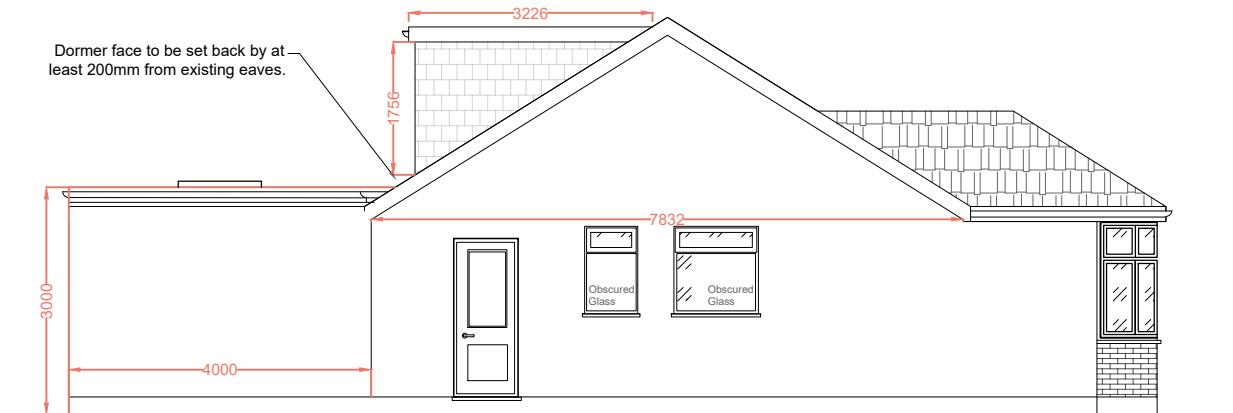


PROPOSED REAR ELEVATION



PROPOSED FRONT ELEVATION



PROPOSED SIDE ELEVATION

a. Volume of proposed hip-to-gable roof extension:

$$Wa=4.54 \text{m} \quad Ha= 2.01 \text{m} \quad Da= 7.83 \text{ m}$$

$$Va= Wa*Ha*Da/6 = 11.90 \text{ m}^3$$

b. Volume of proposed box dormer on rear roof slope:

$$Wb=3.22 \text{ m} \quad Hb=1.95 \text{ m} \quad Db= 7.40 \text{ m}$$

$$Vb= ((Wb*Hb)/2)*Db= 23.23 \text{ m}^3$$

Volume added to original roof by proposed works:

$$V= Vax2+Vb= 23.8 + 23.23$$

$$V= 47.03 \text{ m}^3$$

0 2 4 6m