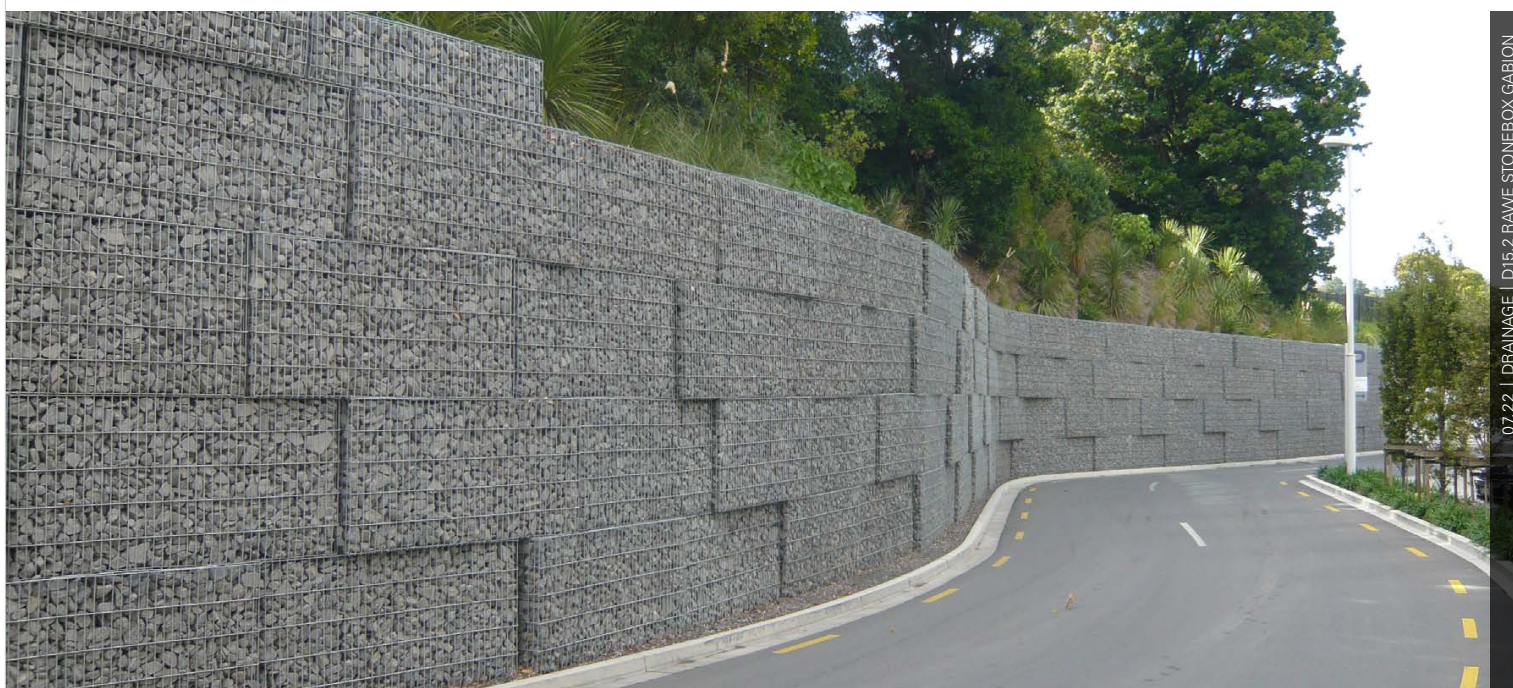


Rawe Stonebox Gabion

Technical Guide D15.2

The Rawe Stonebox enables retaining walls, free standing walls, or stone facades to be quickly and architecturally constructed.



Applications

Retaining walls
Decorative facades
Driveway entrances

Product Attributes

Visually pleasing
Strong and durable
Innovative
Quick installation
Economical

Approvals/Standards

DIN-EN-ISO 1461 Hot Dip Galvanized
Coatings on Fabricated Iron and Steel
Articles – Specifications and Test Methods

Quality

ISO 9001:2008 Quality
Management Standard

We are the supply partner of choice for New Zealand's civil construction industry, specialising in water and infrastructure based solutions.

HYNDS
PIPE SYSTEMS

The Rawe Stonebox enables retaining walls, free standing walls, or stone facades to be quickly and architecturally constructed.

Ideal for urban landscape application, the Rawe Stoneboxes are manufactured in a range of standard sizes and are constructed out of 6mm steel bar that is double hot-dip galvanised.

The innovative Rawe Stonebox

1. Rawe Stoneboxes are usually filled in our factory
2. The special vibration and compaction machinery ensures that the stone fill material is accurately placed and compacted
3. Stone fill slumping and deformation is eliminated
4. The design and strength of the individual components ensure form stability
5. We supply the Stoneboxes stacked on pallets, making delivery problem free
6. The integrated lifting system means that these filled, Stoneboxes can be easily lifted and maneuvered into position
7. Standard construction equipment (*diggers, hiabs, etc*) is all that is required to lift the Stoneboxes into position
8. Can be supplied unfilled
9. Two types of stone fillings available Greywacke and Mangatangi River Rock. Refer Tables 1 & 2 (*subject to availability*).

Technical Data

- Stonebox components are manufactured out of 6mm steel bar
- The standard mesh pattern is constructed with a single vertical and a double horizontal steel bar
- This mesh configuration provides a 5cm by 20cm pattern
- All components are fabricated and welded before they are double, hot-dip galvanized
- The double galvanizing process complies with the stringent German standard DIN-EN-ISO 1461
- Providing Rawe Stoneboxes with an equivalent designation as HDG500 under AS/NZS2312:2004 This would provide a design life (Life to first maintenance)
 - In a C2 corrosive Category (Zone 2 & Zone 3) life to first maintenance > 100 year
 - In a C3 corrosive Category (Zone 1) life to first maintenance 33 to 100 years
- Other categories refer to AS/NZS 2321.2.

TABLE 1 Greywacke - Available Standard Sizes

Product Code	Length (cm)	Width (cm)	Height (cm)	Weight Approx (kg)
RSBF505050	50	50	50	200
RSBF1005050	100	50	50	400
RSBF10050100	100	50	100	800
RSBF10010050	100	100	50	800
RSBF100100100	100	100	100	1600
RSBF1505050	150	50	50	600
RSBF15050100	150	50	100	1200
RSBF15010050	150	100	50	1200
RSBF150100100	150	100	100	2400
RSBF2005050	200	50	50	800
RSBF20050100	200	50	100	1600
RSBF20010050	200	100	50	1600
RSBF200100100	200	100	100	3200

TABLE 2 Mangatangi River Rock - Available Standard Sizes

Product Code	Length (cm)	Width (cm)	Height (cm)	Weight Approx (kg)
RSB505050MR	50	50	50	220
RSBF100505050MR	100	50	50	440
RSBF10050100MR	100	50	100	880
RSBF10010050MR	100	100	50	880
RSBF100100100MR	100	100	100	1750
RSBF1505050MR	150	50	50	660
RSBF15050100MR	150	50	100	1330
RSBF15010050MR	150	100	50	1330
RSBF150100100MR	150	100	100	2650
RSBF2005050MR	200	50	50	880
RSBF20050100MR	200	50	100	1750
RSBF20010050MR	200	100	50	1750
RSBF200100100	200	100	100	3500

Design

It is important a Site engineer is involved in the design of any Rawe Stonebox retaining wall to check and confirm the site and ground parameters, listed below are allowances for standard Rawe Stonebox configurations, any variations from the below discuss with Hynds prior to project specification.

- Typical Loading allowance behind Wall
 - 5kN/m² surcharge
 - 0° Retained Slope angle (level ground at back of wall)
- Typical Ground Conditions
 - Minimum allowable Ground bearing capacity 150kPa or 150kN/m²
 - Internal Angle of Friction 27.5 Deg
 - Cohesion = 0
 - Adequate drainage as detailed by the site engineer
- Please contact your local Hynds branch for more details.

Geogrid Connection

- Rawe Stoneboxes can accommodate the attachment of Geogrid if required.
- The Geogrid is fastened to the double bars at the rear of the stonebox with shackles and steel bar threaded through the Geo Grid.

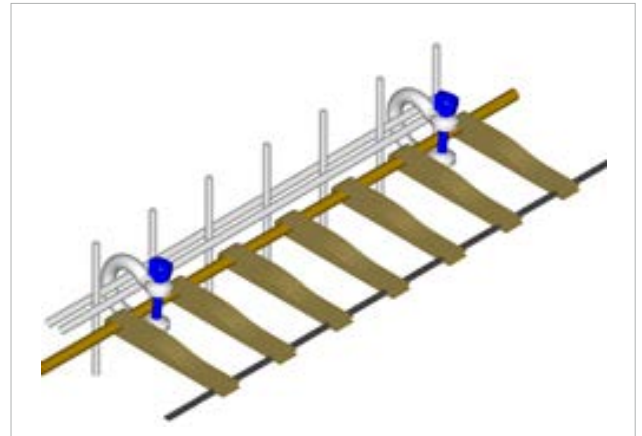


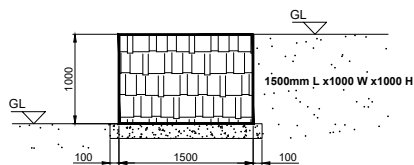


FIG. 1 Rawe Stonebox using Mangatangi Stone (Refer Table 2)

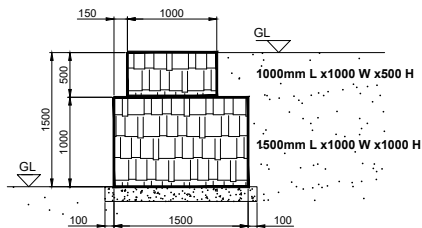
Retaining Wall Height Configurations

Below are indicative configurations for various height walls, these require site specific design verification by the project Site Engineer.

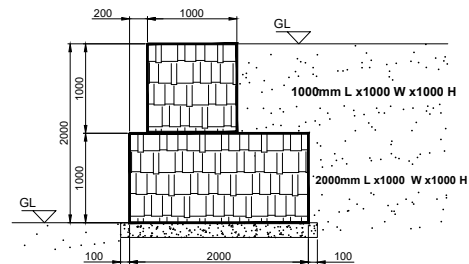
Retained Height = 1 m



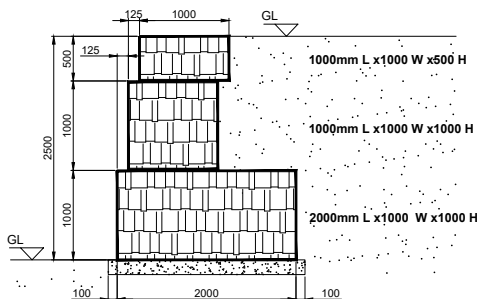
Retained Height = 1.5 m



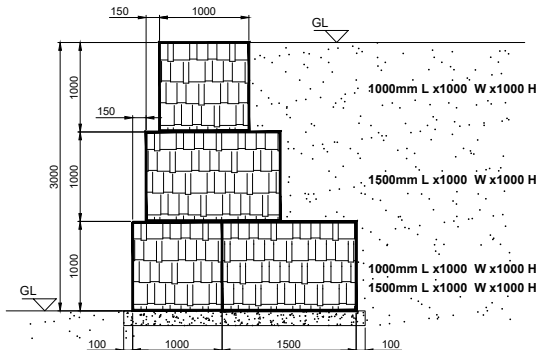
Retained Height = 2 m



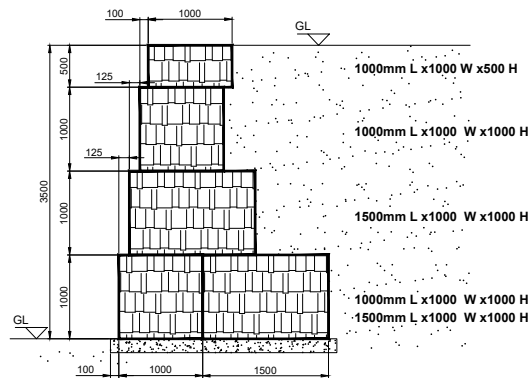
Retained Height = 2.5 m



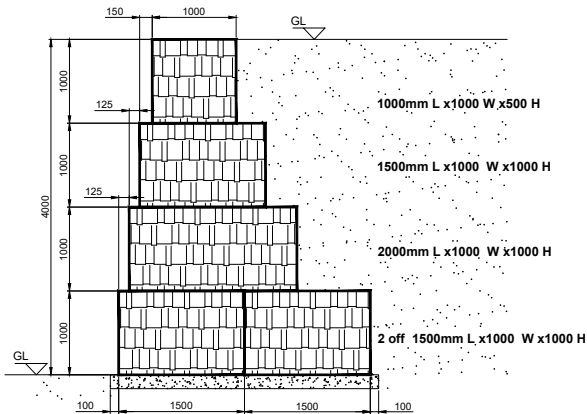
Retained Height = 3 m



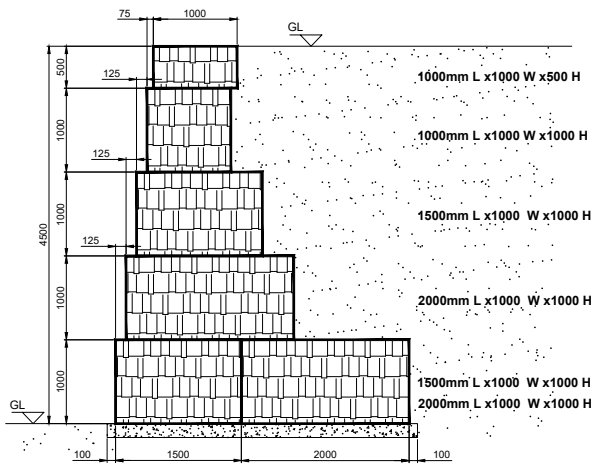
Retained Height = 3.5 m



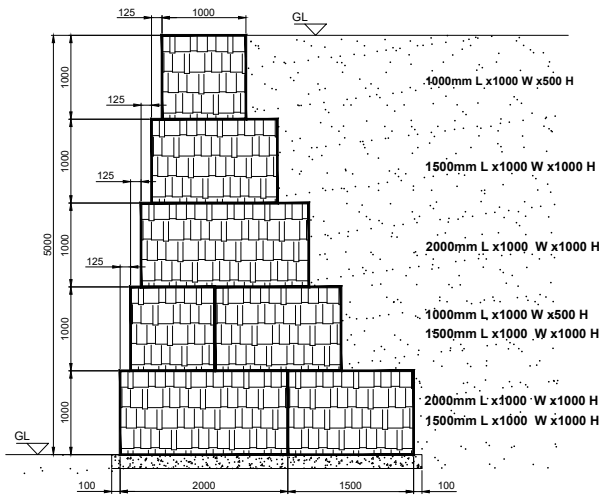
Retained Height = 4 m

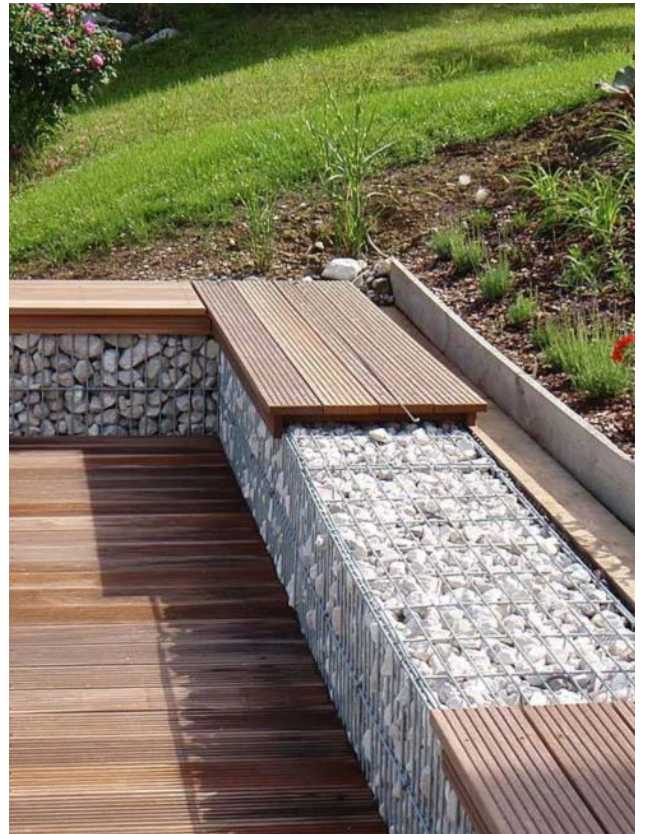


Retained Height = 4.5 m



Retained Height = 5 m





Branches Nationwide *Support Office & Technical Services* 0800 93 7473

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