Structural Ridge Beam.

Span = 3.9m.

Roof load (DL) $3.9 \times 3.6 \times 1.95\ kN/m^2 = \underline{27.4\ kN}$

Max moment $BM = \frac{27.4 \times 3.9}{8} = \underline{13.4\ kNm}$

203x102 UB

$L_{EFF} = (3900 + 400)/2 = 5160mm$

$\frac{L}{Ryy} = \frac{516}{2.39} = 216 \quad D/T = 21.8$

$P_{bc} = 76N/mm^2$

$f_{bc} = \frac{M}{Z} = \frac{13.4 \times 10^6}{206 \times 10^3} \quad \underline{f_{bc} = 66N/mm^2}$

PROVIDE

203 x 102 UB BEAM (RIDGE)

ON 300 x 100 x 150 DEEP

CONCRETE (C30)

PADSTONES