PRECAST WALLING SOLUTIONS

RETAINING WALLS

RECYCLING APPLICATIONS

SECURITY BARRIERS

BULK STORAGE

BUNKER WALLS

THINKING PRECAST? THINK FP MCCANN
FP McCann offers an industry leading range of standard and bespoke, retaining and containing walling solutions. From supply only to fully designed and fitted schemes, FP McCann can offer a full service. With over 90 years’ of combined experience at our Lydney and Grantham works, we are able to deliver high quality precast concrete products at competitive market rates.

**THE CONCRETE FORCE**

The Concrete Force defines our relentless drive to continually improve on our own expectations while exceeding yours, ensuring we add value to your project.

**CONCRETE COMMITMENT**

FP McCann is committed to delivering more efficient, cost-effective and safety-focused sustainable concrete solutions. Our vision is to exceed our customers’ expectations whilst making an impact on new customers.

**CONCRETE RELATIONSHIPS**

We believe in working with you as a partner from the start, which means offering our expertise in designing and manufacturing precast concrete to suit your individual project requirements.

**CONCRETE QUALITY**

Through our factories based in Lincolnshire, Gloucestershire and Magherafelt, Northern Ireland, FP McCann has got your project covered across the entire UK.
L WALLS

FP McCann's precast L wall units are ideal for forming both retaining and containing structures in residential, commercial, industrial and waste developments.

PRODUCT FEATURES
- L Wall units are an ideal product where speed of installation is necessary.
- They offer a fast, cost-effective solution to constructing retaining and containing developments.
- Standard sizes range from 1m high up to 3.75m high, with a width of 1m for all units. 2m widths available for certain heights.

PRODUCT BENEFITS
- Large range of sizes available
- Quick and easy installation, only 1 crane lift
- Create storage bays without imposing a load to the building frame
- No specialist trades required
- Can be loaded either side or both sides of the stem
- Retain material up to 18kN/m³ and AOR 30° or an additional 10kN/m³
- Stability
- Corner units available for the 1m widths
- No heel – sheer reverse face (GB only)
- Available with heel feature to reverse (NI only)

PRODUCT APPLICATIONS
- Storage facilities
- Division walls
- General soil retention
- Waste recycling bunkers
- Making up levels within buildings
- Bunker walls
- Retaining walls

INSTALLATION STEPS
1. Position the units on to the shimmmed concrete foundation.
2. Dry pack mortar to the edge of the base of the units to create a seal to the perimeter.
3. Through the 30mm preformed holes, drill a 20mm diameter hole, 150mm deep into the foundation.
4. Fill holes with Sika Anchofix-1 resin to a level so that when the dowels are inserted, the resin becomes level with the top of the foundation (as a minimum).
5. Insert the B.16 dowel bar into the resin. Ensure that the bar is pushed to the base of the drilled hole.
6. Ensure the units are uniformly supported by using the grouting hole to completely flood the shimmmed void (and grouting hole) with Parex C.S grout.
7. Grout around the dowel using Parex C.S grout so that the dowel is completely encapsulated.
8. Do not touch the dowel bar or unit until grout has achieved full strength, in accordance with grout manufacture guidelines.

FOUNDATIONS
The foundation requirements should be determined by a qualified engineer. Units placed on a concrete foundation should be bedded on mortar and wedged to attain correct alignment. FP McCann recommends that L wall units are suitably anchored to the foundation.

L WALLS - STRAIGHT UNITS

STANDARD SIZES
The loading 18 kN/m³ is approximately a bulk density of 1800 kg/m³

<table>
<thead>
<tr>
<th>Height (mm)</th>
<th>Width (mm)</th>
<th>Weight (kg)</th>
<th>Weight (kg)</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>straight unit</td>
<td>straight unit</td>
<td>corner unit</td>
</tr>
<tr>
<td>1000</td>
<td>1000</td>
<td>80</td>
<td>2 no. B.16</td>
</tr>
<tr>
<td>1500</td>
<td>1000</td>
<td>105</td>
<td>4 no. B.16</td>
</tr>
<tr>
<td>1750</td>
<td>1000</td>
<td>105</td>
<td>2 no. B.16</td>
</tr>
<tr>
<td>2000</td>
<td>1000</td>
<td>105</td>
<td>4 no. B.16</td>
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<tr>
<td>2500</td>
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<td>105</td>
<td>4 no. B.16</td>
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<tr>
<td>3000</td>
<td>1000</td>
<td>150</td>
<td>4 no. B.16</td>
</tr>
<tr>
<td>3750</td>
<td>1000</td>
<td>150</td>
<td>6 no. B.16</td>
</tr>
</tbody>
</table>
PRESTRESSED HORIZONTAL PANELS

FP McCann’s prestressed horizontal panels allow you to construct walls quickly and efficiently with the future-proof option of re-siting, if required; providing the ideal solution where the adaptability of buildings is important. Our wall panels are manufactured using prestressing wires and a C45/55 concrete, which gives them in-built strength and resilience.

PRODUCT BENEFITS

- Tongue and grooved joints for easy alignment and positive sealing
- Smooth impervious surface which is easily washed down
- Prestressed panels absorb minor accidental damage
- More cost-effective – more versatile than blockwork
- Tailor-made lengths and a variety of widths
- Simplicistic and quick installation
- No foundation required

HANDLING AND INSTALLATION

1. Panels to be offloaded from delivery vehicles and stacked on flat hard standing. Stacking timbers to be placed between panels directly above the one below, as shown. Do not stack panels more than 6 high. The panel weights are marked on each panel.

2. Using suitable lifting machine, fix wire rope slings (or D shackles) to pre-formed holes in panels or proprietary lifting devices to cast-in lifters. All units to be lifted under the direction of a banksman.

3. Ensure all 4 clips and bolts are fitted to panel and are tightened before removing load from lifting machine. NOTE: Bolts must be regularly checked for tightness. Refer to FP McCann manual for instructions.

4. Seal and tool joints using gunned mastic.

Dimensions - Horizontal Panel

<table>
<thead>
<tr>
<th>Panel Height</th>
<th>1.0m</th>
<th>1.2m</th>
<th>1.5m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel Thicknes</td>
<td>80mm</td>
<td>120mm</td>
<td>160mm</td>
</tr>
</tbody>
</table>

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### Prestressed Vertical Cantilever Panels

The FP McCann Prestressed Vertical Cantilever Panel system provides the user with a more cost-effective and time-efficient system when comparing against a traditional on-site, in-situ wet-cast system.

#### Product Features
- The vertical cantilever panels are prestressed, allowing greater strength in a more slender panel.
- Prestressing reduces the incidence of tensile cracking in the panels.
- The concrete used for the prestressed panels is designated as a C45/55 grade.
- The foundation can be individually designed to suit site and loading requirements.
- The prestressed panels are tongue and grooved together, allowing effective sealing between units without stressing the sealant.
- The units are lighter so require smaller site lifting vehicles.
- The prestressed unit can be lifted and handled more easily on site.
- Manufactured on 7m long prestressing beds, heights of up to 4m can be achieved for many material types.
- Manufactured to ISO 9001 and ISO 14001.

Depending on the prestressed panel thickness, security or fire walls can achieve a fire exposure rating of up to 4 hours and effective heights of up to 7.4m maximum.

#### Panel Applications
- Soil retention
- Retention of materials/aggregates
- Silage clamps
- Underground slurry stores
- Basements of structures
- Waste recycling bunkers
- Prison security walls
- Substation fire walls
- Flood alleviation schemes

#### Panel Heights and Thicknesses

<table>
<thead>
<tr>
<th>Panel Height</th>
<th>120mm</th>
<th>160mm</th>
<th>200mm</th>
<th>240mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Dimensions - Vertical Panel

- To suit the project, limited by load/span and handling considerations.
- Manufactured to ISO 9001 and ISO 14001.

#### Handling and Installation

1. Panels to be off-loaded from delivery vehicles and stacked on flat hard standing. Stacking timbers to be placed between panels directly above the one below, as shown. Do not stack panels more than 6 high. The panel weights are marked on each panel.

2. Foundation trench is excavated and a strip footing formed in the base. Cradles are set out on the footing, and the panel lowered into them, shimmed and levelled as necessary. Temporary propping must be used - the frequency depending on height and exposure.

3. Second panel to be propped as detailed in stage 3. Load maintained by lifting machine until panel is adequately propped.

4. Set up rebar and framework. Do not remove props until adjacent units are secure. Seal joints as required. Pour and compact concrete.

5. Props to remain in position until foundation concrete is in excess of 25N.

Note: This product is not manufactured in NI.
ROCKET WALLS

PRODUCt BENEFITS

• Simply installed and easily moved
• Designed for materials up to 16kN/m
• Manufactured to ISO quality and environmental standards
• Inverted Y shape design provides high capacity
• Value engineering means less concrete than typical alternatives
• Engineered to allow for up to 4m high units and 1.25m wide
• No protruding foot
• Ideal for bunkers and division walls
• Self-shedding units – prevents the lodging of stored material
• Corner units available
• Load one side or both

GUIDELINES FOR INSTALLATION

1 Position, line and level wall units on continuous mortar bed, both sides. Strike mortar off flush.
2 Drill 16mm diameter holes, 125mm deep into base slab, using holes in unit as pilots.
3 Insert 16mm screw bolts with plate washer into each hole, then tighten to 100N/m torque.
4 Using non-shrink mortar and a trowel, fill recess and strike off flush.
5 Leave to cure for a minimum of 48 hours before loading.

Load share connector (optional)

Timber bearers

End cover plate

Rubber Plate

Wire rope lifters (can be supplied)

Our Rocket Walls are high quality, freestanding, precast concrete units. They are designed to be sited on an existing concrete floor slab or foundation and, for improved site safety and maximum efficiency, are bolted down using fixing bolts to prevent movement. It is this uniqueness that makes them suitable for a variety of uses.

UNIT SCREW BOLT REQUIREMENTS

<table>
<thead>
<tr>
<th>Height (m)</th>
<th>2.4 unit</th>
<th>2.4 corner</th>
<th>3.0 unit</th>
<th>3.0 corner</th>
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<td>2.4</td>
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<td>2</td>
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<tr>
<td>3.0</td>
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<tr>
<td>4.0</td>
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<td>4</td>
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<td>8</td>
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<table>
<thead>
<tr>
<th>Height (m)</th>
<th>4.0 unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0</td>
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</tbody>
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Dimensions - Rocket Wall (Straight)

<table>
<thead>
<tr>
<th>Height (m)</th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
<th>e</th>
<th>f</th>
<th>g</th>
<th>h</th>
<th>j</th>
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</thead>
<tbody>
<tr>
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<td>4000</td>
<td>1650</td>
<td>1250</td>
<td>120</td>
<td>170</td>
<td>185</td>
<td>1280</td>
<td>2600</td>
</tr>
</tbody>
</table>

Dimensions - Rocket Wall (Corner)

<table>
<thead>
<tr>
<th>Height (m)</th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
<th>e</th>
<th>f</th>
<th>g</th>
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<td>870</td>
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<td>Steel corner infill assembly</td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

Please note: A-J measurements are in mm.

Timber bearers

Wire rope lifters (can be supplied)

End cover plate

Load share connector (optional)

Load share connector (optional)

End cover plate

Rubber Plate

Wire rope lifters (can be supplied)

End cover plate

Rubber Plate

Wire rope lifters (can be supplied)

End cover plate

Rubber Plate

Wire rope lifters (can be supplied)

End cover plate

Rubber Plate

Wire rope lifters (can be supplied)

End cover plate

Rubber Plate

Wire rope lifters (can be supplied)

End cover plate

Rubber Plate

Wire rope lifters (can be supplied)

End cover plate

Rubber Plate
T-WALLS

T-wall units are an ideal product where speed of installation is necessary. They offer a fast, cost-effective solution to constructing retaining and containing developments. Standard sizes range from 2m high up to 4m high, with a width of 1m for all unit sizes.

PRODUCT BENEFITS

- Large range of sizes are available
- Quick and easy installation
- Create storage bays without imposing a load to the building frame
- Can retain material on both sides
- Retain material up to 18kN/m²

FOUNTAIN

The foundation requirements should be determined by a qualified engineer. Units placed on a concrete foundation should be bedded using a cement mortar bed and shims, as required.

STABILITY

Anchors comprise of 4 no. B.16 high yield deformed bars with a nominal penetration of 150mm both into the foundation and the exposed face. The design also allows for the various header lengths to be mixed within the same structure for maximum economy whilst maintaining a consistent visual appearance.

EASI-BLOC™

Easi-Bloc™ is a precast concrete block offering solutions where limited space is available for containment. Blocs are simplistic in design, allowing for effortless handling and speed of installation. Easi-Bloc comes in two sizes, making them ideal for a variety of applications.

STANDARD SIZES AND UNIT DIMENSIONS

<table>
<thead>
<tr>
<th>Unit height (mm)</th>
<th>Weight code 1 (kg)</th>
<th>Weight code 2 (kg)</th>
</tr>
</thead>
<tbody>
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<td>2900</td>
<td>2904</td>
<td>1832</td>
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<tr>
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<td>2112</td>
</tr>
<tr>
<td>4000</td>
<td>3600</td>
<td>3380</td>
</tr>
</tbody>
</table>

ANDACRIB CONCRETE Crib RETAINING WALLS

Andacrib is a modular precast concrete crib retaining wall system which has been designed to cater for the most onerous loading conditions demanded of structures in highway, industrial and commercial sectors.

PRODUCT APPLICATIONS

Andacrib’s flexibility enables it to be utilised in a variety of situations:
- Road and railway embankments and cuttings
- Bridge and underpass wing walls and approach ramps
- Sewage / water treatment plant developments
- Local authority developments, schools, public service buildings, etc
- Airport development and improvements
- Retail parks
- Service stations
- Car parks
- Leisure developments

COMPOSITION AND MANUFACTURE

Andacrib concrete components conform with Class 2 Sulphate Resistance and ‘very severe’ salt attack conditions, as required by both BS EN 1992 and BS EN 1990. The concrete has a design strength of 50 N/mm². Andacrib headers and stretchers are steel reinforced and fully comply with the requirements of BS EN 1992.

DURABILITY

A completed Andacrib wall provides a substantial, maintenance-free structure with a design life in excess of 120 years and its design meets Highway Agency requirements.

PRODUCT APPLICATIONS

Segregation • Temporary road blocks • Security barricades
Storage bays • Agricultural bays suitable for grain, silage, etc
Earth retention • Aggregate bays • Partition walling • Landscaping
Waterways / Shoreline defences • Highways • Retaining walls

PRODUCT BENEFITS

- Cost-effective
- Interlocking design for easy alignment and added security
- Quick installation
- Durable
- Reusable product
- Cast-in lifting pin makes them easy to lift

Easi-Bloc contains a central cast-in fitting loop for ease of handling and installation. Products are manufactured to comply with the requirements of BS EN 1992-1-1:2004.

<table>
<thead>
<tr>
<th>Length (mm)</th>
<th>Width (mm)</th>
<th>Height (mm)</th>
<th>Weight (kg)</th>
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<tbody>
<tr>
<td>1200</td>
<td>600</td>
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<tr>
<td>1750</td>
<td>700</td>
<td>700</td>
<td>880</td>
</tr>
<tr>
<td>* NI only</td>
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<td></td>
</tr>
</tbody>
</table>

* NI only
CONCRETE SAFETY BARRIERS

Our precast concrete, interlocking jersey barriers are ideal to use for a variety of applications, including many types of temporary works.

PRODUCT APPLICATIONS
- Segregation
- Temporary road blocks
- Security barricades
- Traffic management
- Flood defence
- Rockfall

PRODUCT BENEFITS
- Cost-effective
- Easy to handle and install
- Durable
- Interlocking design for easy alignment and added security
- Free-standing unit
- Provides a high level of containment
- Absorbs the impact of a moving vehicle
- Slows down the impacting vehicle quickly
- Product can be painted on request
- Reusable product

PYRA-BLOC™

Pyra-Bloc is a modular precast concrete safety barrier unit consisting of four 1-metre square pyramids with interlocking connectors. Its unique design will prevent vehicle movement, as vehicles will become impaled whilst trying to drive over them.

PRODUCT APPLICATIONS
- Airports
- Factories
- Power stations
- Service Stations
- Sub-stations

PRODUCT DIMENSIONS

<table>
<thead>
<tr>
<th>Length (mm)</th>
<th>Width (mm)</th>
<th>Height (mm)</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4000</td>
<td>1000</td>
<td>1000</td>
<td>5200</td>
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</table>
AGRICULTURE
Lydney 01594 847500  Grantham 01476 562277

ARCHITECTURAL PRECAST
London 020 3905 7640

BUILDING PRODUCTS
Cadeby 01455 290780

BOX CULVERTS
Weston Underwood 01335 361269

DRAINAGE
Ellistown 01530 240000 (England/Wales)  Magherafelt 028 7954 9026 (Scotland/NI)

DOCK LEVELLERS
Weston Underwood 01335 361269

FENCING
Cadeby 01455 290780

FILTER BED SYSTEMS
Littleport 01353 861416

FLOORING
Weston Underwood 01335 361269  Uddingston 01698 803300

POWER & INFRASTRUCTURE
Cadeby 01455 290780

RAIL
Cadeby 01455 290780

SPECIALIST PRECAST
Littleport 01353 861416

STRUCTURAL PRECAST
Byley 01606 843500

TANKS & CHAMBERS
Wellesbourne 01789 336960

TUNNELS & SHAFTS
Cadeby 01455 290780

WALLING
Lydney 01594 847500  Grantham 01476 562277

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