Loft Conversion Volume Calculation for
53 Downland Avenue, Southwick

1. Calculation of external volume of the proposed hip to gable conversion of the roof.

Base length of gable: 7.94m
Height of gable 3.53m
Top width from hip to gable 4.02m

External volume of gable: $\frac{7.94m \times 3.53m \times 4.02m}{6} = 18.78m^3$

2. Calculation of external volume of the proposed rear dormer in the loft conversion.

Max. height of dormer: 2.40m
Projection of dormer: 2.84 m
Width of dormer: 7.70m

External volume of dormer: $\frac{2.40m \times 2.84m \times 7.70m}{2} = 26.24m^3$

Gable conversion & dormer to be done under permitted development allowance

Total external volume of extension & side dormer

Gable conversion $18.78m^3$ + Roof dormer $26.24m^3$ = $45.02m^3$ $< 50m^3$

Therefore, the roof extension is within the permitted development allowance.