



DfMA Product Catalogue

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Introduction

Design for Manufacture and Assembly (DfMA) integrates design with manufacturing and installation from the outset, improving delivery certainty, reducing on-site work, and enhancing operational performance.

It combines two related concepts:

Design for Manufacture (DfM)

Ensures that a product is easy and cost-effective to manufacture.

Design for Assembly (DfA)

Ensures that the product is easy to assemble by reducing the number of parts or simplifying the assembly steps.

Key Benefits of DfMA

Reduced manufacturing and assembly costs

Simplified designs with fewer components, reducing complexity and potential failure points

Improved product quality and reliability through controlled factory conditions and consistent build standards

Shorter delivery programmes and faster deployment



DfMA Product Example

Trowbridge DfMA Completed Project

Below example is of a completed project which was delivered and installed on site in 1 day:

Below: DfMA crane lifted at site



Above: DfMA installed on site

Right: DfMA leaving RSE factory



Internals of
Trowbridge DfMA



Above:Trowbridge DfMA
Control Panel

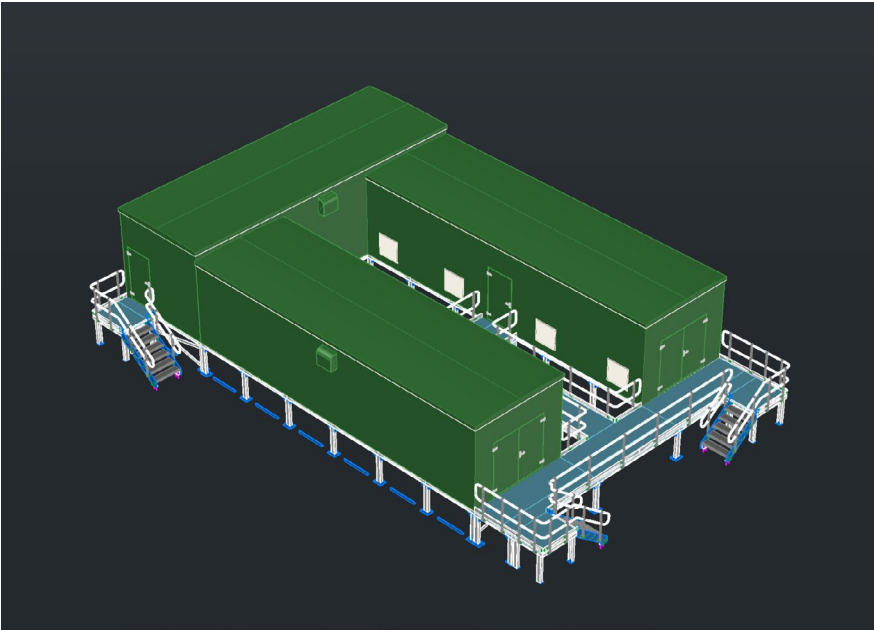
Right: Trowbridge DfMA
internals



Milverton DfMA
Completed Project



Avonmouth DfMA Project

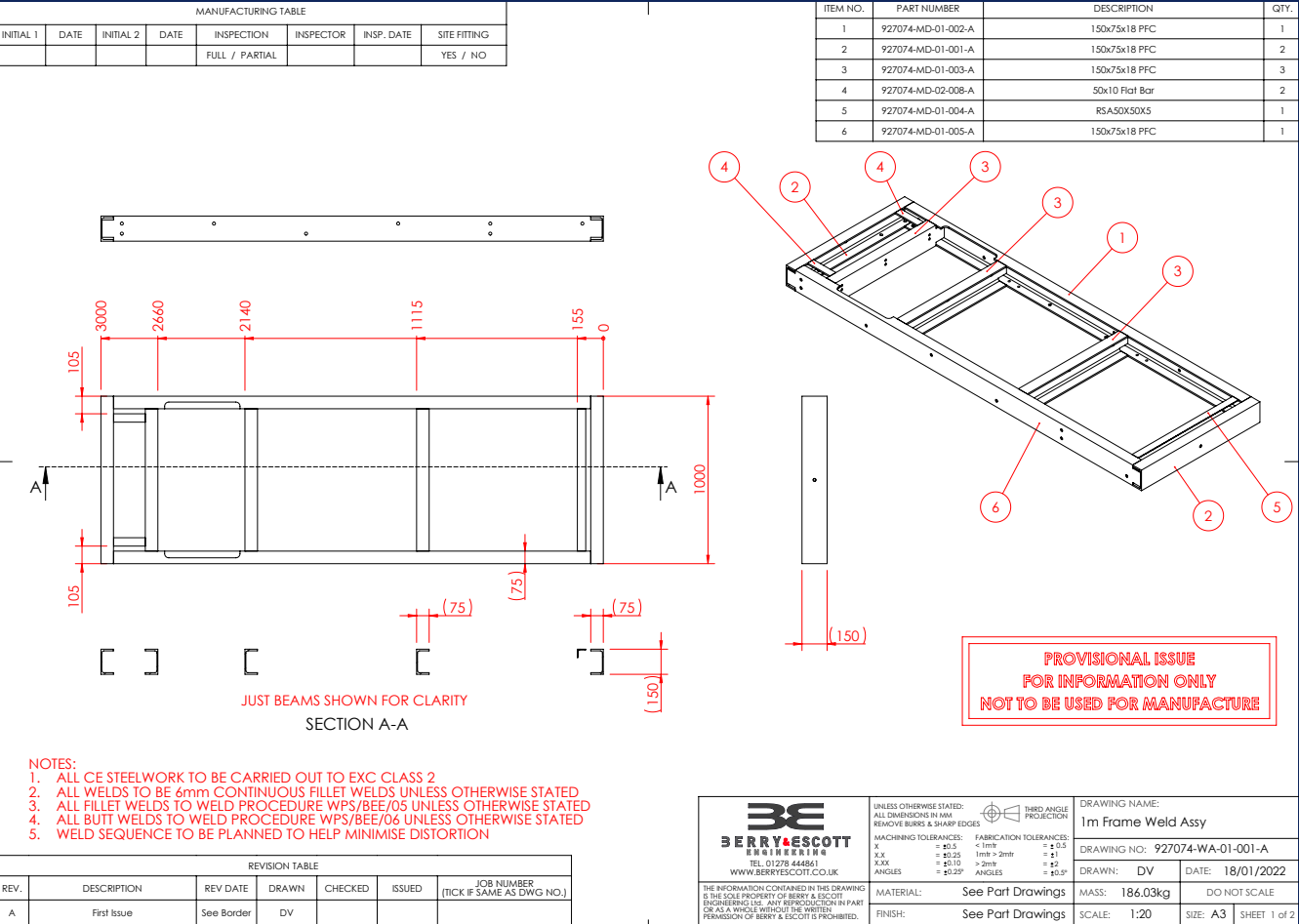


DfMA Product Drawings

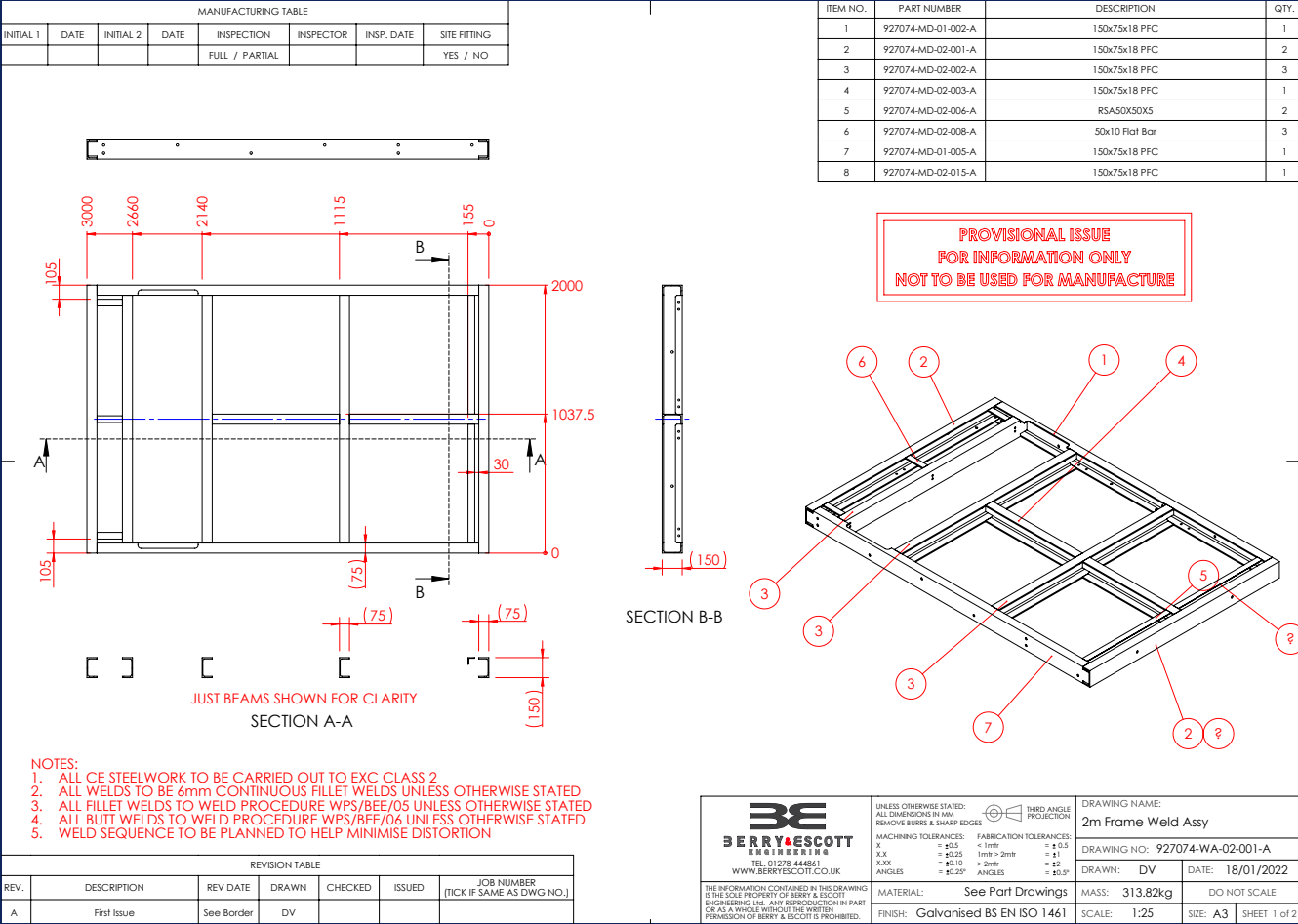
Below are the five main components of the structural support frame, comprising a 2m and 1m modular base, left and right corner legs, and centre legs.

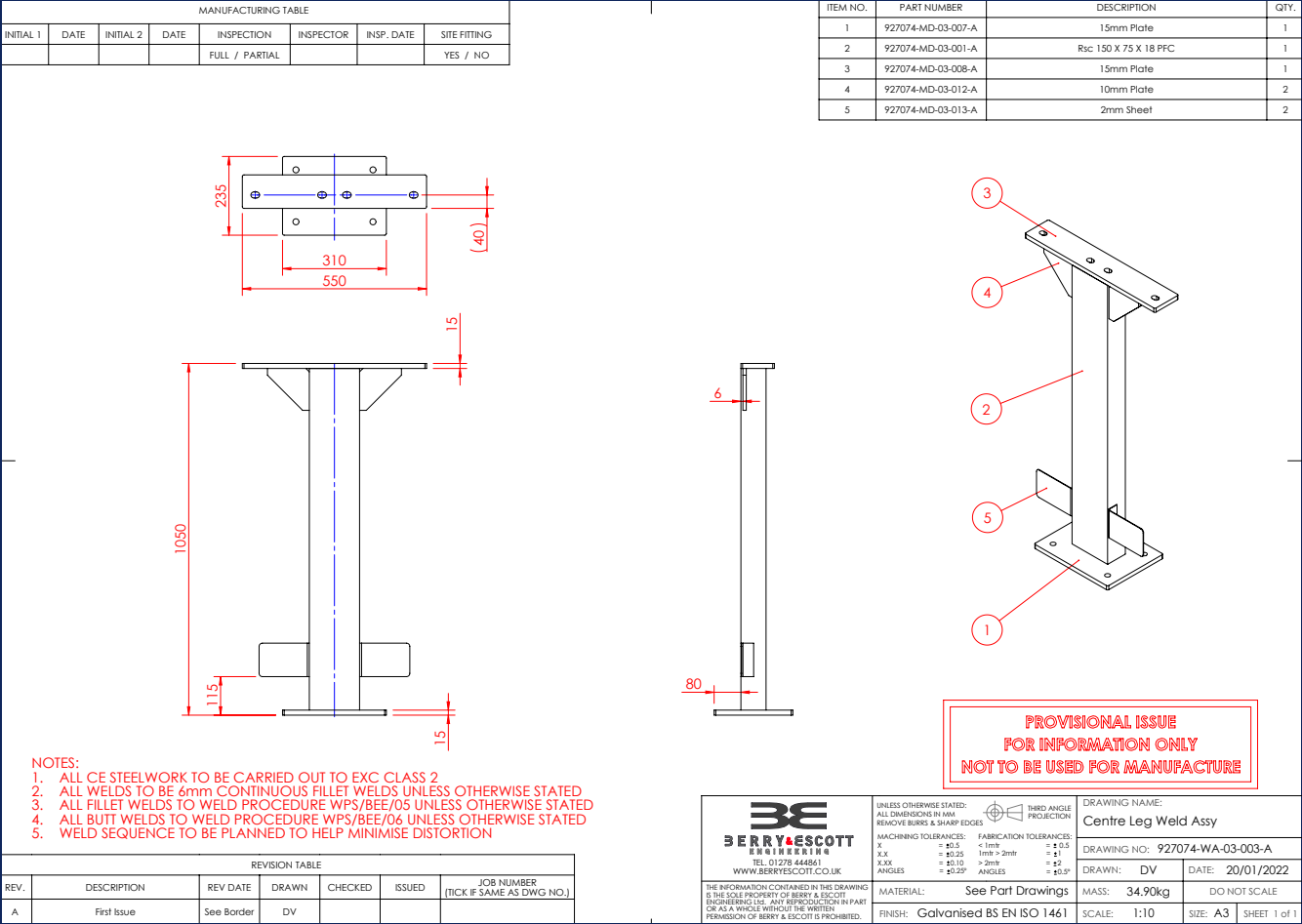


Below: 3m x 1m frame

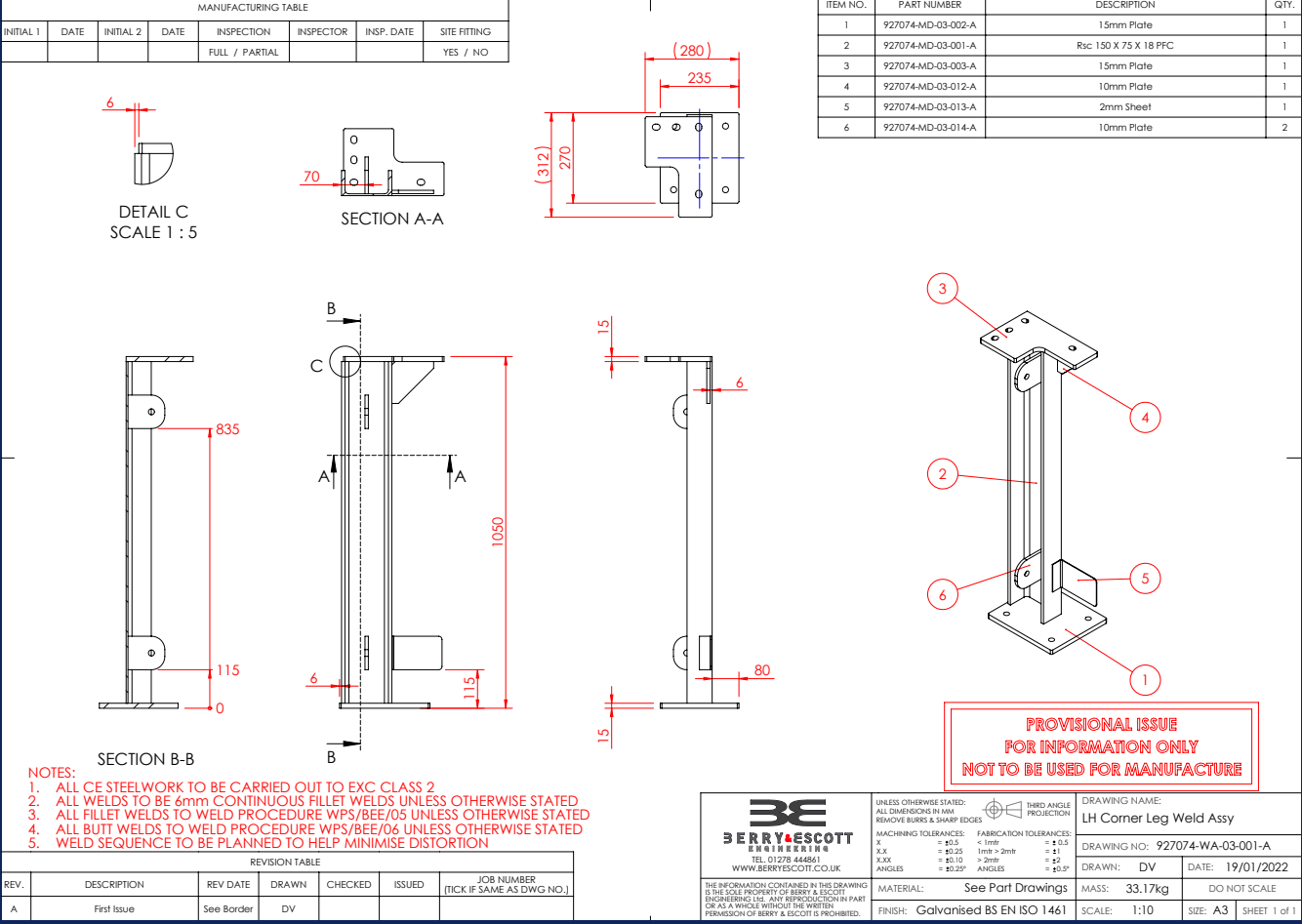


Below: 3m x 2m frame



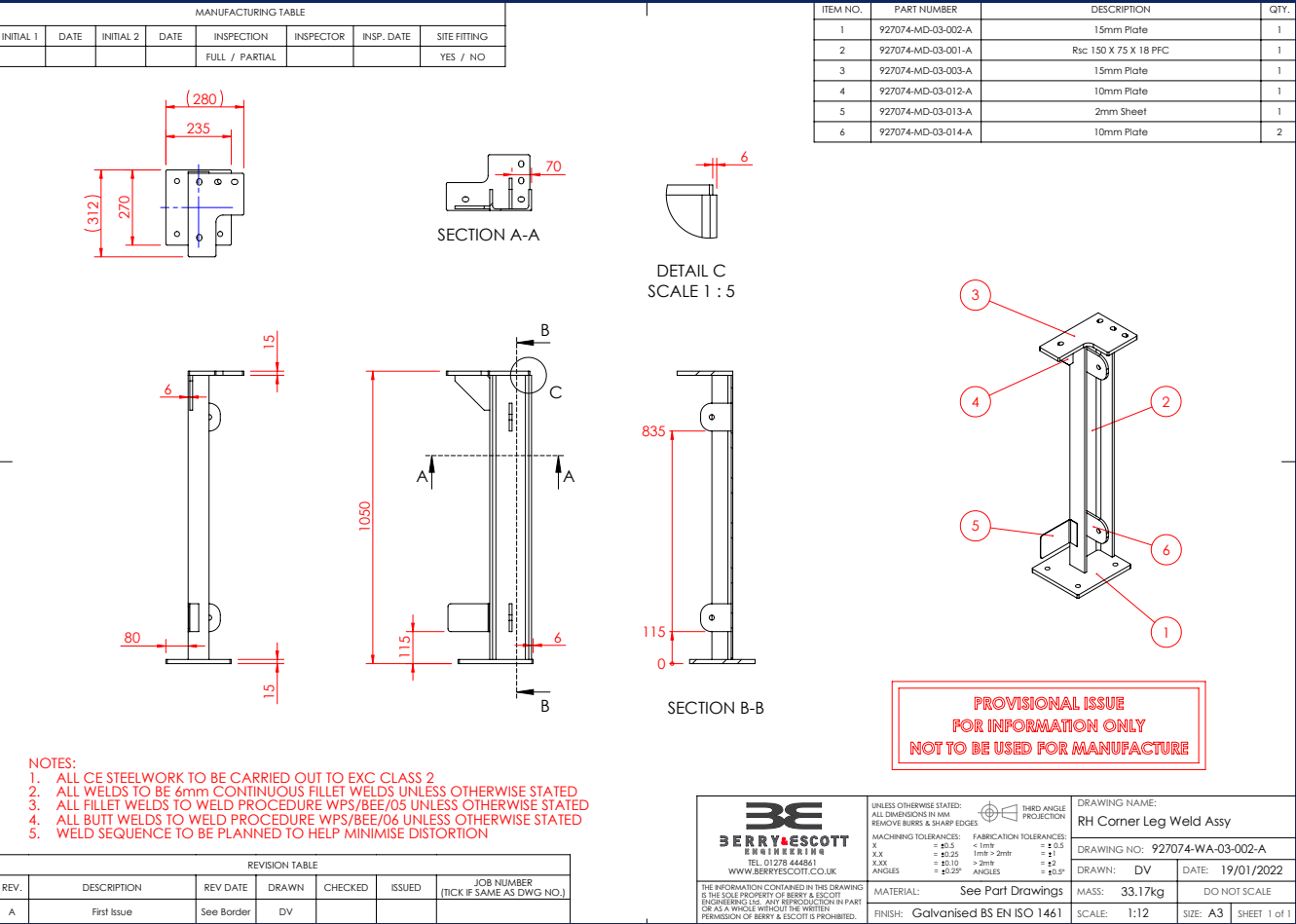


Above: Centrie Legs



Above: LH Corner Leg

Below: RH Corner Leg



LMB® Product Information

The LMB® is part of RSE’s m-EcoBuilding product line, characterised by industry-leading and modular offsite build capabilities, enabling plug-and-play options whilst contributing to significant carbon savings.

The Light Modular Building (LMB®) has been devolved due to our clients’ high dependency on GRP and the global need to reduce carbon emissions. This product is sustainable, contains lower contents of carbon and offers the use of materials that are fully recyclable/reusable at the end of life.

By using an internationally recognised manufacturing technology, we can create the LMB® which delivers efficiently designed solutions with limited wastage and faster construction periods.

LMB Benefits

The LMB® combines innovative engineering solutions and fabrication, with an emphasis on modular and offsite construction to reduce lead times.

Modular

- Supports off-site modular build and modern methods of construction.
- Modular construction minimises on-site activity and reduces lead times.

Large CO₂ Reduction

- Reduces carbon emissions by up to 80% (kgCO₂ equiv vs GRP)
- 100% recyclable at end of life.
- Material sourced by sustainable supplier Meridian Steel Ltd with Positive Plant to actively reduce our carbon emissions.

Flexible Designs

- Exceeds 25-year design life of plastic alternatives.
- Doors and windows can be designed and installed in any location if required.
- Single lift solutions with integrated lifting base frames are available on request.
- Robust, durable designs conforming to UKCA.
- Standard product ingress protection rating: IP56



Size Specifications

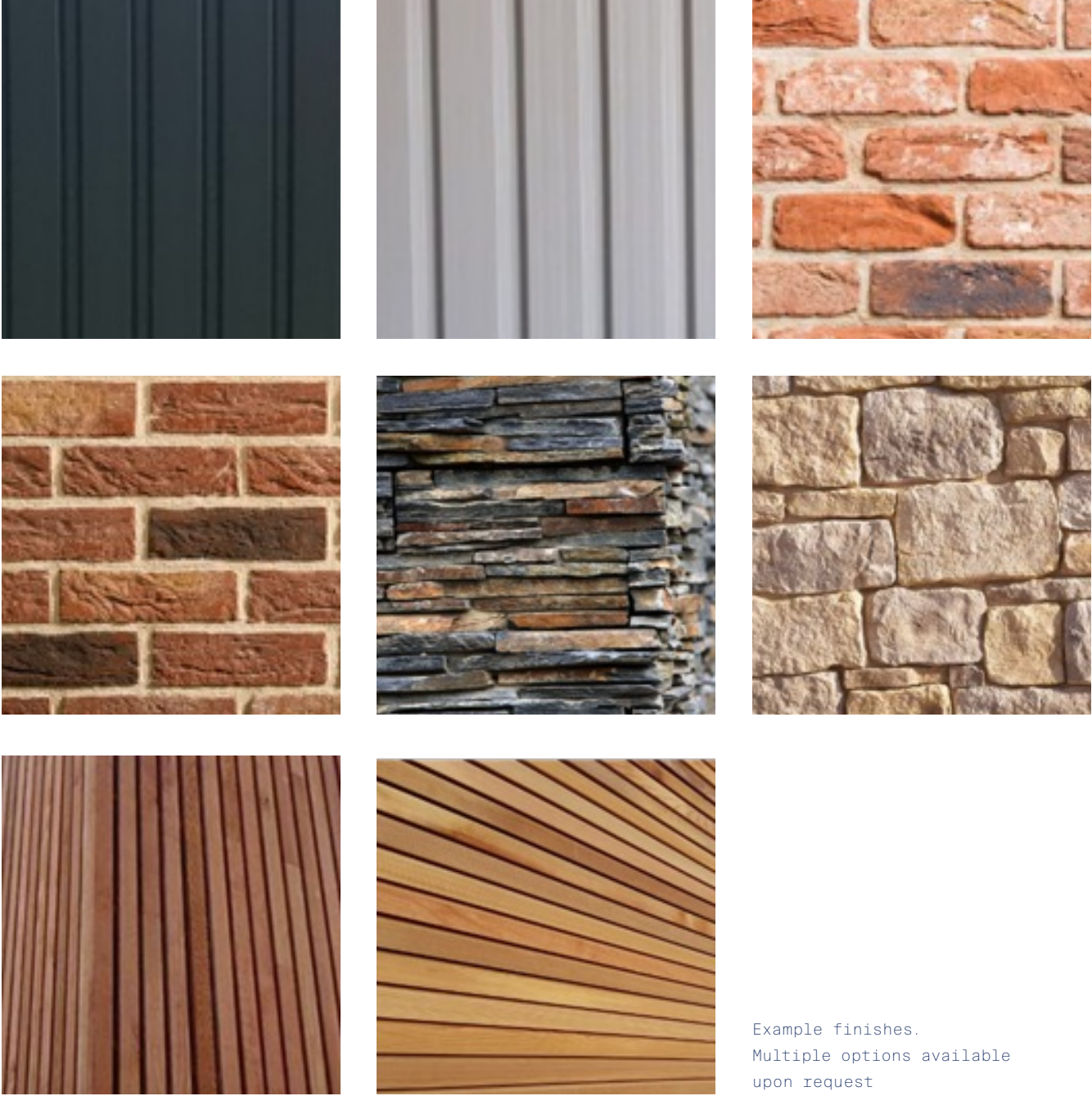
With the deployment of the LMB®, RSE has been able to collate data to allow us to see the most advantageous building sizes that would be required for our clients.

		Security Rating			
Product Name	Length x Width 4 x Height (Metres)	N/A	B3 (SR 2)	C5 (SR 3)	D10 (SR 4)
RSE – LMB 48	8m x 4m x 2.7m (Internal)	✓	✓	✓	✓
Product Name	Length x Width 3 x Height (Metres)	N/A	B3 (SR 2)	C5 (SR 3)	D10 (SR 4)
RSE – LMB 36	6m x 3m x 2.7m (Internal)	✓	✓	✓	✓
RSE – LMB 34	4m x 3m x 2.7m (Internal)	✓	✓	✓	✓
RSE – LMB 33	3m x 3m x 2.7m (Internal)	✓	✓	✓	✓

Finishes

Standard units are externally clad in Kingspan’s through-fix, trapezoidal profiled, and insulated with panel systems in Juniper Green colouring.

A variety of finishes are available, and external cladding can be aligned to meet unique requirements.



Example finishes.
Multiple options available
upon request

DfMA Order to Delivery Process

The following pages provides an overview of the process involved in taking a DfMA product from order through to delivery.

More detailed information can be provided on previous projects, including how they were delivered.



Route Survey & MCC GA

- Confirm site access and delivery constraints
- Assess crane pad location, road width (min. 3.5m) and clear height (4.9m)
- Identify risks early using tools such as Google Maps
- Produce MCC General Arrangement (GA) to support assembly drawings

Order Kiosk & Steel Base

- Kiosk ordered as early as possible due to long lead times
- Typical lead times:
 - Kiosk: up to 16-20 weeks (busy periods)
 - Steel base: 10-12 weeks

Kiosk & Steel Base Design

- Supplier develops a detailed design from assembly drawings
- Designs submitted to RSE for review and approval

MCC Design & Build

- MCC designed and built to suit client's requirements
- Programme aligned with overall project timescales

Pre-Delivery Planning (Prior to CFAT)

- Review route survey and update site photos
- Confirm access, space availability, and new hazards
- Book crane survey and produce lift plans and RAMS
- Arrange transport to site

**Health & Safety – RAMS**

- Prepare internal RAMS for RSE engineers
- Obtain RAMS and lift plan from crane contractor
- Confirm RAMS coverage for all third-party transport

Collection from RSE

- Load DfMA units at RSE using Hiab or crane
- Secure load for transport
- Legs may be fitted on-site while unit remains on lorry, avoiding work under suspended loads

Delivery to Site

- Kiosk transported by contract haulier
- Stairs delivered via RSE vehicles
- Legs fitted on the lorry prior to lift
- Contract crane lifts kiosk into position
- Stairs connected and assembly levelled

DfMA Delivery & Installation Method

- Kiosk and stairs delivered in section on flatbed lorries
- Controlled work zone established for authorized personnel only
- Legs installed, inspected, and handed over for lifting
- Kiosk fixed to base; stairs and components installed and levelled
- Final checks completed and site left safe



For any enquiries, please contact
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