

Premier Guarantee Surveyors

Building Regulations and Warranty Design Appraisal Report

Building Regulations Ref No: 4182/3

Warranty Ref No: 41176/7

Address: Brinslands Lane, Four Marks Hampshire

Description: Construction of 110 new dwelling

Report By: Prepared by PG Surveyors on behalf of Jon Huckle

Date: 10th March 2014

Updated on:

PG Site Audit Surveyor:

1.0 Introduction

- 1.1 Premier Guarantee Surveyors have been appointed to provide an Approved Inspector Building Control Service and New Homes Warranty with associated plan examination and on going site audit inspections.
- 1.2 The proposed project is controlled under the Building Regulations as the project incorporates:
 - The erection of a buildings
- 1.3 The plans and details have been checked to determine compliance with the requirements of the Building Regulations 2010 using the Approved Documents unless otherwise stated. Items requiring additional information or areas that do not comply are indicated within this report.
- 1.4 **It is necessary for us to be notified that an Energy Performance Certificate has been issued by no later than 5 days after the work has been completed on this project. We will be unable to issue our Final Certificate for the project if we do not receive this notice.**

For full details please refer to the Communities and Local Government document: *'Improving The Energy Efficiency Of Our Buildings: A Guide To Energy Performance Certificates For The Construction, Sale And Let Of Non-Dwellings'* available on the Communities and Local Government website: www.communities.gov.uk

- 1.5 Information to satisfy the issues raised in this report should be forwarded to enquiries@pgsurveyors.co.uk in a single package when all the information has been collated, suitably referenced and amendments to drawings highlighted for ease of reference.

2.0 Part A – Structure

- 2.1 Please provide structural calculations and details for the following:
 - Site and ground survey, including contaminants analysis
 - Foundation design/piling design
 - Ground floor structure and ground beams
 - The timber frame constructions for dwellings and Flats
 - Engineered first floor joists including trimming joists to stairwells.
 - Roof structure
 - Any external retaining walls
 - Piled foundations.

- 2.2 Please can you clarify the exposure rating for the site and confirm the exact joint finish to the brickwork.
- 2.3 Details and positions of movement joints within the external wall construction in accordance with Premier Guarantees Technical Manual are requested.
- 2.4 A copy of the piling log and integrity test results to 100% of piles are to be provided when available.
- 2.5 Please make the manufactures of the floor joists aware that deflection of floors must not exceed 4mm/m for floor spans up to 6m and no more than 25mm in total for floor spans over 6m.
- 2.6 Please forward structural calculations in support of the two lintels over the bay windows tp house type K. and the steel beams within the roof construction of house type M.

3.0 Part B – Fire Safety

- 3.1 PURPOSE GROUP – Reference is made to Table D1, page 69 of Approved Document B Vol 1. The purpose groups for this work is considered as 1(b) and 1(c)
- 3.2 Each habitable room at first floor level is required to be provided with an emergency egress window accordance with Approved Document Part B Volume 1, paragraph 2.8, please note that the provision of locks that are operated by a key are not permitted to these windows. Details are requested.
- 3.3 The unprotected areas appear to be unacceptable to plot 42, house type A as the area of glazing to the side elevation is 1.6m² and the elevation is on the boundary line.
- 3.4 Please provide full details to show compliance with AD Part B5 Access and Facilities for the Fire Service Section 11

4.0 Part C – Site Preparation and Resistance to Moisture

- 4.1 A Site Investigation Report is required to show strata details and any contamination issues within 250m of the proposed site.
- 4.2 You have stated within the specification that the site is affected by radon gas and requires basic protection, can you please confirm that a sealed cavity tray will be inserted at DPC level to all plots.
- 4.3 The ventilation to be provided to the void under the beam and block floor should provide a minimum free area of at least 1 500mm² per metre run of external wall, positioned appropriately to ensure cross flow of air.
- 4.4 Cavity trays with associated weep holes at 900ccs and stop ends are required to be provided to all external openings in accordance with Premier Guarantees Technical Manual.
- 4.5 The installation of the external window and door openings should be in accordance with paragraph 7.4.8 of Premier Guarantee's Technical Manual with the provision of vertical insulated d p c's being provided to cavity closings.
- 4.6 If an HR underlay is being provided under the proposed roof tile then details are requested of the method of providing ventilation to the roof void in accordance with the requirements within BS 5250.
- 4.7 Please provide third party certification for the proposed timber frame construction.
- 4.8 Details are requested of the threshold features to avoid water ingress to the level entrances being provided.
- 4.9 A site specific fixing schedule for the roof covering is requested.

- 4.10 Please provide manufactures details for all windows and external doors including copies of approval certificates/3rd party accreditation.

5.0 Part D – Toxic Substances

- 5.1 This part is not applicable to your proposals.

6.0 Part E – Resistance to the Passage of Sound

- 6.1 Please provide details to show compliance with the requirements of AD Part E to limit sound transmission through the floor of the FOG unit. Floors.
- 6.2 You state on your specification that the party walls will be constructed to E-WT-2 construction in accordance with Part E Robust Detail for wall construction. Can you please forward registration documents and a copy of the purchase statement issued by the RDL, or confirm that site sound testing in accordance with section 1 of AD part E will be carried out. All sound test results are required to be forwarded to Premier Warranty for approval where the test bodies should have appropriate third party accreditation. Please detail the plot you intend testing and confirm that the party wall and floors to the flats will be tested to show compliance with Part

7.0 Part F – Ventilation

- 7.1 Trickle ventilation provision is required to be provided in accordance with Table 5.2a within Approved Document F. Some plots have details of the trickle ventilation requirements on plan, however some do not. Can you please submit your calculations for all plots to show that total area being provided will satisfy these requirements.
- 7.2 Flow rate commissioning certification is required to be provided for all mechanical extract fans.

8.0 Part G – Sanitation, Hot Water Safety and Water Efficiency

- 8.1 Provide details of the proposed hot water storage system, which is to be designed and installed by a person competent to do so and in accordance with approved document G. This requires the system to be able to resist the effects of temperature and pressure during both normal operation and in the event of malfunction.

9.0 Part H – Drainage and Waste Disposal

- 9.1 Please provide full detail plans of the layout for the below ground drainage system (foul and storm water) including pipe sizes, gradients, pipe bedding.
- 9.2 Please detail your solid waste storage proposals.

10.0 Part J – Combustion Appliances and Fuel Storage Systems

- 10.1 Full details are requested of the proposed hearth, type of appliance, air supply, flue, separation of combustible material from fireplaces/chimneys, flues and notice plates etc. indicated with the lounge.
- 10.2 Please confirm that a completed checklist of documents will be submitted upon completion for the boilers as detailed in AD part J (preferably completed by the heating engineer)
- 10.4 A commissioning certificate for the boilers will be required on completion.
- 10.5 Please confirm that data information plaques will be provided for all heating appliances, can you also confirm the location where these will be positioned.

11.0 Part K – Protection from Falling, Collision and Impact

- 11.1 Can you please detail on the specification for the stairs to the dwellings will have risers not exceeding 220mm, going not less than 220mm and that twice the rise plus the going (2R + G) will be between 550mm and 700mm
- 11.2 Any window openings at first floor level where the opening is below 800mm above finished floor level are required to be provided with permanent guarding in accordance with the design requirements specified in Approved Document K2 of the Building Regulations 2013 and Premier Guarantee's Technical guidance manual. I would inform you that Premier Guarantee do not accept the use of restrictors in such circumstances.
- 11.3 Low level fixed glazing being provided at first floor level and adjacent to the internal stairs should be constructed so that the frame and glazing provides adequate containment capable of resisting as a minimum, loads given in BS EN 1991-1-1 and P-D 6688-1-1.
- 11.4 Glazing in critical locations as defined in AD Part K Diagram 5.1 should comply with the requirements of BS 6206.

12.0 Part L1A – Conservation of Fuel and Power

- 12.1 Please provide through an accredited calculation tool such as SAP, Target CO2 Emission Rate (TER) and Dwelling (as designed) CO2 Emission Rate (DER) calculations. Regulation 20 states that the TER calculation, along with a list of specifications for the building envelope, should be submitted to us before the start of building works.
- 12.3 Fixed building services should be at least as efficient as the worst acceptable value as set out in the Domestic Services Compliance Guide.
- 12.4 On completion of the building a Dwelling Emission Rate (DER) calculation is required to show the measured air permeability and to show the compliance of the as-built building and to reflect design changes during construction. Note the DER must not exceed the TER. The measured air permeability should not exceed the limiting value of 10m³/(h.m²) at 50 Pa.
- 11.2 Please confirm level of low energy lighting – this should be reflected in the SAP calculations.
- 11.5 Please confirm that an Energy Performance Certificate (EPC) will be provided upon completion of each plot.

13.0 Part M – Access to and Use of Building

- 13.1 Please detail your access provisions into the proposed dwelling entrances from the proposed car parking (i.e. ramped or level approach).
- 13.2 Details of the level threshold to prevent moisture ingress to the entrance doors are requested.

14.0 Part P – Electrical Safety

- 14.1 A copy of the Part P commissioning certificate is to be submitted no later than 5 days after completion of the work. We are unable to issue our final certificate until all test and commissioning certificates have been received.