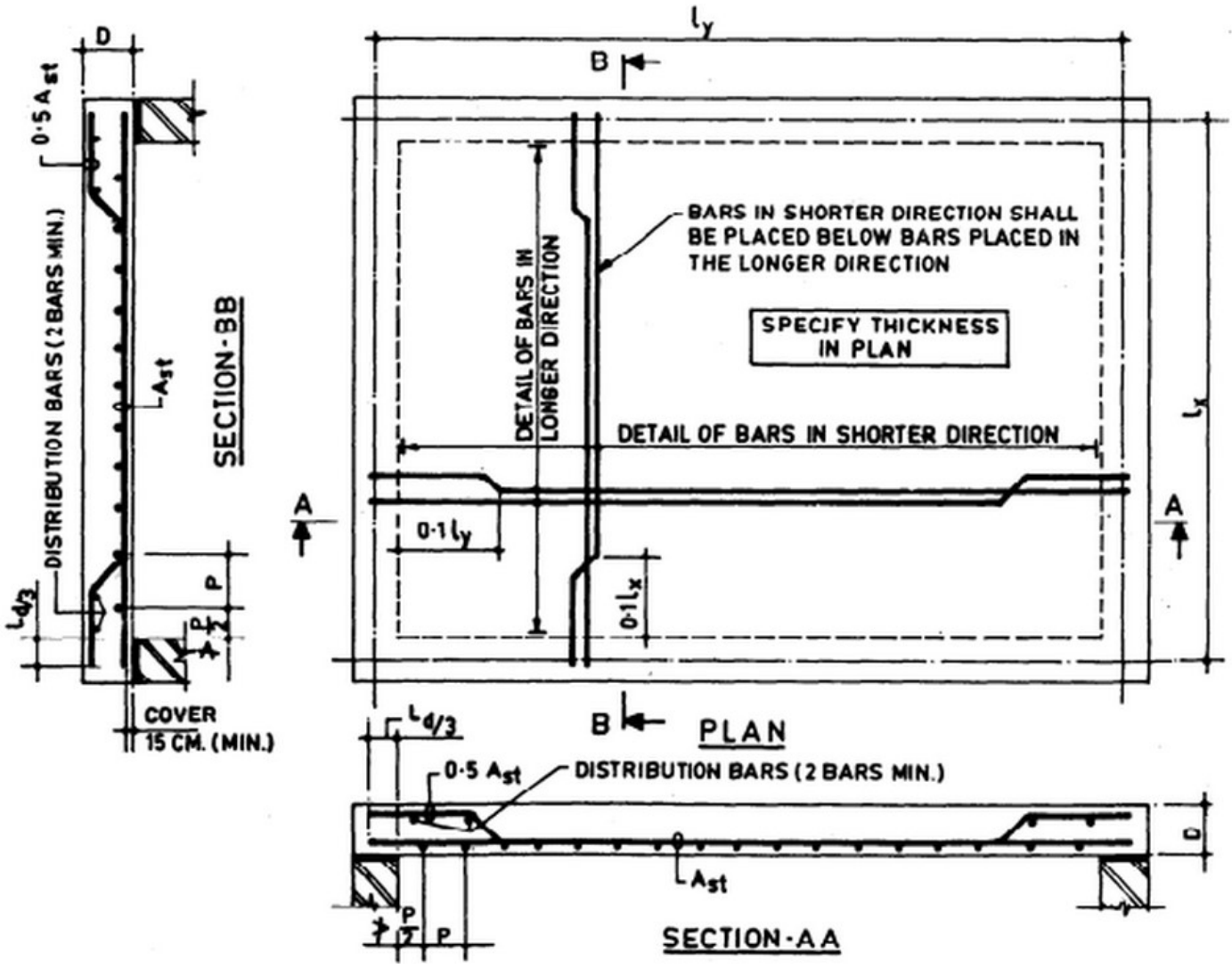
Types of Reinforcement in slabs

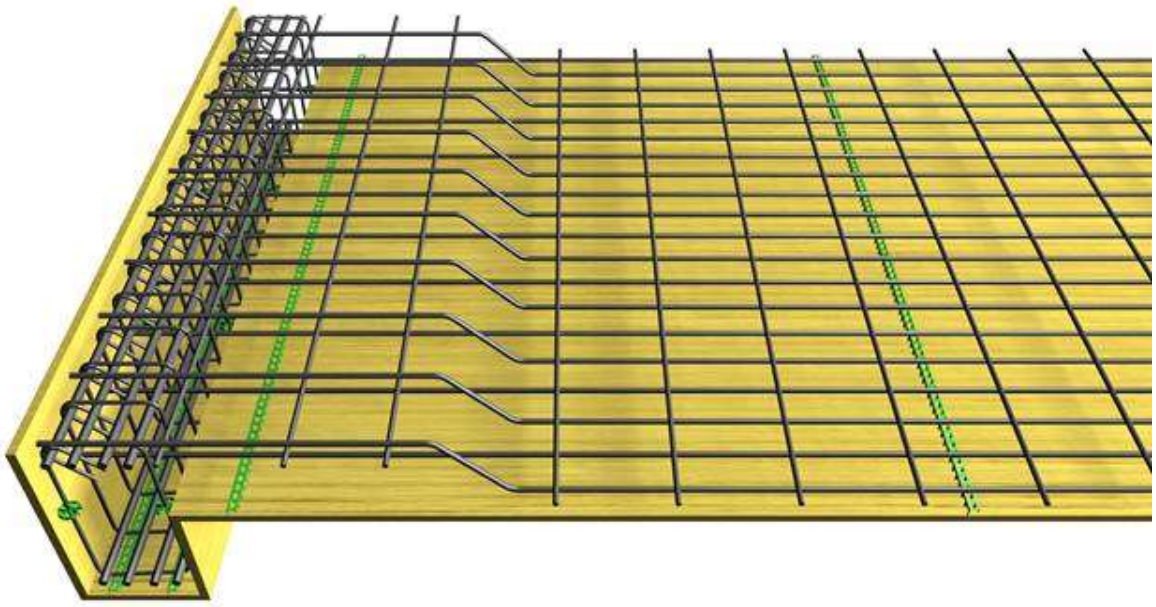
Main Reinforcement: It is the reinforcement that is provided for taking care of flexural loading

Distribution Steel: It is the reinforcement that is provided for controlling temperature and shrinkage cracks.

Detailing Techniques

Bent-Up Technique

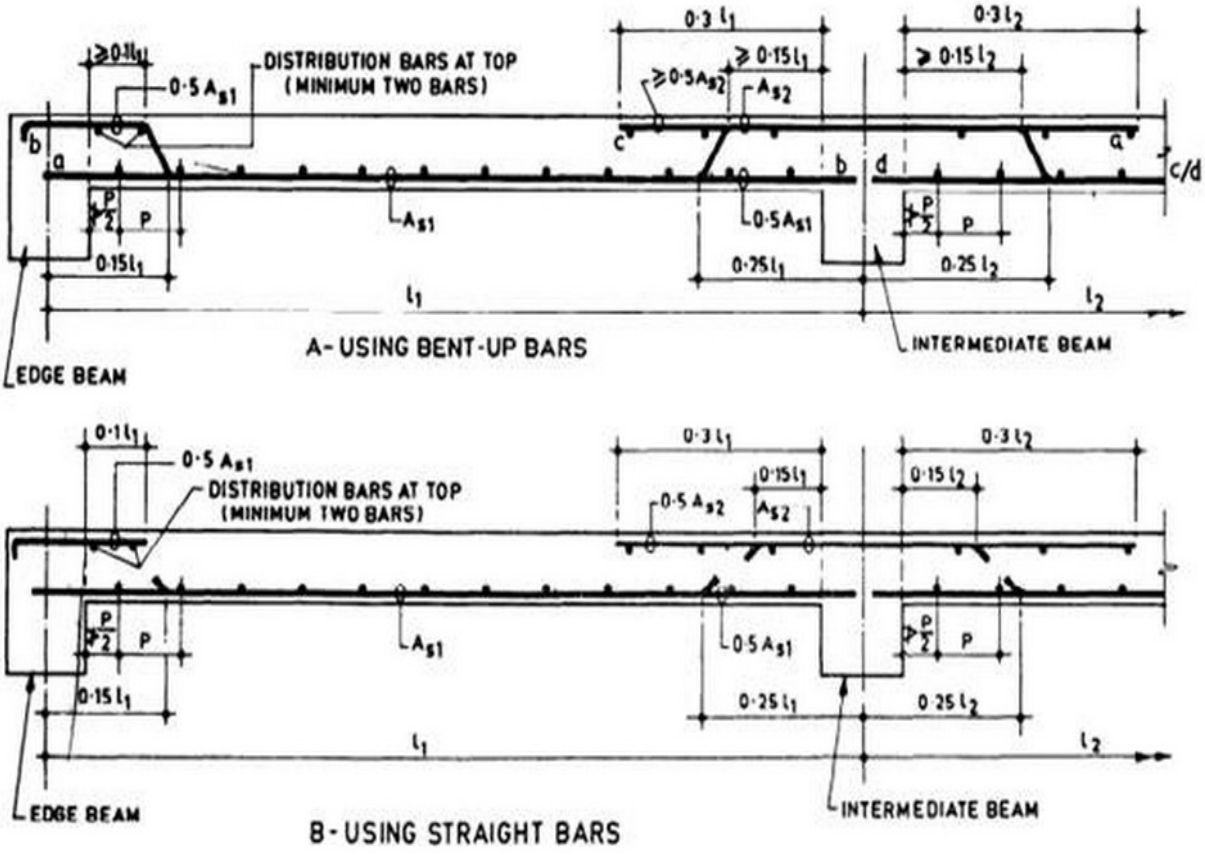




Curtailment Technique

>>>Auto-cad Drawing

Section of Slab by Bent Up and Curtailment Techniques

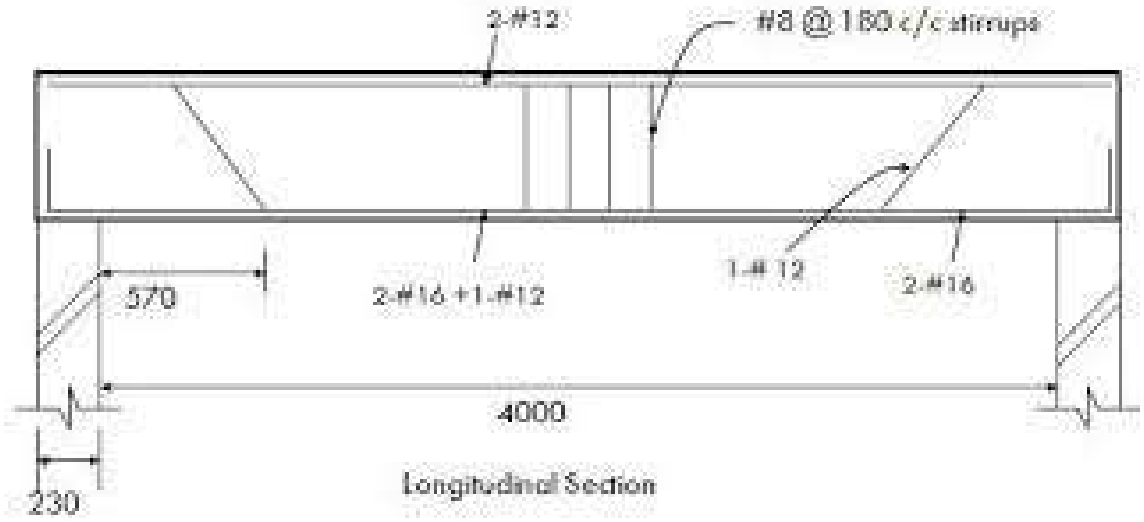


Minimum clear cover to reinforcements in slabs

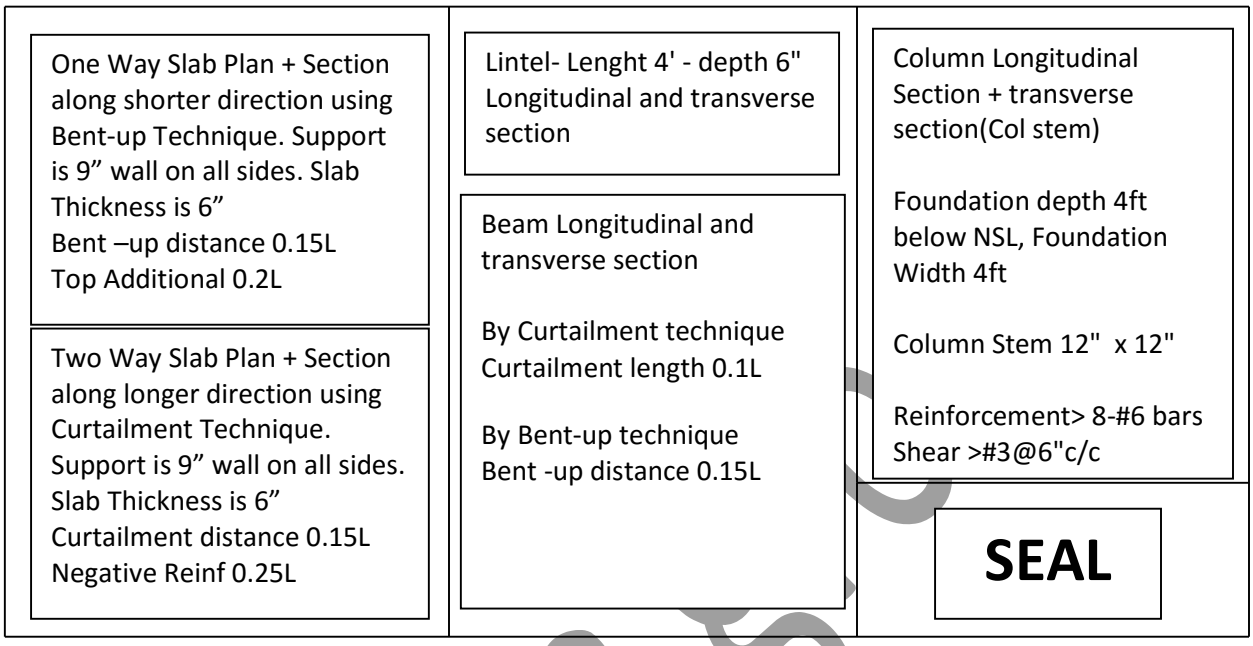
Generally 15 mm to **20 mm** top and bottom cover is provided for the main reinforcements

And 38 mm cover is provided to main reinforcement on the edges

Beams



Drawing Sheet



Reinforcement in Slabs

Shorter +ve >>>> #4@6"c/c ---------- Shorter -ve>>>>> #3@6"c/c

Longer +ve>>>>> #3@6"c/c ---------- Longer -ve >>>>> #3@7'c/c

Top Additional in Bent-up will be having double spacing of the corresponding +ve reinforcement.

Reinforcement in Lintels

Longitudinal Reinforcement >>> 2-#4 bars bottom and 2-#3 hanger bars

Shear>>>> #3@7"c/c

Reinforcement in Beams

Longitudinal reinforcement >>>>BOTTOM>> 2-#6 bars plus 1-#6 Bent-up or Curtailed

>>>>TOP>>>> 2- #4 bars

Column reinforcement >>

Foundation #4 @ 8"c/c BW(Both way)

Longitudinal 8-#6 bars Shear >#3@6"c/c