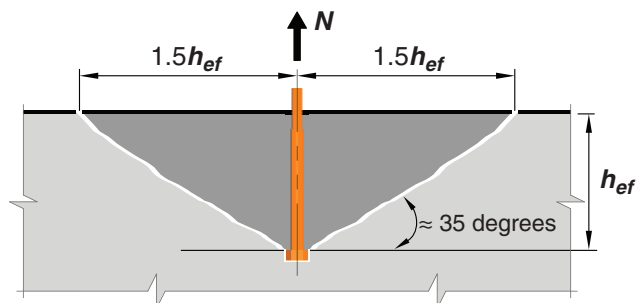
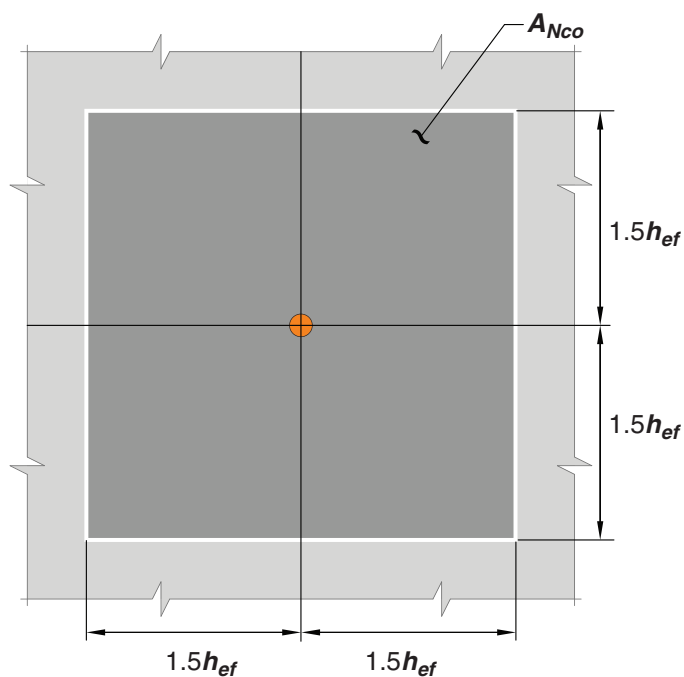


## CODE

The critical edge distance for headed studs, headed bolts, expansion anchors, screw anchors, and undercut anchors is  $1.5h_{ef}$



Section through failure cone

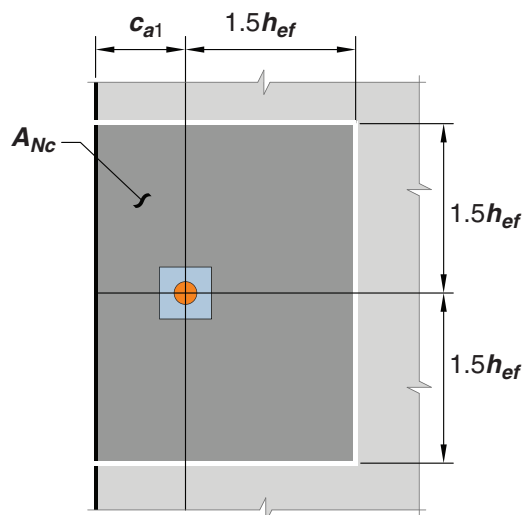


Plan

$$A_{Nco} = (2 \times 1.5h_{ef}) \times (2 \times 1.5h_{ef}) = 9h_{ef}^2$$

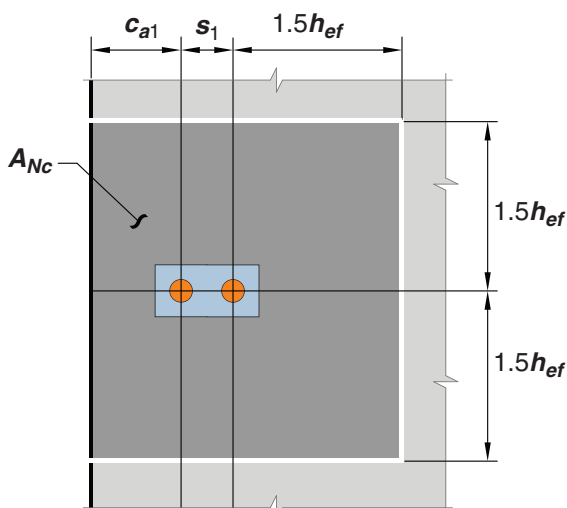
(a)

## COMMENTARY



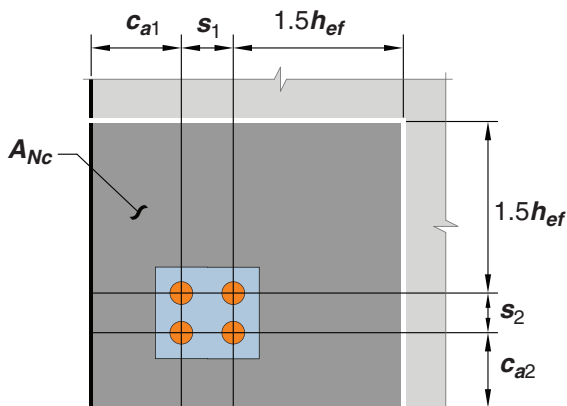
If  $c_{a1} < 1.5h_{ef}$

$$A_{Nc} = (c_{a1} + 1.5h_{ef}) \times (2 \times 1.5h_{ef})$$



If  $c_{a1} < 1.5h_{ef}$  and  $s_1 < 3h_{ef}$

$$A_{Nc} = (c_{a1} + s_1 + 1.5h_{ef}) \times (2 \times 1.5h_{ef})$$



If  $c_{a1}$  and  $c_{a2} < 1.5h_{ef}$

and  $s_1$  and  $s_2 < 3h_{ef}$

$$A_{Nc} = (c_{a1} + s_1 + 1.5h_{ef}) \times (c_{a2} + s_2 + 1.5h_{ef})$$

(b)

Fig. R17.6.2.1—(a) Calculation of  $A_{Nco}$  and (b) calculation of  $A_{Nc}$  for single anchors and anchor groups.