MyPlace Design

for you and how you live

Mr Tim Hudson		Date:	August 2023
		Our Ref: Version:	214
Description:	Proposed demolition and reconstruction of front facing and side first floor elevations and internal alterations to provide a first floor commercial unit.		
Location:	Cornish Locksmiths, 47a Market Jew Street, Penzance TR18 2HZ		

Building Regulation Specification

This document is to be read in conjunction with associated drawings as submitted with the Building Regulation application

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Building Regulation Details

PRELIMINARIES

General: Building Regulation notes have been prepared for Building Regulation and the information is intended to assist a competent building contractor with a working knowledge and familiarity with the construction techniques and practices to undertake and complete the works to the client's satisfaction. All dimensions and details should be verified on site by the contractor prior to commencement of works and any significant discrepancies that will affect the construction process should be reported to MyPlace Design.

Approvals: Compliance with any Local Authority Planning Permission and Building Regulation Approval conditions is to be carried out at required stages.

NOTE: The contractor must give the Building Control Body 48hours notice of commencement and thereafter, notices for stages of construction as requested by the Building Control Body.

Due regard shall be given, where applicable, to the requirements of the Construction (Design and Management) Regulations 2015 and all works to be carried out in accordance with current Health and Safety requirements.

CDM: Site Specific: It is recommended that the contractor visits the site before tendering to check local conditions and to identify any restrictions likely to affect the works such as;

- Overhead or buried services: the position of all relevant existing services that the proposed works will impact upon should be identified by liaising with the relevant utility providers and to ensure their protection from the works if necessary
- For high level working, a scaffolding is to be used where required and practical, otherwise a tower scaffold should be used with the appropriate guarding in place
- Where it is necessary for areas of structure to be removed, the contractor is to ensure that the remaining structure is suitably supported
- Asbestos Survey

Warranty Guarantee: requirements, will take precedent over this design specification.

Materials: All materials used within the project are to comply with appropriate British Standards, BBA and other recognised Certificates; alternatively, the materials should be marked and/or independently certified by test or calculation to show their suitability.

Timber:

Internal joinery to be generally softwood with paint finish. All timber to be free of large knots and shakes, all knots to be treated with knot stop preparation prior to painting.

All timbers used structurally shall be stress graded to C24 (SC4) unless otherwise noted. All such structural and external timbers should be Vac-Vac treated and where ends have been cut or built into masonry or other material, the ends shall be treated with preservative.

DEMOLITION AND SITE PREPARATION

Demolition: demolish and remove above ground walls as required during site clearance.

Demolitions:

- Carry out all demolitions, stripping out and site preparations as necessary to allow for construction of the proposed works
- Install suitable temporary structures/supports/propping as necessary
- Strip out all existing and redundant services as necessary to allow for proposed services installations
- Take care to protect existing services that are to remain and be re-used with newly adapted systems

Disconnection of Mains Services arranged by the contractor:

Arrange: with the appropriate authorities for disconnection of services and removal of fittings and equipment prior to starting demolition.

Possible Services: Water Main, Main Sewer, Telephone Lines, Electrical Mains Supply.

NOTE: Do Not Start Demolition Work until disconnections are complete.

For control of hazards:

- Ensure that the site is secure at all times
- If necessary, erect and maintain a perimeter fence to contain demolition material and debris
- Take necessary steps to minimise noise and dust
- Secure all loads
- Keep roads clear from site mud and debris
- Liaise with utility companies to determine location of underground services

Site Survey before Demolition: Before starting demolition work, examine available property details and if considered necessary undertake an Asbestos Survey.

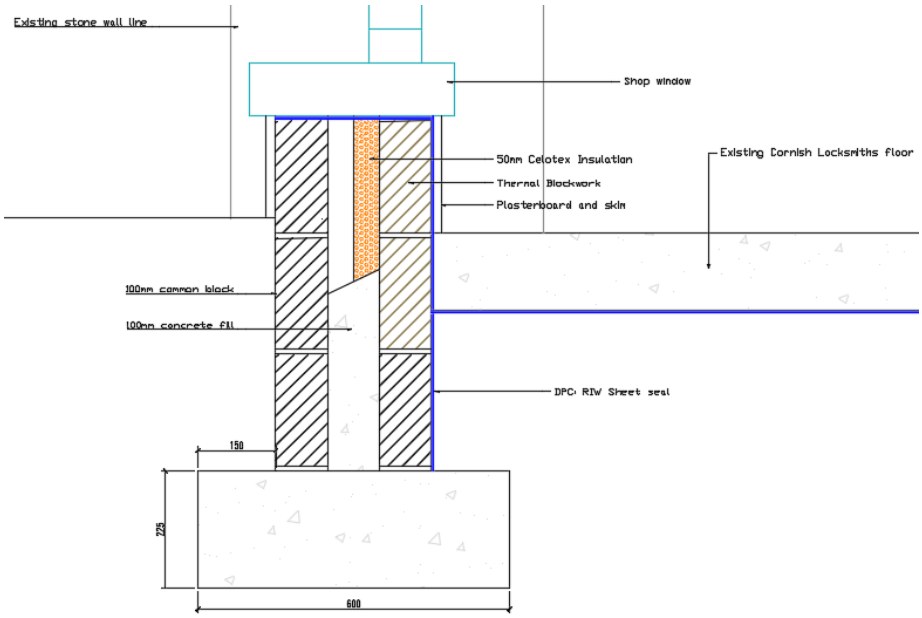
Location of Mains Services within the site area:

Known: mains sewer and water connection pipelines to be confirmed on site.

Identification of services: locate and mark the positions of known mains services affected by the works.

FOUNDATIONS AND SUBSTRUCTURE

Foundation excavation: To suitable load bearing strata depth taking into account original ground levels, drainage trenches and proximity of trees/hedges BUT in no case should the excavation be less than 750mm below finished ground level – excavation to be agreed by the Building Control Surveyor.



In general;

- 600mm x 225mm C30 concrete strip footings
- Or to Structural Engineers specific design details

Maintenance of trenches: keep all trenches from water allowing for pumping out if necessary, with sump pit/s.

NOTE: should the excavation reveal adverse or unusual ground conditions then the advice of a Structural Engineer or Mining Engineer should be sought

Existing foundations: where supporting additional loads to be checked by Structural Engineer for suitability.

Structural Engineer Details: builder to follow Structural Engineer details at all times and these details shall take precedence over MyPlace Design general foundation and sub-structure design where applicable.

DPC – DPM

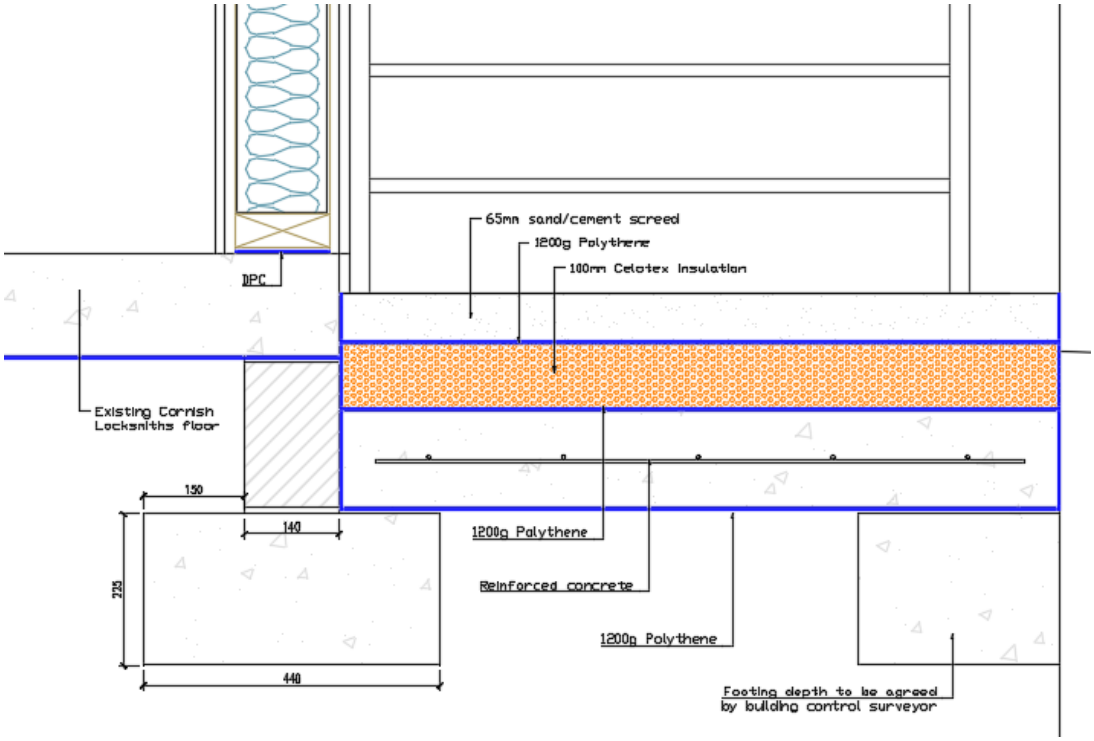
DPC's: in general: to be Ruberoid Hyload or similar bituminous based felt DPC to BS: 6398

- **Horizontal:** to be 150mm min above adjacent ground level and stepped to suit topography of the site.
- **Abutments:** stepped cavity tray with Code 4 lead flashing
- **Windows**:
    - DPC Trays over windows: to be proprietary flexible PVC-U type and carried up over lintels and onto internal blockwork skin
    - Lead Tray under windows

General Lead work:

- Supply and fix Code 4 lead apron flashings under windowsill with min 150mm cover over tiles
- Code 4/5 lead flashing at abutment of roof tiles and plain tile hanging
- All lead work to be in accordance with BS1178

DPM:



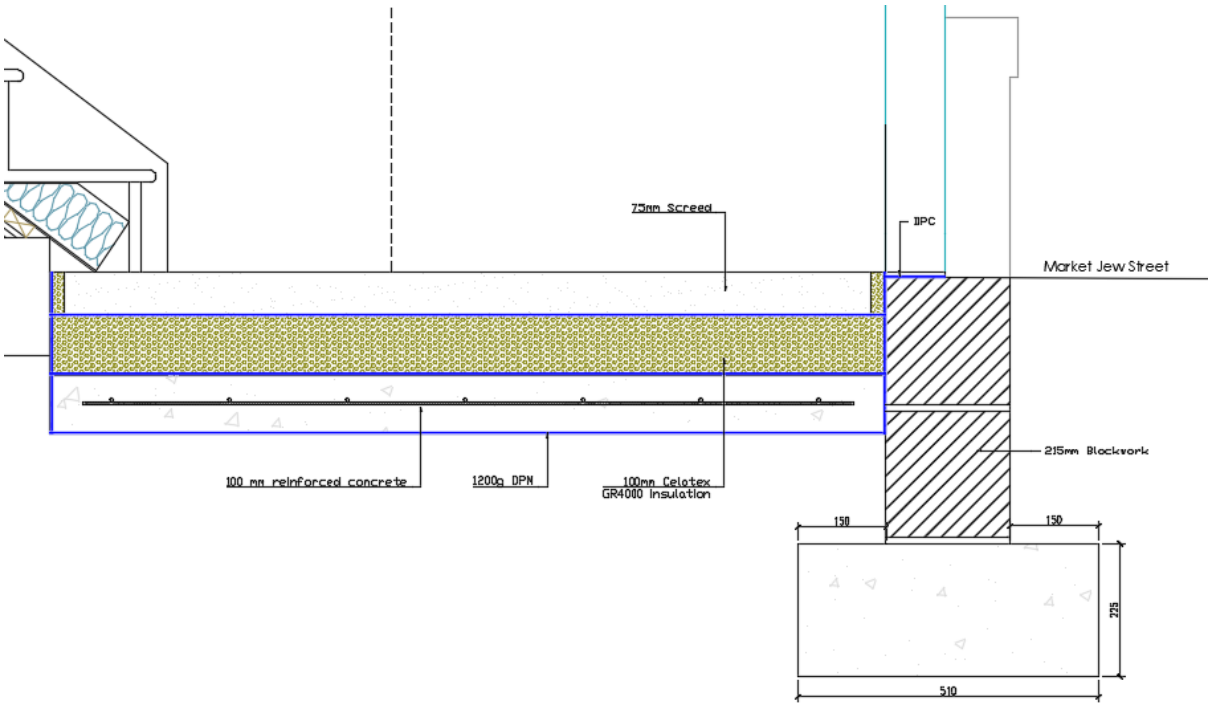
STAIR ENTRANCE FLOOR – (U-value 0.18 W/m²K)

Screed: Concrete Ground Bearing Slab: minimum '75mm sand and cement screed with 25mm PIR insulation around external wall perimeter' or '22mm moisture resistant chipboard' on 500G polythene membrane on 100mm Celotex GA4000 insulation, on 150mm concrete slab over site (to incorporate A142 mesh reinforcement across all concrete slab with 50mm edge cover) on 1200g Radon Barrier on sand blinding on minimum of 150mm compacted hardcore – additional hardcore depth to be compacted in layers of no more than 150mm.

Insulation: Ground Floor: 100mm Celotex GR4000 with 75mm screed = U-value 0.18 W/m²k

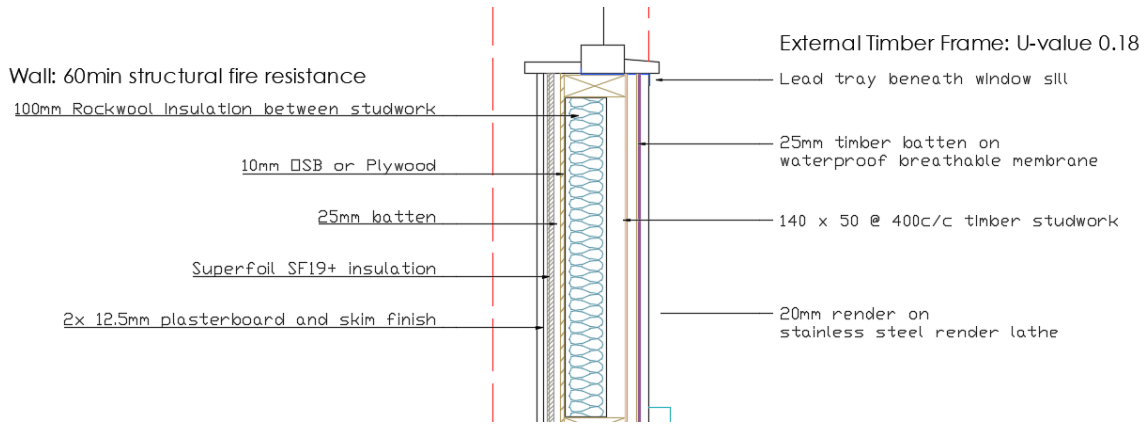
Chipboard: Concrete Ground Bearing Slab: 22mm moisture resistant T&G chipboard on 500G polythene membrane on 100mm Celotex GR4000 insulation on 150mm reinforced concrete slab over site (to incorporate A142 mesh reinforcement across all concrete slab with 50mm edge cover) on Radon Barrier on sand blinding on minimum of 150mm compacted hardcore – additional hardcore depth to be compacted in layers of no more than 150mm.

Insulation: Ground Floor: 100mm Celotex GR4000 with 22mm chipboard = U-value 0.18 W/m2k



EXTERNAL WALLS

Timber Frame – (U-value 0.18 W/m²K)



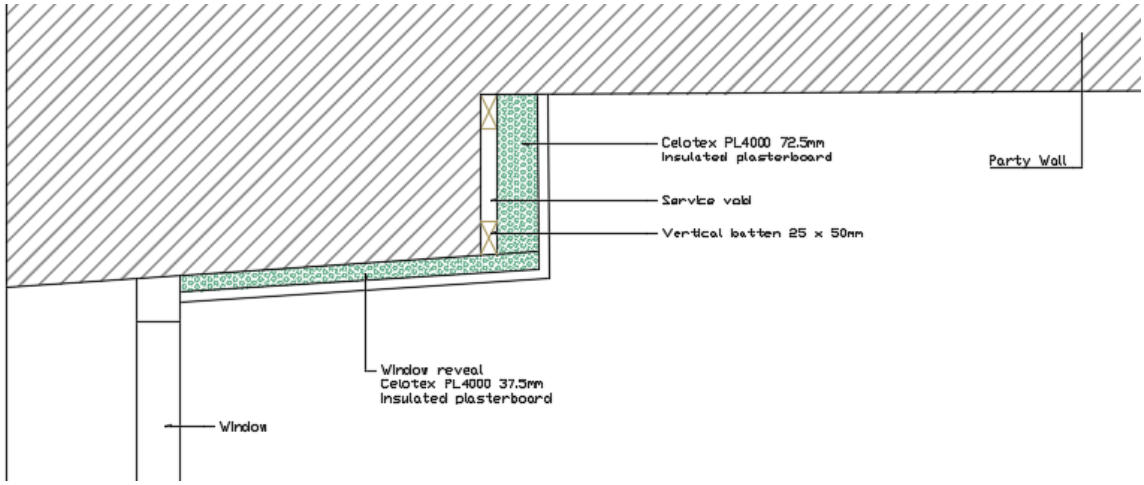
Timber Frame External Walls:

First floor external wall to be constructed of;

- 2-coat render on stainless steel mesh reinforcement, on
- 25mm vertical treated battens, on
- waterproof breathable membrane, on
- 50mm x 140mm studwork with 100mm Rockwool between studs
- 25mm vertical batten
- Superfoil SF19+ multi foil quilt and clad internally with 12.5mm plasterboard and skim finish

Note: Install all structural elements to Structural Engineers details which will take precedence over MyPlace Design details and information.

Thermal Upgrade to Existing 1st floor external wall – (U-value 0.29 W/m²K)

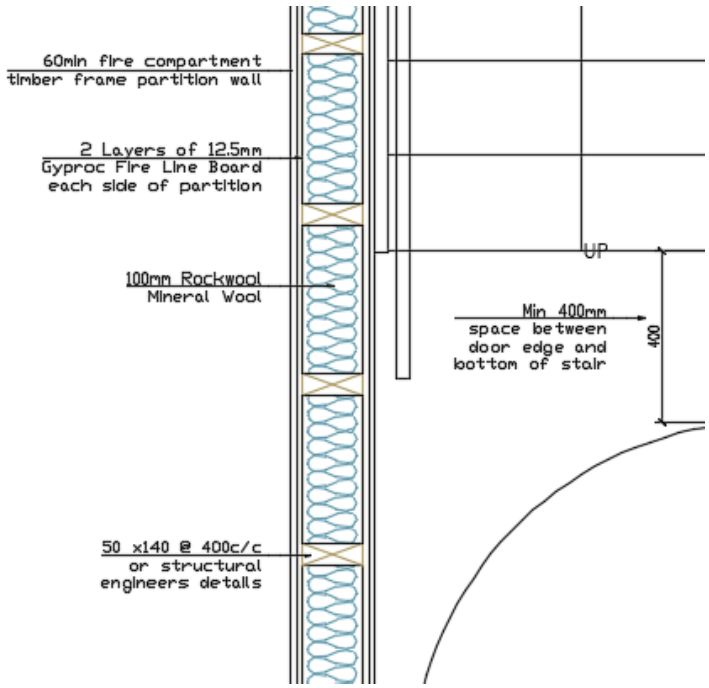


INTERNAL WALLS

Standard Non-Loadbearing Internal Timber Partitions: are to be 100mm x 50mm sw studs @ 400mm c/c with 1 layer of 12.5mm plasterboard each side and skim finished.

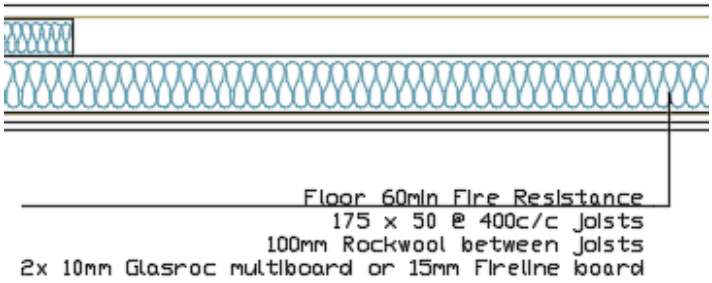
Allow for 100mm Rockwool acoustic insulation between studwork.

Compartment Wall: separating stair from Cornish Locksmiths



FIRST FLOOR STRUCTURE

Compartment Wall: separating First Floor from Ground Floor Cornish Locksmiths

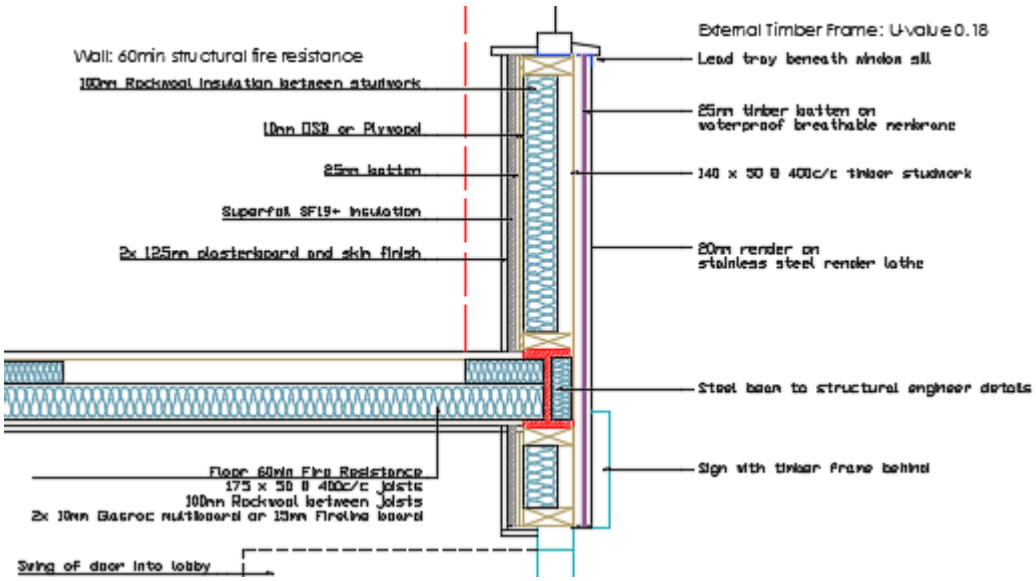


LINTELS, BEAMS & POSTS (Structural engineer details to override MyPlace Design details)

Steel Beams and Posts: supply and install all structural elements in accordance with the Structural Engineer calculations and details.

- **External Steelwork protection from moisture:** 2no coats of RIW Bituminous Paint to be applied to all steelwork, and encased in concrete below ground
- **Internal Steelwork:** to be clad in 2 layers of 10mm Glasroc Multiboard ‘or’ 15mm Firline board to provide 60min fire resistance
- Where blockwork walls to support steel beams, build walls in 7N blockwork or to Structural Engineers detail

BEAM DETAIL



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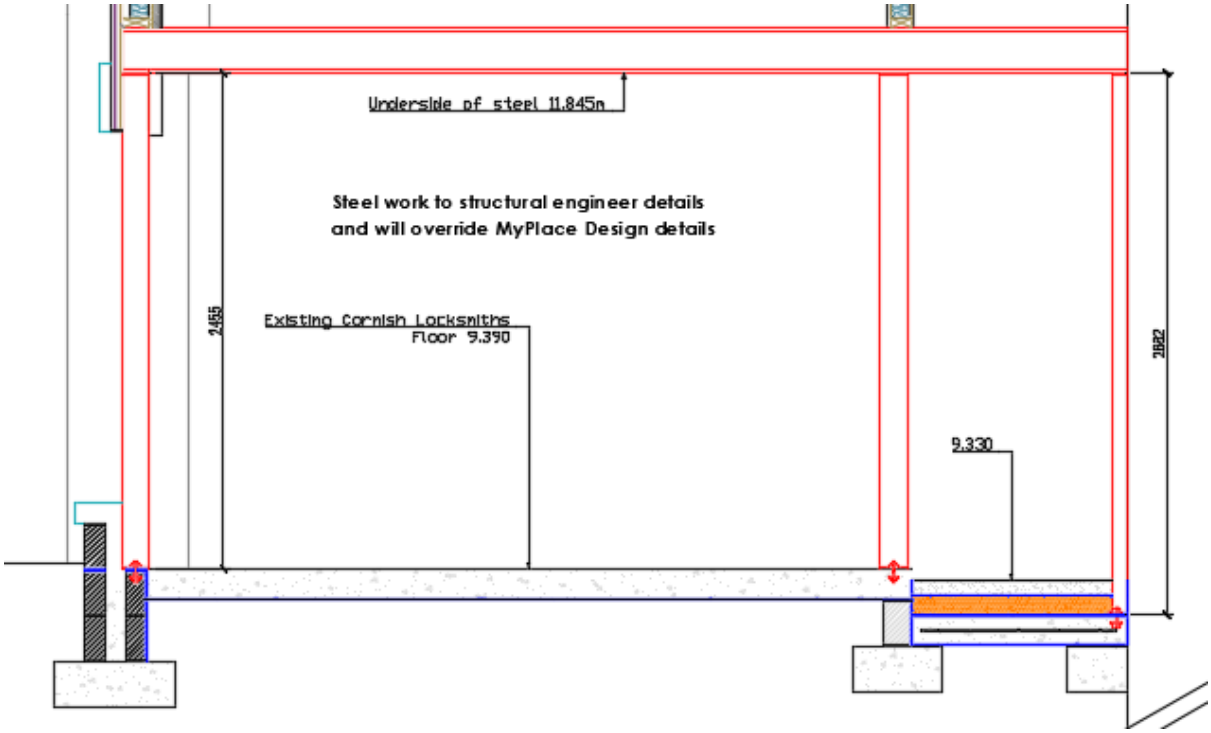
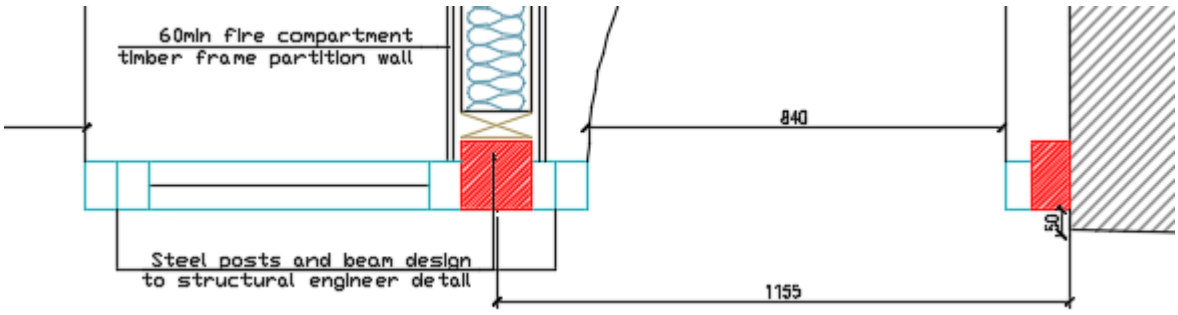
POST DETAIL – see structural engineer details



Door entrance Posts – see structural engineer details

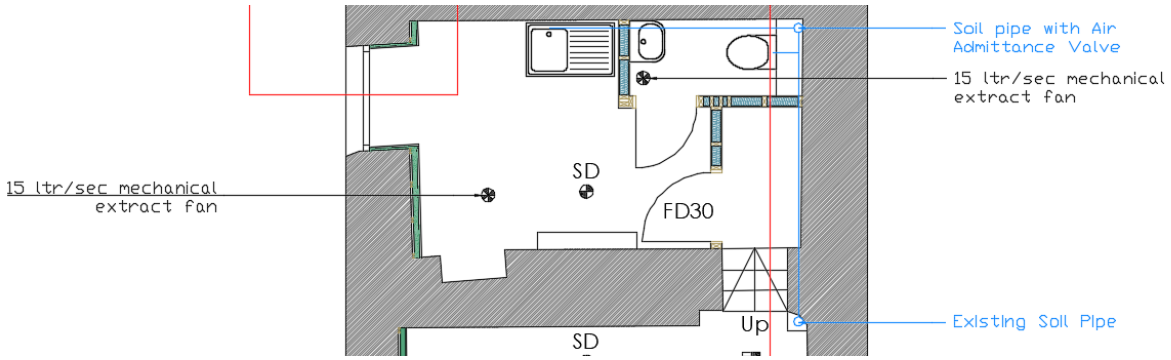


VENTILATION

Windows: to be fitted with trickle vents; min 8000mm^2 for a habitable room and 5000mm^2 for wet rooms.

Mechanical Extract Fans: should be tested after installation in accordance with EN 13141 and a copy of results provided to the Building Control Body.

- Cloakrooms with no external window: 6 l/sec and linked to light switch with 15 min over run.
- Kitchen: 60 L/sec or Cooker Hood extraction at 30 L/sec

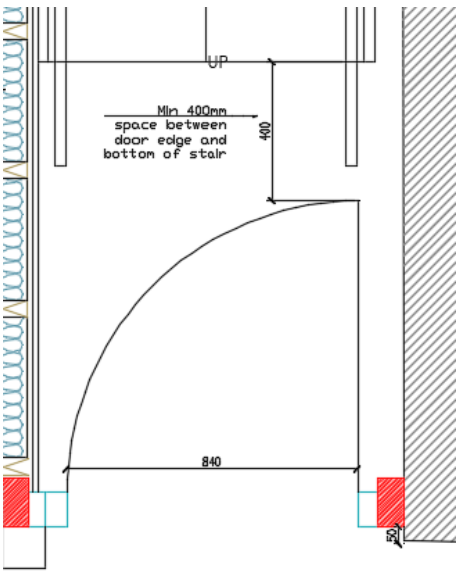


Roof Ventilation: Proctor Roofshield 'or similar' Air and Vapour Permeable Pitched Roof Underlay.

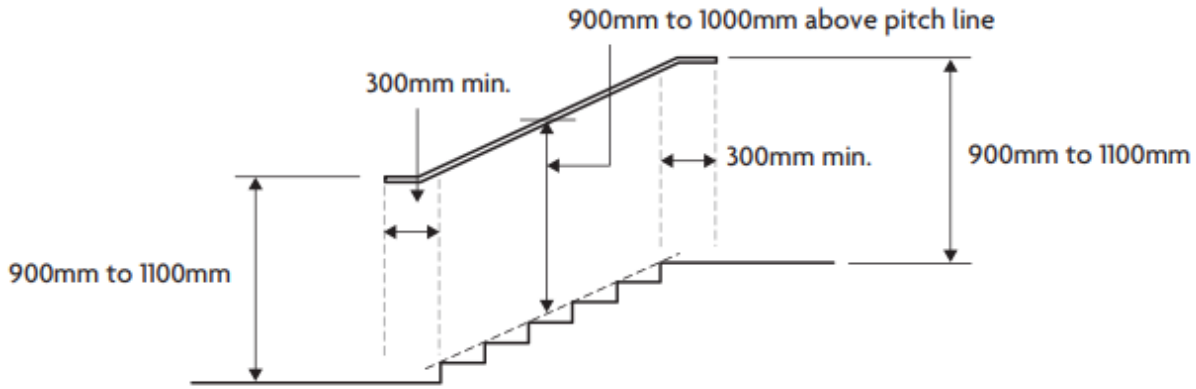
STAIRS

Replacement General Access Stair

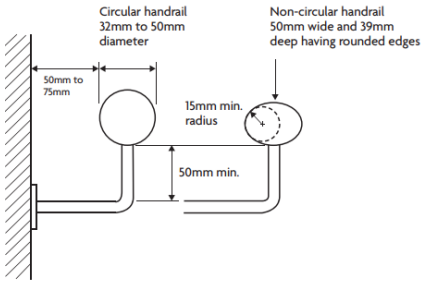
- Stair case to be manufactured by specialist company
- Min Going 250mm and Max Going 400mm
- Min Rise 170mm and Max Rise 170mm
- Tread nosing's to be a Max of 25mm overlap
- Tread nosing's to be apparent by use of a visually contrasting material to a minimum of 55mm wide
- Handrails and internal protective balustrade to be 900mm above pitch line of stairs and finished floor level
- Handrails to project 300mm past bottom tread as shown opposite and 300mm past top tread on party wall

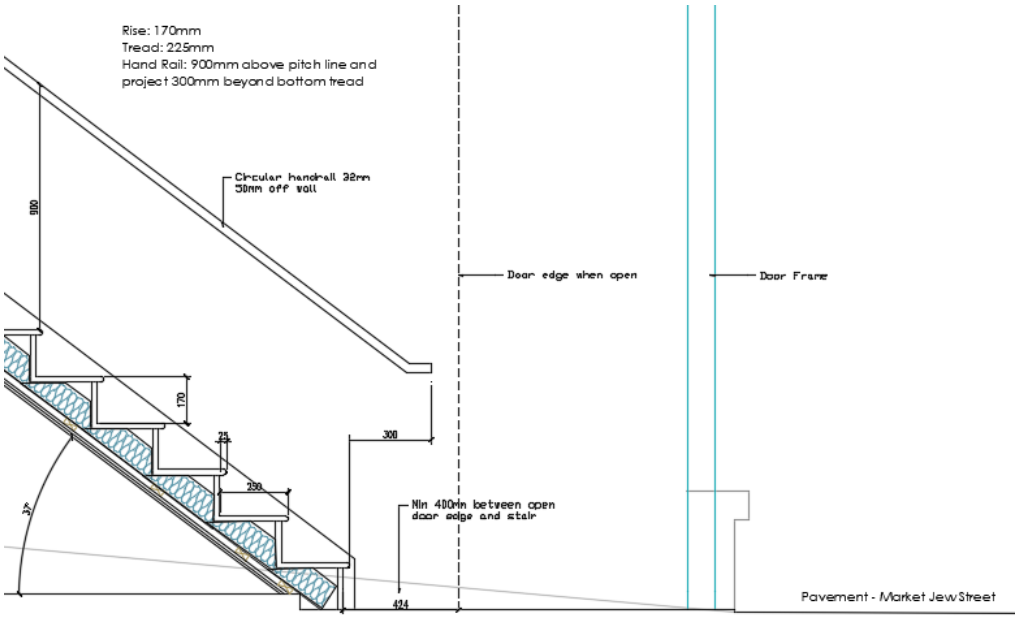


- Landing/s and protection around top of stair to have protective balustrade
- 2000mm headroom to be maintained over pitch line of stair
- At bottom of stair, the door between dining room and hallway should not open to within 400mm of bottom of stair to achieve a protected bottom of stair landing area



Handrail Design





WINDOWS, DOORS, GLAZING & SECURITY

Replacement Shop Front Glazing: to be toughened or laminated glass complying with BS.6206 or BS EN12600.

Manifestation of glazing:

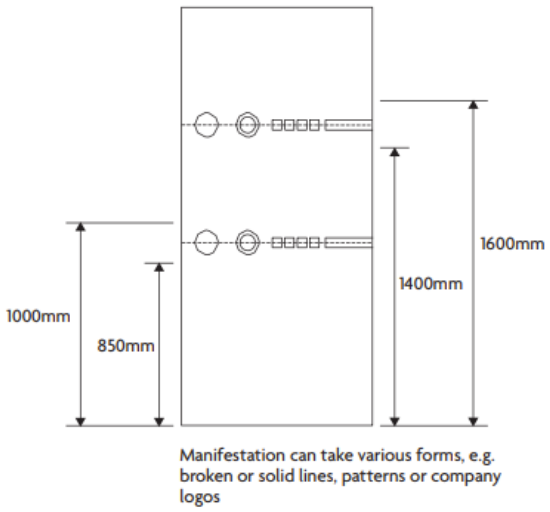


Diagram 7.2 Height of manifestation for glass doors and glazed screens

New Windows: to be double glazed with low E soft-coated glass (U-value = 1.4 W/m2k or WER band C or better).

- Windows to have a maximum U-value of 1.4 W/m^2k
- Glass within 800mm of the floor and within 1500mm high and 300mm wider than the door opening to be safety glass complying with BS.6206 or BS EN12600.
- New windows and doors to be positioned with min of 30mm overlap of vertical DPC and sealed with mastic to all joints with walls.
- Thermal Cavity Closer around frame.
- To be installed with 25mm checked rebate (severe exposure zone 4)
- Draught Strips: all external windows and doors to be fitted with draught strips.

Security: reasonable provision must be made to restrict unauthorised access

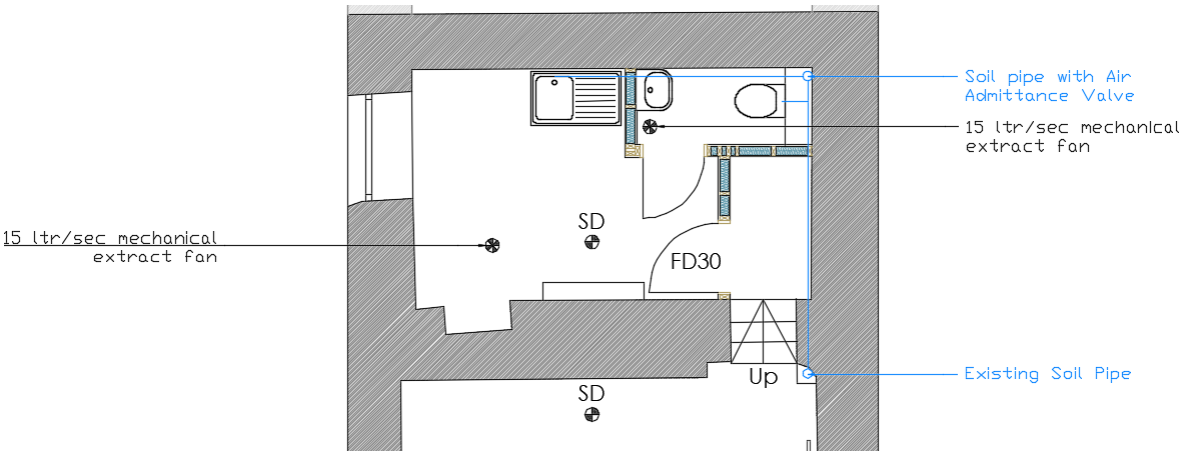
Design of secure door-sets and windows:

- Doors locking and security: 5point locking mechanism required
- Secure door-sets and windows: should be designed and manufactured to a PAS 24:2012 design
- Letter Plates: maximum aperture of 260mm x 40mm and incorporating a flap to restrict access

DRAINAGE

Existing Foul Water drainage and water services to be used

- **Un-Ventilated Pipes:** stub stacks should be fitted with an Air Admittance Valve



Rainwater Goods

- 100mm diameter gutters and 75mm to discharge to OSMA gulley through 110mm underground drainage pipe discharging to combined system as existing

PLUMBING & WATER USAGE SERVICES

Hot and Cold, water supplies: if being carried out and completed in copper pipe work, use capillary joints using lead free solder.

Hot Water: to eliminate the risk of scalding for sinks, wash basins, bath and showers and tap providing hot water should be supplied with an in-line mixing valve to restrict the maximum temperature to; 43C shower, sink and wash basins and 46C bath

TRAPS: to be fully accessible and to have min sizes of seal depths as below;

APPLIANCE	DIA of TRAP	DEPTH of SEAL
WC	100	50
WHB	32	75
SINK	40	75

INSULATION SUMMARY

Part L1: Standards for new and change of use thermal elements

Element	Standard W/m²k	Project element W/m²k
Timber Frame External Wall	0.26	0.18
Existing External Wall Upgrade		0.29
Roof	0.16	0.15
Floor	0.18	0.18
Windows	1.4	1.4

FIRE PRECAUTIONS

FD30 Fire Doors: Door sets to have intumescent smoke strips built in and any glazing in door openings to be 30min fire resisting Pyron glass or similar.

Smoke Detection: identified as SD on plans

- Provide mains supply interlinked smoke detectors fitted in accordance with recommendations of BS5839:Pt6 and BS5446:Pt1
- Smoke detectors generally optical type in circulation areas
- All detectors to be interconnected on a separate circuit and permanently wired to a separate fused circuit at the distribution board
- Detector devices should be fitted with battery back-up and positioned min 300mm from walls and ceiling fittings

Emergency Lighting: identified as EL on plans

- Provide 'mains supply' emergency lighting in accordance with BS 5266-1
- Installed on a separate circuit to a separate fused circuit at the distribution board
- Emergency Lighting to illuminate stair escape route area
- Fire Performance Cable: PH 30 classification

HEATING AND HOT WATER

Electric: Heating and hot water appliances to be electric and to client's specification.

Hot Water: to eliminate the risk of scalding for sinks, hot water should be supplied with an in-line mixing valve to restrict the maximum temperature to 43C.

WASTE STORAGE: existing storage available

In general: an area no smaller than 1.2m^2 to be provided for the bin storage and away from windows and ventilators.

ELECTRICAL INSTALLATION

- All electrical work to comply with 'Electricity at Work Regulations 1989 and BS7671'
- **Commercial electrical safety certificate for commercial premises:** and to be designed, installed, inspected and tested by an P accredited person who will provide an electrical installation certificate.
- New internal light fittings are to be of an energy efficient type with a luminous efficacy of 45 lumens per circuit-Watt.
- Down lighters within sloping ceilings should be installed as detailed below.

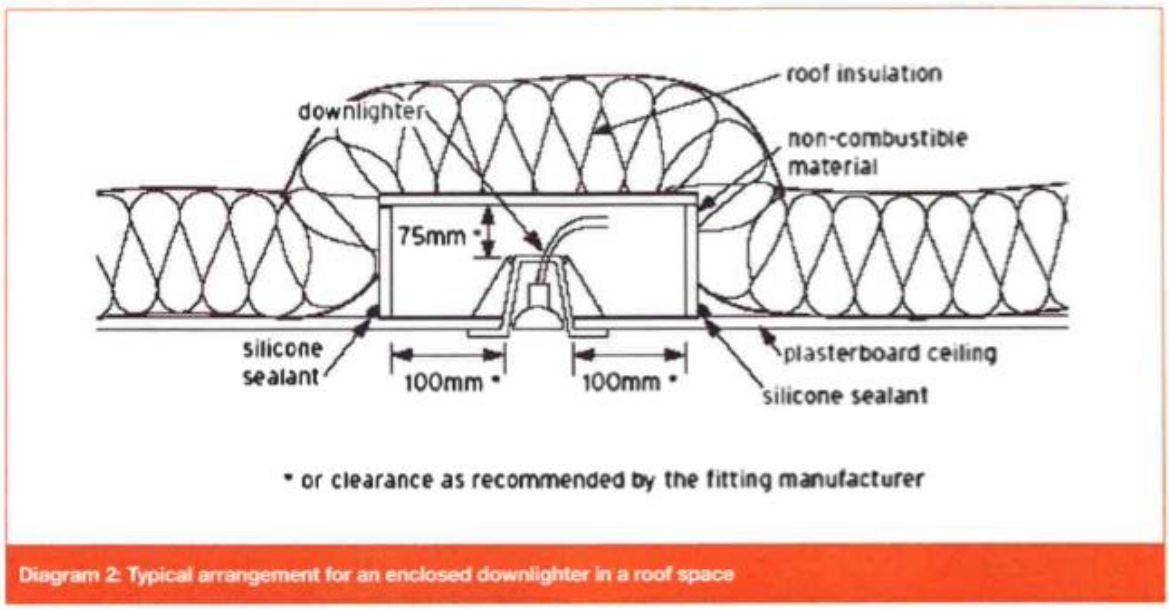


Diagram 2: Typical arrangement for an enclosed downlighter in a roof space

- All switches and sockets for lighting and other equipment in habitable rooms to be between 450mm and 1200mm above ground level.

- Consumer Unit/s are to be mounted so that switches are between 1350-1450mm above floor level.

External Lighting: any shall be automatically extinguished when there is enough daylight and/or not required at night. Lamps to be fitted with bulbs having an efficacy of greater than 40 lumens per circuit watt such as florescent or compact fluorescent bulb types.

Note: security lighting shall have a maximum of 150W and supplied with a daylight cut-off sensor.

Electrical Communications 'Part R': provide in-building physical infrastructure from the service providers access point to the occupier's network termination to comply with Part R.

CERTIFICATES AT COMPLETION

Upon Completion of Work: the following reports of work will be required to demonstrate that the appropriate site inspections have been carried out and that the building complies with the requirements of the Building Regulations.

- Building Control Body - Completion Certificate
- Commercial Electrical Test Certificate for;
    - Electrical installation
    - Fire Detection and Alarm System
    - Emergency Lighting
- Commercial EPC
- Building Warranty Guarantee Certificate (if required by client)

GENERAL CONTRACTOR RESPONSIBILITIES

- Site security: maintaining security of the working area both during and outside of working hours.
- Planning Permission and Building Regulation approved drawings: design drawings, levels and conditions to which plans have been approved shall be strictly adhered to
- Precautions measures should be taken to avoid danger to health and safety caused by building operations, working practices and substances being used
    - All materials to be fixed in accordance with manufacturer's instructions
    - NOTE: The Construction (Design & Management) Regulations 2015 (CDM) may apply to this project (if unsure contact the Health & Safety Executive)
- Should the works involve the alteration of Gas, Electrical and Telecom service, any necessary notifications shall be made by the builder/contractor
- Positions and depths of existing foul and surface water drains affecting the proposal to be determined before work commences, and the builder/contractor is to allow for routing of services and provision for access
- The design drawings and specification detail have been prepared under the supervision and instruction of the property owner and offered to the builder on general construction techniques and methods for satisfying the requirements of the Building Regulations 2010 'as amended' in relation to the proposed works
- These drawings are to be read in conjunction with any Architectural and Structural Engineers details supplied and any major discrepancies should be brought to the notice of the relevant designer
- The builder will be ultimately responsible for ensuring that the works are carried out using certified materials and good workmanship in strict accordance with current Building Regulations, current codes of practice and allied legislation
- Notifications shall be submitted to the Building Control Body at Commencement and Completion, and other relevant inspections as requested by the building inspector shall not be covered until the inspection has been carried out and approved by the building control surveyor
- The builder/contractor is advised to check all dimensions and levels prior to the commencement of work and satisfy themselves that they are correct, and no responsibility will be accepted for any loss consequent on the failure to do so
- A condition survey of the site has not been requested or carried out and these proposals are not intended to indicate that the existing structure/building is free from defect
- The contractor is to regularly clear away all rubbish and debris from the site and common areas
- On completion of the works, the contractor shall thoroughly wash down and clean all glass, floor coverings, walls, other surfaces and other fixtures and fittings within the working areas and any areas affected outside of the working area to the reasonable satisfaction of the client