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Specification Document - L1a SAP Assessment

☒ DESIGN ☐ AS BUILT

This specification document forms the basis of the SAP calculations, therefore, please inform us of any inaccuracies as soon as possible.

Compliance has been met using the specification listed and therefore, any deviations from this may result in the dwelling failing. Please discuss any changes with your assessor prior to doing so.

Note that any changes to boiler or heating systems should be notified, even if there may appear to be an improvement in efficiency. Please check any changes with the assessor as soon as possible.

Contact name and contact	Mr A and Mr J Harari – Holly Walk Developments Ltd
Proposed dwelling address	Rear of 16 Frognal Gardens – Holly Walk, London
Our reference	RS1130
Date	17th August 2020

U-values

We will require U–value calculations demonstrating U-values of all heat-loss elements to issue As-Built reports and EPCs. Therefore, we would strongly encourage designers to secure calculations confirming the below values at an early stage, and advise your assessor of any difficulties in meeting these values. We can carry out U-value calculations based on detailed construction and insulation details, or you can usually obtain these from the insulation manufacturer.

Air Tightness and SAP

It is incredibly important to build 'air-tight'. Practically all new buildings require air tightness testing on completion and this result ***will*** impact your SAP performance significantly.

Evidence documents to provide on completion

- U-value calculations for each type of heat loss floor, wall and roof
- Air test certificate
- MCS certificate or installer evidence for any renewable technologies
- Signed thermal bridging checklists for any applied thermal bridging scheme

External Elements

Element	U-value	Construction
Basement floor	0.15	150mm reinforced concrete, 100mm Eco-Versal, 18mm Hardwood Timber
Basement Walls	0.20	300mm Reinforced concrete, 100mm Eco-Cavity between metal studs, 12mm Plywood, 10+12.5mm Kooltherm K17 insulated plasterboard or equivalent (thermal conductivity 0.023)
External walls	0.16	Outer brick, 35mm cavity, 110mm Eco-Versal, 100mm Thermalite-Shield, 10mm wet plaster
Exposed ceiling to Master bedroom	0.20	150mm reinforced concrete, 100mm Eco-Versal, 18mm 65mm screed
Flat roof	0.16	20mm plywood, 75mm Eco-Versal, 20mm plywood, 100mm mineral wool or similar (thermal conductivity 0.038) between joists, 12.5mm plasterboard and skim

Openings

Element	U-value
Windows, rooflight, and glazed doors	1.4
Opaque doors (front door)	1.2
Glazing type	Argon filled, soft coat
Frame type	uPVC

Heating

Element	Description
Heating system (space and water)	Mitsubishi ECODAN 8.5kw selected - ASHP
Emitter	Underfloor heating – pipes above insulation
Heating controls	Time and temperature zone controls
Hot water cylinder	300 litres with 2.11 kWh/day heat loss
Secondary heating	None

Other

Element	Description
Thermal bridging scheme	Accredited Construction Details, continuous insulation around corners
Ventilation	MVHR – Zehnder ComfoAir 200 selected
Design air permeability	5.0 m^3/hm^2
Renewables	0.75kWp on a 30-degree tilt facing south
Low energy lighting	100% of fittings