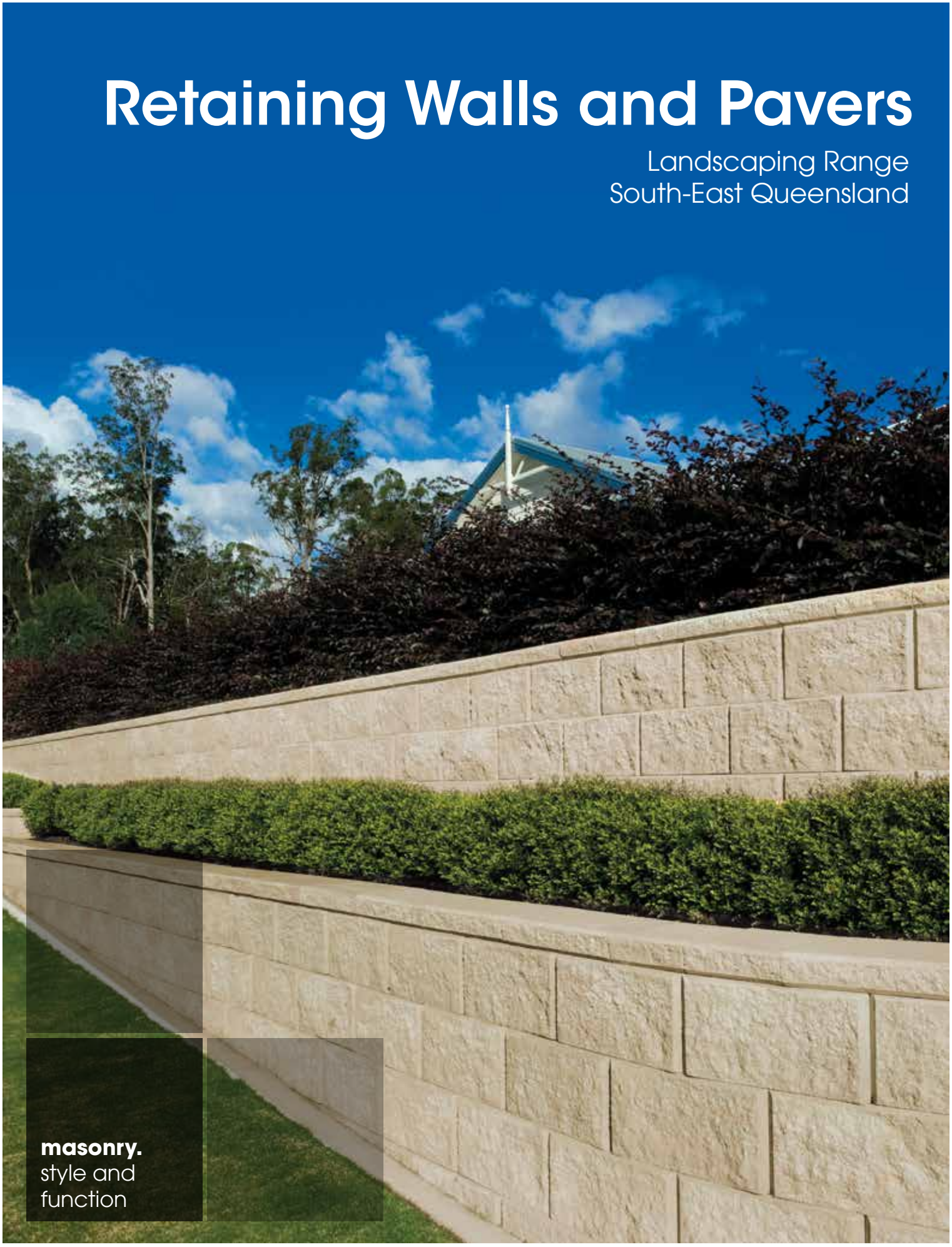
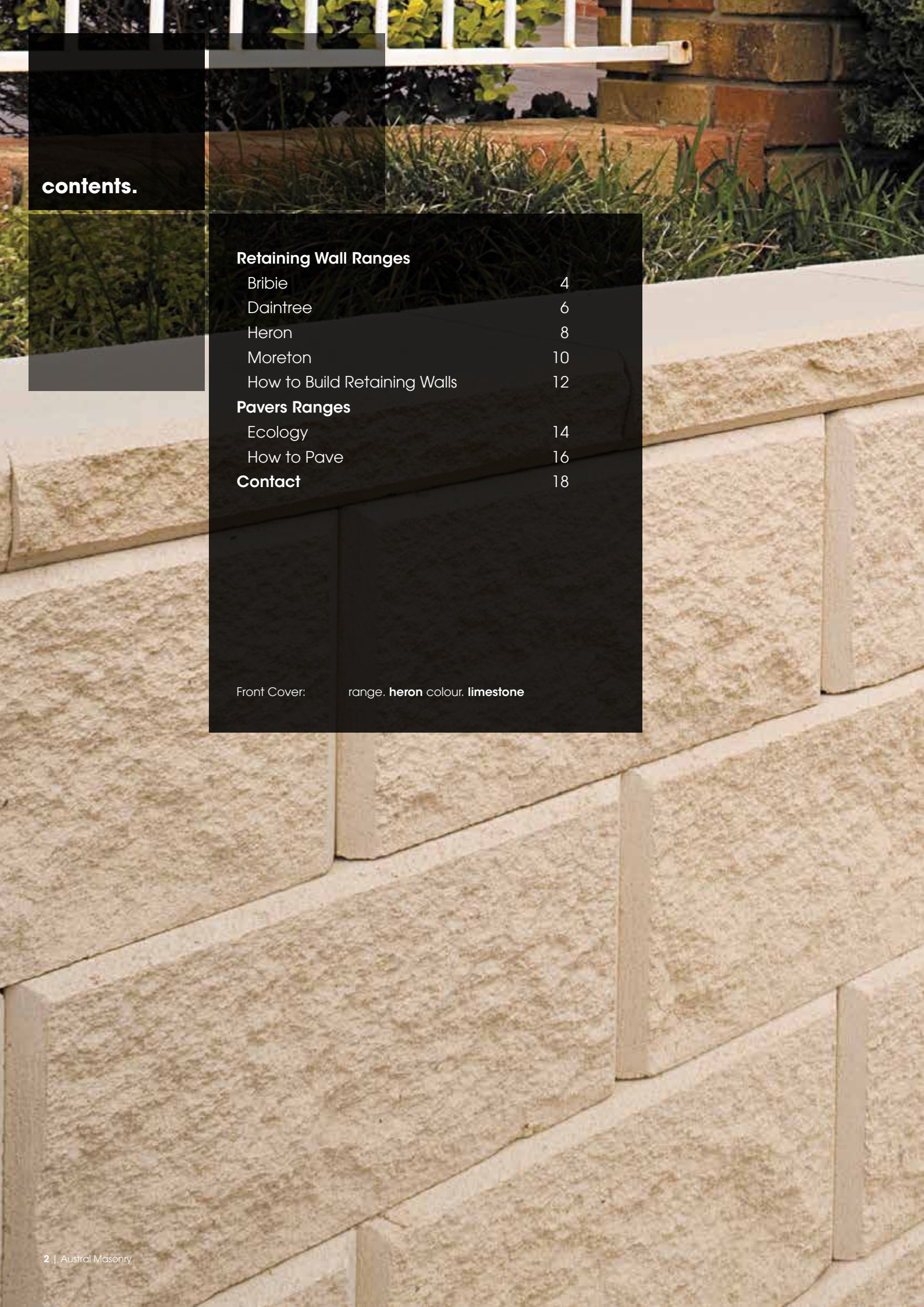
Retaining Walls and Pavers

Landscaping Range
South-East Queensland



masonry.
style and
function

australmasonry™



contents.

Front Cover: range. **heron** colour. **limestone**

how to choose your retaining wall

Range	Height	Curved/Straight Walls	Max Radius (Curved Wall)	Steps
Bribie	360mm	Straight and Curved Walls	450mm	N/A
Daintree	800mm	Straight and Curved Walls	670mm	Yes
Moreton	1200mm	Straight and Curved Walls	1500mm	Yes
Heron	3m*	Straight and Curved Walls	2500mm	Yes

MAX. wall heights noted in good soils (gravels, crushed stone, etc)

* Heron can be built up to 3m when designed by a suitably qualified engineer and combined with soil reinforcement or no fines concrete. Contact your local Austral Masonry representative for more information.

Note:

Please consult with regulating council for local design requirements prior to the construction of any retaining wall. Councils in general require that retaining walls be designed and certified by a suitably qualified engineer where the wall is over 0.5m in height and/or where there is a surcharge loading, such as a driveway, house or other structure near the wall.

style and function

Our range of coloured, standard and premium masonry have set a new standard in quality and style for the versatile concrete block. By adding oxides and coloured sands to our mix of raw materials, we produce blocks with contemporary colours, textures and appeal. Ideal for a range of projects from a modern beach residence to impressive commercial projects Austral Masonry has an array of products to suit your style.

Austral Masonry blends fine sand, cement, aggregate and quality colouring agents to produce unique coloured blocks. Having long been the workhorse of the construction industry, our products are frequently specified in cutting-edge residential and commercial designs due to their strength and versatility.

Part of the Brickworks Building Products Group, one of Australia's largest and most innovative building product manufacturers, Austral Masonry is part of a group of manufacturers which includes other industry leading brands such as Austral Bricks®, Bristile Roofing®, Austral Precast™ and Timber®.

SUITABLE FOR:

- MAX. wall height: 360mm
- Circular walls:
  Min radius to inside: 450mm
  Minimum circle: 18 Blocks
- Straight walls

range. **bribie** colour. **sydney blend**

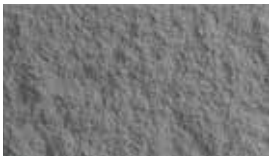
Bribie Range

Simple and yet distinctive.

These light weight blocks are the ideal solution to add style to your landscaping project with the greatest of ease. The simple design of this unit is designed to offer flexibility in applications from long winding garden beds to those that feature corners with sharp curves.

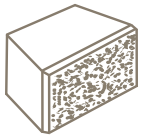

Limestone


Sandstone


Charcoal


Brisbane Blend


Sydney Blend



Standard Unit

Size (mm): 190L x 100W x 120H

Weight (each): 4.5kg

Blocks per lineal metre: 5.25

SUITABLE FOR:

- MAX. wall height: 800mm
- Circular walls: Min radius to inside: 670mm
- Minimum circle: 18 Blocks
- Straight walls

range. **daintree** colour. **nickel**

Daintree Range

Simple and yet distinctive.

The simplistic design of this unit is intended to offer flexibility in application from long winding garden edges to corners with sharp curves with minimal cutting required. Daintree is the ideal solution to add style to your landscaping project with the greatest of ease.

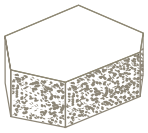

Nickel


Pewter


Dark Mocha


Terracotta


Sand



Standard Unit

Size(mm): 295L x 203W x 125H

Weight (each): 13.2kg

Blocks m2: 26.9

SUITABLE FOR:

- MAX. wall height: 3m with engineering

1200mm without enginnering

- Straight walls
- Curved walls
- Corners
- Steps

range. **heron** colour. **sydney blend**

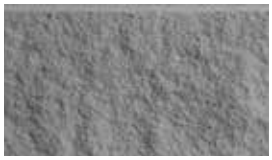
Heron Range

Rich natural colours and design flexibility.

Depending on what suits your overall desire, one thing is certain Heron retaining wall blocks have the colour and finish for all landscaping projects. They are structurally sound and are perfect for the 'do it yourself' weekend warrior. Heron blocks require no mortar and are virtually maintenance free.

Limestone

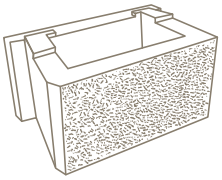
Sandstone



Charcoal

Brisbane Blend

Sydney Blend

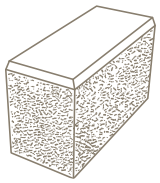


Standard Unit

Size(mm): 390L x 245W x 198H

Weight (each): 24kg

Face area: 13 units per m^2

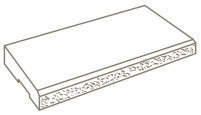


Corner Block

Size(mm): 160L x 360W x 198H

Weight (each): 20kg

Available in right and left

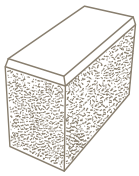


Cap Unit

Size(mm): 390L x 245W x 90H

Weight (each): 16kg

2.56 per lineal metre

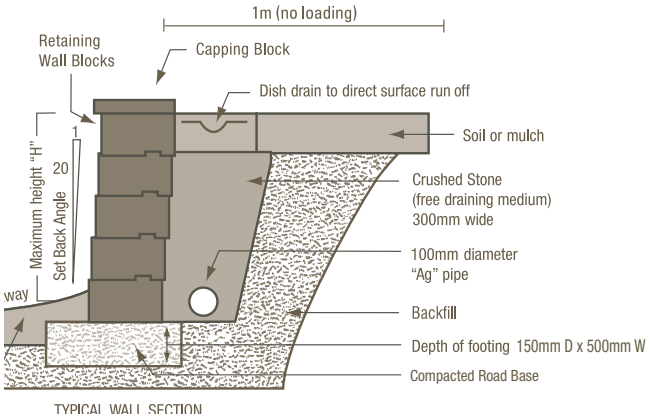


Flushface Straight Sided Cap

Size(mm): 160L x 245W x 198H

Weight (each): 18kg

Typical Cross Section



Please Note: Backfill should be no higher than the top of the retaining wall

* Heron can be built up to 3m when designed by a suitably qualified engineer and combined with soil reinforcement or no fines concrete. Contact your local Austral Masonry representative for more information.

SUITABLE FOR:

- Max. wall height: 1200mm
- Straight and curved walls
- Steps

range. **moreton** colour. **charcoal**

Moreton Range

Accentuate your outdoor area with a range of five vibrant colours.

With two enticing blends and three contemporary monotone colours, Moreton Retaining Wall Blocks will complement any landscape with a unique and timeless appeal. High quality and robust in nature, Moreton Retaining Wall Blocks are easy to install and require minimal maintenance.

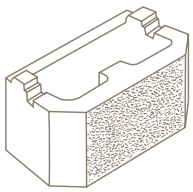
Limestone

Sandstone

Charcoal

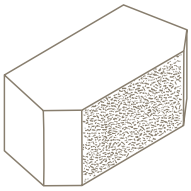
Brisbane Blend

Sydney Blend



Standard Unit

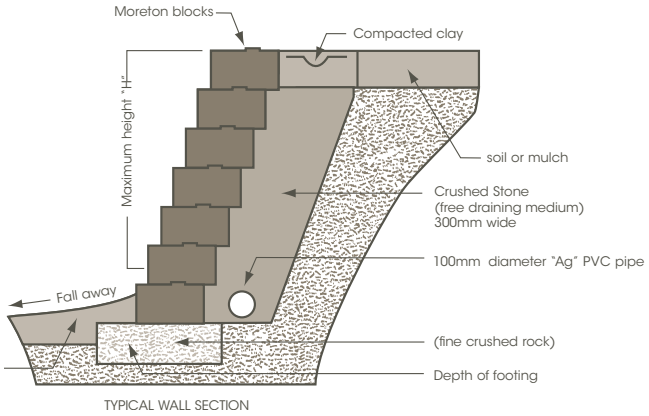
Size(mm): 390L x 200W x 200H
Weight (each): 18.5kg
Face area: 13 units per m^2



Capping Block

Size(mm): 390L x 200W x 200H
Weight (each): 22kg
Blocks per lineal metre: 2.56

Typical Cross Section



TYPICAL WALL SECTION

Please Note: Backfill should be no higher than the top of the retaining wall

HOW TO LAY RETAINING WALLS

Austral Masonry retaining wall blocks are an ideal choice for retaining walls in gardens, other residential applications and commercial projects. The interlocking and dry stacked nature of these, makes them easy to install for the "Do It Yourself" landscaper. No matter what the project, the result is always an attractive and low maintenance retaining wall. The flexibility of the system provides tremendous scope, from edging to terraces, straight walls to curves.

Note: Please consult with regulating council for local design requirements prior to the commencement of any retaining wall. Councils may request walls over 0.5m in height and / or where a surcharge exists (e.g. driveway, house, fence or other structure) be designed and certified by a suitably qualified consulting engineer.

Your Checklist

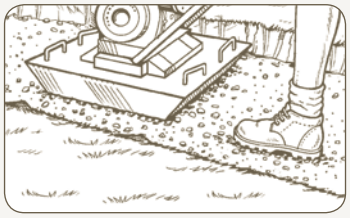
- ❑ String line
- ❑ Tape measure
- ❑ Walling units
- ❑ Compaction Tool
- ❑ Shovel
- ❑ Spirit level
- ❑ Wheel barrow
- ❑ Agriculture Drain Pipe
- ❑ Pegs or stakes
- ❑ Broom
- ❑ Gloves & eye protection
- ❑ Mitre saw (to cuts blocks if req'd)
- ❑ 10-20mm Crushed stone
- ❑ Crushed rock (for base)

Step 1: Permits

Check with your local council to ensure all local Building Codes are complied with.

Step 2: Foundation

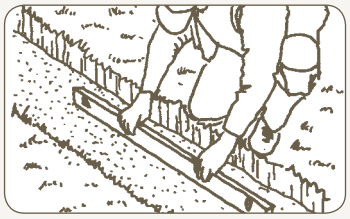
The foundation material shall be compacted by several passes of a mechanical plate vibrator. Where there are significant variations of foundation material or compaction, soft spots, or where there is ponding of ground water, the material shall be removed, replaced and compacted in layers not exceeding 150mm. Trenches shall be dewatered and cleaned prior to construction, such that no softened or loosened material remains.



Step 3: Bearing Pad

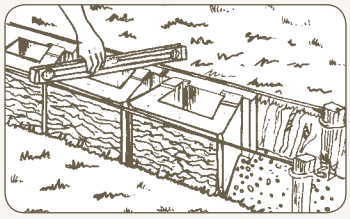
The facing shall be built on a bearing pad, not less than 150mm thick and 300 to 600mm wide, consisting of one of the following options:

- Compacted road base
- Compacted crushed rock, well-graded and of low plasticity (without clay content), compacted by a plate vibrator;
- Cement-stabilized crushed rock, with an additional 5% by mass of cement thoroughly mixed, moistened and compacted by a plate vibrator; or
- Lean-mix concrete with a compressive strength of not less than 15 MPa.



Step 4: First Course

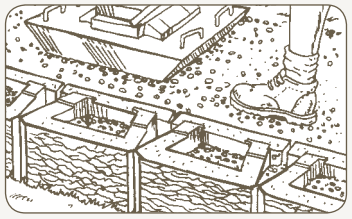
Spread 25mm of metal dust with an additional 5% by mass of cement over the compacted base.
The first course is now bedded into the metal dust. The use of a level and string line is recommended to ensure the first course is laid correctly. Ensure each block is also well filled with free-draining material (eg. crushed rock aggregate / blue metal). For walls up to 1 metre high, make sure at least 100mm of the first-course blocks are buried below the finished ground level. Allow 200mm for walls over 1 metre high and up to 3 metres high. These walls will need to be engineered.



Step 5: Drainage and Back Fill

Place 100mm diameter agricultural pipe with geotextile sock behind the wall, with a 1 in 100 fall. Backfill behind the courses of blocks to a width of 300mm using 10-20mm free draining material (eg. crushed rock aggregate / blue metal). Ensure each block is also well filled with free-draining material.

Backfill behind the drainage layer with selected backfill material in a maximum of 200mm layers. Compaction rate of 95% must be achieved (use only hand operated plate compactors within 1 metre from the back of the wall). Do not use expansive clays to backfill. Be careful not to mechanically compact too close to the wall.

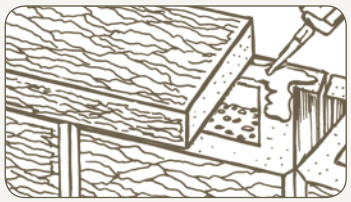


Step 6: Laying Additional Courses

Clean any debris from the top of the wall to ensure the next block sits perfectly. Ensure each block is filled with free draining material, and place next course on top. Place the drainage material behind the blocks to 300mm. Stack units, placing drainage aggregate and compact backfill for each block layer until the wall is complete.

Step 7: Capping Units

Once backfilling and cleaning is completed as per Step 5 and Step 6 fix the purpose made Capping Blocks with cement based flexible adhesive.



Step 8: Maximum Wall Height

This information should be viewed as a guide only. The particular circumstances of retaining wall projects vary significantly in ways that often dictate the use of particular materials and techniques to address challenges presented by those circumstances. Austral Masonry recommends you to ensure that you obtain appropriate professional advice tailored to your circumstances before commencing retaining wall projects.

Austral Masonry Product	Maximum wall height
Moreton	1200mm
Bribie	360mm
Daintree	800mm
Heron*	3m

MAX. wall heights noted in good soils (gravels, crushed stone, etc)

* Heron can be built up to 3m when designed by a suitably qualified engineer and combined with soil reinforcement or no fines concrete. Contact your local Austral Masonry representative for more information.

Note:

Please consult with regulating council for local design requirements prior to the construction of any retaining wall. Councils in general require that retaining walls be designed and certified by a suitably qualified engineer where the wall is over 0.5m in height and/or where there is a surcharge loading, such as a driveway, house or other structure near the wall.

SUITABLE FOR:

- Pedestrian
  (Paths, Patios & Courtyards)
- Pools

range. **ecology** colour. **dark mocha**

Ecology Range

Style with impact.

For contemporary styling with impact, the Broadway range of pavers offers sharp contemporary lines and colours, ideal for everday living ideas, in courtyards, paths and other outdoor spaces.

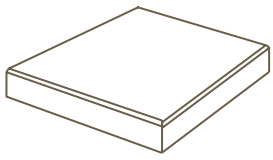
Nickel

Pewter

Dark Mocha

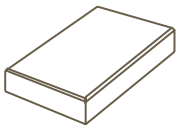
Terracotta

Sand



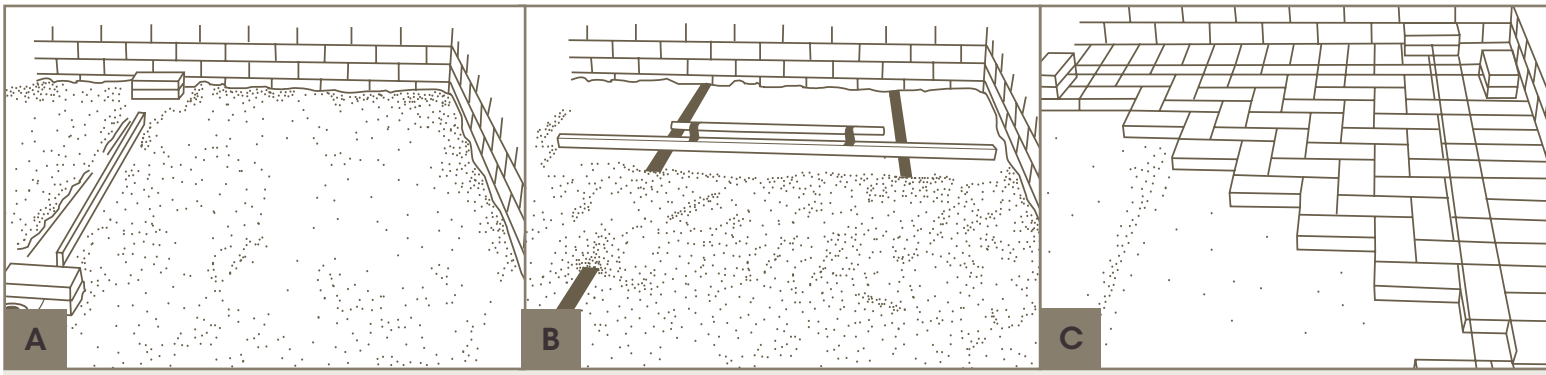
Ecology 400 Paver

Size(mm): 400L x 400W x 50H

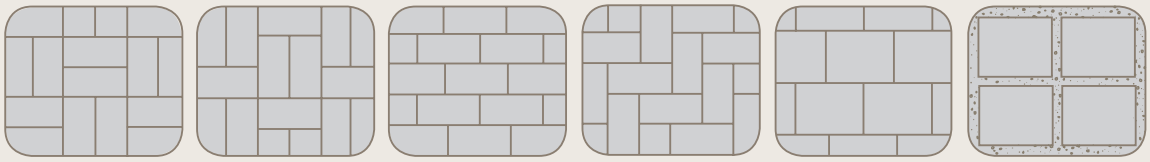


Ecology 200 Paver

Size(mm): 400L x 200W x 50H



How to Pave.
A Step-by-Step Guide



Basket | Weave Variation | Running Bond | Herringbone 90° | Running Bond (Large Format) | Even Spaced (Large Format)

Materials Needed

- Pavers
- Gravel Roadbase (1m^3 covers10m^2 at a compacted depth of 100mm)
- Washed River Sand (1m3 will cover 30m^2 at a depth of 30mm)
- Bagged paver jointing sand (1 bag will cover 8m^2)
- String lines, tape measure and pegs
- Spirit level
- Two Screed Rails – two flat steel bars (Approx. 3m (L) x 50mm (W) x 2mm (H))
- 2-3m long concreter's screed
- Broom, rake and shovel
- Plate vibrator compactor
- Edge restraints (concrete or timber)
- Cutting Equipment – Paver Splitter/Masonry Saw

Preparation

1. Select the desired finished surface level of your pavers. See diagram 1on opposite page.
2. Excavate the total area to the required depth – 140mm for pedestrian areas (compacted road base recommended) 190mm for driveways (concrete base recommended for heavy loads).
3. Be sure to allow for a slight fall for drainage. A fall of 25mm per metre should be satisfactory.
4. Place and screed gravel roadbase over area to approximately 100mm below the required finished height. (This allows 10mm for compaction).
5. Using the Vibrator Compactor, compact the roadbase.

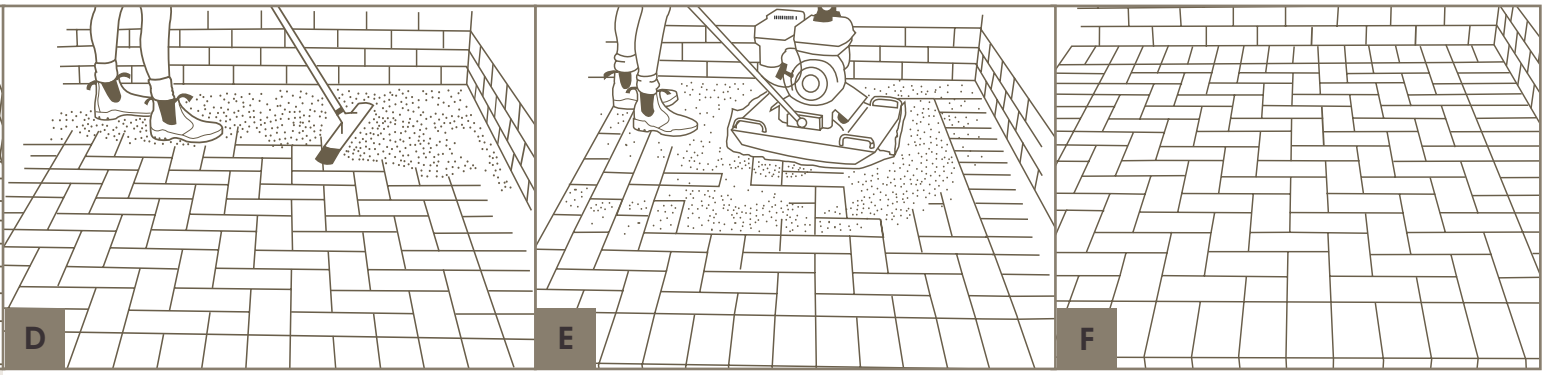


Diagram 1 >

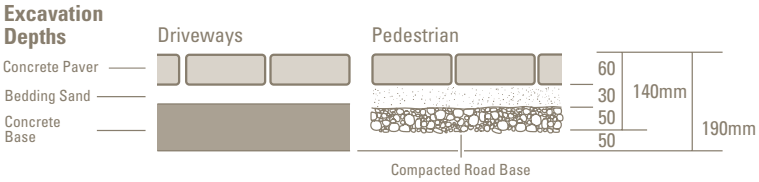
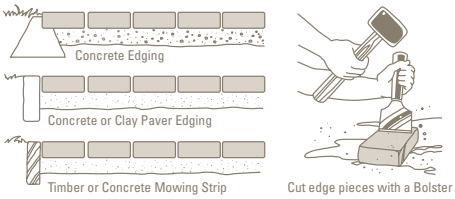


Diagram 2 >



Bedding

1. Place washed river sand in piles over the area to be paved.
2. Using a rake or shovel, spread the sand evenly over the area.
3. Use a paver to determine your finished surface height, to ensure the correct depth of the bedding sand is used. The underside of the pavers becomes the level for your screeding rails. Repeat so that you have 2 paver pads at least 2 metres apart. See Figure A.
4. Using your screed, level an area between the two pavers so that you can lay your screeding rails on the level surface.
5. Place the screeding board onto the screeding rails and pull towards you, ensuring that you maintain an even level. See Figure B.
6. Once the area has been screeded, carefully remove the screeding rails and smooth out any damaged surface areas with a hand float.

Laying Pavers

1. Select your laying pattern and commence laying, making sure that you work outwards from a corner. Where necessary use string lines to make a corner.
2. To ensure that your paving lines stay square two string lines, should be used crossed at 90. See Figure C.
3. As you lay your pavers, make sure that a gap is placed between them (2-3mm for small format pavers and 4-6mm for large format pavers). This will prevent any paver damage caused by pavers rubbing against each other.

1. Edge restraints are important as they will prevent pavers from moving out of place. See diagram 2 above.
2. The edge restraint must be in place prior to compaction.

Compacting the Pavers

1. Prior to compacting, sweep dry paver joint sand over the paved area using a soft bristled brush. Make sure that you completely fill the jointing gaps. See Figure D.
2. Leave a small excess of sand on the surface of the pavers for the compactor to vibrate further into the joints.
3. Before compacting, make sure that a piece of carpet or rubber matt is under the compactor to prevent the pavers being scratched or damaged. See Figure E.
4. 3-4 passes with the compactor should be satisfactory. After the initial pass, respread the jointing sand over the pavers to ensure full joint penetration. Following the final pass, top up any joints with sand where necessary.
5. Hose off excess sand for a clean finish. See Figure F.

Associated Companies

Brickworks Group of Companies

austral masonry

The acquisition of a number of concrete masonry manufacturers complemented established Victorian manufacturing facilities and led to the formation of Austral Masonry.

Through natural growth and acquisition Austral Masonry has become a significant player in the market for masonry block and retaining wall systems on the east coast of Australia and provides further diversification of earnings for the group.

austral bricks since 1908

Austral Bricks is the largest and most efficient producer of pavers, bricks, building materials, façade systems and landscaping products in Australia. With the commissioning of a new brick factory at Wollert, Victoria in 2012 we continue to set the pace for quality, efficiency and high levels of environmental performance. The introduction of robotic brick handling equipment at plants around Australia enables us to greatly reduce manufacturing costs and enhance production flexibility.

bristile roofing

Bristile Roofing was established in 1929 when Sir Lance Brisbane opened his first terracotta products factory in Perth. The division is now one of Australia's largest manufacturers and expert installers of quality terracotta, and concrete roof tiles.

australprecast

A new addition to the Brickworks Building Products family, our inventive precast solutions team works with clients to deliver architecturally striking and commercially cost-effective solutions for the industrial, commercial and residential markets.

World-class style is built on attention to detail, so we're proud of our relentless focus on the use of advanced technology, quality control and commitment to service.

auswesttimbers

Auswest Timbers manufactures a diverse range of timber products including heavy structural timbers and roof tile battens through to floor boards and decking.

The company has manufacturing plants in Western Australia, Victoria and the A.C.T.

Brickworks Design Centres
Sales & Selection

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Rochedale
105 Gardner Rd
Rochedale QLD 4122
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Gympie
Cnr Woondum Rd and
Bruce Highway
Gympie QLD 4570
Tel +61 7 5489 6900

Caloundra
14 Daneil St
Caloundra QLD 4551
Tel +61 7 5413 1200

Cairns
8 Palmer St
Cairns QLD 4870
Tel +61 7 4035 1888

Ayr
7 Conford Crescent
Ayr QLD 4807
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Townsville
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Garbutt QLD 4814
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Trading hours
For trading hours please visit www.australmasonry.com.au

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National

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Yatala QLD 4208

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Fax. 07 3807 0954
Email. sales@australmasonry.com.au

1. **Stock colours.** Colours other than stock colours are made to order. Contact your nearest Austral Masonry office for your area's stock colours. A surcharge applies to orders less than the set minimum quantity.
2. **Colour and texture variation.** The supply of raw materials can vary over time. In addition, variation can occur between product types and production batches.
3. We reserve the right to change the details in this publication without notice.
4. For a full set of Terms & Conditions of Sale please contact your nearest Austral Masonry sales office.
5. **Important Notice.** Please consult with your local council for design regulations prior to the construction of your wall. Councils in general require those walls over 0.5m in height and/or where there is loading such as a car or house near the wall be designed and certified by a suitably qualified engineer.
6. **Max wall heights disclaimer**
   The gravity wall heights are maximum heights calculated in accordance with CMAA MA-53 Appendix D guidelines and a qualified engineer should confirm the suitability of the product for each application. As such, due consideration must be given to but not limited to:
   - Cohesion
   - Dry backfill, no ingress of any water into the soil behind the retaining wall.
   - All retaining walls are designed for zero surcharge unless noted otherwise.

These walls are intended for structure Classification A walls only as defined in AS4678 Earth Retaining Structures as being where failure would result in minimal damage and/or loss of access.

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