CPM Redi-Rock™ Modular Walls

- Build Faster
- Build Leaner
- Build Greener
- Build Quality
- Build Smarter
- Build to Last

Concrete for Life
The Redi-Rock™ wall system is an ingenious, space saving solution for the retention of earth, force protection, landscaping and flood protection applications. This ‘big block system’ has the appearance of stone and is versatile enough to achieve height without compromising strength. Each one tonne block interlocks with the next and is dry laid, resulting in extremely fast installation times and cost savings.

Redi-Rock™ is partially manufactured from recycled materials to provide a sustainable solution for a wide range of applications. We offer a full design and installation service if required. CPM is the only licensed manufacturer of Redi-Rock™ modular walling within the UK mainland and has full BBA Approval.

CPM / Customer Service

Here to help at every stage the, Redi-Rock™ modular walling system is a complete solution and we offer an extensive engineering, design and installation support service which includes a range of engineered design charts, calculations and AutoCAD drawings as well as:

- Project scheduling and management
- Full bespoke engineering service for unusual and problematic situations
- Manufacturing
- Quality control at every stage
- Installation support or full installation available
- 120 year design life
- Full design service supported by professional indemnity insurance

For a chat with our team to see if Redi-Rock blocks are the solution for your project please contact:

Tel: 01179 812791
Email: redi-rock@cpm-group.com
Web: www.cpm-group.com / www.redi-rock.com
### Product Index

<table>
<thead>
<tr>
<th>Pages</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>02-03</td>
<td>Welcome to CPM Group / Product Index</td>
</tr>
<tr>
<td>04-05</td>
<td>Freedom of Choice / Key Benefits</td>
</tr>
<tr>
<td>06-07</td>
<td>Client Testimonials</td>
</tr>
<tr>
<td>08-09</td>
<td>Professional Services / Engineering and Design</td>
</tr>
<tr>
<td>10-11</td>
<td>Housing Applications</td>
</tr>
<tr>
<td>12-13</td>
<td>Highway Applications</td>
</tr>
<tr>
<td>14-15</td>
<td>Water Applications</td>
</tr>
<tr>
<td>16-17</td>
<td>Railway Applications</td>
</tr>
<tr>
<td>18-19</td>
<td>Landscaping Applications</td>
</tr>
<tr>
<td>20-21</td>
<td>Gravity Retaining Walls</td>
</tr>
<tr>
<td>22-23</td>
<td>Reinforced Walls Positive Connection System</td>
</tr>
<tr>
<td>24-25</td>
<td>Freestanding Walls</td>
</tr>
<tr>
<td>26-27</td>
<td>Vehicle Security Barriers (VSB)</td>
</tr>
<tr>
<td>28-31</td>
<td>Flood Walls / Drawings</td>
</tr>
<tr>
<td>32-33</td>
<td>Installation / 710 Series</td>
</tr>
<tr>
<td>34-35</td>
<td>1040 / 1520 Series</td>
</tr>
<tr>
<td>36-37</td>
<td>Freestanding Blocks</td>
</tr>
<tr>
<td>38-39</td>
<td>Capping / Coping Blocks / Projects</td>
</tr>
</tbody>
</table>
Redi-Rock™ Freedom of Choice

Redi-Rock, offers you freedom of choice, available in three different finishes that can be coloured to suit your surroundings. All product is supplied without colour unless specifically ordered. Colours may vary and exact colour match can not be guaranteed and shading may vary.

<table>
<thead>
<tr>
<th>Example</th>
<th>Limestone</th>
<th>Cobblestone</th>
<th>Ledgestone</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Top Block</td>
<td>Grooved underside dished top to accept surfacing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Middle Block</td>
<td>Grooved underside to domed top</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Bottom Block</td>
<td>Flat underside to domed top</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Limestone**
The Limestone Redi-Rock block has a quarried face that looks great in large scale projects.

**Cobblestone**
The Cobblestone Redi-Rock block offers you a chiselled cobblestone texture that has the appearance of six small blocks and gives the wall a more natural uniformed look.

**Ledgestone**
The Ledgestone Redi-Rock block offers you a deep, random textured wall, which blends in beautifully with natural stone. The individual blocks are nearly indistinguishable that gives the impression of a natural, random stone wall.
Key Benefits / We tick all the boxes

✓ Build Faster
Large interlocking blocks that are dry laid and can be built in any weather resulting in very fast construction. Full turnkey service available including design and installation.

✓ Build Leaner
Standard blocks are delivered ready to use, resulting in little or no waste.

✓ Build Greener
Over 40% of the block material content is recycled. Walls can be dismantled and relocated – The ultimate sustainable solution with minimal maintenance required.

✓ Build Quality
Factory produced quality product available in three natural looking, aesthetically pleasing finishes with built in engineered strength.

✓ Build Smarter
Varied designs are achieved using standard blocks resulting in space saving fast building solutions complimented with full design/engineering and installation support.

✓ Build to Last
Durability of wet cast concrete with a 120 year design life.

Summary Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block Face</td>
<td>1170mm x 460mm</td>
</tr>
<tr>
<td>Block Depth and Mass</td>
<td>Available in depths of 1520mm / 1040mm / 710mm</td>
</tr>
<tr>
<td>Concrete</td>
<td>40N/mm² at 28 days</td>
</tr>
<tr>
<td>Lifting Device</td>
<td>Lifting Insert Loop</td>
</tr>
<tr>
<td>Turning Radius</td>
<td>Minimum 4.5m (varies by wall height)</td>
</tr>
</tbody>
</table>

Retaining wall batter of 5.1 degrees is automatically built into the wall via the design of the tongue and groove locking mechanism.
The fast-track nature and simplicity of the Redi-rock system was perfect for the programme requirements at Primrose Hill, its innovative assembly and design enabled quick and safe installation. Due to the surrounding Yorkshire Black Stone cladding on neighbouring properties Redi-rock was tasked with matching the natural colour of the above stone and it was done with surprising ease and effectiveness, also to everyone’s satisfaction, including the local planning office. The Redi-rock system also benefited the client as it was a third cheaper than the proposed traditional design and the programme for the works was nearly halved due to its simple installation. All in all an excellent product that ticks all the boxes and we as a company would not think twice in procuring this system again as both a time and cost saving solution to retaining structures.

Redi-Rock™ was chosen over numerous alternatives for this scheme on account of the sensitive nature of the watercourse and our desire to minimise the use of in-situ concrete or mortars. The Redi-Rock walling with its ease and efficiency of installation became the clear solution. The completed installation looks very good next to the existing stone masonry and we were impressed by the ease with which the finished wall came together and more importantly it was completed within the timescale allowed with the SEPA license. The site was just below a bridge on route to Dalry train station and we regularly had an audience watching the wall being built.

“Redi-Rock was chosen over numerous alternatives for this scheme on account of the sensitive nature of the watercourse and our desire to minimise the use of in-situ concrete or mortars. The Redi-Rock walling with its ease and efficiency of installation became the clear solution. The completed installation looks very good next to the existing stone masonry and we were impressed by the ease with which the finished wall came together and more importantly it was completed within the timescale allowed with the SEPA license.

The site was just below a bridge on route to Dalry train station and we regularly had an audience watching the wall being built.”

Senan Kelleher / Director / Kelsen Technical

“The fast-track nature and simplicity of the Redi-rock system was perfect for the programme requirements at Primrose Hill, its innovative assembly and design enabled quick and safe installation. Due to the surrounding Yorkshire Black Stone cladding on neighbouring properties Redi-rock was tasked with matching the natural colour of the above stone and it was done with surprising ease and effectiveness, also to everyone's satisfaction, including the local planning office. The Redi-rock system also benefited the client as it was a third cheaper than the proposed traditional design and the programme for the works was nearly halved due to its simple installation. All in all an excellent product that ticks all the boxes and we as a company would not think twice in procuring this system again as both a time and cost saving solution to retaining structures.”

Gareth Hill / Project Surveyor / Wates

For a chat with our team or to see if Redi-Rock™ blocks are the solution for your project email us: sales@cpm-group.com Alternatively why not check out some of our latest approvals and awards on our website: www.cpm-group.com
“Having recently completed four projects with the CPM Group I’d just thought I’d drop you a short note to congratulate you and your install team on the professionalism, can do attitude and ability to overcome all obstacles that presented themselves with your installation of the Redi-Rock wall system, especially on the trickier sites. As you are aware the four projects that we completed were carried on live sites with minimal disturbance to the operations of the staff, which made for a very good working relationship with the on site FM team. The visibility that we were able to give them weekly in our look ahead work schedule and more often daily as the weather dictated, helped us deliver the project to our client flawlessly and enabled them to return to business as usual without any defects.”

Murray Martin / Contracts Manager / Sharkey Group

“Redi-Rock is an ideal solution for the Tregaron Flood Relief Scheme, in view particularly of the speed with which flood walls can be constructed.”

Tim Hopkins / Project Manager / Environment Agency

“The Redi-Rock™ product is very simple but massively effective. It is easy to install and the end product looks fantastic, I would definitely use this product again. The service we received from CPM was second to none. They always made a conscious effort to put our needs first.”

Jamie Turner / Site Agent / Dawnus Construction
CPM manufacture a wide range of precast concrete products which are required by the customer to be of consistent high quality, designed and manufactured by British/European Standards and/or other customer requirements, and independently certified or Kite marked where applicable.

To meet our objectives, the Company applies a quality management system which has been developed in accordance with the requirements of ISO 9001:2008 certification. The Company is committed to complying with these requirements in the future and also to regularly review the system for continuing suitability. All employees, irrespective of position and responsibilities, have an important role to play in ensuring our products and customer service is of a consistently high and acceptable standard. Conformance with the requirements of the quality manual is mandatory for all staff.

Quality / Accreditation
We can work with you to provide a fully designed and engineered solution to any project requirement from planning to installation or have free software available for you to design your own wall at: www.finesoftware.eu/geotechnical-software/redi-rock-wall/

Full Engineering support including:

- Preliminary designs
- Calculations
- AutoCAD drawings
- Construction drawings
- Installation manual
- Full design submissions for customer approval

Structural Design:

- Bespoke software developed by FINE Civil Engineering Software
- Available as freeware for customer own designs
- Programmes for both Gravity and Reinforced Earth walls
- Designs to EN 1997-1:2004 and UK National Annex

Free Analysis Software:

Download Free Analysis Software
www-redi-rock.com or scan QR Code.
CPM’s Redi-Rock™ natural stone looking retaining wall is versatile enough to achieve height without compromising on strength, with fully engineered plans for different heights and ground conditions, CPM can work with you to provide a fully designed and engineered solution to any project requirement, from planning to installation.

CPM’s Redi-Rock™ retaining wall series offers low project costs and a high quality solution that saves money and utilises more land, whilst the blocks provide an attractive finish.
David Wilson Homes, Holmfirth, Yorkshire.

Concrete for Life
Highway Applications

- Motorways
- Roads
- Embankments
- Cuttings
- Bridge Abutments
- Wing Walls

CPM’s BBA approved Redi-Rock™ is ideal for roads and highways and are versatile enough to achieve height without compromising on strength, with fully engineered plans for different heights and ground conditions, we will work with you to provide a fully designed solution.

Large cost savings over traditional applications are possible as Redi-Rock™ can be installed in any weather conditions offering fast installation and less land take.

Special "Smooth Limestone" finish for Highway projects with a tighter radius edge available upon request.
Redi-Rock supporting a raised slip road on the A45 in the Midlands.
To answer the national challenge of rising water levels, CPM Group, offers a range of flexible low cost, high quality solutions based on their innovative Redi-Rock™ interlocking modular wall system.

Concrete has a proven track record of performance in water applications, and the blocks are 100% concrete and not steel-reinforced. As the blocks are dry laid, they can be easily moved should the situation on the ground change. Stainless steel lifters are available if required.

Whether looking to heighten river banks, build new sea walls or construct flood plain defences, Redi-Rock™ offers considerable benefits over alternative solutions, not least an aesthetically pleasing finish that blends perfectly into the local environments.
Rhyl Harbour Quay Wall, North Wales.

Concrete for Life
Redi-Rock’s™ proven strength, durability and low maintenance ensures that it is a frontrunner in railway walling applications.

Redi-Rock™ walling offers less disruption to service through quick and economical installation in any weather and its natural stone look means it can blend into its surroundings. With its strength and earth retaining capabilities Redi-Rock modular walling keeps both the train and track safe whilst offering a pleasant viewing and safe experience for rail passengers making it an obvious choice for the rail industry.
Birse Rail, Blackboy Tunnel, Exeter, Devon.
CPM’s Redi-Rock™ landscaping collection features the timeless look of natural stone and is a great addition to Redi-Rock™ retaining and freestanding walls as they coordinate beautifully.

Redi-Rock™ planters and sophisticated curves make Redi-Rock™ one of the most attractive retaining wall systems available as well as being easy to install and offered in three different faces: Cobblestone, Limestone and Ledgestone that can be coloured to match your location.

An easy to install design, Redi-Rock™ walling has been used on a large collection of landscaping projects, including commercial and private estates, providing a natural stone ‘look’ wall with a low maintenance option that compliments the natural environment.
Friel Homes, Tutbury, Gloucestershire.
CPM’s Redi-Rock™ modular gravity retaining walling is large precast concrete blocks with a dome and channel joint which are available in three different finishes, Cobblestone, Ledgestone and Limestone and rely on their own weight to hold up the soil behind them.

The one tonne* interlocking blocks are moulded from solid concrete and are delivered ready to build and as they are dry laid, they are fast to install and offer cost savings and if your plans alter you can simply pick them up and build in a new location.

Gravity retaining walling can improve the overall aesthetic look of your project and delivers an attractive, cost effective, high performance gravity wall structure.

*Based on average size
Wates Construction, Huddersfield, Yorkshire.

Concrete for Life
Positive Connection (PC) System reinforced walling is used in conjunction with a geogrid has been rigorously tested and is used when either an increased load or height is required. Due to the large size of each block, the system can reduce time and money spent on installation.

This Redi-Rock™ system combines the massive stability with the natural appearance of stone with the established performance of geogrid reinforcement through a simple and highly efficient positive connection Redi-Rock™ reinforced block.

The result is a superior retaining wall system developed to meet the most demanding structural needs of today’s construction projects.
Dawnus Construction, Foryd Harbour, Wales.

Concrete for Life
The Redi-Rock™ massive freestanding concrete blocks have textured faces on both sides of the block and are dry-laid and interlock like giant Lego™ blocks. Quicker to install than conventional systems, they can also be coloured to match the local environment.

Redi-Rock™ freestanding walls are ideal to stand alone or integrate with a Redi-Rock™ retaining wall as they are fast and easy to install with minimal maintenance required.

Besides looking great, these freestanding walls can serve as guardrails or barrier walls to protect areas from errant traffic or other threats, and can be modified with cables or rods for additional force protection as well as with a waterproof membrane for emergency or long term flood protection.

CPM has the resources to make designing your freestanding wall easy and offers a full design service and installation, or we can supervise/advise when you need us to answer questions on your project.
“Aesthetically pleasing, with look of natural stone. Now available in three finishes”
Vehicle Security Barriers (VSB)

- Utility and Critical Infrastructure
- Buildings of High Importance
- Military Facilities
- Crowded Places
- Civil/Nuclear Installations
- Transport Hubs

Fast to install Lego™ like system security blocks
Removable / Relocatable
No ground anchor - uses its own weight.
Integral cable dissipates kinetic energy
Proven to stop a 7.5 Tonne truck at 48 km/h (30mph)
Aesthetically pleasing, with the look of natural stone
Can be coloured to blend with local environment

All block styles are available
with 75mm Horizontal Tube (for post tension cable) and/or 150mm Vertical Tubes (for mechanical tie-down bolts) to allow the blocks to be used in a Force Protection application.

75mm Dia. Horizontal Tube

150mm Dia. Vertical Tube

(Straight full bottom block shown)

The Redi-Rock™ hostile vehicle mitigation system has successfully been tested by the Transport Research Laboratory (TRL) using the BSI specification PAS 68:2007, and achieved a classification of V/7500[N2]/48/90:1.6/0.0

To achieve this the freestanding concrete blocks systems interconnected with steel cable successfully arrested a 7.5 tonne lorry at an impact speed of 48 km/h (30mph) with only 1.6m penetration of the load carrying space.
“The vehicle security barrier system that protects from vehicle impact.”

Concrete for Life
Flood Walls

- Critical Installations
- Pond Bunds
- River Containment
- Waterway Infrastructure
- Erosion Protection

CPM Redi-Rock™ flood walls are designed to protect against flood water, rivers or other water ways which may rise to unusual levels during seasonal or extreme weather conditions.

As well as guarding against floods and erosion protection the Redi-Rock™ flood walls look great giving a natural stone feel to your project.
“Redi-Rock is the perfect solution in water applications protecting the local environment.”
Flood Wall / Drawings

Typical Section Option 1

Typical Section Option 2 / Construction joints at max 7.02 centres
Plan Option 1

- Line of waterproof mortar
- Mortar across all joints and 1500 core filled with mortar

Plan Option 2

- In-situ concrete core
Redi-Rock™ Installation

Example / Cobblestone

| Top Block | Redi-Rock™ modular walling installs like one tonne* Lego™ and who doesn’t love playing with Lego™? Each massive one tonne block has a dome and groove design that makes retaining walls fast and easy to install. All that’s required is a small excavator and a 2-3 persons. With over 0.5m² of face per block, walls go up fast and the design of the modular blocks allows for curved walls, 90 degrees corners and much more to make a custom wall simple to install.

With fork slots for easy loading and unloading during retaining wall construction, you’ll be glad you chose Redi-Rock™ for your project!

For more information, an installation guide or to see Redi-Rock™ being installed please visit www.cpm-group.com or contact the team on 01179 812791 or email redirock@cpm-group.com |

| Middle Block | Corners are achieved using a combination of retaining and freestanding series blocks. *Based on average size |

| Bottom Block | |
Dimensions / Weights / 710 Series Blocks

Top
Full Block (71T)
Mass = 555 kg
COG = 383 mm

Half Top
Half Block (71HT)
Mass = 268 kg

Middle
Full Block (71M)
Mass = 739 kg
COG = 360 mm

Half Middle
Half Block (71HM)
Mass = 347 kg

254 mm Dia.
102 mm High
(Typ.)

Bottom
Full Block (71B)
Mass = 802 kg
COG = 361 mm

Half Bottom
Half Block (71HB)
Mass = 375 kg

Actual weights may vary, dimensions are based on a Cobblestone finish.
Mass shown based on concrete density of 2300 kg/m³. Standard offset from face of each course = 41 mm.
Center of Gravity (COG) measured from rear of block. Lifting hooks omitted for clarity.
Dimensions / Weights / 1040 Series Blocks

**Middle**
- Full Block (104M)
  - Mass = 1066 kg
  - COG = 531 mm
  - 254mm Dia., 102mm High (Typ.)

**Bottom**
- Full Block (104B)
  - Mass = 1126 kg
  - COG = 541 mm

**Planter - 422 mm Offset**
- Full Block (104P)
  - Mass = 916 kg
  - COG = 451 mm

**Half Middle**
- Half Block (104HM)
  - Mass = 472 kg

**Half Bottom**
- Half Block (104HB)
  - Mass = 601 kg

**Half Planter - 422 mm Offset**
- Half Block (104HP)
  - Mass = 404 kg

Actual weights may vary, dimensions are based on a Cobblestone finish. Mass shown based on concrete density of 2300kg/m³. Standard offset from face of each course = 41mm. Center of Gravity (COG) measured from rear of block. Lifting hooks omitted for clarity.
Dimensions / Weights / 1520 Series Blocks

**Middle**
- Full Block (150M)
- Mass = 1492 kg
- COG = 795 mm

**Half Middle**
- Half Block (150HM)
- Mass = 604 kg

**Bottom**
- Full Block (150B)
- Mass = 1551 kg
- COG = 810 mm

**Half Bottom**
- Half Block (150HB)
- Mass = 632 kg

**Planter - 422 mm Offset**
- Full Block (150P)
- Mass = 1342 kg
- COG = 740 mm

**Half Planter - 422 mm Offset**
- Half Block (150HP)
- Mass = 536 kg

Actual weights may vary. Dimensions are based on a Cobblestone finish.
Mass shown based on concrete density of 2300kg/m³ Standard offset from face of each course = 41mm.
Center of Gravity (COG) measured from rear of block. Lifting hooks omitted for clarity.
Freestanding Blocks / 2 Sided

**Straight Top**
Full Block (ST)  
Mass = 679 kg  
Half Block (HST)  
Mass = 339 kg

**Curved Top**
Full Block (CT)  
Mass = 651 kg

**Straight Garden**
Full Block (SG)  
Mass = 518 kg  
Half Block (HSG)  
Mass = 257 kg

**Curved Garden**
Full Block (CG)  
Mass = 496 kg

**Straight Middle**
Full Block (SM)  
Mass = 693 kg  
Half Block (HM)  
Mass = 346 kg

**Curved Middle**
Full Block (CM)  
Mass = 665 kg

**Straight Bottom**
Full Block (SB)  
Mass = 748 kg  
Half Block (HSB)  
Mass = 372 kg

**Curved Bottom**
Full Block (CB)  
Mass = 720 kg

**Force Protection**
Straight blocks can be manufactured with a 75 mm horizontal tube for post-tensioned cable installation.  
Straight and curved blocks can be manufactured with 150 mm vertical tubes for mechanical tie-down bolt installation.

**Variable Radius Walls**
Straight block styles can be manufactured with the end block insert to allow the blocks to be used in a variable radius wall.

(Straight Bottom Shown)  
(Straight Middle Shown)
Freestanding Corner Blocks 3 sided

Top Corner
Full Block (TC)
Mass = 677 kg

Half Top Corner
Half Block (HTC)
Mass = 336 kg

Garden Corner
Full Block (GC)
Mass = 536 kg

Half Garden Corner
Half Block (HGC)
Mass = 275 kg

Middle Corner
Full Block (MC)
Mass = 696 kg

Half Middle Corner
Half Block (HMC)
Mass = 343 kg

Actual weights may vary, dimensions are based on a Cobblestone finish. Mass shown based on concrete density of 2300kg/m³. Lifting hooks omitted for clarity.
Capping Blocks / Coping Stones

Two Sided Capping
Full Block (2SC)
Mass = 292 kg

Two Sided Curved Capping
Full Block (2SCC)
Mass = 281 kg

Three Sided Capping
Full Block (3SC)
Mass = 303 kg

Four Sided Capping
Full Block (4SC)
Mass = 312 kg

Two Sided Half Capping
Half Block (2SHC)
Mass = 146 kg

Three Sided Half Capping
Half Block (3SHC)
Mass = 157 kg

Actual weights may vary, dimensions are based on a Cobblestone finish. Mass shown based on concrete density of 2300kg/m³. Lifting hooks omitted for clarity.
Recent Redi-Rock™ Projects

Wickes Store, Folkestone, Kent
Trent & Dove Housing Association, Staffordshire

St Andrews Hospital, Northampton
Station Road, Ashbourne, Derbyshire

Gwel Y Castell, Llandudno, North Wales
Walshaw Dean Reservoir, Yorkshire
Complete UK Coverage

HEAD OFFICE / ENGLAND / WALES SALES AND SOUTHERN WORKS
CPM Group Ltd, Mells Road, Mells, Nr Frome, Somerset, BA11 3PD
Tel: 01179 812791 Fax: 01179 814511

NORTHERN WORKS
CPM Group Ltd, Pollington, Goole, East Riding of Yorkshire, DN14 0DU
Tel: 01405 860591 Fax: 01405 863606

SCOTLAND SALES
CPM Group Ltd, 101 Main Street, Newmains, Wishaw, Lanarkshire, ML2 9BG
Tel: 01698 386922 Fax: 01698 387167

TECHNICAL OFFICES
CPM Group Ltd, CPM House, Heath Mill Road, Wombourne, Staffordshire, WV5 8AP
Tel: 01902 356220 Fax: 01902 356221

redirock@cpm-group.com
www.redirock.net
www.cpm-group.com
www.redi-rock.com