



Pavers & Retaining Walls

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About National Masonry®

National Masonry® has quickly established itself as the industry leader with exceptional product quality and outstanding customer service with a clear vision of customers for life. We are obsessed with ensuring every customer has a memorable experience with us and to leave you with no doubt that you have made the right choice.

National Masonry®, the new benchmark in masonry.

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www.nationalmasonry.com.au

Product Disclaimer: Concrete Blocks, Bricks, Pavers and Retaining Wall products supplied by National Masonry® are manufactured using raw materials that inherently vary in nature. Whilst all effort is made to produce uniformity in our range of products, variation in colour, texture, and finish can be present. The dimensional characteristics of all products are nominal and variations in length, height, and width can occur from unit to unit which needs to be taken into consideration when installing these products.



Drainage & grass friendly



From erosion control to water management and drainage, National Masonry's Grasspave® is your one paver solution. At 90mm's thick, Grasspave® can withstand heavy traffic and abuse without any fuss. With its unique 4 clover leaf design, Grasspave® can be laid straight or angled to provide a variety of patterns.

Benefits

- Heavy duty load bearing properties
- Single unit system for easy installation
- Greatly reduce soil erosion and degradation
- Maintenance free
- Manufactured locally by National Masonry® to strict Australian Standards



Grasspaver

Where to use



Roadways



Heavy Vehicle



Car Parks



Driveways

Which colour

Available in Natural Grey



Natural

Product Name	Size (mm)	Available Colours	Weight per unit (kg)	Units per m²	Units per pallet
Grasspaver	390x390x90	Natural	17.04	6.57	81

Withstand heavy loading



Interlocking segmental paving systems are engineered for high volume traffic and able to withstand heavy loading. Interpave™ is ideal for large carpark areas, hardstands, driveways, or any application that needs to withstand heaving vehicle loading. Interpave™ out performs traditional concrete or asphalt pavements as the greater turning load applied to them the stronger they interlock.

Benefits

- Outstanding heavy load performance
- Excellent Skid resistance
- Capable of machine laying for fast and cost-effective installation
- Low maintenance and easy to repair
- Proven durability
- Can be used with poor foundation support
- Manufactured locally by National Masonry® to strict Australian Standards



Interpave®

Where to use



Roadways



Heavy Vehicle



Container Terminals



Airports



Ports



Car Parks



Driveways

Which colour

Available in 2 classic colours



Charcoal



Natural

Product Name	Size (mm)	Available Colours	Weight per unit (kg)	Units per m²	Units per pallet
Interpave®	225x112x80	Natural, Charcoal	4	40	400

From Patios to pathways, the Esplanade® range of pavers is the perfect choice. This square format paver with bevelled edges is a simple and timeless paving system for all projects large and small.

Benefits

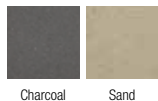
- Pressed concrete paver provides consistent size and strength
- Large colour range
- Can be laid in multiple patterns
- Unique spacer lugs make laying a breeze
- Sika® additive to reduce water absorption
- Bayferrox® colour pigments provide long lasting finish
- Manufactured locally by National Masonry® to strict Australian Standards

Where to use:



Which colour

Esplanade 300 available in 2 unique and contemporary colours



Esplanade 400 available in 6 unique and contemporary colours



Product Name	Size (mm)	Available Colours	Weight per unit (kg)	Units per m²	Units per pallet
Esplanade 300 Standard	300x300x42	Charcoal, Sand	8.0	11.1	192
Esplanade 400 Standard	400x400x42	Charcoal, Ginger, Sand, Terracotta, Platinum, Coco	14.0	6.25	108



Timeless. Classic.

Edgepave®

This small format brick size paver has been used for centuries and is simply the most versatile paver on the market. The unique dimension of Edgepave® enable multiple laying formats and designs from a classic herringbone pattern to a modern stacked bond or basket weave pattern for the most stylish of homes. Want your drive way to stand out, Edgepave® is tough and durable for you to turn your simple driveway into a show piece.

Benefits

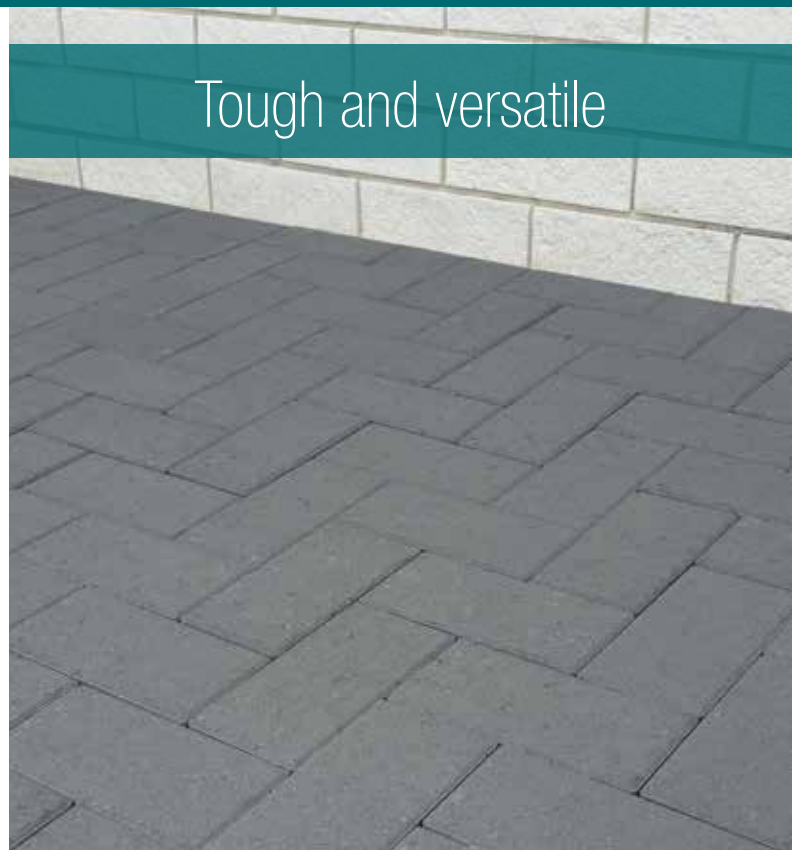
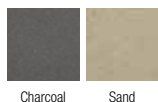
- Pressed concrete paver provides high strength and consistent sizing
- Can be laid in multiple patterns
- No spacer lugs making idea for garden edging
- Sika® additive to reduce water absorption
- Bayferrox® colour pigments provide long lasting finish
- Manufactured locally by National Masonry® to strict Australian Standards

Where to use



Which colour

Available in 2 classic colours



Tough and versatile

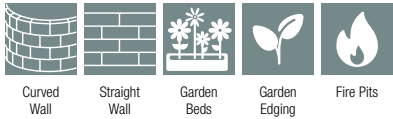
Product Name	Size (mm)	Available Colours	Weight per unit (kg)	Units per m²	Units per pallet
Edge Pave™	200x100x50	Charcoal, Sand	2.1	50	660

Gardenwall® is the number one “Link” block system on the market and is exclusively manufactured by National Masonry®. This versatile single block system is the DIY dream where one blocks fits all for simple and quick installation.

Benefits

- Genuine split face with premium exposed aggregate finish in tri-face or flush-face design
- Soft Split in Tri-face design available for budget conscious
- Straight and curved walls
- 1 in 8 set-back for easy installation
- No additional corners or caps required
- Suitable for walls up to 1mtr
- Bayferrox® colour pigments provide long lasting finish
- Manufactured locally by National Masonry® to strict Australian Standards

Where to use



Which colour

Available in 7 unique and contemporary colours



Gardenwall® Standard



Gardenwall® Flushface



Gardenwall® Soft Split

Simple and quick installation



Product Name	Size (mm)	Available Colours	Weight per unit (kg)	Units per m²	Units per pallet
Gardenwall® Standard	295x203x125	Charcoal, Light Sands, Sand, Ginger	11.4	26.9	120
Gardenwall® Flushface	295x203x125	Charcoal, Light Sands, Sand, Ginger	11.4	26.9	120
Gardenwall® SoftSplit	295x210x125	Charcoal, Coco, Paperbark, Portstone	14.01	26.9	100



Modernstone® is our flagship retaining wall system. Long and sleek with a sharp picture framed split face finish, Modernstone® versatile appeal compliments the cutting edge architectural designs through to the contemporary and the classic.

Benefits

- Genuine split face with premium exposed aggregate flush face finish with bevelled surrounds
- Unique universal corner block enables 90 degree corners without any fuss
- Can be used for straight and curved walls
- Near vertical installation for maximum land utilisation
- Purpose made cap with genuine split face for premium finish
- Suitable for walls up to 2mtr* (walls over 1mtr require specific engineering & certification)
- Bayferrox® colour pigments provide long lasting finish
- Manufactured locally by National Masonry® to strict Australian Standards



Modernstone® Standard



Modernstone® Corner



Classic Cap

Where to use



Curved Wall



Straight Wall



Planter Boxes



Benches & Seats



Stairs



Courtyards



Piers & Entrances

Which colour

Available in 4 unique and contemporary colours



Charcoal



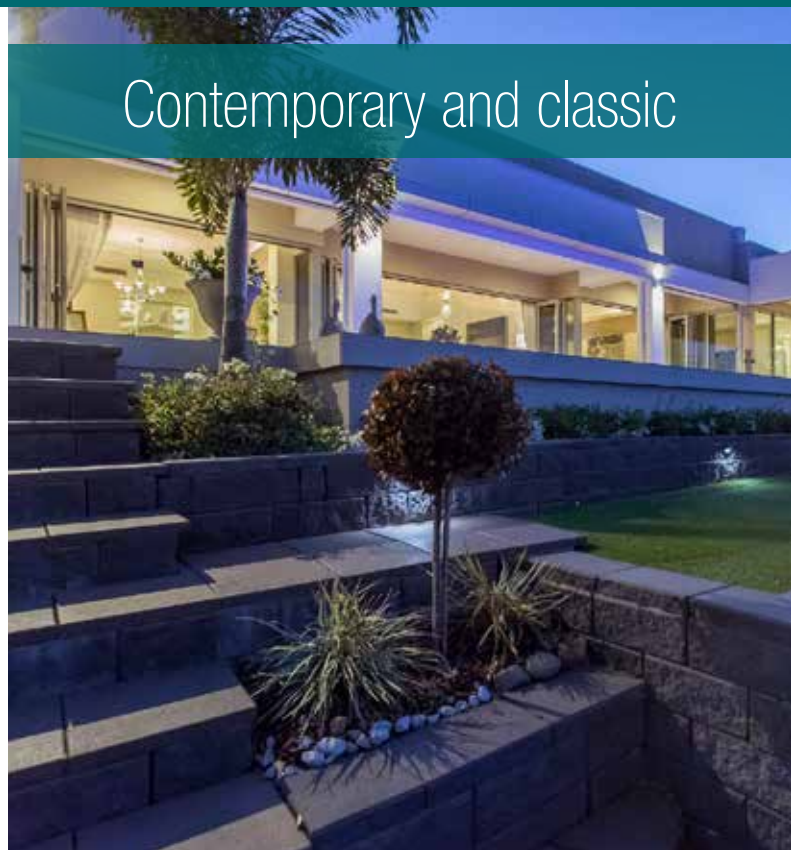
Portstone



Light Sands



Cafe Creme



Contemporary and classic

Product Name	Size (mm)	Available Colours	Weight per unit (kg)	Units per m²	Units per pallet
Modernstone™ Standard	440x280x165	Charcoal, Portstone, Light Sands, Cafe Creme	26.5	13.77	40
Modernstone™ Corner Unit	440x220x165	Charcoal, Portstone, Light Sands, Cafe Creme	20	n/a	48
Classic Cap	440x280x60	Charcoal, Portstone, Light Sands, Cafe Creme	16.5	2.27 l/m	100

Linearwall®

Linearwall® with its bevelled straight split face finish and clever design makes building a sleek contemporary walls childs play. With its patented corner system, left or right corners are a breeze with no cutting required making it perfect for the novice to the pro. No caps required here, each unit has a finely textured smooth face top providing a ready to go finish for your project.

Benefits

- Genuine split face with premium exposed aggregate flush face finish with bevelled surrounds
- Unique corner blocks enables 90 degree corners without any fuss
- Near vertical installation for maximum space
- No cap required
- Suitable for walls up to 600mm
- Bayferrox® colour pigments provide long lasting finish
- Manufactured locally by National Masonry® to strict Australian Standards



Linearwall® Standard



Linearwall® Right Corner



Linearwall® Left Corner

Where to use



Corner Wall



Straight Wall



Planter Boxes



Benches & Seats



Stairs

Which colour

Available in 3 unique and contemporary colours



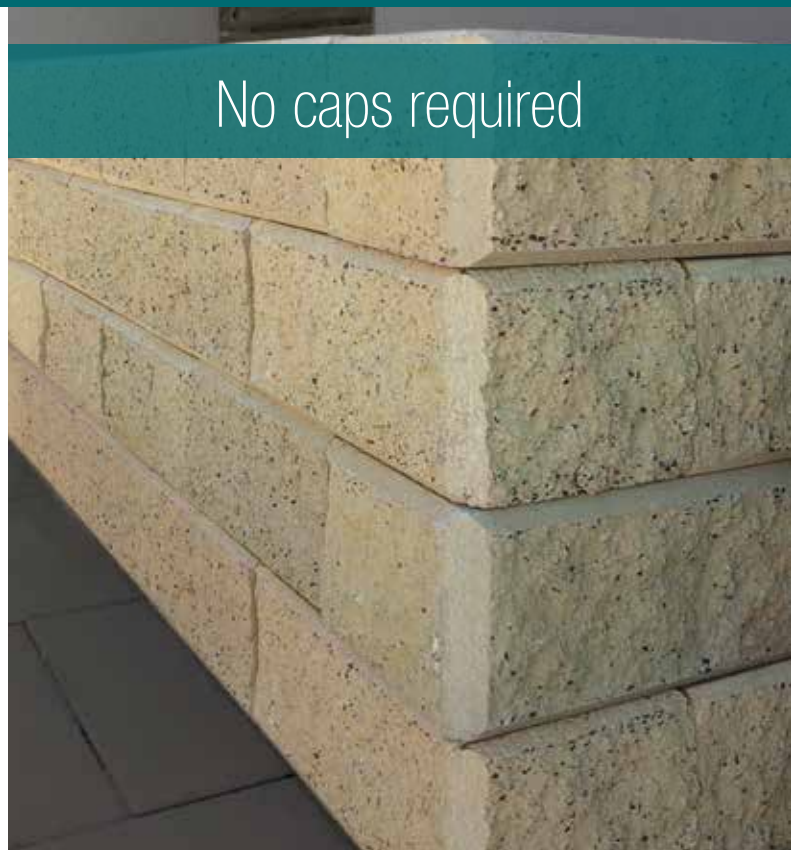
Charcoal



Fudge



Nougat



No caps required

Product Name	Size (mm)	Available Colours	Weight per unit (kg)	Units per m²	Units per pallet
Linearwall™ Standard Unit	300x200x150	Charcoal, Fudge, Nougat	13.25	22.20	90
Linearwall™ Right Corner	350x200x150	Charcoal, Fudge, Nougat	22.2	n/a	60
Linearwall™ Left Corner	350x200x150	Charcoal, Fudge, Nougat	22.2	n/a	60

Easy to install



Sedona Stone™ has the natural look of quarried stone and its earthy colours blend with any landscape. Sedona Stone™ is lightweight and easy to handle. No special tools are required. It's secure, interlocking design makes installation easy.

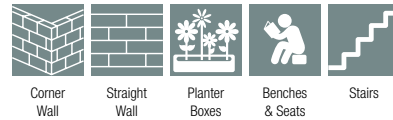
Benefits

- Genuine split face with premium exposed aggregate flush face finish with bevelled surrounds
- Unique corner blocks enables 90 degree corners without any fuss
- Near vertical installation for maximum space
- No cap required
- Suitable for walls up to 300mm
- Bayferrox® colour pigments provide long lasting finish
- Manufactured locally by National Masonry® to strict Australian Standards



Sedona Stone™

Where to use



Which colour

Available in 1 unique and contemporary colour



Charcoal

Product Name	Size (mm)	Available Colours	Weight per unit (kg)	Units per m²	Units per pallet
Sedona Stone™	135x200x75	Charcoal	3.4	5 l/m	384

Engineered Solutions



Keystone 133 Elite®

The Keystone 133 Elite® is the professionals choice for larger soil reinforced retaining wall applications. With its unique interlocking pin system, the Keystone 133 Elite® is a strong and secure wall system that accommodates a large range of applications. Ability to be used in a variety of soil conditions.

Benefits

- Near vertical walls
- Capable of wall heights in excess of 12mtrs
- Versatile
- Fast & Ease of installation
- RTA, QTM approved walling system
- Genuine splitface finish
- Blends into environment

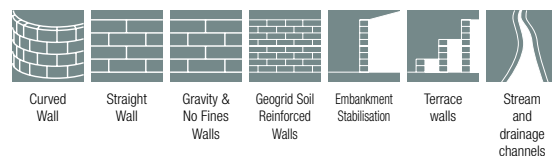


Keystone 133 Elite®



Flushface Cap

Where to use



Which colour

Available in 3 unique and contemporary colours



Charcoal Desert Sands Parchment

Product Name	Size (mm)	Available Colours	Weight per unit (kg)	Units per m²	Units per pallet
Keystone 133 Elite® Standard Unit	600x285x200	Charcoal, Desert Sands, Parchment	46.0	8.3	40
Flushface Cap	485x275x100	Charcoal, Desert Sands, Parchment	24.6	2.06 l/m	90

Step 1

Look through this brochure to gather ideas on the look you want to achieve.

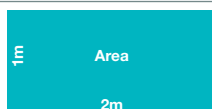
Step 2

Use the table below find the paver that is recommended for your particular need.

Step 3

Measure your area to be paved to determine quantity of pavers required. This area is simply calculated by length (m) x width (m) = area (m²) for basic square or rectangular spaces (m= metres).

Squares & rectangle shapes



$$\text{Length (m)} \times \text{Width (m)} = \text{Area (m}^2\text{)}$$

For odd shapes, break your area into sections



$$1) 5\text{m} \times 3\text{m} = 15\text{m}^2$$

$$2) 4\text{m} \times 2\text{m} = 8\text{m}^2$$

$$3) 3\text{m} \times 4\text{m} = 12\text{m}^2$$

$$\text{Total} = 35\text{m}^2$$

For triangular areas



$$\frac{1}{2} \times \text{base (m)} \times \text{height (m)} = \text{area (m}^2\text{)}$$

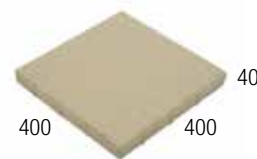
e.g. $\frac{1}{2} \times 4\text{m} \times 3\text{m} = 6\text{m}^2$

Step 4

Select the paver size you prefer. Large format pavers are larger than or equal to 300mm (length) x 300mm (width) and small format pavers are less than 300mm x 300mm.



Small format rectangular paver



Large format square paver

Your choice will depend on the look you wish to achieve as per Step 1.

Step 5

Select a colour that complements your area, home and surroundings.



Lighter hues

Darker hues

Step 6

Choose to D.I.Y. or hire a professional contractor. Refer to page 9 for a basic guide to laying pavers.

This is general information and should be viewed as a guide only National Masonry urges you to ensure that you obtain appropriate professional advice tailored to your circumstances before commencing paving projects.

General Tips

Tip 1

Select pavers that match internal floor coverings to ensure the transition from indoor out is subtle and blends with your decorating style.

Tip 2

Combining large and small format pavers can add textural qualities for a more distinctive space.

Tip 3

Paving joint mortar saves time, effort and water and is ideal for applying a permanent, rigid joint more than 5mm wide and a minimum 25mm deep on all types of paving.

Tip 4

When paving a small space keep the design simple and use a neutral coloured, large format paver to create a sense of space.

Tip 5

National Masonry® recommends that concrete pavers be sealed with a quality penetrating sealer following installation.

Ask us for design ideas





Prepare the site

Excavate the area to be paved to allow for the base layer (generally 100 -150mm thick of road base), bedding Sand (generally 30mm thick coarse washed river Sand) and the paver thickness. Establish falls and level using a spirit level on the screed board. Spread the road base to an even thickness and compact using a mechanical plate compactor.



Add the bedding Sand

Place screed rails on road base and spread bedding Sand roughly between and over the rails – keep the rails. The easiest way to screed Sand is to use two guides (screed rails) and a screeding board (e.g. a flat piece of timber). Establish bedding tracks with the screeding board.



Level the surface

Bed the screed rails into the bedding Sand. Drag the screeding board in a sawing motion from side to side across the rails to create a firm, flat laying surface. Remove the rails, fill in the voids with bedding Sand and trowel smooth.



Set the lines

Set string lines at right angles to establish paving lines. These will help keep the joints straight for that truly professional look.



Begin the laying

Start laying along the longest straight edge of the designated area and lay whole pavers first. Leave 3-5mm between pavers to allow for jointing Sand (unless the pavers have nibs).



Cut pavers

Cut and position part-pavers if the job requires them. Edge restraints prevent the pavers from moving.



Fill the joints

Sweep jointing Sand over the finished dry paving, ensuring that all joints are full.

Sand filled joints:

Pavers 50mm thick or greater surface to be plate compacted. Always remember to use a rubber mat or carpet beneath the plate compactor to prevent damage to the pavers. Pavers 40mm thick or less – surface to be hand compacted with a rubber mallet.

Finishing touches

Prevention is better than cure

- Sweep regularly with a stiff bristled broom to keep pavers free from debris.
- For maximum protection we suggest pavers are sealed after installation with a penetrating sealer. Please check with a reputable sealing company for advice.
- Seal pavers with a penetrating sealer before grouting to avoid grout smears.
- Re-seal pavers as required paying extra attention to heavy wear areas and salt-water locations.
- During construction, cover the paved areas to protect against damage.
- Protect your pavers against possible staining from mortar, oxides, cement and rust.
- Do not use acid to clean pavers.
- Do not use high pressure cleaning apparatus to clean pavers.
- In all cases, attempt to clean a stain before it hardens or dries.
- If a stain occurs, follow some simple steps:
- Assess type of stain carefully before taking action (incorrect assessment of stain can cause the stain to be more difficult to remove).
- If stain cannot be accurately assessed, conduct a trial process on a small portion of stained area to determine most appropriate action.
- Do not use acid to remove stains under any circumstances. Refer to the guide beside for some stain removal solutions.

Sealing

National Masonry® recommends that all pavers should be sealed with a quality penetrating sealer following installation. Please check with a qualified tradesperson for advice on this process. National Masonry® does not accept liability for stained or damaged pavers.

This is general information and should be viewed as a guide only. National Masonry® recommends you obtain professional building advice on your specific paving project.

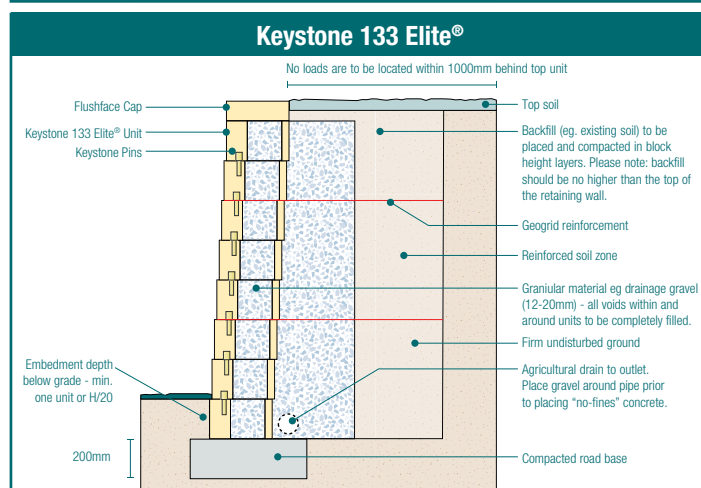
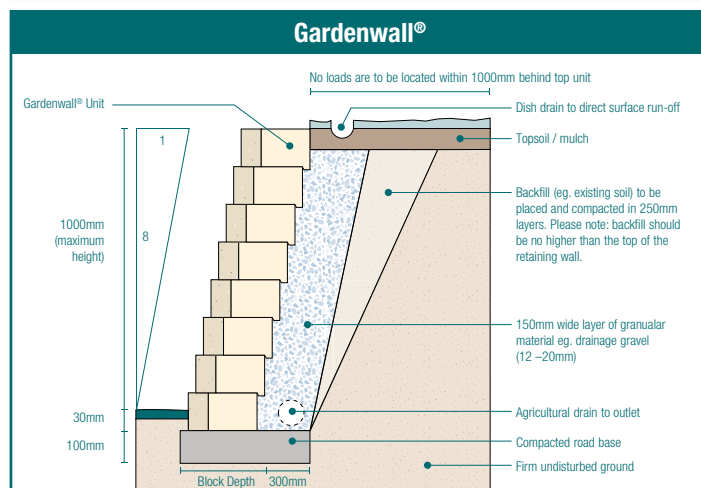
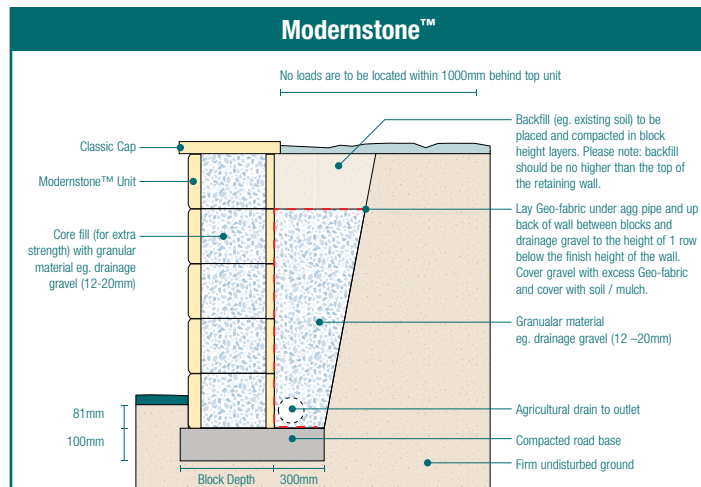
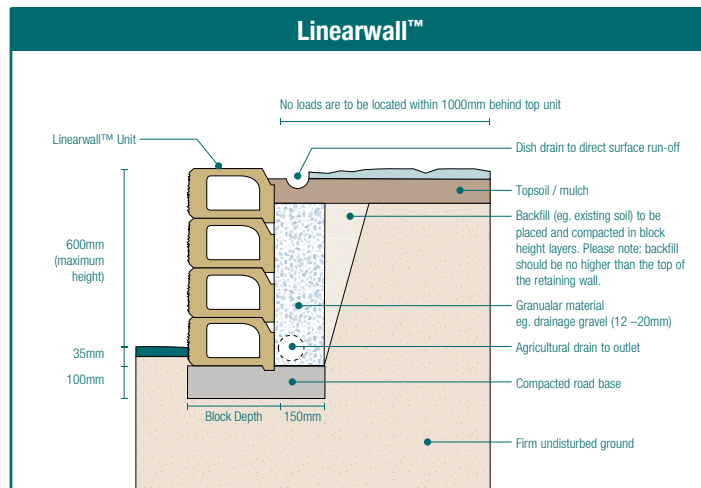
PROBLEM	SUGGESTED CLEANING METHOD
Efflorescence* (White powdery deposit)	Use Environex Anti-EFF or equivalent as per manufacturers recommendation.
Leaves, bark, algae, food and wine stains	Use 10 part water to 1 part bleach, then wash^ down.
Chewing gum	Freeze with dry ice and remove with a spatula.
Ivy suckers	Apply a heat gun to the suckers until they go hard. Allow them to cool and dry, then scrub them off with a stiff bristled broom.

* Efflorescence occurs naturally in cement based products.

^ Subject to water restrictions in your area.

Caring for Pavers

Retaining Wall Typical Cross Sections





Locate your wall

Mark out the ground where your wall will be located (either by marking with stakes and a string line or by marking a line on the ground with spray paint). Excavate trench then compact roadbase into trench to form a levelling pad.



Prepare the site

Place blocks side by side on the levelling pad using a string line along the back of the units for alignment. Level each unit side to side and front to back using your spirit level. Spend time making sure the first course of units is level, otherwise all ensuing courses and ultimately the entire wall will not be level.



Backfill and compact

Install an agricultural drain 150mm diameter behind your first course and surround with gravel (12-20mm sized gravel, e.g. blue metal). Shovel and compact your backfill (existing site soil) behind the drainage material. (Backfill consisting of heavy clays or organic soils is not recommended due to water holding properties).



Additional courses

Sweep the top of the previous course clean. Place the next course of units in a running bond pattern (i.e. with the vertical joints from the first course units halfway across the second course units). Pull each unit forward until it locks with the nib on the unit below. Place the drainage material behind the second course of units. Stack units, placing drainage material and compact backfill for each block height layer until your wall is complete.



Fixing capping units

Place capping units, if required, on the top course. It is recommended that caps be secured using a construction adhesive such as liquid nails®.

Typical Applications

Retaining Wall	Page	Max Wall Height (mm)*	Straight Walls	Curved Walls	Corners	Steps	Face Profile	Block Face Size
Linearwall™	7	600	✓	✗	✓	✓	Flushface	Medium
Modernstone™	6	1050	✓	✓	✓	✓	Flushface	Medium
Gardenwall® Standard	6	1000	✓	✓	✗	✗	Angled Face	Medium
Gardenwall® Flush Face	6	1000	✓	✓	✗	✗	Flushface	Medium
Gardenwall® Soft Split	6	1000	✓	✓	✗	✗	Angled Face	Medium
Sedona Stone™	5	300	✓	✓	✗	✓	Angled Face	Small
Keystone 133 Elite®	5	10000 +	✓	✓	✗	✓	Flushface	Large

General Tips

- Gather ideas on the look you want to achieve. Look through this brochure and our website - www.nationalmasonry.com.au.
 - Use the table above to determine which retaining wall is most suitable for your particular application.
 - 1. Determine the height you want to achieve.
2. Determine which design you want – do you want curves, corners or a straight wall?
 - Select a colour that complements your area, home and surroundings such as other homes in your street.
 - Choose to D.I.Y. or hire a contractor.
 - Save time and effort by selecting a DIY retaining wall system with pre-cut corner pieces and a smooth top – no need for capping – such as Linearwall™.
 - To create an outdoor room environment, use low-level retaining walls to build structure around paving – and it doubles as extra seating.
 - When creating a new space with retaining walls and paving, use contrasting colours and textures to give your home a stylish edge.
- † 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. This is general information and should be viewed as a guide only National Masonry recommends you obtain professional building and engineering advice on your specific retaining wall project.
- * Maximum wall heights in good soils (gravels, sandy gravels, crushed sandstone).

Find detailed information and download more guides at our website - www.nationalmasonry.com.au



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South Queensland

62 Industrial Avenue,
Wacol
Brisbane QLD 4076
Phone: (07) 3271 9292
Fax: (07) 3271 1815

brisbane.sales@nationalmasonry.com.au

Gold Coast

663 Pine Ridge Road,
Biggera Waters
Gold Coast QLD 4216
Phone: (07) 5552 3300
Fax: (07) 5552 3399

labrador.sales@nationalmasonry.com.au

North Queensland

6 David Muir Street,
Slade Point
Mackay QLD 4740
Phone: (07) 4955 1155
Fax: (07) 4955 4130

mackay@nationalmasonry.com.au

New South Wales

65 Burleigh Street,
Toronto
Lake Macquarie NSW 2283
Phone: (02) 4088 1888
Fax: (02) 4088 1899

toronto.sales@nationalmasonry.com.au

Victoria

Riding Boundary Road,
Deer Park
Melbourne VIC 3023
Phone: (03) 9361 6400
Fax: (03) 9363 6008

melbourne.sales@nationalmasonry.com.au

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