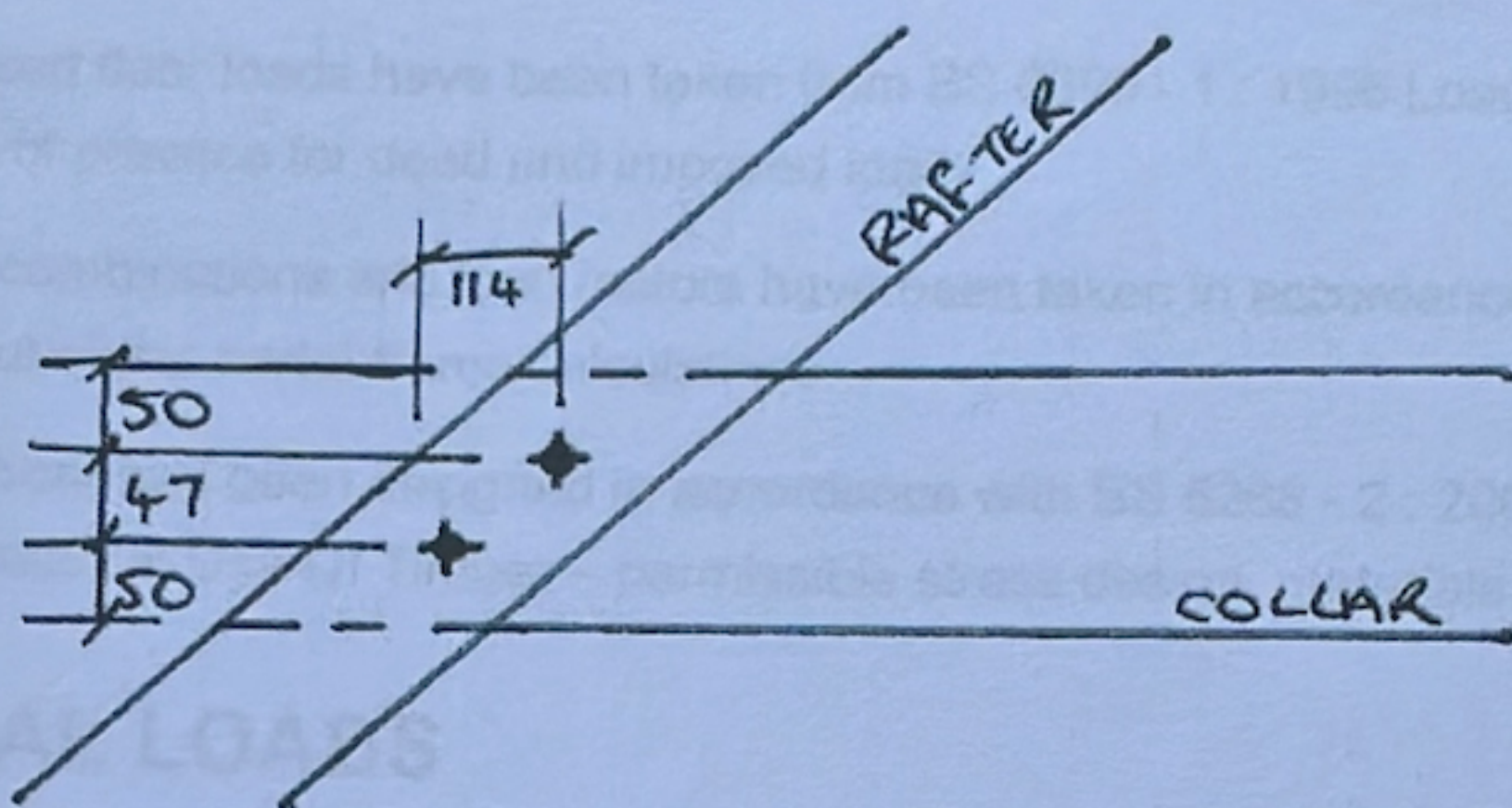


PROJECT 21, FAKENHAM ROAD,  
GREAT RYBURGH

JOB NO. 238974		SHEET NO. 8	
MADE BY BH	DATE 10/10/23	CHECKED BY RWB	DATE 10/10/23

CALVERT  
BRAIN &  
FRAULO<sup>LTD</sup>

RAFTER TO COLLAR CONNECTION.



2 No M10 Bolts with 38mm Round DSTPC.

Consider Collar

$$F_{adm} = F \times K_{58} \times K_{59} \times K_{60} \times K_{61}$$

$$F_{adm} = 2.55 \text{ kN} \times 1.12 \times 1 \times 1 \times 0.97 \times 2$$

$$F_{adm} = 5.54 \text{ kN}$$

$$\text{Actual load} = 2.4 \text{ kN}$$

$F_{adm} > \text{Actual load}$ , Collar OK.

Consider Rafter

$$F_{adm} = F \times K_{58} \times K_{59} \times K_{60} \times K_{61}$$

$$F_{adm} = 1.74 \text{ kN} \times 1.12 \times 1 \times 1 \times 2$$

$$F_{adm} = 3.9 \text{ kN}$$

$$\text{Actual load} = 2.4 \text{ kN}$$

$F_{adm} > \text{Actual load}$ , Rafter OK.

$$K_{61} = 1 - \frac{3(n-1)}{100}$$

$$K_{61} = 0.97$$