



Fire
Safety
Engineering
Consultancy

Date of report: 10th July 2023
Report prepared by R Taylor
Ref PB/RT/880/2023

**Fire Engineering submission in support of the
proposed residential development
at
16 Murry Road
London HA6 2YJ**



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Introduction

FSEC Fire Safety Engineering Consultancy has been commissioned by Marcus + Chris Chaplin-Roberts to develop the design and to provide a report for the internal alterations and extension to be carried out at 16 Murray Road London. This is to satisfy the functional requirements of the Building Regulations/planning on the basis of fire engineering principles.

The layout of the dwelling is in our opinion compliant with the recommendations of the prescriptive guidance document Approved document B Volume 2019 amended 2020 and 2022. Therefore, the object of this report is to demonstrate compliance with the functional requirements of Building Regulations. The final objective is to produce a level of life safety. The assessment has not primarily considered any requirements associated with property protection additional to those which are inherent within the prescriptive guidance and any discussions associated with variations to the prescriptive approach are on the basis of life safety.

It is considered that the recommendations in this report will provide sufficient guidance to obtain approval from the relevant authorities and achieve a satisfactory level of safety commensurate with the risks of the occupied premises.

Building description

The dwelling consists of a ground and two upper storeys; the upper floors are served by a staircase running the full height of the building, with the height to the second floor being greater than 4.5m above ground level. The entrance door to the dwelling is located at the front of the building, this leads into an entrance hall that has three doors that lead to a multipurpose room, living room and an open-plan dining/ kitchen. Within the open-plan kitchen /dining room there are stairs that lead to a gallery located on the first floor.

Access to the upper floors is via the main staircase located within the entrance hall. The stairs lead to a bathroom and four bedrooms located on the first floor one of which is the master bedroom having an ensuite. There is a further bedroom, study and a gym/music room located on the second floor. The construction of the building is of traditional brick and block work having a pitched tiled roof.

General

Approved Document B Volume 1 2019 amended 2020 and 2022 paragraph 2.5 states: Dwellings having one storey more than 4.5m above ground level should have either of the following:

- A) A protected stairway that is separated by fire resisting construction at all storeys that complies with one of the following:
 - a, Extend to a final exit.
 - b, Gives access to a minimum of two ground level final exits that are separated from each other by fire resisting construction and fire doors.



- B) Alternative escape route, the top storey separated from the lower story's by fire resisting construction and with an alternative escape route leading to its own final exit.

The proposals are to provide a protected stairway from the second floor to a final exit door located at ground level.

Matters for consideration

The proposals are to provide the following:

- Fire detection
- Fire Compartmentation
- Alternative means of escape

Fire detection

The automatic fire detection provided will be to BS 5839 part 6 2019 Grade D2 LD2 system.

Smoke detection will be provided in the following areas:

Ground floor: Entrance Hall, open-plan dining/kitchen.

First floor: Landing, gallery.

Second floor: Landing.

- Sound levels in each bedroom will achieve 75DbA at the bedhead and 85DbA at 3m in all other areas.
- Heat detection will also be provided within the ground floor kitchen.

Fire compartmentation

The fire compartmentation to the house will be 30-minutes' standard both vertically and horizontally, with 20-minute fire-resisting doors fitted in the following locations:

Ground floor: Living room, multipurpose room and the double doors leading from the entrance hall into the kitchen/dining room.

First floor: Four bedroom doors and the door leading from the gallery onto the first floor landing.

Second floor: Bedroom door, study and gym/music room.

Any risers that pass through a fire floor should be contained within 30-minutes' fire-resistant materials.



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Conclusion

The design of this dwelling in our opinion meets the functional requirements of Building Regulations for the following reasons:

- A protected route is provided from the second-floor accommodation to the final exit door located at ground level.
- The fire alarm system fitted to BS5839, Part 6 grade D2 LD2, will provide early warning in case of fire.
- Suitable fire compartmentation is provided throughout the house.

Based upon the above proposals it is considered that adequate measures are provided to meet the functional requirements of the Building Regulations/planning approval.

This report is therefore submitted for consideration in this matter as forming a compliant solution under the functional requirements of the Building Act.

Yours sincerely

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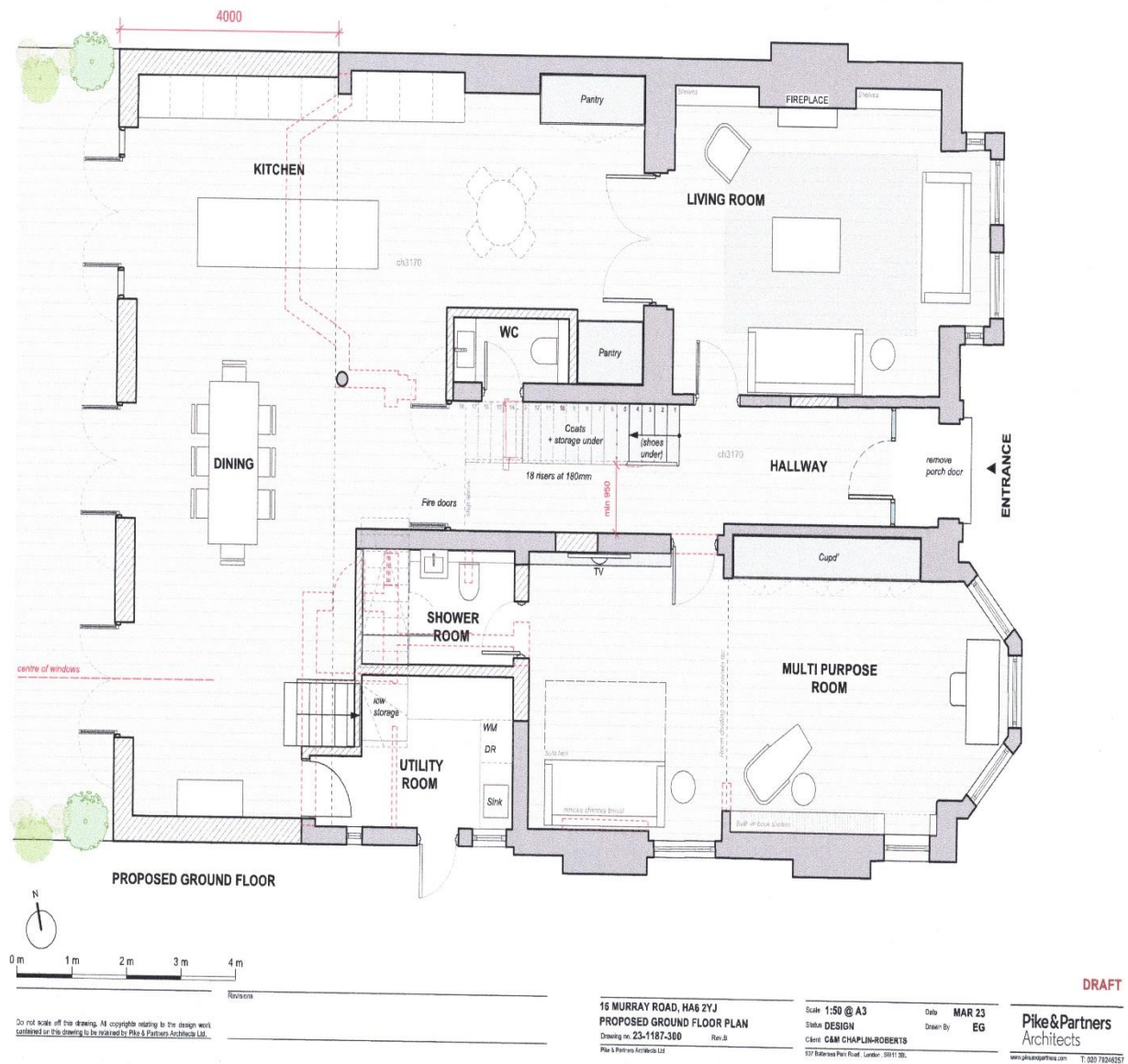
Nationally accredited fire risk assessor under Warrington Exova FRACS scheme



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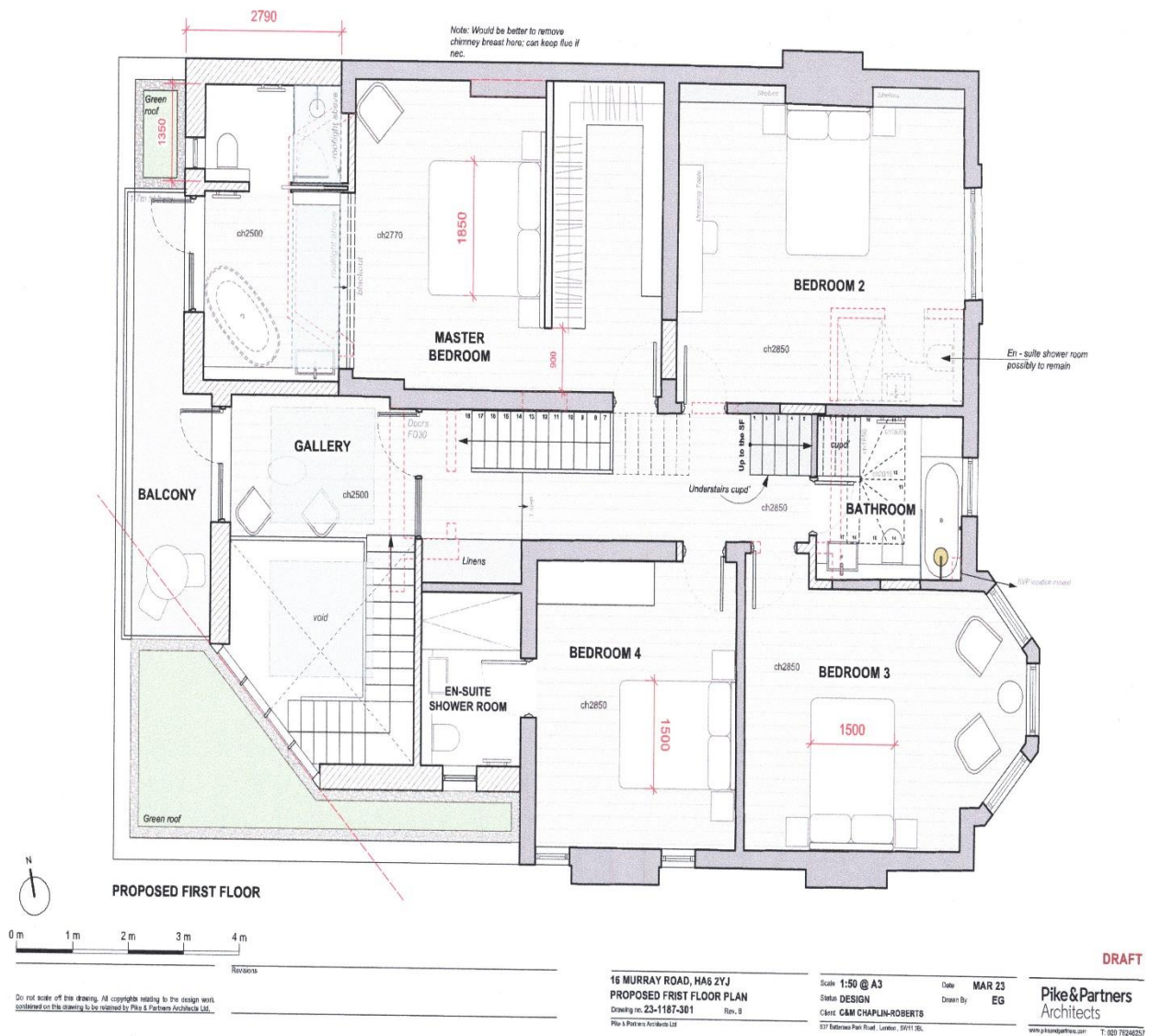
Floor Plans (not to scale)





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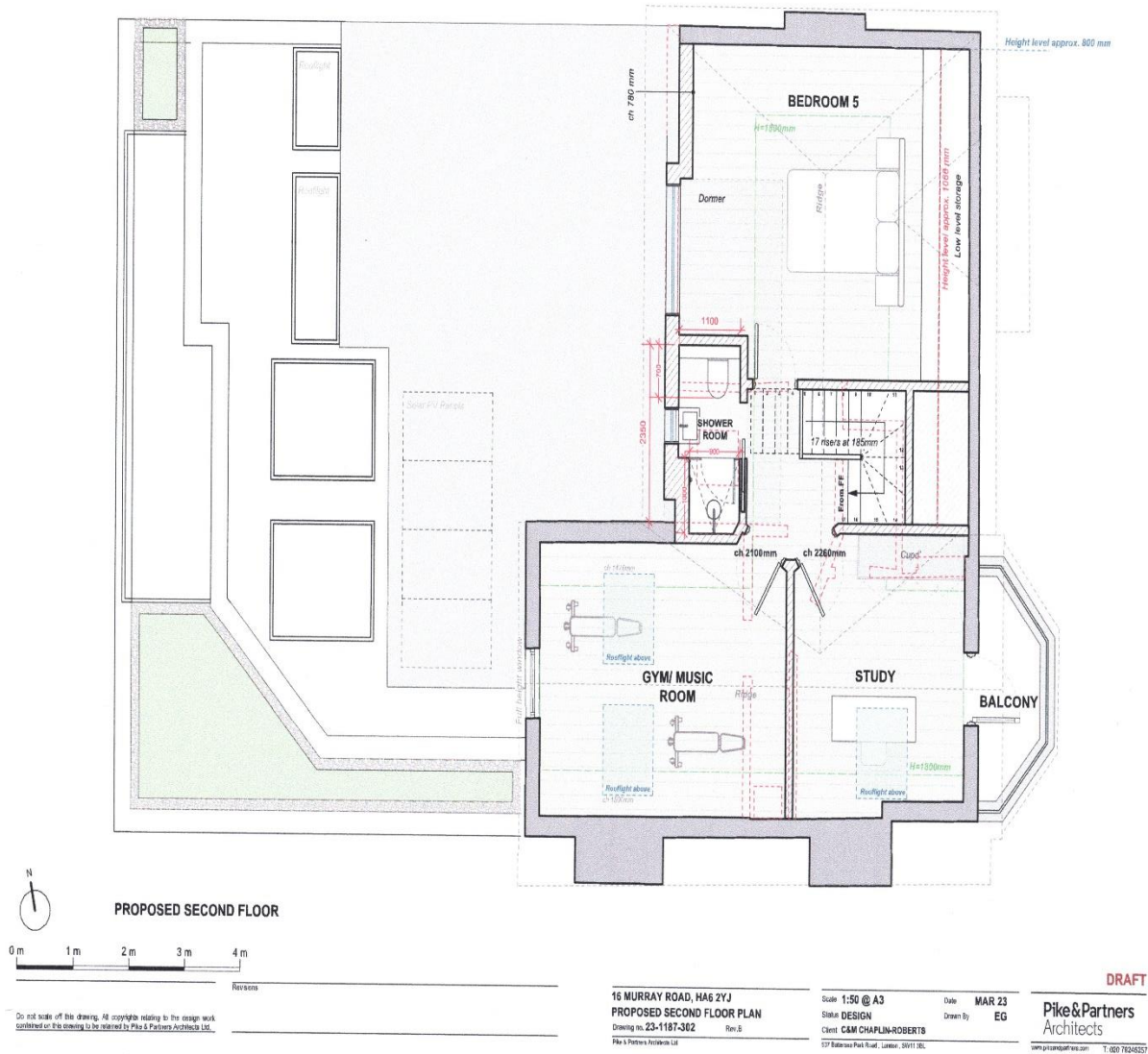
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