Electrical Works

Electrical - All electrical work is to comply with Approved Document P (Electrical Safety - Dwellings) (2013 edition) and BS7671: The Requirements for Electrical Installations 18th [or current] Edition (incorporating all amendments as published by the Institution of Electrical Installations.

The connection to the electrical supply shall be in accordance with the requirements of the Supply Authority. Prior to completion of the works the Contractor shall satisfy the Local Authority Building Control Department that either:

a.) An electrical installation certificate issued under a competent person scheme has been issued or

b.) An appropriate electrical installation certificate has been issued for the work and that it has been signed by a person competent to do so (A Registered Electrician with NICEIC or IEE).

All wall mounted sockets and switches provided in newly constructed areas shall be located between a minimum of 450mm and a maximum of 1200mm above finished floor level and not within 300mm of internal corners in accordance with diagram 29 of Approved Document M (Access to and use of buildings) (2004 edition incorporating 2010 amendments).

All consumer units in new dwellings shall be located where they are accessible with all breaker switches mounted at a height of between 1350 and 1450mm above floor level.

The following minimum number of 13 amp power outlets should be installed to each dwelling in each relevant room as follows: -

Kitchen / Utility / Living / Family room - 8 no

Dining room / additional bedrooms- 4 no

Main bedroom - 6 no

Landing - 2 no

Hall - 2 no

In the Kitchen / Utility at least 3 of the outlets should be for general use and the others for appliance positions.

In the Living / Family Room at least 2 no outlets should be positioned near to the coaxial aerial socket.

Supplementary earth bonding to be installed in the following rooms - Kitchen / Utility / Bathroom / En-Suite or Washroom where metal waste pipes or plastic or metal water supply pipes are used in installation: -

All metal waste, metal central heating pipes, metal baths and metal shower basins within the zones should all be earth bonded using earth clamps incorporating a "Safety Electrical Connection" to BS 951:2009.

All power and lighting within the zones should be earth bonded to the nearest earth terminal of a switch or accessory.

Lighting

All lighting shall be low energy lighting and may consist of compact fluorescent, LED, Halogen in various light formats. Low energy fittings to have lamps with a luminous efficacy of all fixed lighting should be 80 lm/W. Fixed lighting capacity (lm) should achieve [185 x total floor area].

Each room should be fitted with at least one fixed light fitting, rooms greater than 25m^2 should be fitted with two fixed light fittings. Halls, Landings and Staircases should be all fitted with two-way switching.

Passive infrared (PIR) sensors may be used in common and external areas and including a photocell so they only operate at night / low light settings.

Carbon Monoxide Detection: -

A new carbon monoxide detector should be installed in accordance with the manufacturers requirements and in accordance with the Smoke and Carbon Monoxide Alarm (Amendment) Regulations 2022 and tested to meet the requirements of EN 50291-1:2018, for all rental and private domestic properties. The detectors should be located in every room containing a fixed combustion appliance excluding gas cookers.

The smoke and CO alarms must comply with BS EN 14604 (Smoke) and EN 50291_1 (CO) and carry a British or European approval mark, such as a Kitemark.

Continuous Mechanical Ventilation with Heat Recovery (MVHR)

House to be ventilated by whole house mechanical ventilation system designed by specialists. Refer to M&E engineer's documentation for all details.

System to deliver min extract vent rates as follows:

Kitchen = 13 l/sec, utility room = 8 l/sec, bathroom = 8 l/sec, sanitary accommodation (WC) = 6 l/sec

A minimum supply rate of 0.3 l/sec per m^2 of floor area or the min defined supply vent rate defined by number of bedrooms under Approved Document Part F Table 1.3.

MVHR should be provided to any single exposed façade property, properties where windows cannot be opened for purge ventilation or fitted with background ventilation due to external air conditions and properties designed with a high level of air tightness.

Domestic hot water systems should be designed by specialists and sized for the anticipated hot water demand of the dwelling based on BS EN 12831-3:2017.

All hot water storage should be at a temperature of at least 60 Deg C to combat risk of Legionella bacteria.

Distribution from the hot water storage may be blended to achieve the lower operating temperatures required.

Domestic hot water circuits supplied form the hot water store shall have both time control that is independent of the space heating circuits and electronic temperature control.

All cold-water taps should be situated to the right-hand side of the hot water taps.

Fire detection - This is a large dwellinghouse of three or more storeys with a storey exceeding 200 sqm - provide a mains operated interconnected fire detection and alarm system, Grade A Category LD2 standard (AD B1 para1.7), in accordance with the relevant recommendations of BS 5839-6:2019 .

All smoke alarms to be D1 grade and mains powered, interconnected and incorporating a tamper proof back up standby power supply such as a built in battery or capacitor which will last the lifetime of the unit until its scheduled replacement date and conforming to BS EN 14604:2005.

Additional coverage for a high level of protection can be provided by installing additional interlinked heat or smoke detectors within an Integral garage, Lofts, Airing / Meter Cupboards and all Bedrooms.

All detectors should be fixed in positions in full accordance with their manufacturer's recommendations.

Space heating systems should be designed by specialists.

All ground floor areas are to be heated by a specialist designed and installed underfloor heating pipe network complete with manifolds and balancing valves set at an operational temperature of 35 Deg C and set within the 65mm thin screed system. All circuits relating to radiators shall be set to a slightly higher optimal temperature to suit the radiators specification used and at a max operational flow temperature of 50 Deg C.

All circuits should have electronic controls to allow adjustment to the operating temperature.

New ladder towel radiators to be provide to all wet rooms. New low water content and lower operational temperature radiators to be provided in all new upper floor areas and fitted with TRVs.

Design to be undertaken by specialist with full documentation submitted to and approved in writing by Local Authority Building Control prior to installation.

All works to be in accordance with current relevant British and European standards and to be installed, commissioned, calibrated and certified by a suitably qualified installer registered with an appropriate competent person's scheme. Commissioning and Operating manuals to be supplied to client on completion of the works.

Central heating circuits to floor areas of 150m2 or greater to be split into a minimum of two independently controlled heating circuits.

System controls should be wired to allow when no hot water / heating demand is present then the heating appliance and pumps switch off. The system should also be fitted with a weather compensation sensor or internal temperature control.

A programmable heating thermostat shall be installed to each heating zone and also a TRV to each radiator.

All installed equipment in underfloor heating systems should be commissioned in accordance with BS EN 1264-4.

All hot water storage vessels for a hot water or heating system shall have standing heat losses which do not exceed the heat loss values given in Approved Document L1 Table 4.5.

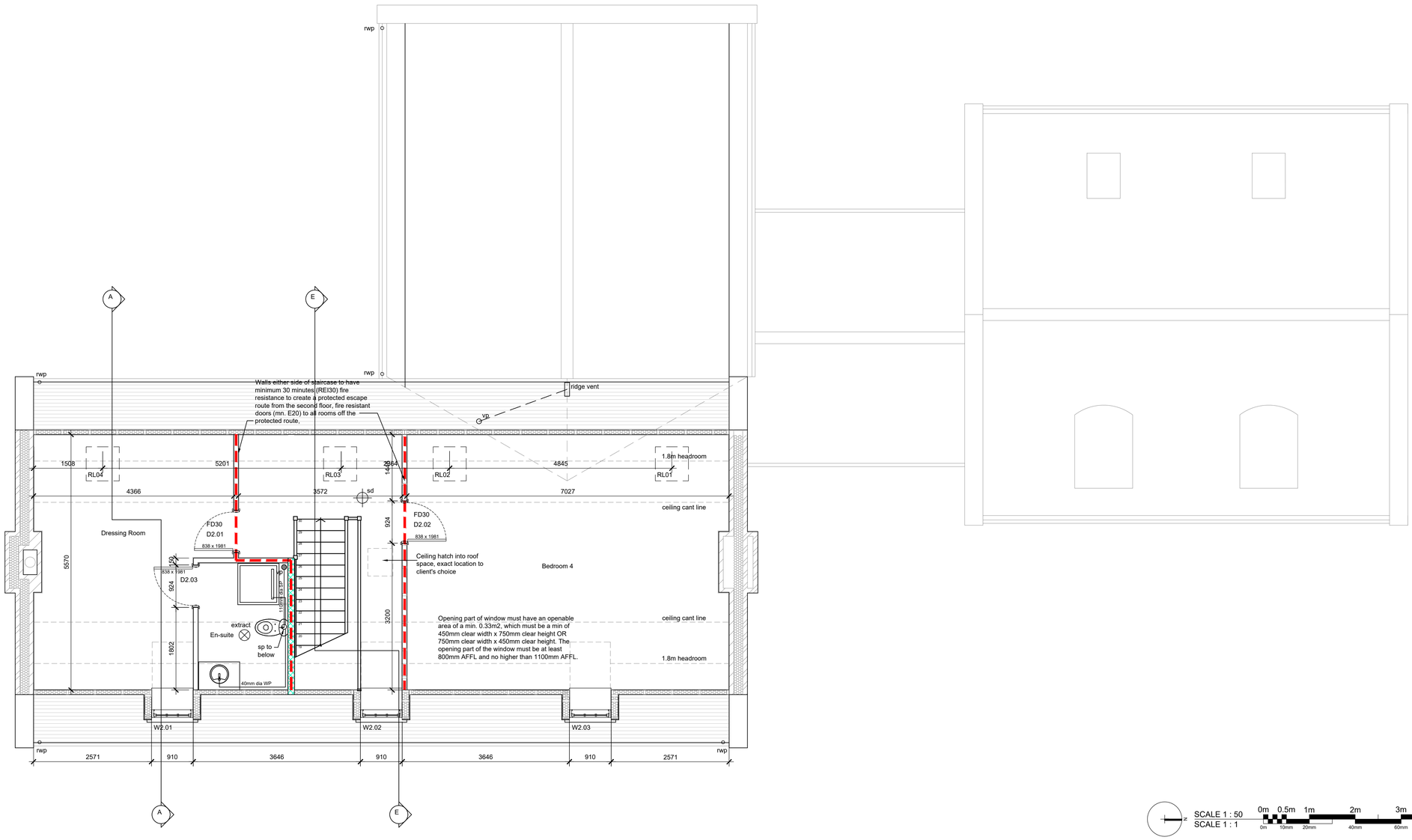
All the following pipework should be fully insulated to exceed the minimum heat loss requirements stated in Approved Document L1 Table 4.4: -

Heating primary circulation pipework including pipework in voids.

Domestic hot water supply primary pipes.

All pipework connected to hot water vessel within 1m of connection.

All secondary circulation pipework.



Second Floor Plan
Scale 1 : 50

SCALE 1 : 50
SCALE 1 : 1
0m 0.5m 1m 2m 3m 4m 5m
0m 10mm 20mm 40mm 60mm 80mm 100mm

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ALL DETAILS MUST BE CONSTRUCTED IN ACCORDANCE WITH ACCREDITED CONSTRUCTION DETAILS FOR PART L (www.planningportal.gov.uk)
References to Accredited Details are indicated at typical locations on plans and sections but apply to all circumstances in which they occur.

All dimensions indicated are structural, i.e. block to block or block to stud unless stated otherwise.

The purpose group for this building is Residential 1 (b) – A Dwellinghouse that contains a habitable storey with a floor level a minimum of 4.5m above ground level.
The height of the top floor is 5.9m, the period of fire resistance for dwelling houses with a top floor between 5m and 18m high is 30 minutes.

Materials to comply with appropriate British Standards or Agrément Certificates. Alternatively, the materials should be marked, stamped, independently certified or otherwise justified by test or calculation to show their suitability.
Materials should generally be in accordance with BS8000 series of documents and other accepted good practice (eg. Quality assured to ISO 9000).
Test certificates for materials and equipment such as emergency lighting, fire alarms and concrete test cubes will be required to be submitted prior to the issue of a Final Certificate.

Ref.	Date	Description	Initial
BR2	31.03.23	Revisions to windows and rooflights, dressing room/ensuite layout revised	AP
BR1	01.12.22	Building Regulations application	AP

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Mr W. Ravell

Project:

Proposed new dwelling
Eaugate Road, Moulton Chapel
Spalding, PE12 0XJ

Drawing Title:

Second floor plan as proposed

BUILDING REGULATIONS

Date:	Scale:
Jun 22	as shown @ A1
Drawn by: AP	Checked by: AJO

Drawing Number:	Rev:
A1490-13	BR2