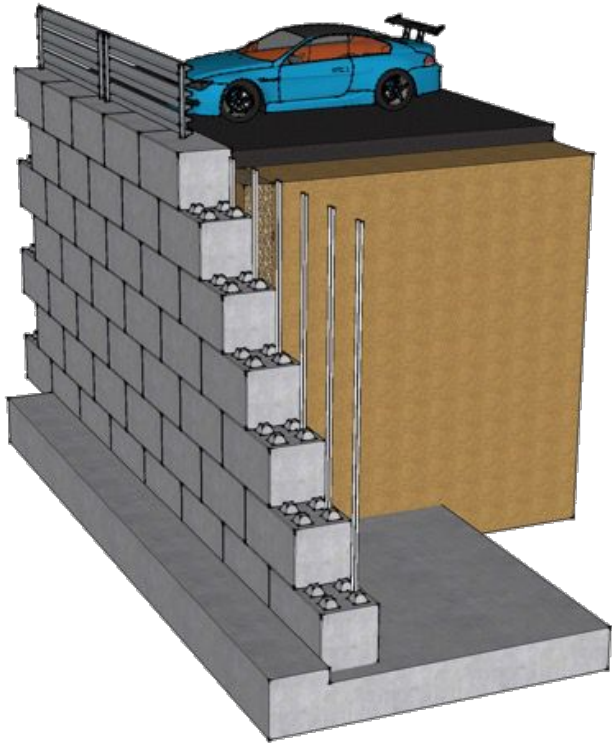


Reinforced block retaining wall

Everything you need to know about a king post retaining wall in 3.5 minutes

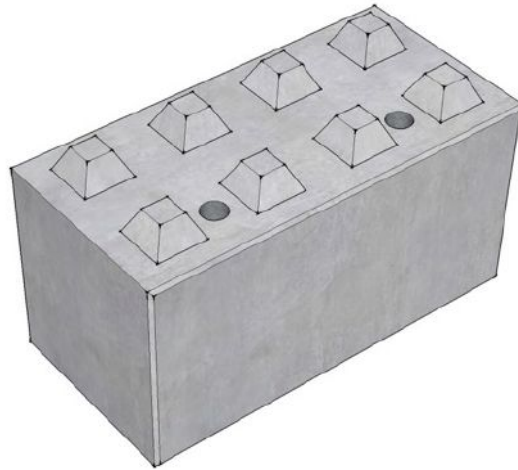


Bob Evans





W 600mm x H 600mm x L 1800mm
L 1500mm, L 1200mm, L 900mm, L 600mm
Weight - 1555kg



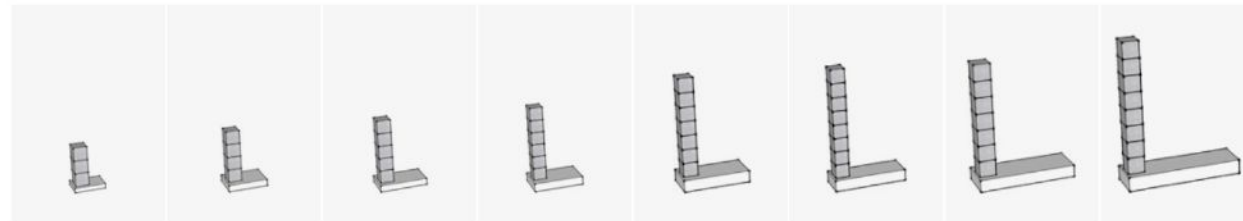
W 800mm x H 800mm x L 1600mm
L 800mm
Weight - 2450kg



Textured finish

Reinforced block design guide

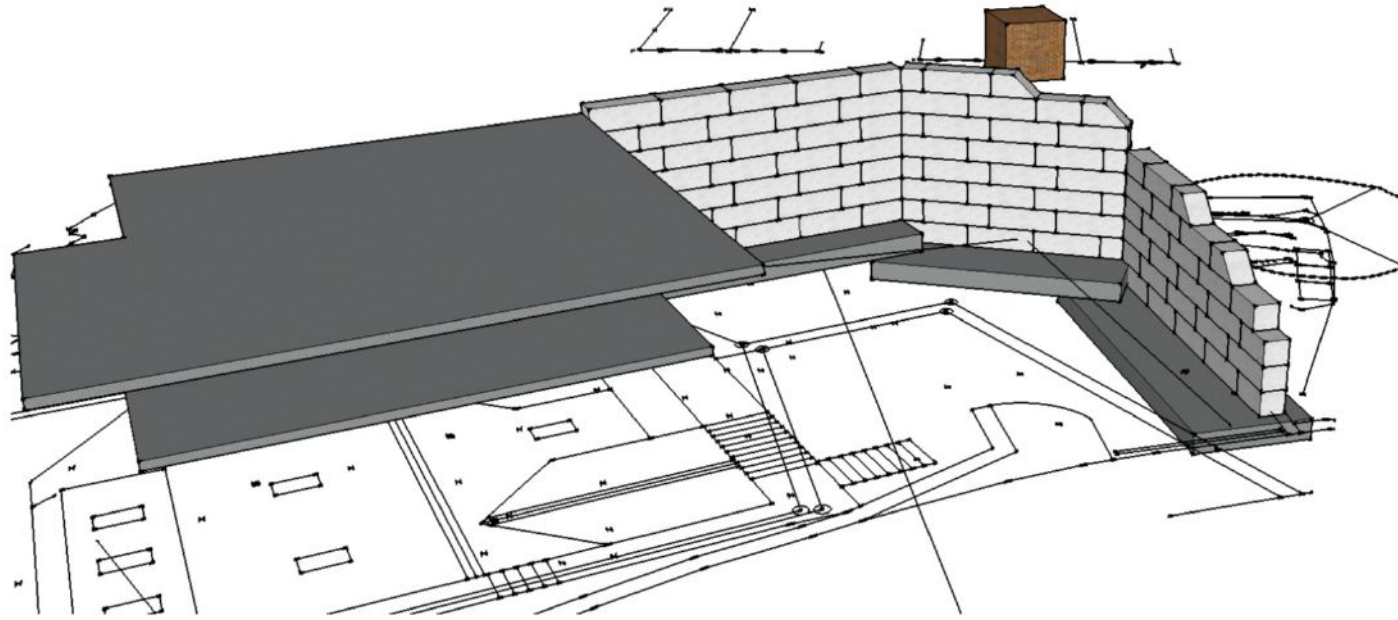
Height (m)	1.8	2.4	3.0	3.6	4.2	4.8	5.6	6.4
Block size (mm)	600	600	600	600	600	600	800	800
Base width (mm)	1400	1800	2200	2400	2800	3200	4800	5600
Base depth (mm)	200	300	300	400	500	500	600	700
Rebar toe	A393	A393	A393	B785	B785	B785	B785	H16 @ 200
Rebar heel	A393	A393	B785	H16 @ 200	H16 @ 200	H20 @ 200	H20 @ 200	H25 @ 200
Pocket rebar	1 H25	1 H25	1 H25	1 H25	2 H25	2 H25	1 H40	2 H40
Surcharge	10kn/m ²	10kn/m ²	10kn/m ²	10kn/m ²	10kn/m ²	10kn/m ²	10kn/m ²	10kn/m ²
Factor of safety	M=1.5	M=1.5	M=1.5	M=1.5	M=1.5	M=1.5	M=1.5	M=1.5



Indicative designs based upon a base material with allowable bearing pressure of **>200kPa**.

Retained material is assumed to be well graded, granular backfill with the back of wall drainage or weep holes to relieve hydrostatic pressure.

Design table to give you some examples for various wall heights



Retaining Wall Solutions

1 Introduction

1.1 Location/Address

New dwelling
39 Crossley Hill,
Halifax

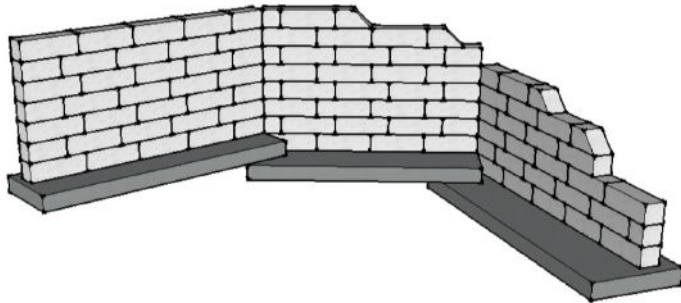
1.2 Structural Form

3 No straight sections of vertical external retaining wall, independent of any other structures, retaining earth in an existing bank. Retained material is rocky and granular in nature however restricted access to the rear of the wall results in the requirement to minimise the heel of the retaining wall base.

Retained height varies from 1.2m to 3.6m.

Wall formed in 600mm high blocks.

Pocket reinforced cantilever retaining wall up to 7 blocks high.



Indicative wall arrangement

2 Structural Calculations and Sketches

Allowable ground bearing pressure = $100\text{kN}/\text{m}^2$

Calculations assume that the backfill material is granular and that the wall has weepholes or back of wall drainage to relieve any water pressure behind the wall.

Calculations conservatively assume a surcharge of $10\text{kN}/\text{m}^2$ (non-vehicular and not supporting any buildings etc)

Allow for mobilisation factor of 1.5.

Analyse as pocket reinforced concrete cantilever wall (pockets cast into interlocking blocks at 600c/c with grouted rebar tied to base).



Existing embankment to be retained



Retaining wall design and price guide

Which retaining wall type is the most economical to build? **Download the design guide** to learn more about each retaining wall type and get a price comparison.

Design price guide

Ask a question

How much do they cost?

Our simple 3 steps Design process

1 Step 1 - Decide on the type of retaining wall

One of the hardest things to do is to select the right retaining wall type.

Each retaining wall type has pros and cons.

Our support can help you select the right one for your requirements and budget.

2 Step 2 - Design the retaining wall

Our structural engineer is a specialist retaining wall expert. We can turn around retaining wall designs in a matter of days.

You will receive a full retaining wall report, a complete set of calculations, and a sketch showing you the design, including the material specifications.

You will also be protected by our professional indemnity insurance allowing you to sleep at night.

3 Step 3 - Use our supply chain to get the best build price

We have a comprehensive supply chain for the supply only or supply and installation of your retaining wall once it has been designed.

We can prepare material schedules and bills of quantities to give you a budget to work from.

You can save time and money trying to find suitable suppliers and contractors using our service.

Reinforced block retaining wall

The Next Step

- Tell us about your project.
- Complete the form.
- We are here to support you.



Bob Evans