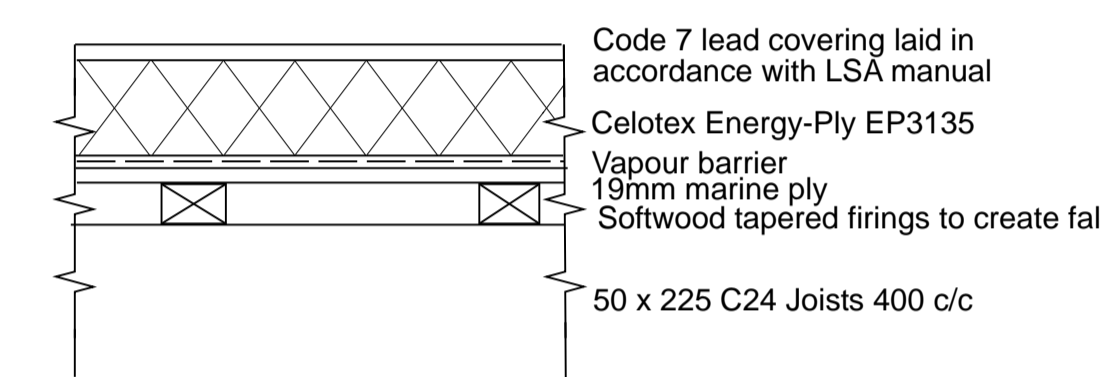
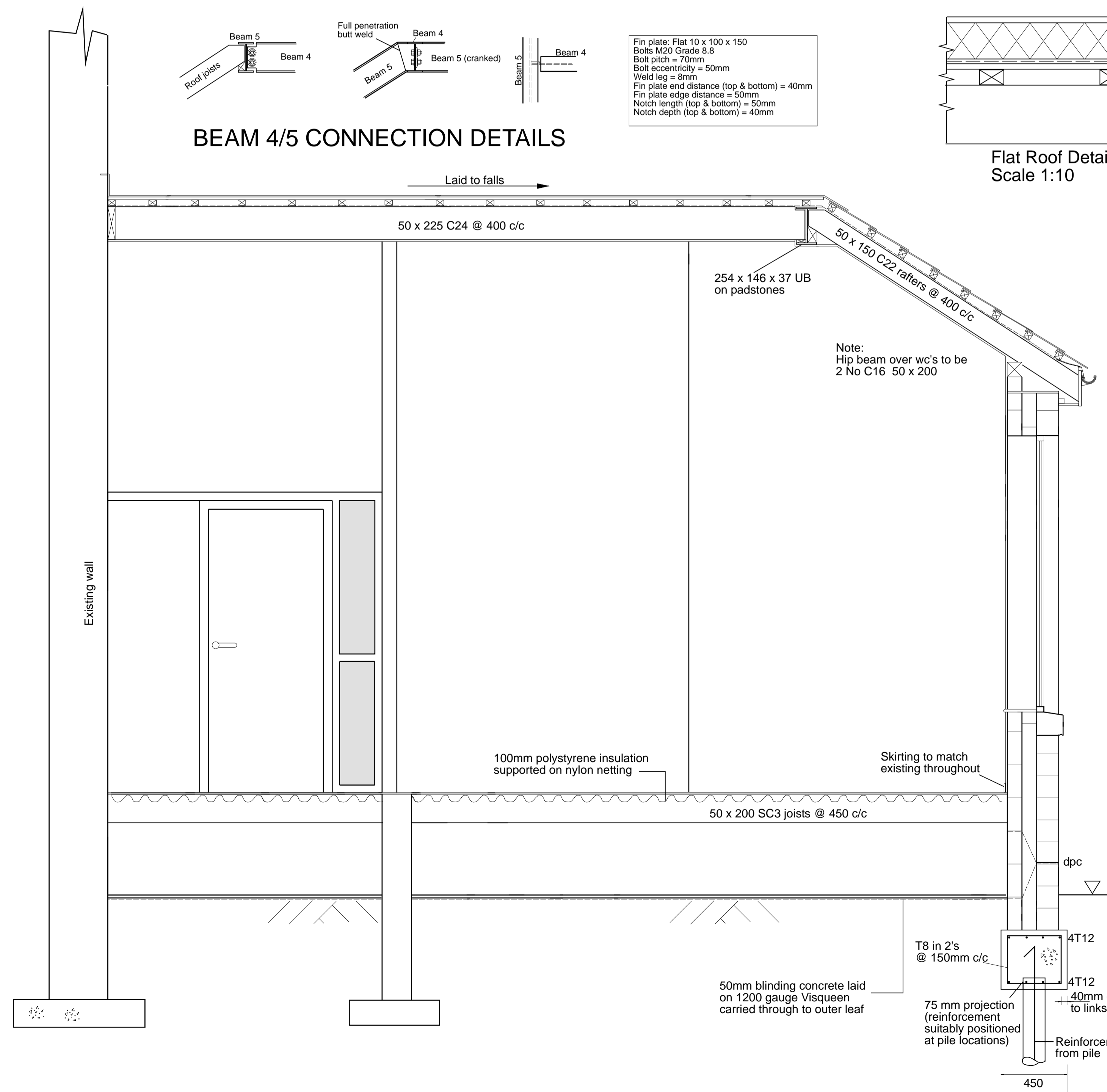
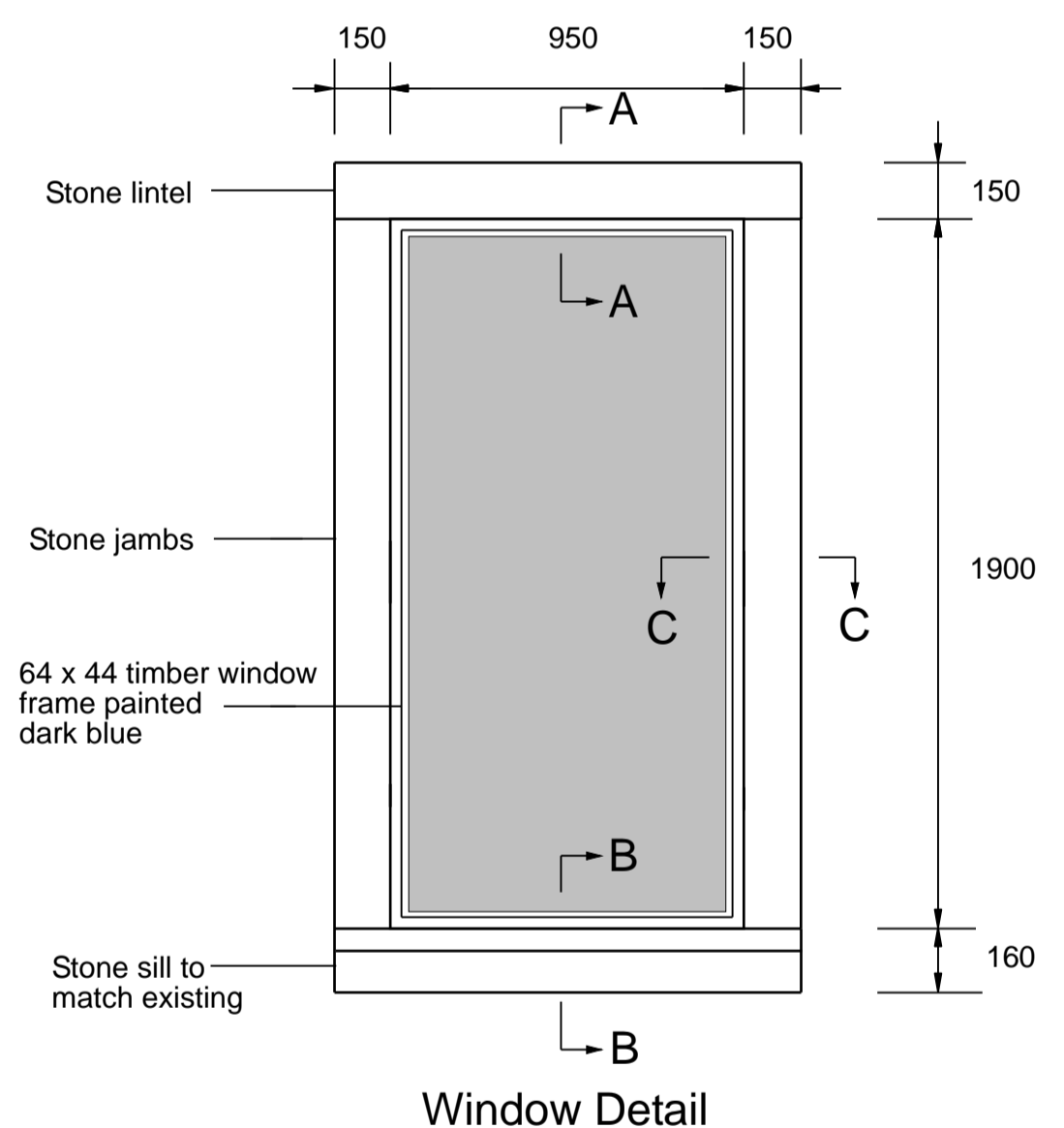


NTS

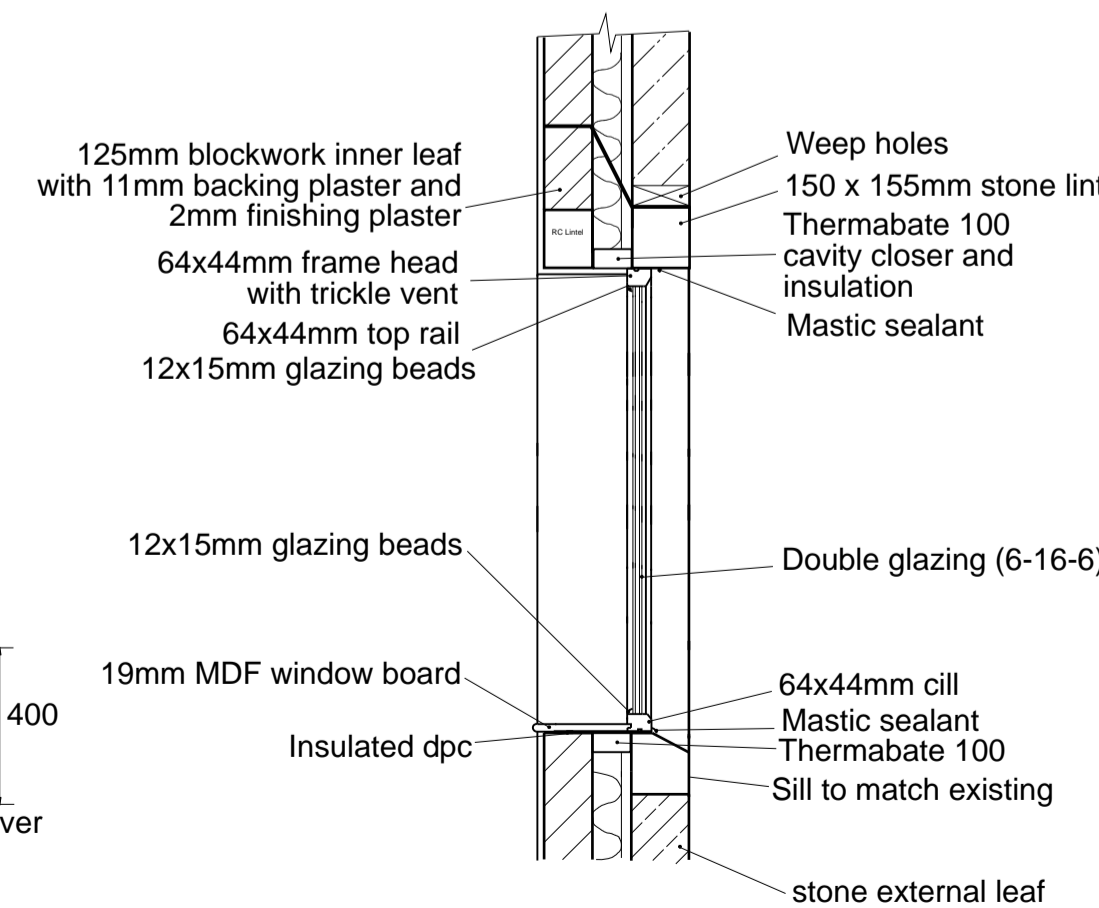
## BEAM 4/5 CONNECTION DETAILS



Flat Roof Detail  
Scale 1:10



Window Detail



Typical Window Section  
Scale 1:20  
(also see Drg 1010.11)

## BUILDING SPECIFICATION (also see General Specification and Electrical/mechanical Addendums)

**Foundations**  
Piles and ground beam as shown on the drawing. Cavity of external wall above to be filled with concrete and laid to a fall towards outer leaf. Proprietary weep holes to be inserted at 900mm c/c.

**External Walls**  
350mm thick cavity walls with stone outer leaf set in 1:1.6 cement/lime/sand mortar, sack rubbed pointed. Cavity to be nominally 100mm wide and part filled with 50mm Kingspan insulation, or similar approved, fixed to inner leaf with Ancon stainless steel wall ties 200mm long with AC heavy duty clips at 750mm horizontal and 450mm vertical centres, staggered at 300mm centres vertically at all reveals. Inner leaf to be 100mm thick blockwork. Minimum "U" value to be 0.3 W/m<sup>2</sup>K.  
All openings in masonry to have Thermabate insulated cavity closers on 3 sides to prevent thermal bridging. DPCs to be legitime 100mm on even mortar bed with all laps sealed.

**Internal walls**  
Stud walls to be 50 x 75 @ 600mm c/c with 12.5mm plasterboard each side and insulation except either side of sliding door where lining to be 9.5mm glued and screwed plywood on double stud as shown.

**Floors**  
Suspended timber joists as shown on the drawings overlaid with 22mm boarding.  
Floor joists to be fixed to walls with 5 x 30 restraint straps at 1800 c/c. Lateral restraint straps to be provided at 1800 c/c.

Void below ground to be ventilated with at least 150mm clear void between under side of floor joists and ground. Proprietary vents to be placed in side and rear walls to provide actual opening of the equivalent of 1500mm<sup>2</sup> for each metre run of wall.  
Insulation to be 85mm Kingspan Thermalfloor to achieve U value of 0.2w/m<sup>2</sup>K.  
**Ceilings**  
12.5mm plasterboard with taped joints  
**Windows**  
Hardwood frames to sizes shown on the drawings. All windows to be double glazed and to provide 1/20th of floor area in ventilation. Each window to have a proprietary trickle ventilation providing 8000mm<sup>2</sup> permanent ventilation. Any windows below 800mm above floor level to be fitted with toughened or laminated safety glazing in accordance with BS 6202:1981.

**Roof construction**  
500 x 250 x 8 natural slates on 38 x 25mm tanalised softwood battens on proprietary vapour permeable felt laid in accordance with the manufacturer's instructions.  
Rafters and purlins to BS 5628 as shown on the drawings. Diagonal and longitudinal bracing and binders to be 25 x 100mm treated softwood in accordance with BS 5268.

Roof to be insulated with 100mm thick cellotex between rafters and a further 40mm thick cellotex laid across rafters.  
Wall plates to be 100 x 75 treated softwood tied to cavity walls with galvanised steel straps being 1000mm long at 1800mm centres. Lateral restraint straps provided at 1800mm centres.  
Roof to be cross ventilated with minimum 50mm gaps, or proprietary system to the approval of the Building Inspector.

**Flat roof insulation notes:**  
Celotex Energy-Ply EP3135 insulation K-value 0.023W/m<sup>2</sup>K  
R-value 5.320m<sup>2</sup>K/W  
achieves U-value minimum 0.20W/m<sup>2</sup>K  
Data taken from manufactures technical notes on timber roof with 50mm wide joists at 400c/c and a 12.5mm plasterboard ceiling.

**DPC's**  
Insulated DPC's to be provided to jambs and cills of all external openings (Thermabate or approved).  
Provide Ledumite or similar DPC in outer and inner leaf min. 150mm above external ground.

**Insulation:**  
Window/door U values not to exceed 1.8w/m<sup>2</sup>K.  
Insulation to external walls to be 0.3w/m<sup>2</sup>K.  
Ground floor to be 0.2w/m<sup>2</sup>K.  
Roof to be 0.16w/m<sup>2</sup>K.  
All doors and windows to be draught stripped.

**Electrical** (also see electrical addendum to Specification):  
Efficient lighting to comply with L1B 2006 Edition.

All electrical work to comply with Part P of the Building Regulations and designed, installed and inspected by a person competent to do so, who will be required to issue an electrical installation certificate to BS 7671.

**Extract fans:** 3 No. in accordance with Building Regulations, wall mounted. Fan to be linked to light switch with 15 minute override and giving extract rate of 30l/s.

**External drainage**  
Pipes passing through new walls: intelled opening to be formed with 50mm space all round pipe, opening masked both sides to prevent entry of fill or vermin, void filled with compressible sealant to prevent entry of gas. Any pipe runs excavated below the level of existing foundations to be encased in concrete to Building Regs requirements. New RWP's to be connected to existing surface water drains.

**Internal Drainage**  
Wash hand basin: 40mm dia. trap with rodding point, 75mm depth of seal, tail of trap lengthened by 50mm before increasing dia. of pipe to 50mm discharge pipe. Falls between 18 and 44mm/m run. To connect to existing internal drainage system. Female VHB to have 50mm trap with anti-syphon. WC: 100mm dia trap, 50mm depth of seal, 65mm branch discharge pipe. Falls between 18mm and 90mm/m run.  
Rodding access facility to be provided to new soilwastes on change of direction or gradient.

**Doors:**  
Solid core flush doors, hardwood lipped, beech veneer. Door to have slimline overhead door closer, kick plate to both sides, D-line lever handles, floor mounted door stop, all brushed aluminium finish. Doors to finish 10mm from finished floor level to allow air intake into room. Allow for aluminium cover strip for junction between existing floor and new vinyl. Skirtings to match existing, for paint finish.  
D1: 926 x 2040 x 44  
D2 - D5: 813 x 2040 x 44  
D6 - D9: 762 x 2040 x 35  
**Sanitary ware**  
1 No Armitage Venesta doc M standard pack  
4 No wash basins (Armitage Venesta)

3 No. stainless steel recessed paper towel dispensers.  
3 No. stainless steel bins  
3 No. white plastic soap dispensers (Armitage Venesta)  
3 No vanity mirrors 500 x 500  
5 No toilet roll holders  
5 No hooks

Wash basins to have hot and cold water supply from existing system.  
2 tile high splash back, 100 x 100 tiles, to wash hand basins.

Pipes at floor level to be ducted throughout, fully accessible, with shelf cover with screws and cups with chromed dome covers.

**Radiators:** (See mechanical addendum to Specification)  
All new radiators and any altered or made accessible by the works to be provided with TRV's.

**Floor finishes:**  
**Toilet floors:**  
Polysafe heavy duty flexible vinyl sheet safety flooring, 2.5mm gauge. Installation to be carried out in accordance with BS 8203:1996 and instructions as detailed in the Polyfloor Technical Information Manual, including preparation of existing sub-floor as required. Vinyl sheet to be laid wall to wall with proprietary skirtings.  
**Hall and office floors:**  
Laminated timber flooring to match existing.

**Decoration**  
Walls: mist + 2 coats emulsion (colour to be advised).

Doors, architraves, frames, pipework boxing in - 2 coats gloss, one undercoat timber primed and knot sealed (colour to be advised)

Ironmongery to be contrasting colour to surroundings (brushed aluminium ironmongery contrasting with beech faced doors)

This document is designed for use in conjunction with the Building Act, Town and Country Planning Act and other relevant legislation. The information explained herein may also be subject to approval under the Building Regulations. All dimensions and any information contained herein must be checked for accuracy on site prior to commencement of any building works.

Rev A: Clarifications to specification and notes added 02/05/06  
Rev B: Clarifications to specification, flat roof joists sized, beam size changed 17/2/07

Date: February 2006  
Status: Tender  
Scale: 1:20 @ A1

Project: St Matthews Church, enhancements to existing extension  
Document: T - K 1010.07 Cross section A-A  
Rev: C

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