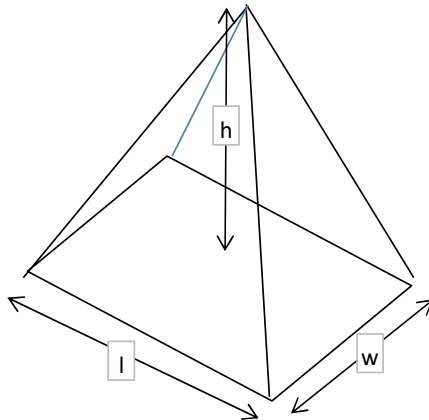
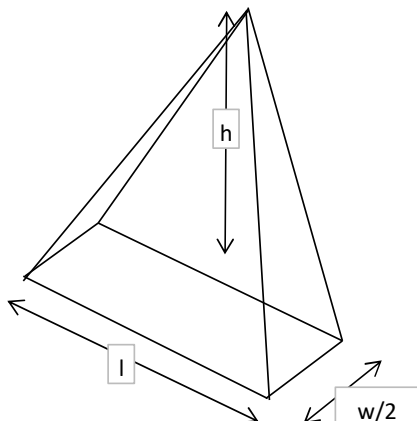


<div>SKM</div> <div>Planning & Design</div>	Project18 Hillside Road			Project noSKMPD/18HS																																				
	Part of StructureHip to gable volume calc			Page1	of1																																			
	Drawing Ref	PreparedSKM	Date	RevN/a	DateN/a																																			
Subject																																								
<div>for a rectangular pyramid</div> <div>Volume = (l * w * h) / 3</div> <div></div> <div>for half a rectangular pyramid</div> <div>Volume = (l * (w/2) * h) / 3</div> <div></div> <div>Hip to gable volume = prism comprising gable side face, less half pyramid</div> <div><div>Triangular Prism Volume Proposed (including existing pitch):</div><table><tr><td>Gable external height</td><td>3.4</td><td>m</td></tr><tr><td>Gable base external length (overall house depth)</td><td>8.15</td><td>m</td></tr><tr><td>Prism length (distance from gable wall to original ridge)</td><td>4.2</td><td>m</td></tr><tr><td>Volume of triangular prism = 0.5*h*b*l</td><td>58.19</td><td>m3</td></tr></table><div>Half Rectangular Pyramid Volume (volume of existing pitch):</div><table><tr><td>w/2 i.e. distance from gable wall to original ridge</td><td>4.2</td><td>m</td></tr><tr><td>l (i.e 2 x gable base)</td><td>8.15</td><td>m</td></tr><tr><td>h (same as height of gable)</td><td>3.4</td><td>m</td></tr><tr><td>Volume</td><td>38.794</td><td>m3</td></tr></table><div>Net additional volume required for hip to gable</div><table><tr><td></td><td>19.397</td><td>m3</td></tr></table></div> <div>per gable</div> <div><div>Volume available for dormers (50m3 allowance)</div><table><tr><td>30.60</td><td>m3</td></tr><tr><td>Dormer area = 2.76m height x 3.47 dormer depth / 2</td><td>4.79</td><td>m2</td></tr><tr><td>Dormer width total for both</td><td>6.39</td><td>m</td></tr></table><div>3.19 each</div></div>						Gable external height	3.4	m	Gable base external length (overall house depth)	8.15	m	Prism length (distance from gable wall to original ridge)	4.2	m	Volume of triangular prism = 0.5*h*b*l	58.19	m3	w/2 i.e. distance from gable wall to original ridge	4.2	m	l (i.e 2 x gable base)	8.15	m	h (same as height of gable)	3.4	m	Volume	38.794	m3		19.397	m3	30.60	m3	Dormer area = 2.76m height x 3.47 dormer depth / 2	4.79	m2	Dormer width total for both	6.39	m
Gable external height	3.4	m																																						
Gable base external length (overall house depth)	8.15	m																																						
Prism length (distance from gable wall to original ridge)	4.2	m																																						
Volume of triangular prism = 0.5*h*b*l	58.19	m3																																						
w/2 i.e. distance from gable wall to original ridge	4.2	m																																						
l (i.e 2 x gable base)	8.15	m																																						
h (same as height of gable)	3.4	m																																						
Volume	38.794	m3																																						
	19.397	m3																																						
30.60	m3																																							
Dormer area = 2.76m height x 3.47 dormer depth / 2	4.79	m2																																						
Dormer width total for both	6.39	m																																						