

Rigid Stone Cladding Systems



Rigid Fixed Stone Cladding System

The rigid fixed stone system is based on the masonry construction standards NZS 3604, NZS 4210 and AS/NZS 2699

The above standards require a cavity of between 40mm and 70mm

This cavity functions to provide structural separation between a rigid stone cladding of 100 - 200mm that exceeds weights of

220kg/m² and the flexible timber framing and also to provide a 40mm- 70mm ventilated drainage path to the building exterior for moisture that has penetrated the stone/masonry.

Specific design must be carried out for the timber framing supporting all areas where the stone cladding exceeds weights of 220kg/m²

Components

Cavity batten

- 40 x 45mm H3.5 vented cavity battens grooved with 20mm wide by 15mm deep
- Grooves 150mm apart to provide easy air flow within the cavity

- Over a 50mm damp proof course complying with NZBC Acceptable Solutions E2/AS1

- Cavity batten fixings - 100 x 4.0mm galvanised flat head nails every 300mm

Fibre cement board

- Etapan 7.5mm fibre cement board screwed with 40mm stainless steel screws every 150mm all joins and corners to be foil taped and three coats of Mulseal water proof
- to be applied to all exterior areas
- Fibre cement board to be 10mm clear of soffit and 70mm off the foundation

Stone

- All stone must be clean of dust and contamination and kept as dry as possible
- All stone to be laid by qualified stonemasons and properly bonded as in accordance with the Stonemasonry Best Practice Guide
- Please see manual

Mortar

Mortar - composed of Portland cement, sand, hydrated lime and water Complying to NZS4210

Wall ties and fixings

- Wall ties complying to AS/NZS2699
- Fixings 100 x 12g Tek Screws
- All ties to be fixed through the fibre cement board, batten and into the stud
- Silicons to be used to seal around screws
- Ties should be in accordance to zone type
- Spacing should be as per table and zone type

Stone Cladding Mass	220kg/m ²		360kg/m ²	
Zone Earthquake Zones	Horizontal	Vertical	Horizontal	Vertical
A,B,C	600mm.	400mm	400mm.	400mm
A,B,C			600mm.	300mm
B,C			600mm.	400mm

These values are maximums.

Weights

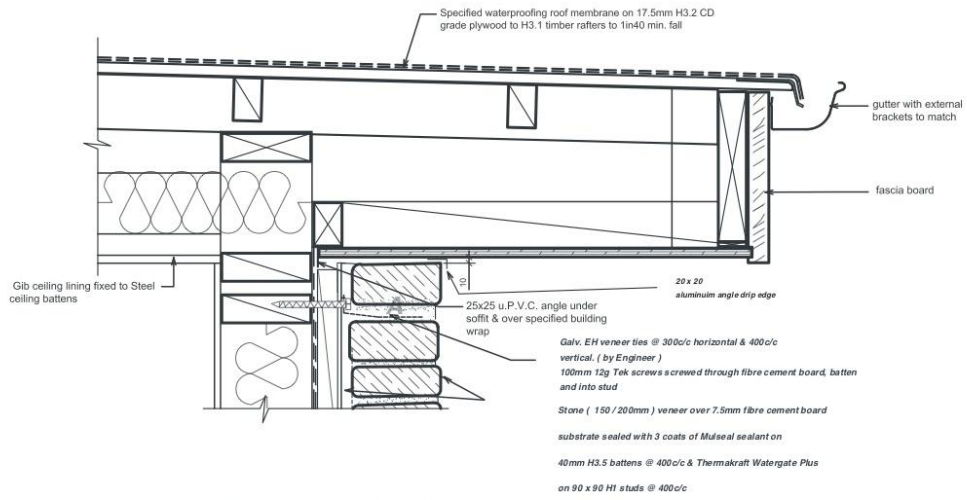
The average weight for 150mm stone cladding including mortar is approximately 360kg/m²

The average weight for 200mm stone cladding including mortar is approximately 480kg/m²

System Installation

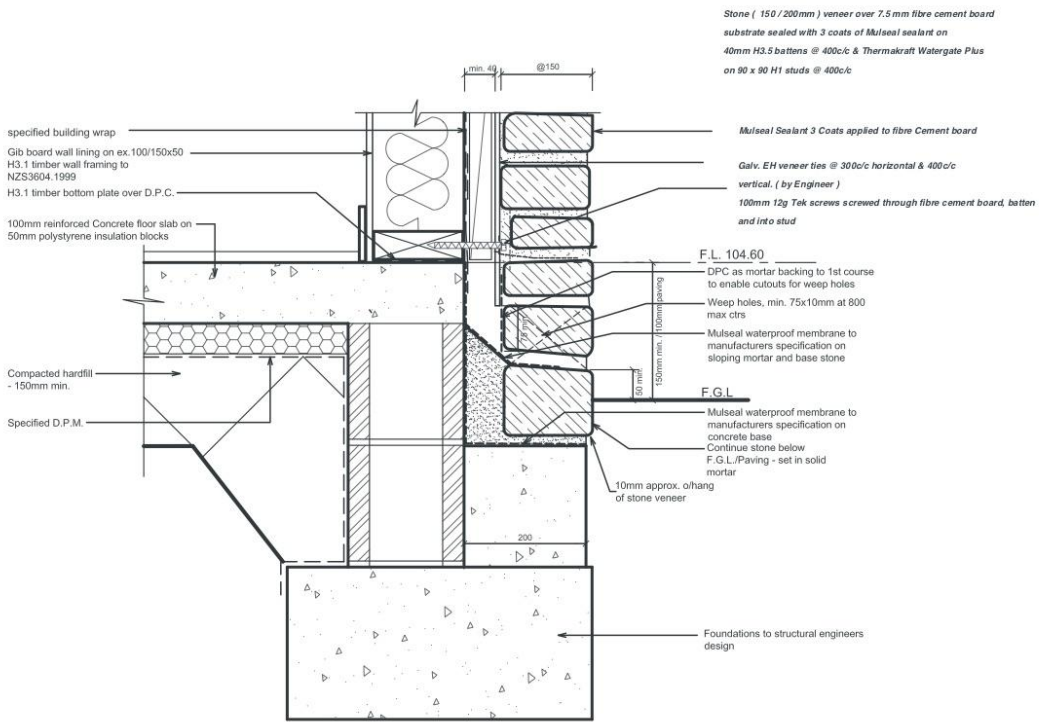
- All framing, foundation and bracing requirements must be met prior to installation of the cladding system
- All Damp proofing, fixing of battens, fibre cement board, taping of joints and corners, flashings and waterproofing to be carried out by a (Licensed Building Practitioner) builder and not by the stonemason
- All information in this cladding system are to be used as guidelines and must be approved by the Architect and engineer

Rigid Fixed Batten Stone Cladding System



EAVES OVERHANG DETAIL

SCALE 1 : 5

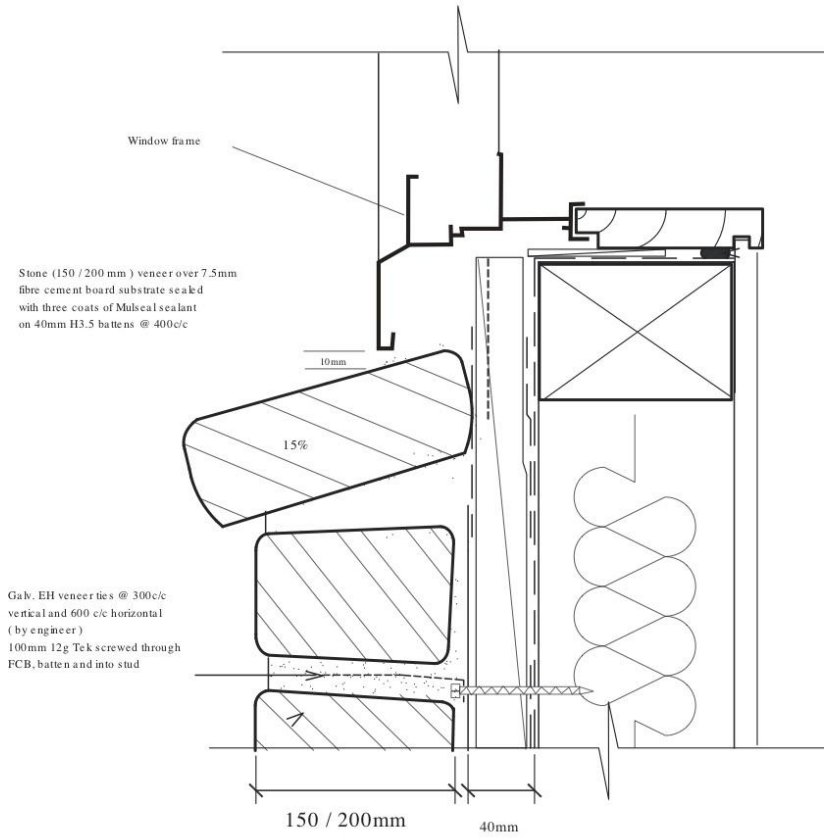


STONE VENEER WALL BASE / F.G.L. DETAIL

SCALE 1:5

All details are guidelines and to be verified by Engineer

Rigid Fixed Batten Stone Cladding System



CILL DETAIL - STONE VENEER

Rigid Fixed Batten Stone Cladding System

Stone (150 / 200mm) veneer over 7.5mm fibre cement board
substrate sealed with 3 coats of Mulseal sealant
on 40mm H3.5 battens @ 400c/c
& Thermakraft Watergate Plus
on 90 x 90 H1 studs @ 400c/c

Galv. EH veneer ties @ 600c/c horizontal
@ 300c/c vertical. (by Engineer)
100mm 12g Tek screws screwed through
Fibre cement board, batten and into stud

Mulseal Sealant 3 Coats
applied to 7.5mm fibre cement board

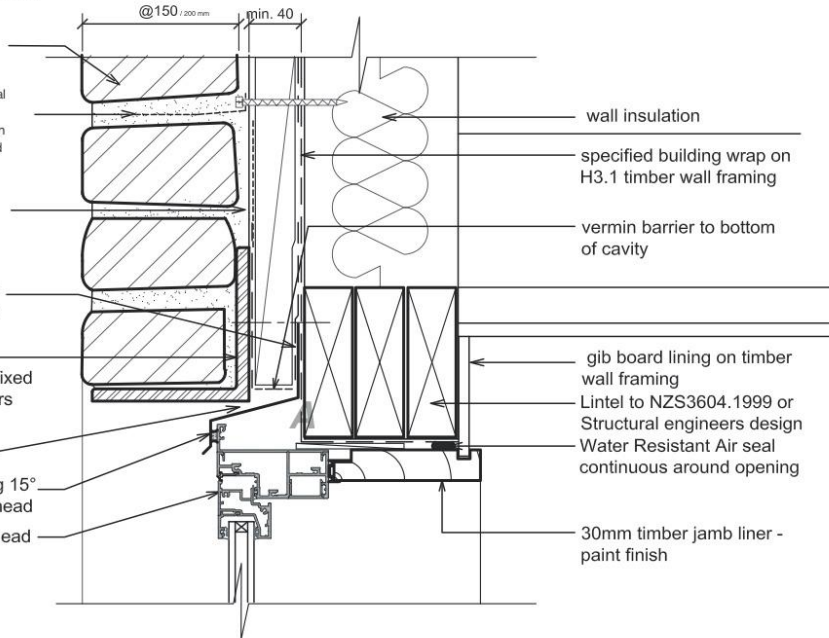
Flexible flashing tape lapped
over building wrap & window
head flashing

Galv. Steel Angle lintel to
Structural engineers design fixed
to lintel through dpc & packers
spec. paint finish

5mm min. drainage gap

P.C. aluminium head flashing 15°
slope & stop ends, lap over head

Typical P.C. Alum. window head
frame (Double Glazing)



HEAD - SECTION

P.C. Aluminium back flashing
fixed to jamb

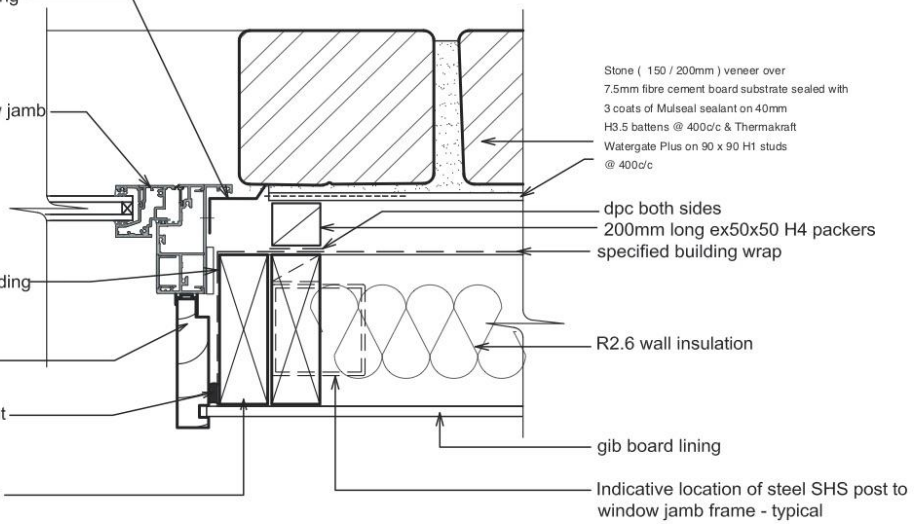
Typical P.C. Alum. window jamb
frame (Double Glazing)

Flexible flashing tape/ building
wrap into frame opening

30mm timber jamb liner
- paint finish

Continuous Water resistant
air seal

ex. 50mm H3.1 timber wall
framing



JAMB - PLAN

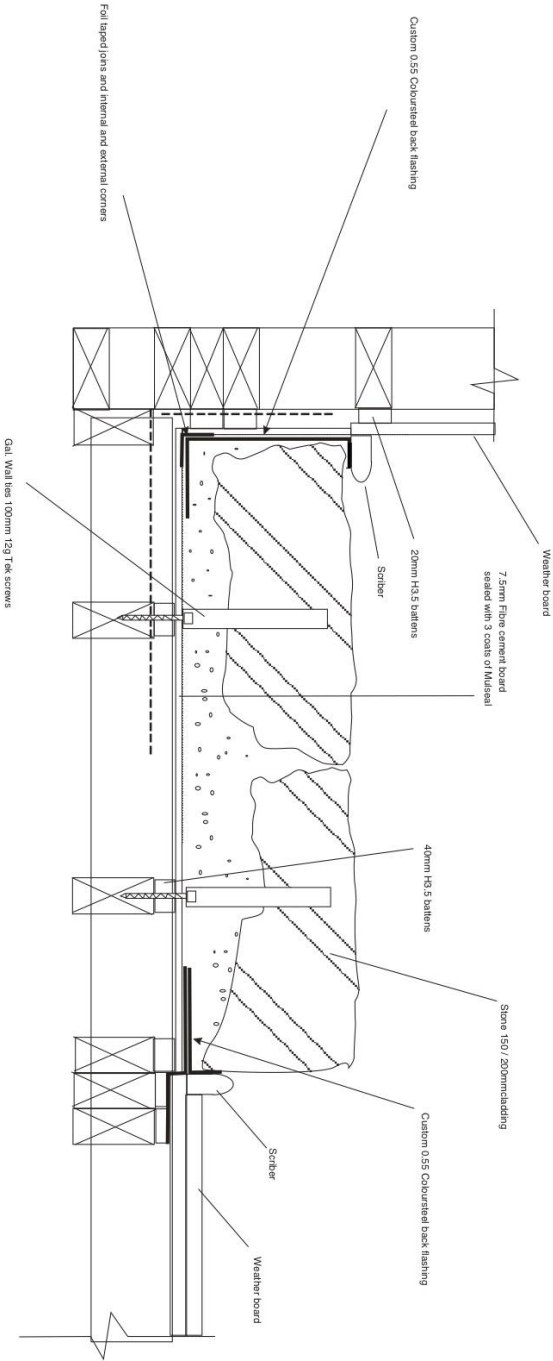
TYPICAL ALUMINIUM WINDOW DETAILS STONE VENEER

SCALE 1 : 5

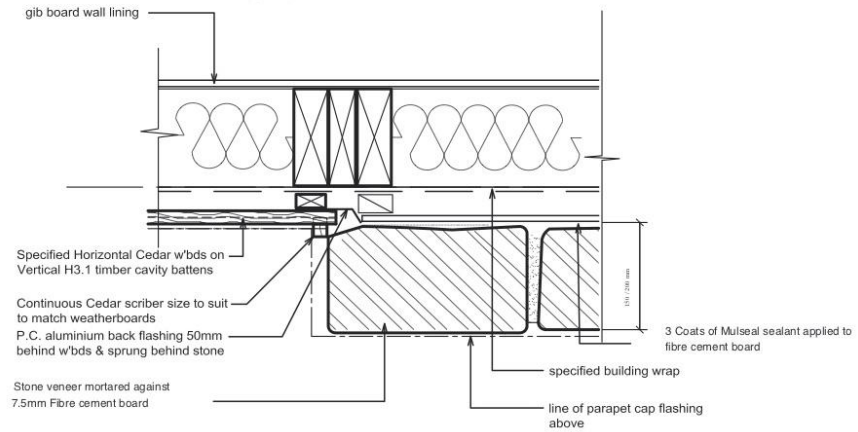
All details are guidelines and to be verified by Engineer

Rigid fixed batten Stone Cladding System

Weatherboard detail



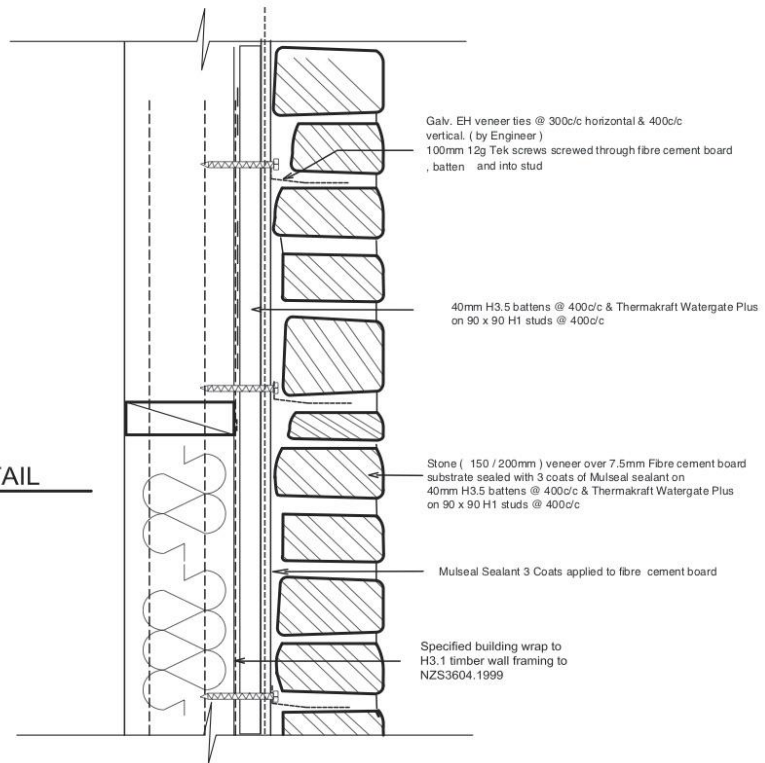
Rigid Fixed Batten Stone Cladding System



STONE VENEER WALL / WBD WALL DETAIL

PLAN VIEW

SCALE 1:5

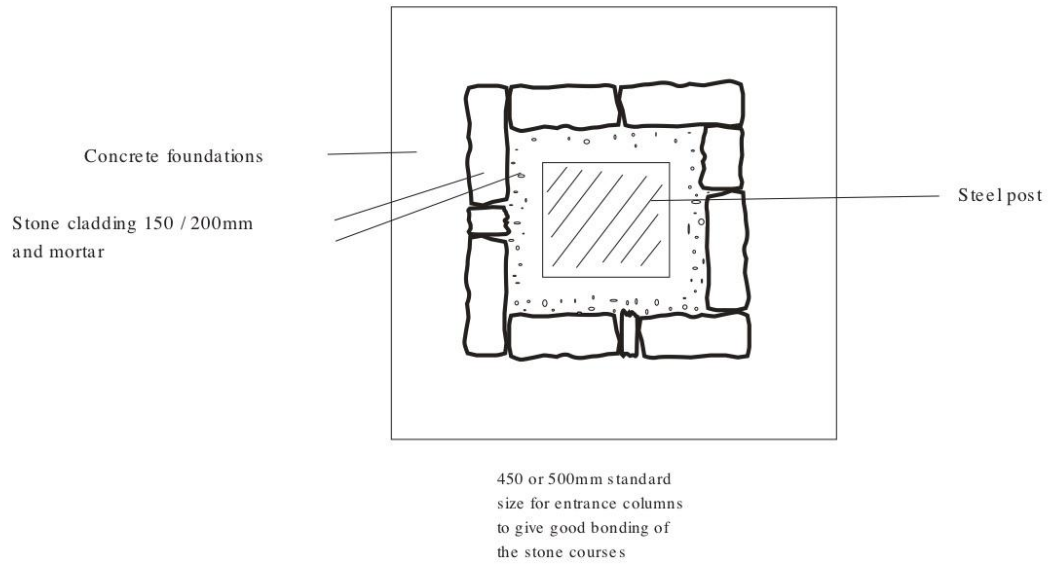


WALL SECTION DETAIL

SCALE 1:5

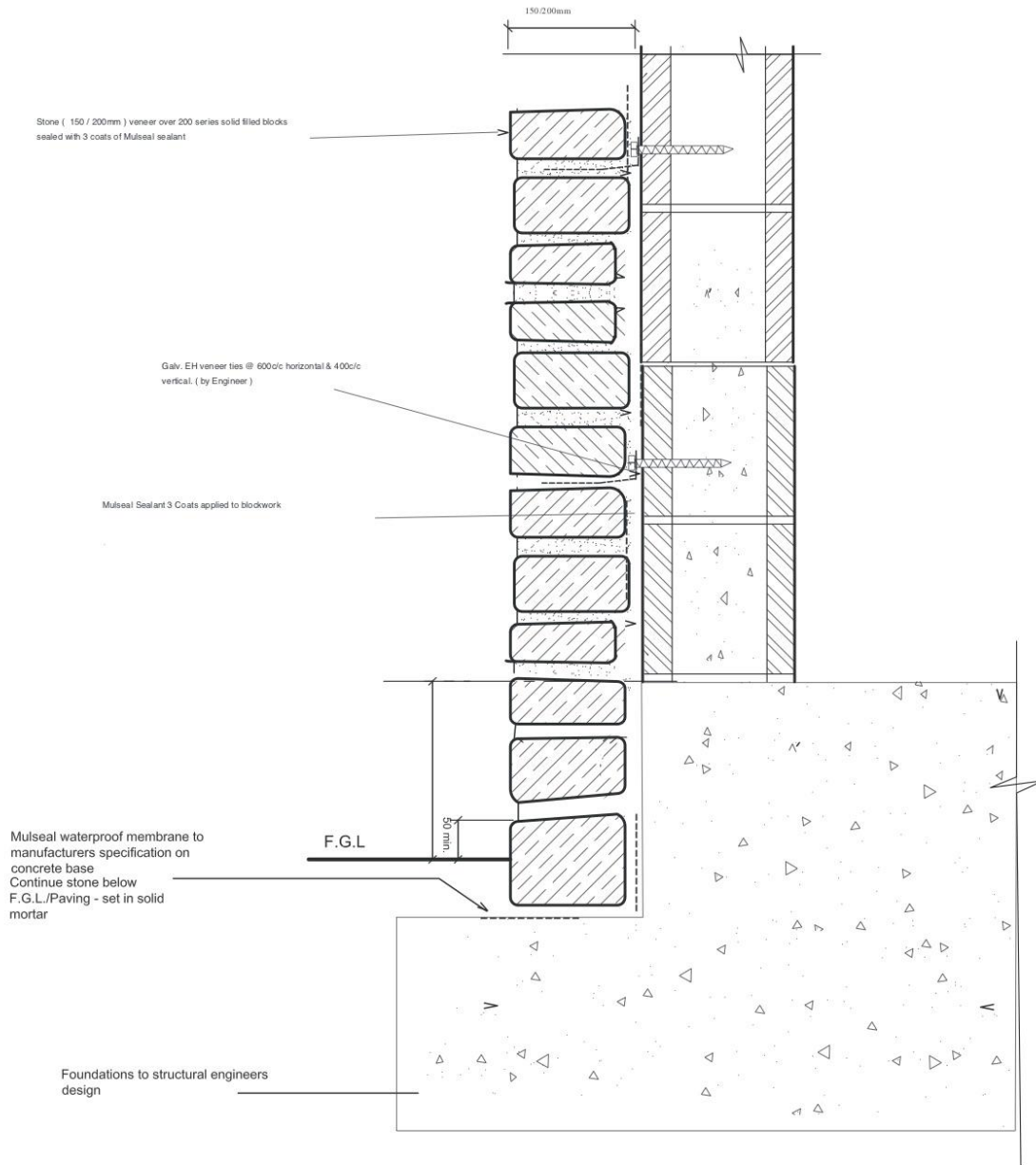
All details are guidelines and to be verified by Engineer

Rigid Stone Cladding Column Detail



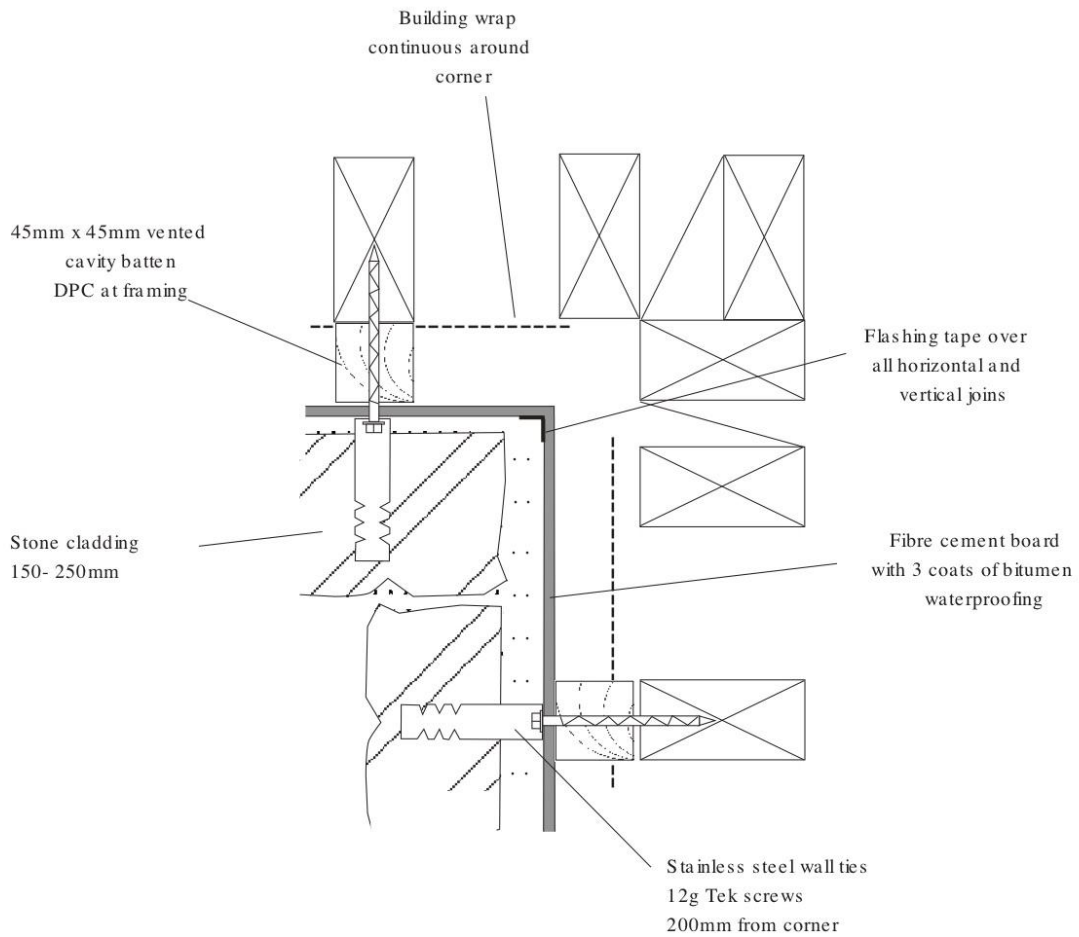
All details are guidelines and to be verified by Engineer

Rigid Fixed Block Stone Cladding System



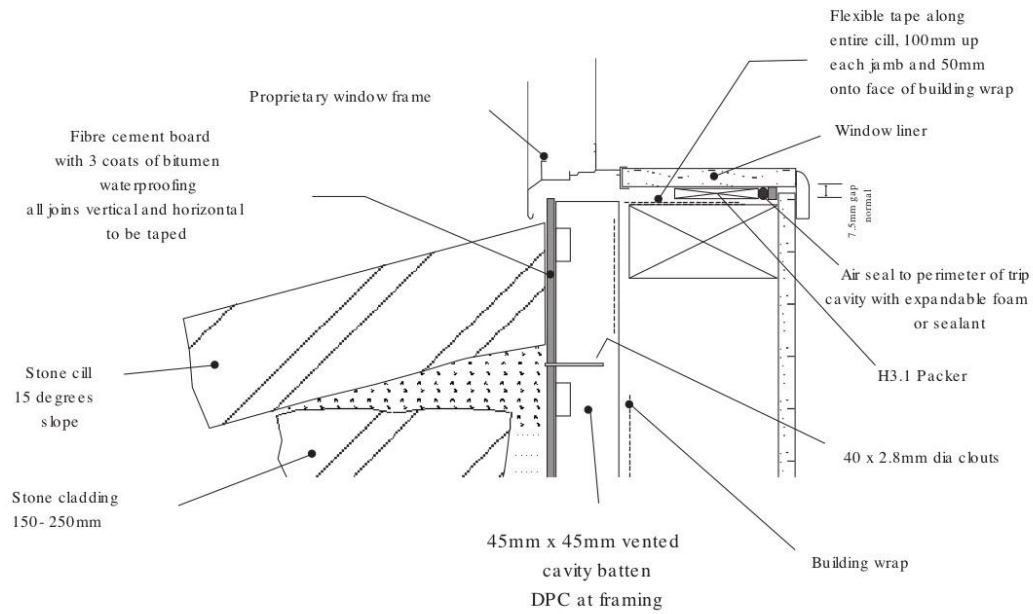
All details are guide lines and to be verified by Engineer

Internal corner connection

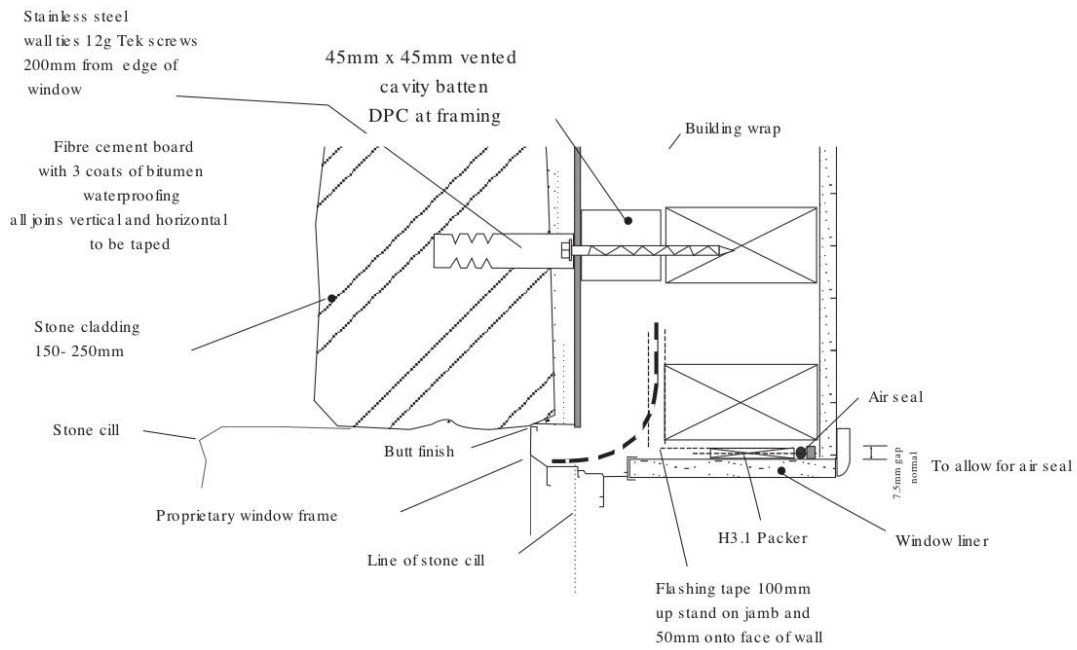


All details are guidelines and to be verified by Engineer

Window Cill Detail

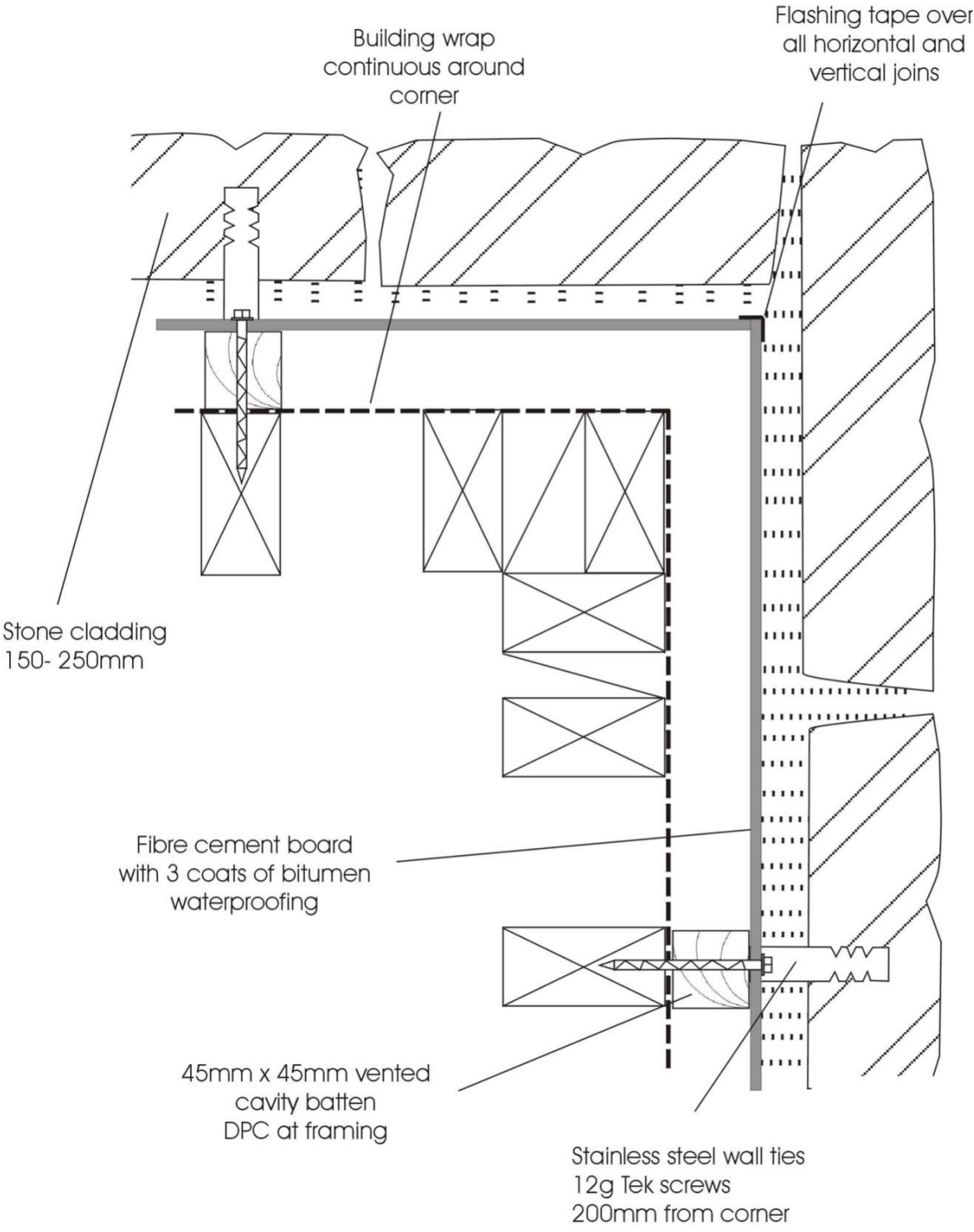


Window Jamb Detail



All details are guidelines and to be verified by Engineer

External corner connection



All details are guidelines and to be verified by Engineer