

External Cladding

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4 Draft specifications



5 Budget costs



Species	Installed
Western Red Cedar	£120.00
Siberian larch	£105.00
	£100.00
	£160.00
	£120.00
	£120.00

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6 Project examples



External Cladding

Overview

1.1 Benefits of using Timber

- natural material - no manufacturing process
- zero energy usage
- low imbedded energy costs - harvesting, cutting & profiling processes minimise energy usage
- sustainable - replanting ensures future supplies
- replenishable - average 25 year cycle
- aesthetically pleasing - natural appearance does not require enhancement

1.2 Benefits of using BCL

Design

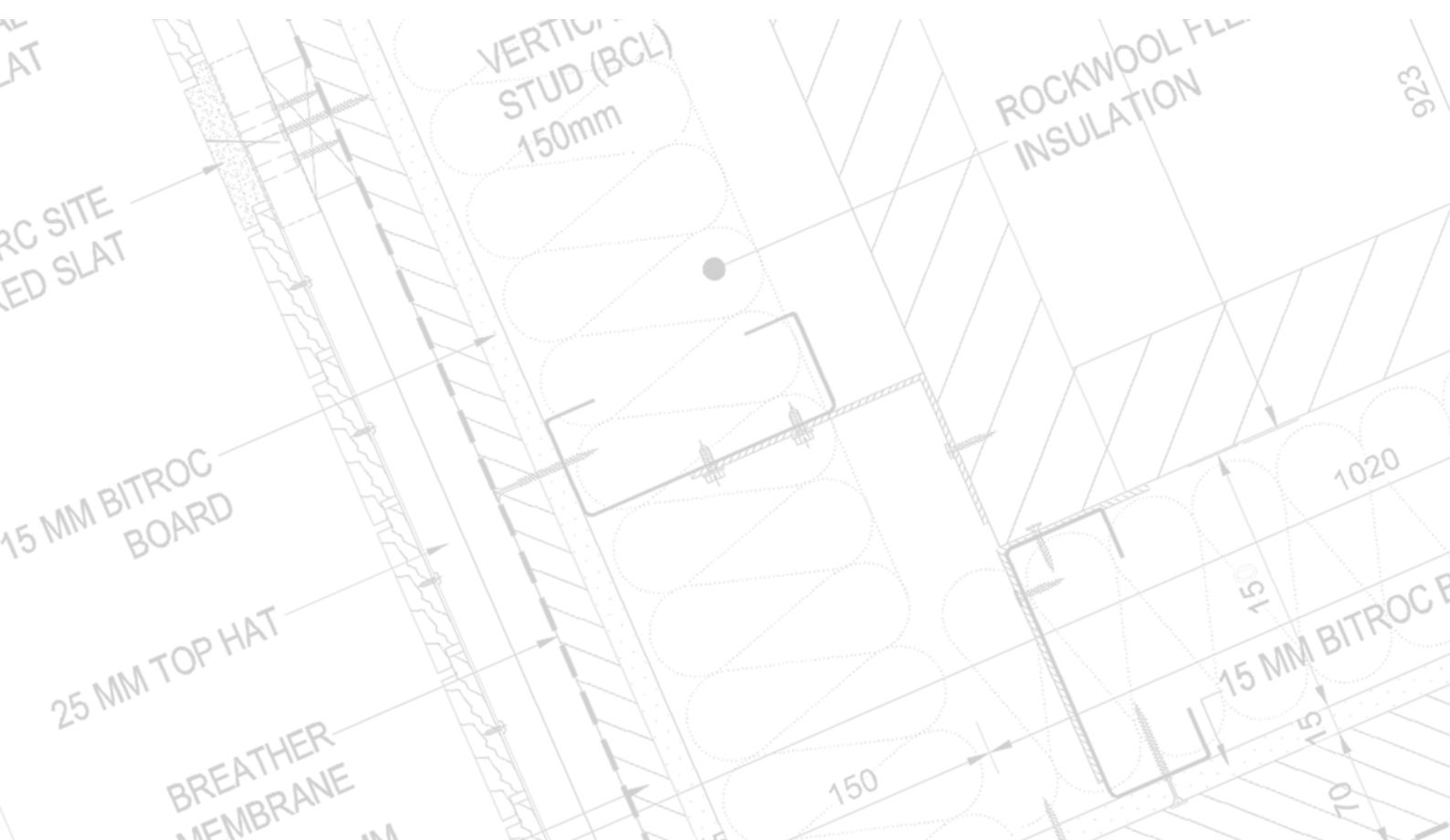
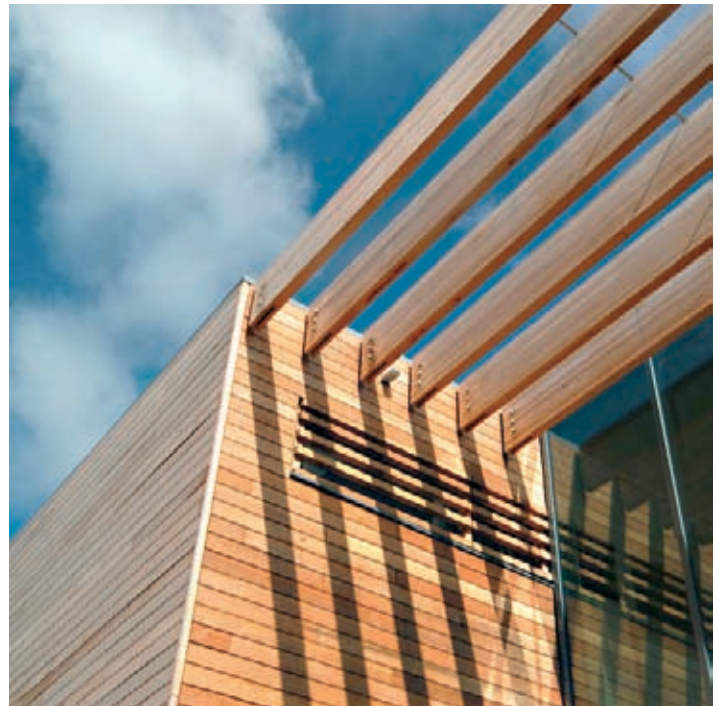
- in house design facilities
- bespoke panel designs

Prefabrication

- ensures quality levels unachievable with site fabrication
- utilises concealed fixing techniques
- minimises site installation durations
- virtually eliminates site waste and associated disposal costs

Installation

- all installations carried out by experienced BCL crews



2 Design data

1. Species

all the species are durable and suitable for external use for a minimum 25 years

1.1 Imported

western red cedar - very good for cladding, light, pliable, soft, average cost

siberian larch - very good for cladding, heavy, hard, lower cost

european oak (prime) - as larch but higher cost, some splitting,

european oak (green) - good for "traditional" or "rustic" look cladding, very prone to movement and splitting, heavy, hard, average cost

south american hardwoods - good for cladding, heavy, hard, average cost

1.2 Homegrown

sweet chestnut - very good for cladding, heavy, hard, higher cost

cedar - good for cladding, light, pliable, soft, coarse grain, light colour, knotty, lower cost

larch - good for cladding, heavy, hard, knotty, lower cost

1.3 Enhanced species

thermowood - good for cladding, medium density, high knot content, low cost

platowood - good for cladding, medium density, high knot content, low cost

Royale - good for cladding, medium density, low knot content, pretreated with oil finish (15 year warranty), average cost

Cape Cod - good for cladding, medium density, high knot content, pretreated with paint finish, 15 year warranty on finish, low cost

2. Support details

direct fix - support batten fixed direct or bracketted to wall, can accommodate minimal insulation layer

bracket & rail - provides flexible cladding zone structure to accommodate wall tolerance, insulation layer

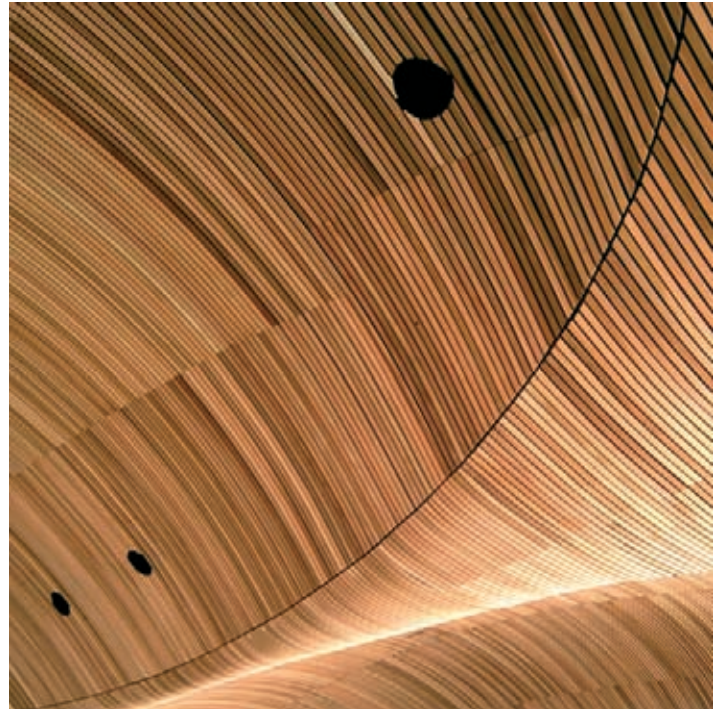
Z bar - used to fix to metsec system systems to accommodate insulation layer

3. Fixing details

face fixing - traditional method, on site, slow, subject to staining

concealed fixings - off-site fabrication, minimises build duration, "clean" look

fixings - stainless steel screws or nails for timber,



4. Finishes

translucent laquers - maintain enhanced look of timber, 3 coat factory applied finish initially, 5 - 7 year recoat cycle (1 coat only)

clear laquers - maintain natural look of timber, 3 coat factory applied finish initially, 5 - 7 year recoat cycle (1 coat only)

paint - maintain enhanced look of timber, 3 coat factory applied finish initially, 15 year warranty

5. Treatments

fire treatment (SSF) - pressure impregnated, class 1 or 0 SSF, lasts for lifetime of timber

preservatives - "protim" or similar, used to enhance moderately durable timbers and softwood support battens

6. Membranes

breather membranes - essential protection against ingress of weather

vapour barriers - optional protection against condensation, used as airseal.

7. Insulation

mineral wool - Rockwool or similar, cheapest, average performance

high performance rigid board - Kingspan k15 or Celotex Tuff-R, double the performance of mineral wool, twice the cost

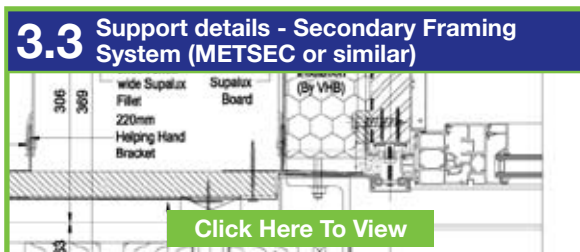
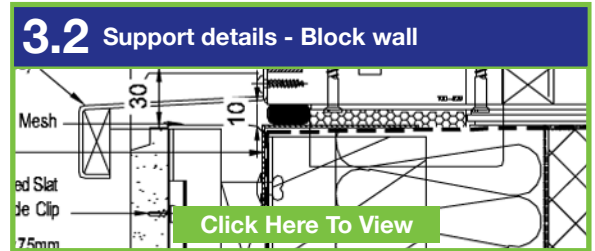
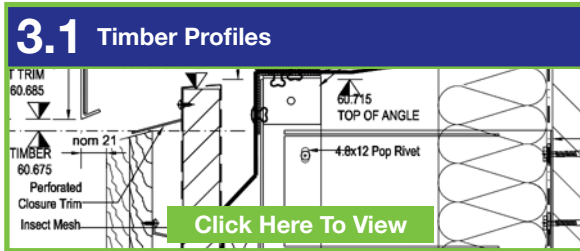
sheeps wool - performance as Rockwool, 30% extra cost

wood fibre - Pavatex or similar, performance as Kingspan, twice the cost

Need more information? - Contact: design@bcl.uk.net

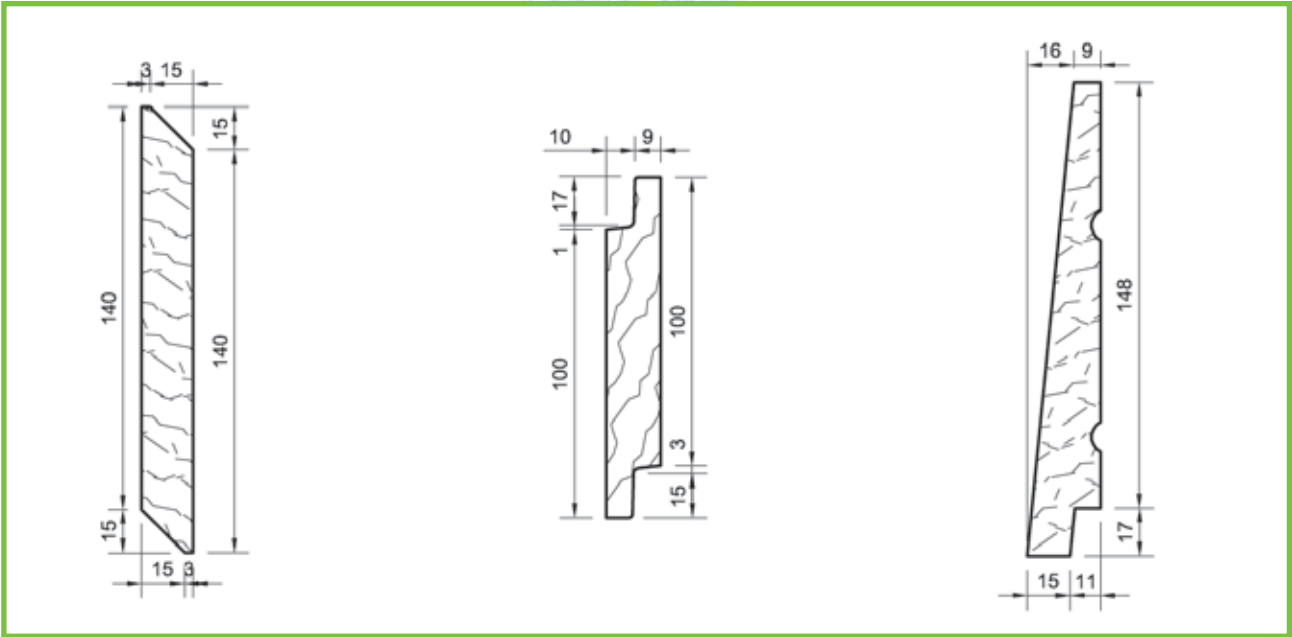
External Cladding

3 Drawing details





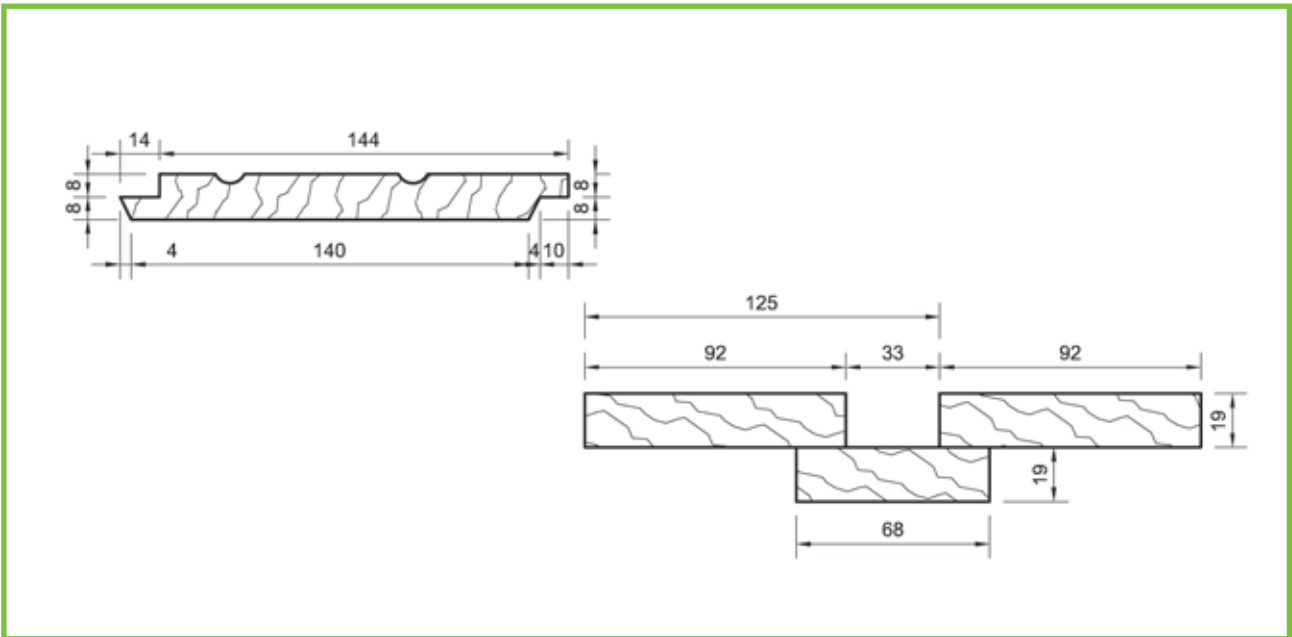
3.1 Timber Profiles



Horizontal Open Harfield
REF: H0150

Horizontal Shiplap Stoke
REF: S.S115

Horizontal Feather Edge Bristol
REF: R.S150



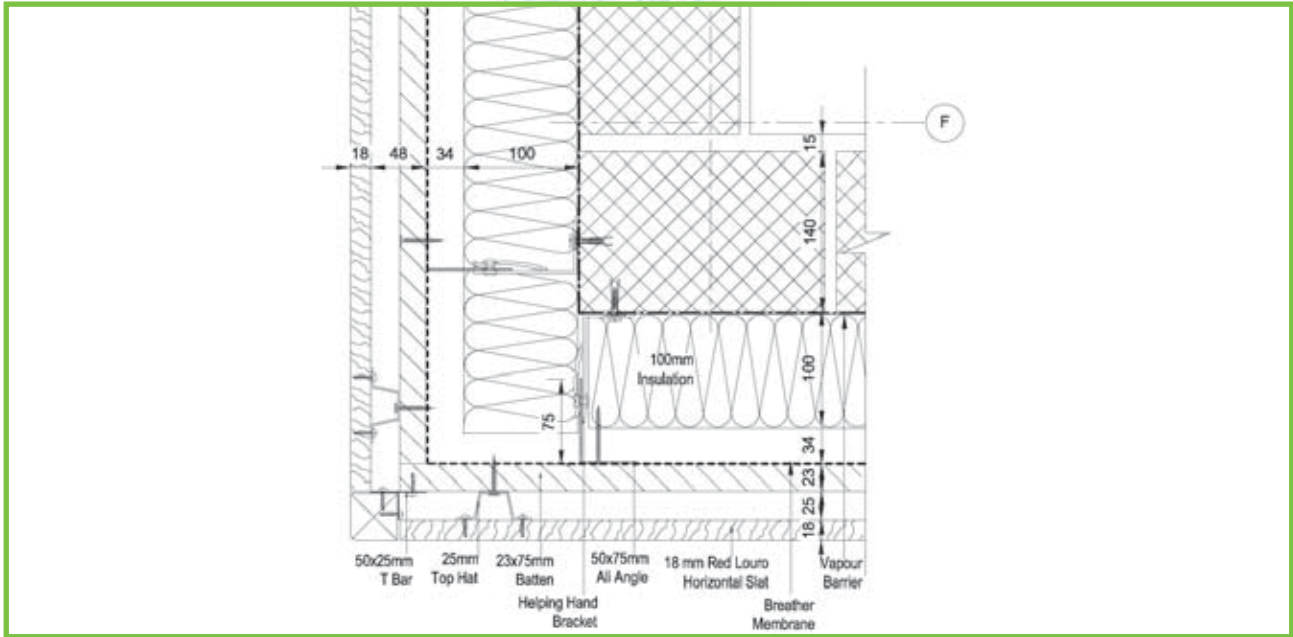
Vertical Shiplap Cranfield
REF: B.S150

Board on Board Southampton
REF: BOB 142

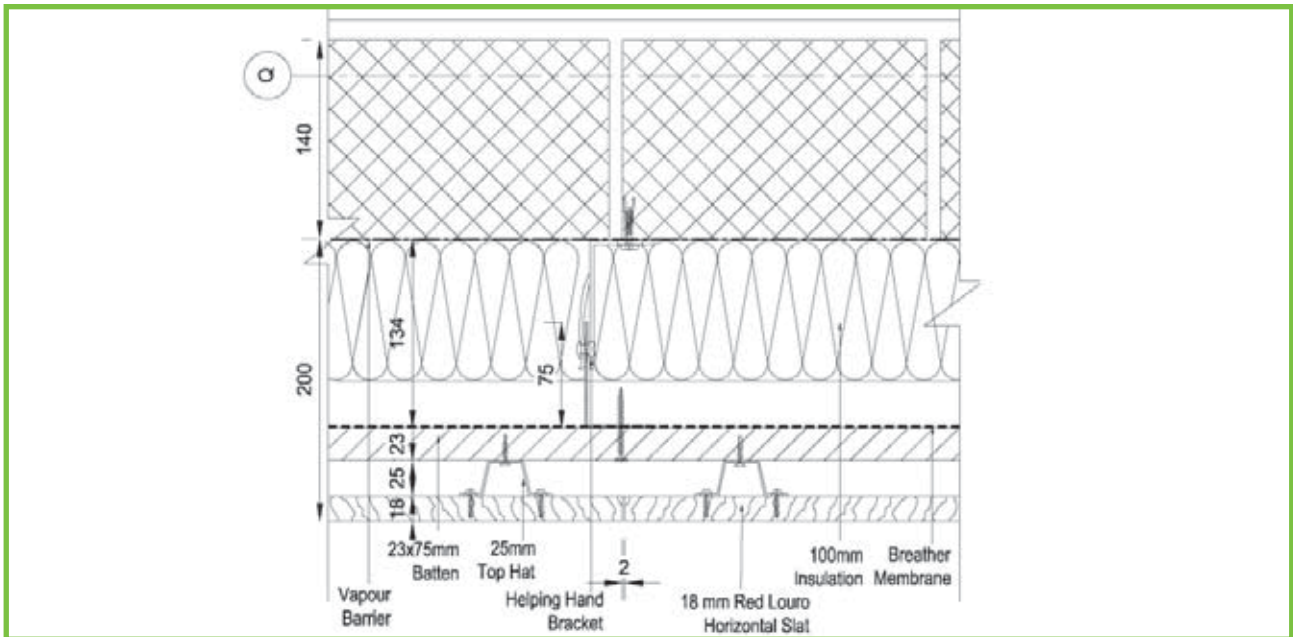
Images of these profiles can be found in Section 6

3.2 Support details for Block walls

Sectional details for Block walls - 1



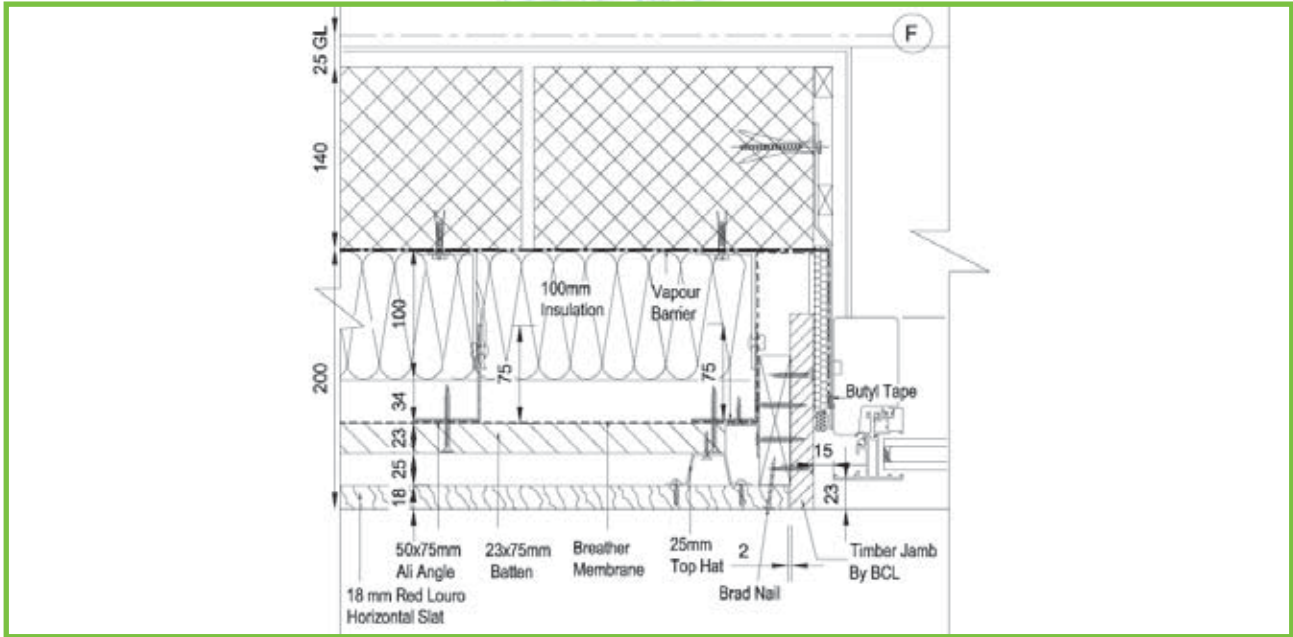
Corner Detail



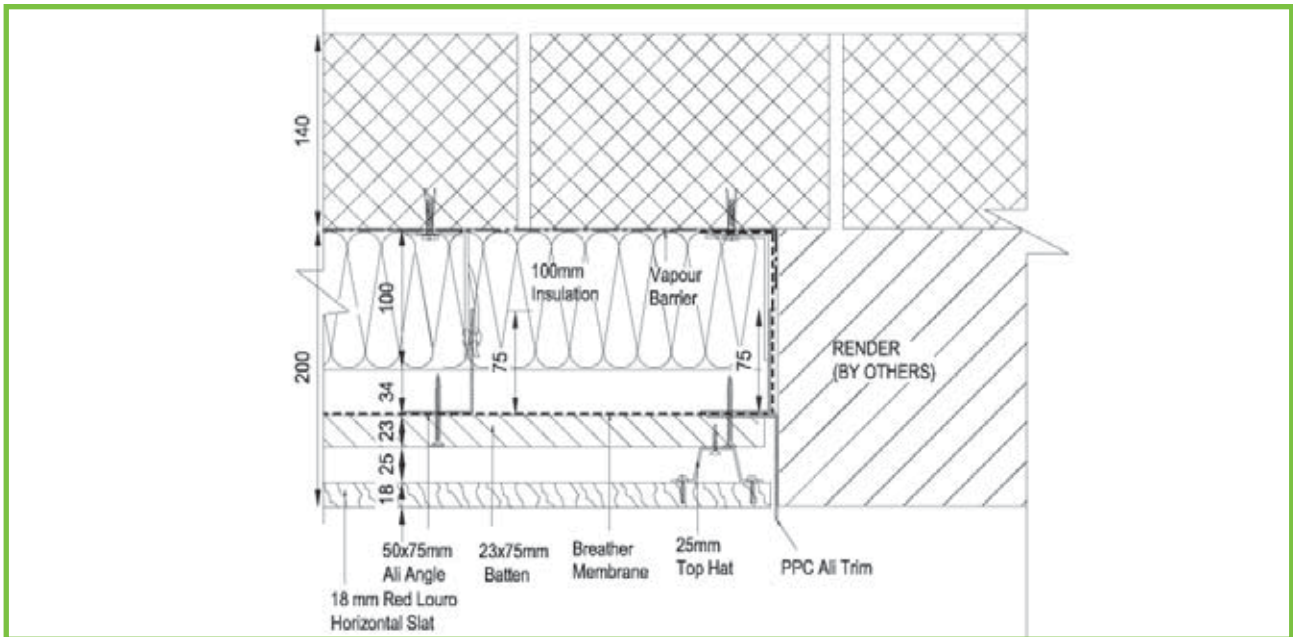
Panel Joint Detail

3.2 Support details for Block walls

Sectional details for Block walls - 2



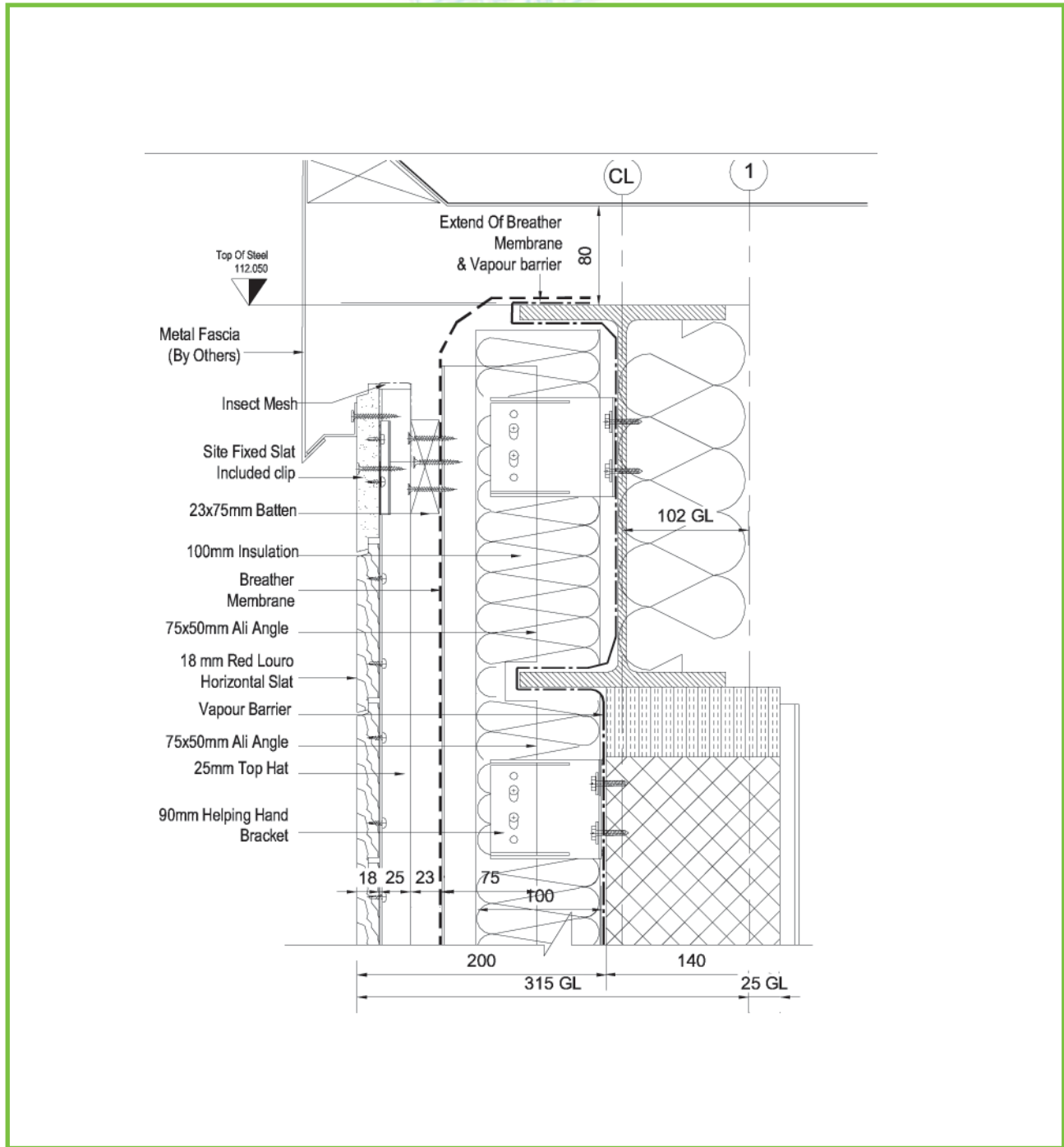
Jamb Detail



Stop End Detail

3.2 Support details for Block walls

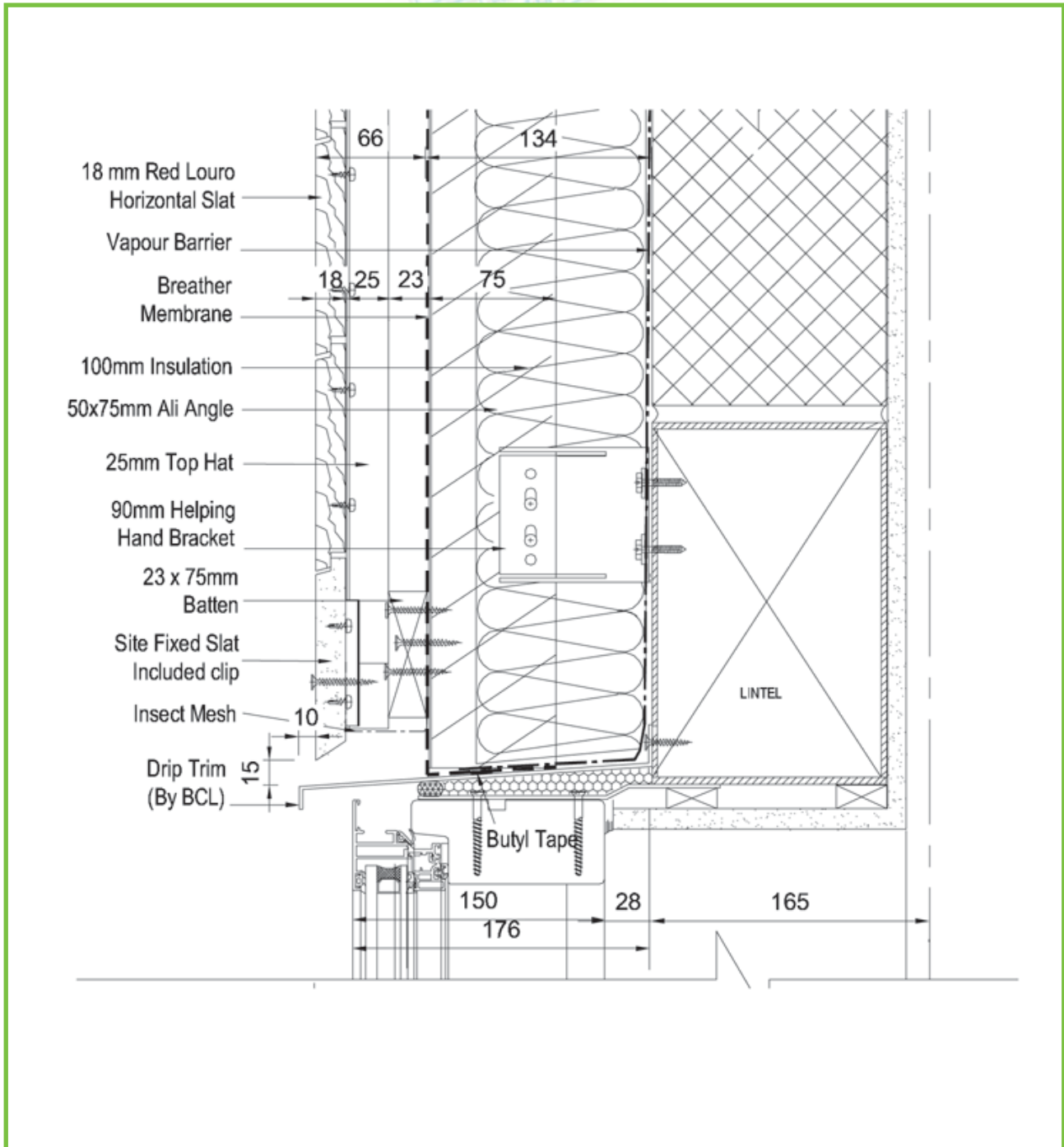
Sectional details for Block walls - 3



Parapet Detail

3.2 Support details for Block walls

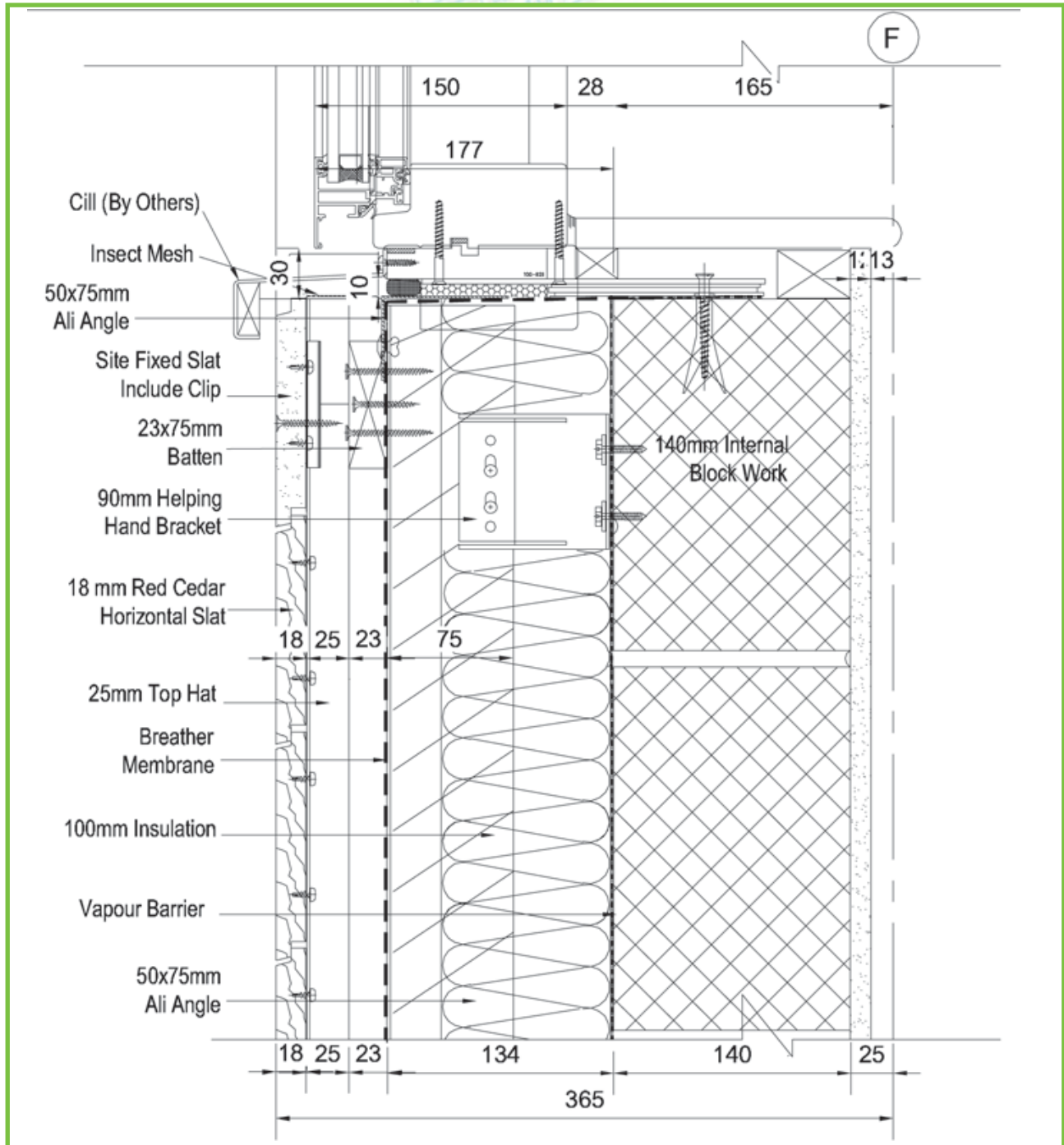
Sectional details for Block walls - 4



Window Head Detail

3.2 Support details for Block walls

Sectional details for Block walls - 5

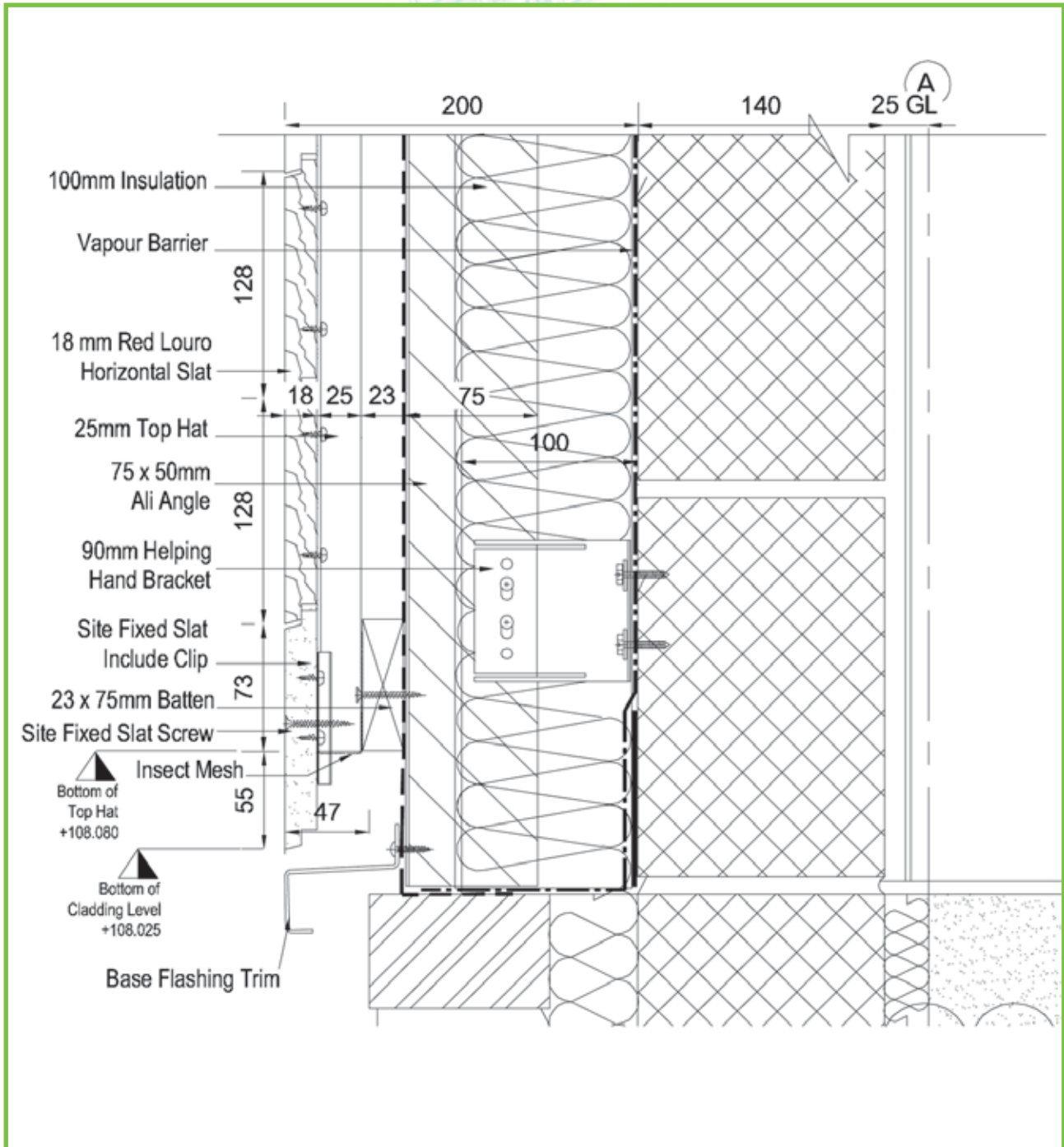


Window Cill Detail

External Cladding

3.2 Support details for Block walls

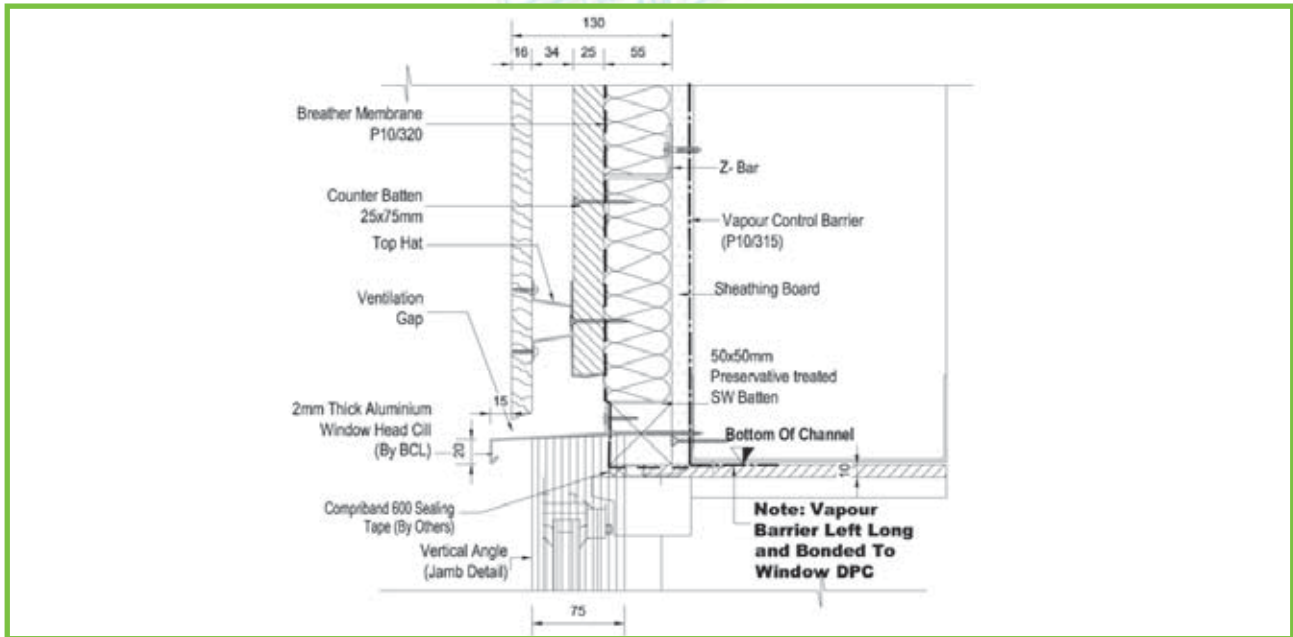
Sectional details for Block walls - 6



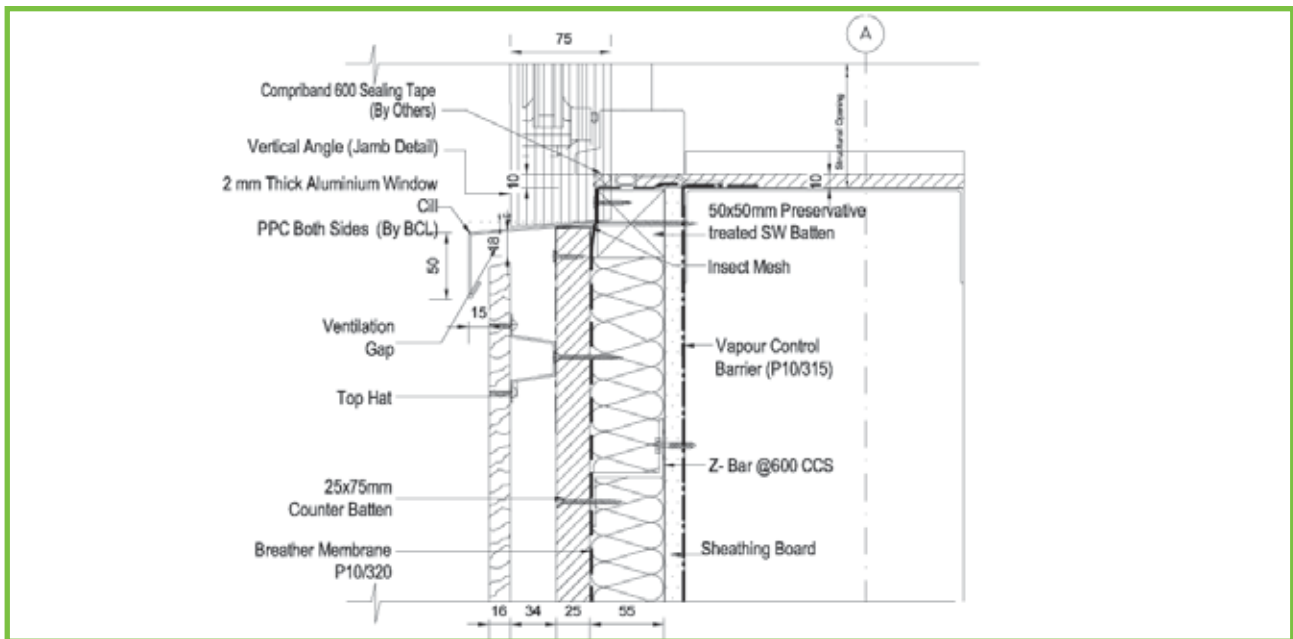
Ground Drip Cill Detail

3.3 Support details for SFS systems

Sectional details for SFS System - 2



Window Head Detail

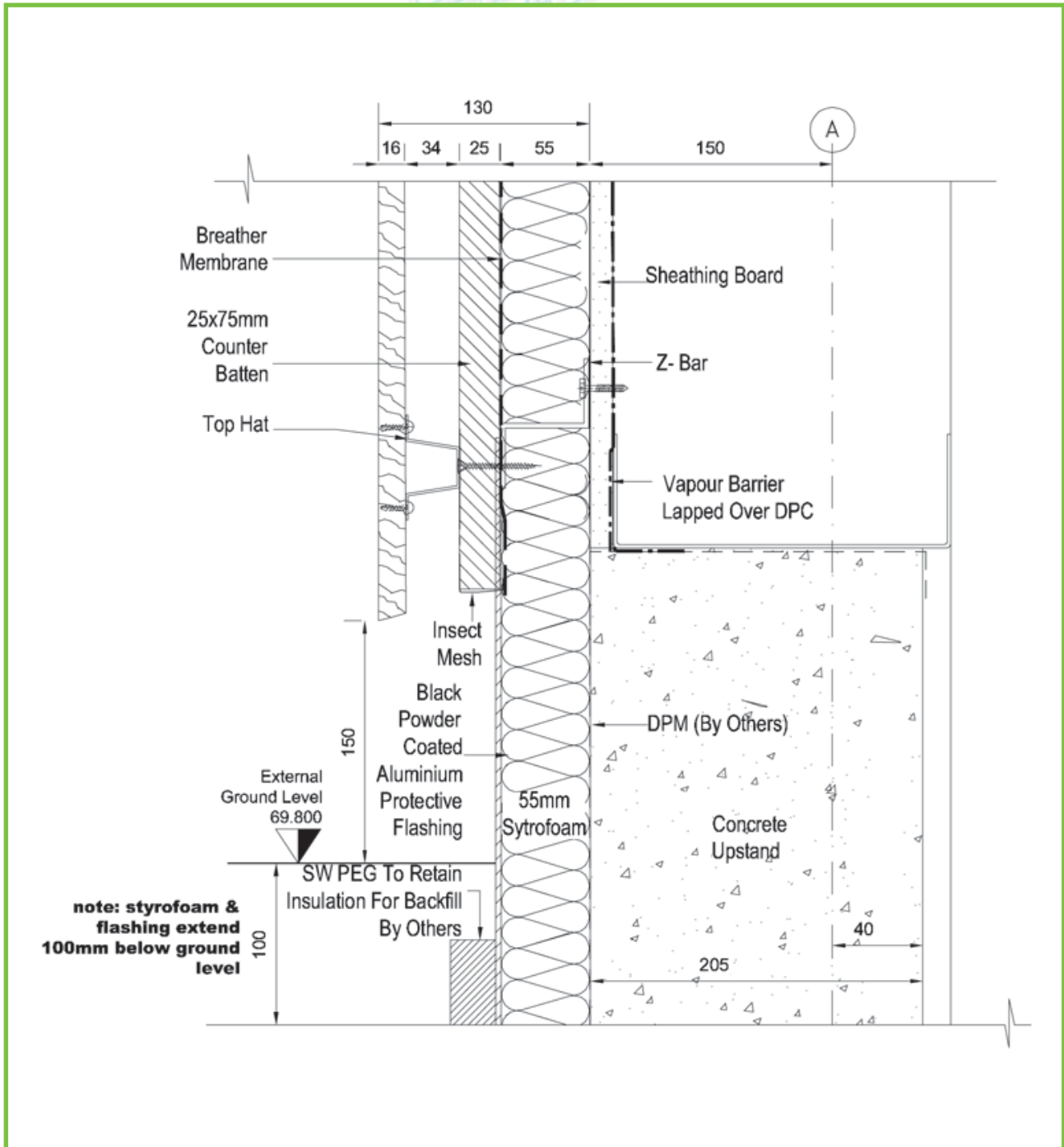


Window Cill Detail

External Cladding

3.3 Support details for SFS systems

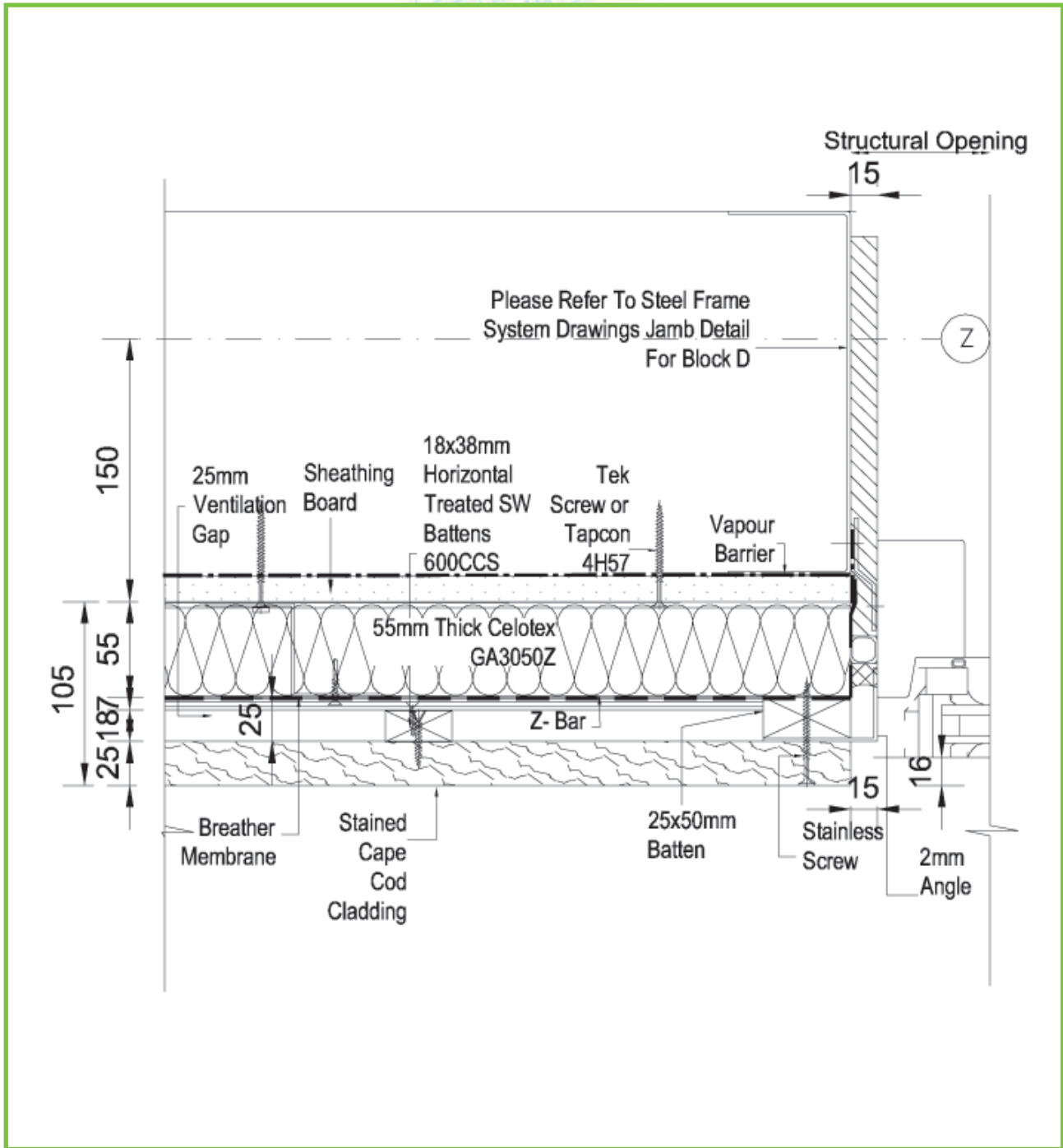
Sectional details for SFS System - 3



Ground Drip Cill Detail

3.3 Support details for SFS systems

Sectional details for SFS System - 4

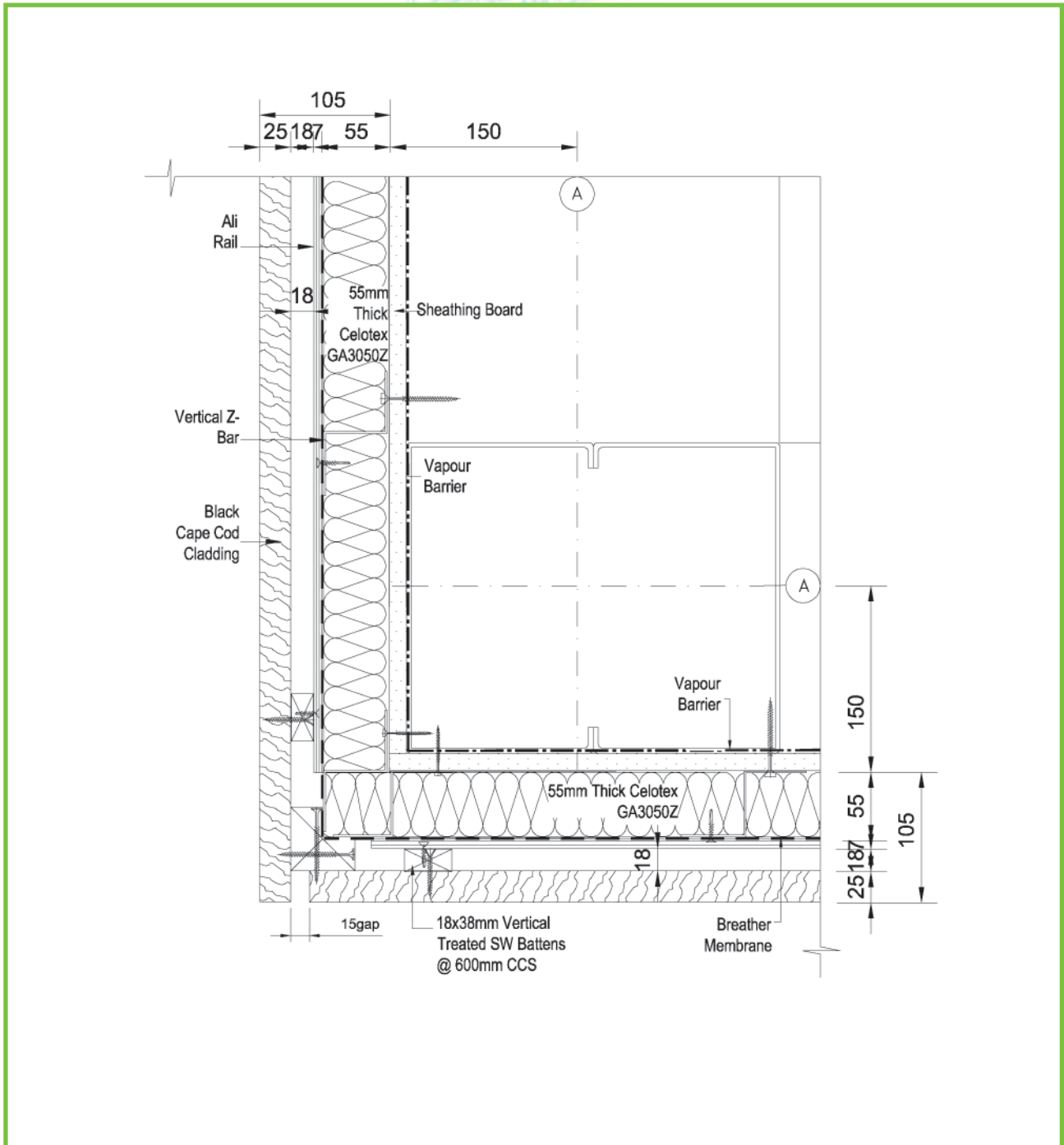


Jamb Detail

External Cladding

3.3 Support details for SFS systems

Sectional details for SFS System - 5

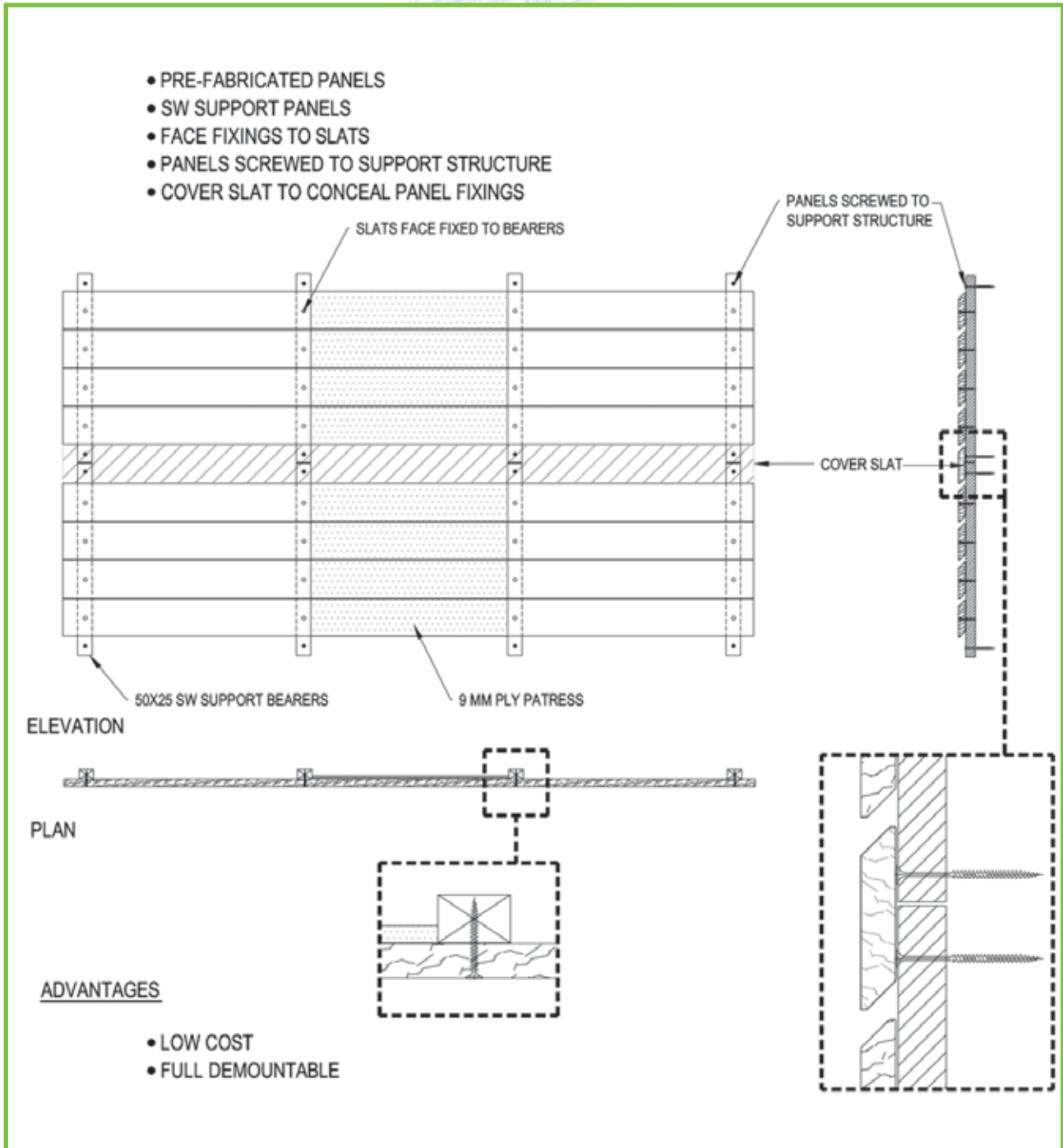


Corner Detail

External Cladding

3.4 Panel details

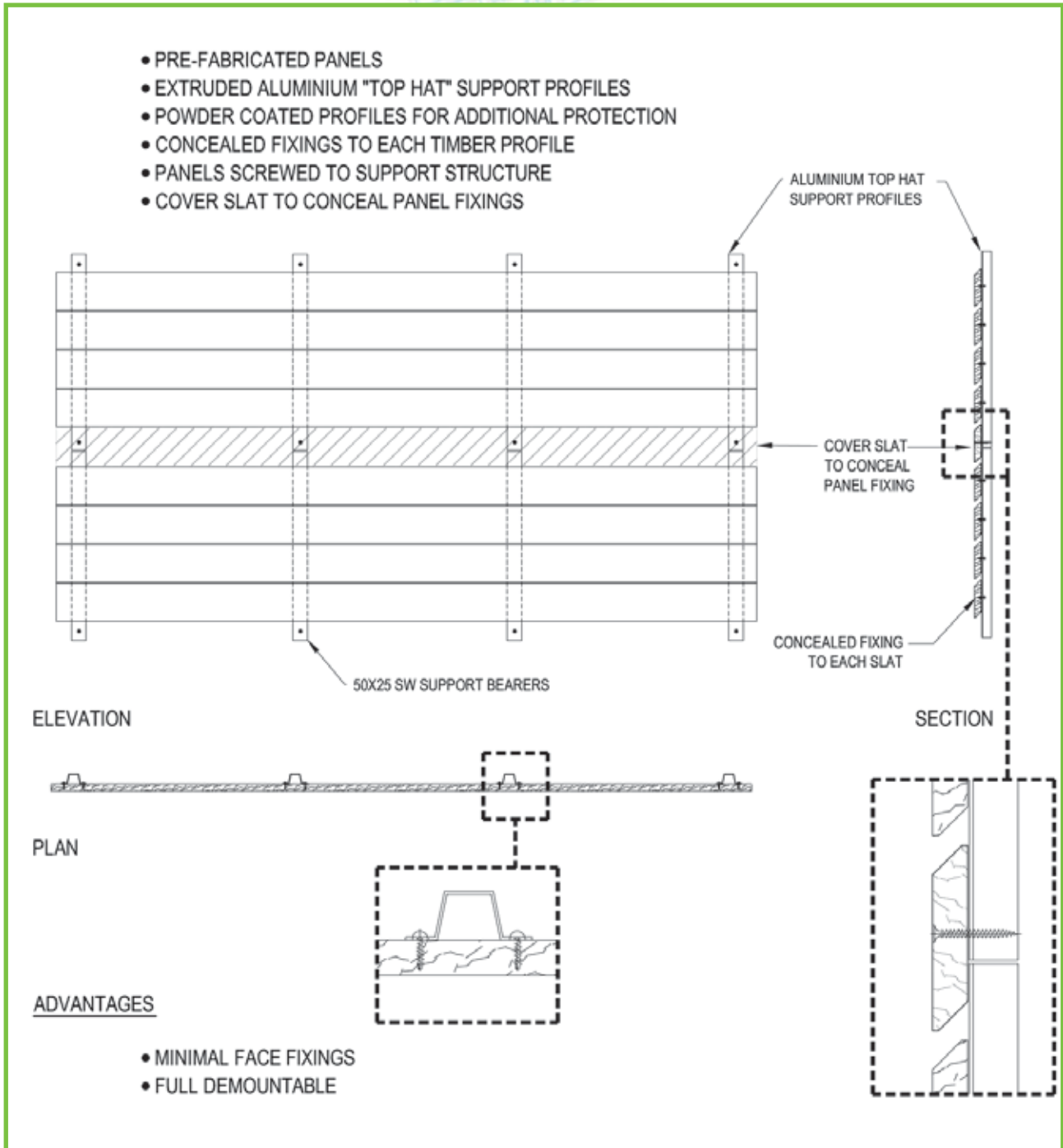
Panel type Option 1



Exposed fixing panel detail

3.4 Panel details

Panel type Option 2

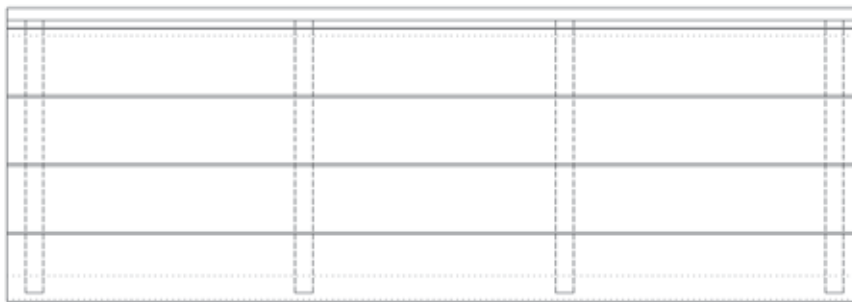


Concealed fixing panel detail

3.4 Panel details

Panel type Option 3

- PRE-FABRICATED PANELS
- EXTRUDED ALUMINIUM "TOP HAT" SUPPORT PROFILES
- POWDER COATED ALI PROFILES FOR ADDITIONAL PROTECTION
- CONCEALED FIXINGS TO EACH TIMBER PROFILE
- CONTINUOUS ALUMINIUM SUPPORT RAIL SYSTEM FOR PANEL SUPPORT
- EACH PANEL IS LOCKED IN POSITION AND CAN NOT BE REMOVED



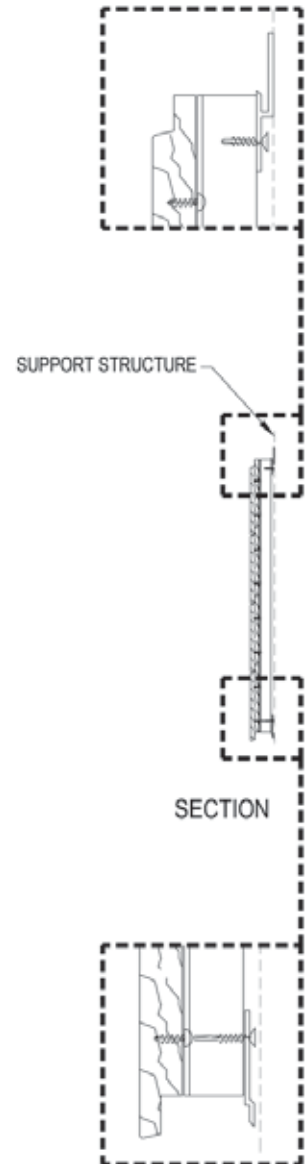
ELEVATION



PLAN

ADVANTAGES

- FULLY CONCEALED FIXING SYSTEM
- EACH PANEL MECHANICALLY LOCKED INTO POSITION
- IDEAL FOR SITUATIONS WHERE MAX. SECURITY IS REQUIRED



SUPPORT STRUCTURE

SECTION

Wall rail panel system

4 Draft Specifications

Performance specification for timber weatherboarding

H21 Timber Weatherboarding

To be read with Preliminaries/General conditions

H21/110 Timber Weatherboarding

- Base: TBA
- Breather membrane: As clause 130.
- Quality of timber and fixing: To BS 1186-3
- Species: Western Red Cedar, kiln dried, FSC, CSA, or other approved bodied.
- Class: 2 clear & better
- Profile: Square edge, horizontal laid boards.
- Finished face dimension: 125 mm.
(ex size timber 150 x 25 mm)
- Finished thickness: 17 mm.
- Profile: TBA
- Moisture content at time of fixing: 13 to 19%.
- Preservative treatment: N/A
- Method of fixing to each support: Stainless steel screws secret fix through support bearers into back of WRC slats. (See clause H21/140)
- Other requirements: Insect mesh at ventilation openings at top, bottom, window & door surrounds.
- Panel abutments: 2 - 4mm gap.

H21/116 Support Frame (to fix to concrete / block walls)

- 2.5mm thick hardened aluminium helping hand brackets fixed direct to structural face of building at no more than 600mm horizontal centres, vertically at no more than 1500mm centres. (All subject to wind loadings)
- 75 x 50 x 2.0 mm thick vertical aluminium angle (6063 alloy) mechanically fixed to the helping hand brackets.

H21/120 Control Sample

Complete an area of timber cladding, including entire build-up as a benchmark for quality.

H21/130 Breather Membrane

- Material:
- Manufacturer and reference: "Tyvek" by Dupont, "Powerlon" by ITP or similar
- Fix carefully and neatly to provide a complete barrier to water, snow and wind blown dust.
- Fix with pan head tek screws.
- Horizontal laps to be 100 mm, vertical laps 150 mm and staggered, to shed water away from substrate and structure.



- Ensure that membrane extends below lowest timber member and into reveals of openings.

H21/135 Insulation

CFC free insulation board, (Kingspan K15 or Celotex RR)

Or Rockwool "Duo-slab" insulation

Or "Thermafleece" insulation by Second Nature UK Ltd

butt jointed together and secured with security pins into blockwork. Insulation board thickness TBA but to achieve "U" value of tba

H21/140 Panel Bearers

- Black Polyester Powder Coated Aluminium extruded "top hat profile" section, 6063 alloy. Top hat legs punched with a 4mm x 8mm slot, cut to length to suit panel width module.
- Size: 65mm wide x 25 mm deep x 1.5mm thick.
- Fix vertically to back of Western Red Cedar slat through slots with stainless steel pan head screw.

H21/145 Panel Support System

Secured at the top of each panel is an aluminium extruded WR1 (female rail). The length determined by the length of the panel.

Secured at the bottom of each panel is an aluminium extruded WR2 (male rail). The length determined by the length of the panel.

Option 1: the panel is screwed in place and finished with a face-fixed cover slat.

Option 2: the panel is supported by a concealed wall rail system.

H21/155 Surface Treatment

If required, the timber slats can be coated with a 3-part laquer finish, (Sikkens or similar), factory applied, to provide a weather and UV resistant finish with an initial protection period of 5 years. A top-up single coat every 5 years will provide continued protection.

H21/160 Fixing Panels

- Fix boards securely to give flat, true surfaces free from undulations, lipping, splits, hammer marks and protruding fastenings.
- Allow for movement of boards and fastenings to prevent cupping, springing, excessive opening of joints or other defects.
- Stagger panels, minimum overlap of 600mm.
- Or align panels with a 4 mm feature shadow gap

5 Budget Costs

Installed Costs

	Species	Installed cost/M ²
Imported	Western Red Cedar	£120.00
	Siberian larch	£105.00
	Thermowood	£100.00
	Oak (prime grade)	£160.00
	Oak (green)	£120.00
	Red Louro (South American hardwood)	£120.00
Home grown	Larch	£105.00
	sweet chestnut	£125.00
	Royale (pre-finished pine)	£120.00
Support system	bracket & rail	£25.00
Membranes	breather membrane	£6.50
	vapour barrier	£7.50
Insulation	to provide U = 0.35	£20.00

Do you want a project specific quotation? - Contact info@bcl.uk.net

6 Project Examples

6.1 Harefield - Horizontal open slat



6.2 Stoke - Horizontal shiplap



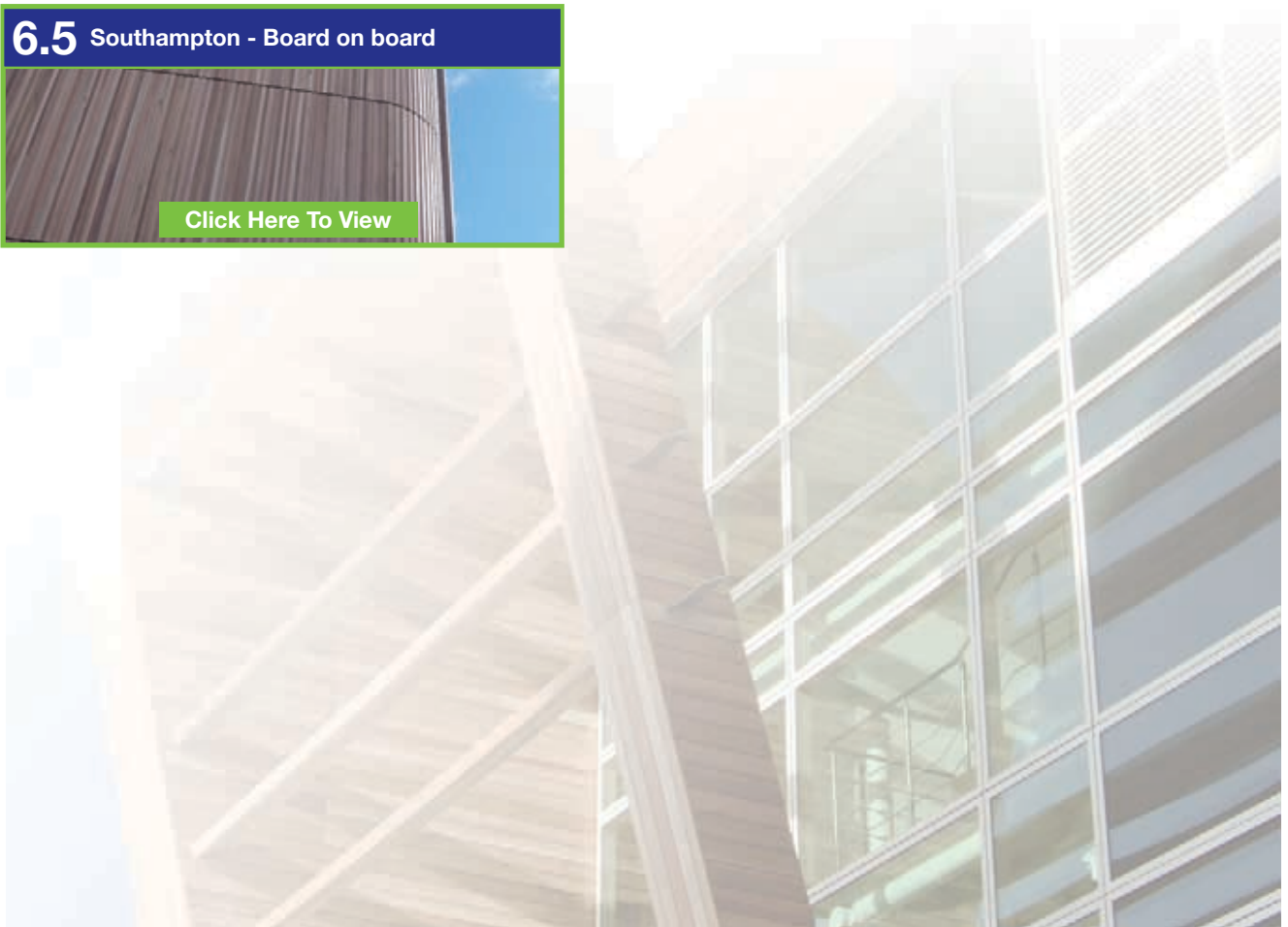
6.3 Hemel Hempstead - Vertical shiplap



6.4 Bristol - Horizontal featheredge



6.5 Southampton - Board on board



Contact Brian Barrett or Grant Drake

[click here to contact us](#)

BCL Timber Projects Ltd.

The Old Byre, Oakley Farm, Pound Lane, Hurst

Berkshire RG10 0RS

Tel 0118 934 4155

Fax 0118 934 4188

E-Mail info@bcl.uk.net



BCL TIMBER PROJECTS LTD

Design • Manufacture • Installation

