



2 Templewood Avenue
London NW3 7XA

Addendum to Energy Statement

Issue 1 1st November 2022

Unit B
75 South Western Road
Twickenham
Middlesex
TW1 1LG

Tel:- 020 8892 7947
Email:- info@ingine.co.uk
Web:- www.ingine.co.uk

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Michael Popper Associates LLP**

1. Addendum

This report forms an addendum to Revision 2 of the Energy Statement prepared by DSA Engineering and dated February 2022. It responds to the issues raised during the planning process and demonstrates the additional energy saving measures that have been adopted, and the reduction from the levels of active cooling proposed in the Energy Statement.

The Energy Statement proposes the use of gas boilers to provide domestic hot water. Whilst this is an appropriate response to the hot water load anticipated in this type of property we believe that adequate performance can be achieved using an air source heat pump with suitably sized storage. We have adopted this method and removed the gas boilers.

The new extension is to be constructed to standards higher than those required by current Building Regulations. The existing building is within the Redington Frogna Conservation Area and whilst not listed or locally listed, is identified as making a positive contribution. It is therefore unlikely that any radical improvement to the thermal performance of the building by modifying its external appearance would be approved, nor would it be desirable. All existing windows are of the leaded light style and it is proposed to replace these with double glazed units of similar type although this will affect the external appearance. The new windows will have low g glass to reduce overheating.

Where possible the thermal performance of the external walls will be improved by the application of insulated plasterboard internally, noting that the configuration of the existing building will not always allow this; the extent of the proposed insulation is shown on the attached drawings. Insulation levels in the roof will be brought up to current standards.

The net effect of the proposed additional changes is that the results calculated under SAP10.2 for the whole building including both existing and new elements achieves a reduction of over 50% in regulated CO₂ output as shown in the table below;

	Regulated (kgCO₂/m² per annum)	Regulated (tonnes CO₂ per annum)
Notional Building (TER) CO₂ emissions	8.73	9.297
Proposed Building (DER) CO₂ emissions	4.33	4.611
Reduction		4.686

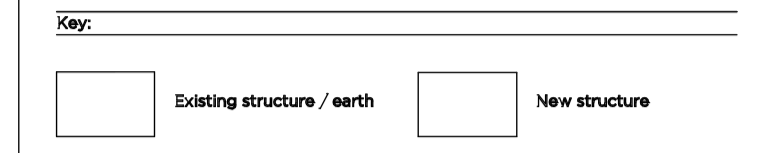
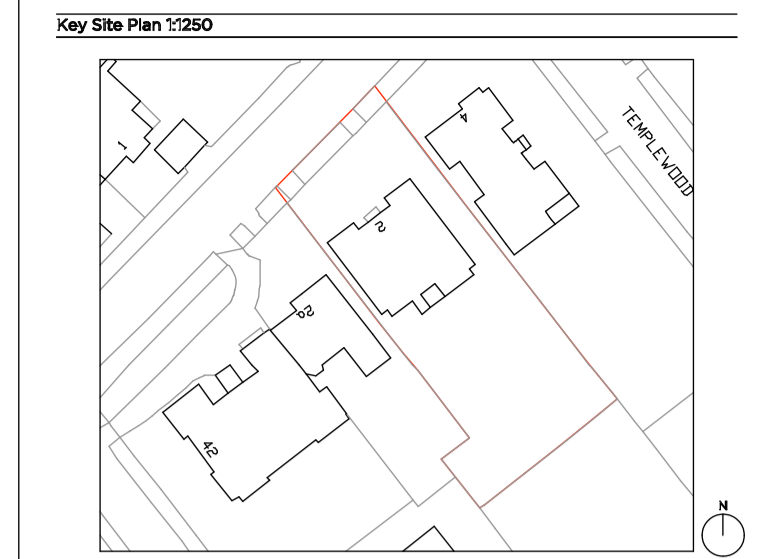
It can be seen that this is a reduction of 32.6% on the total CO₂ output of 6.84 tonnes predicted by the DSA report.

The air source heat pump proposed is necessarily of commercial scale to meet the heat losses of this large house, to meet the domestic hot water demand and that of the swimming pool.

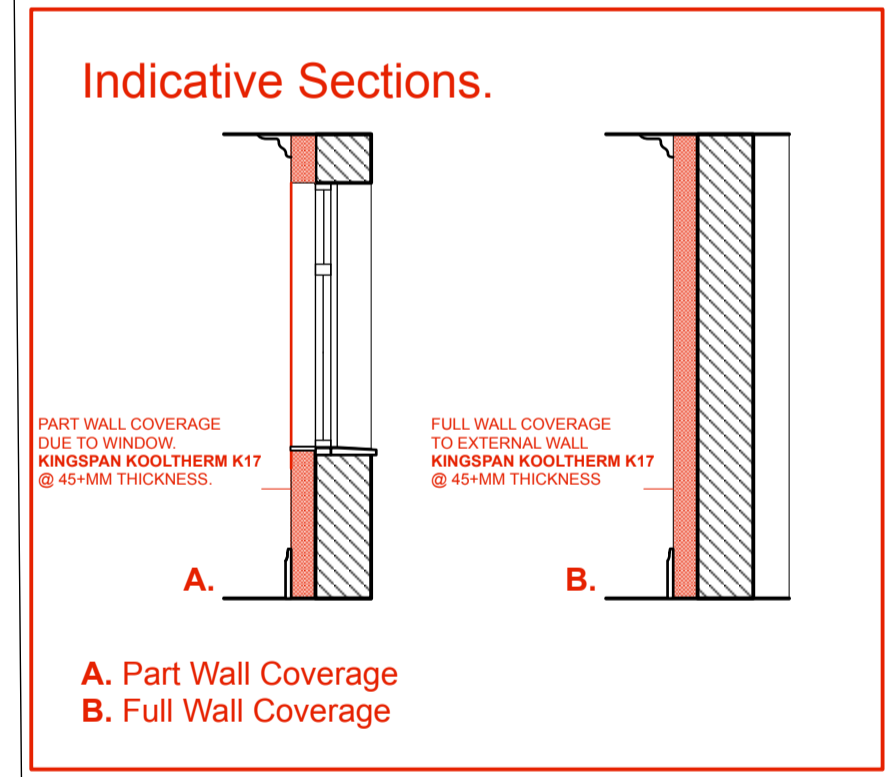
The proposed heat pump has the capability to provide cooling and heating simultaneously, using the heat extracted by cooling to heat the water loads rather than rejecting it to air. It is proposed only to provide comfort cooling to the gym, the kitchen and the laundry. The gym and laundry are both located in the basement and can have no useful connection to outside air whilst containing substantial process heat sources. The kitchen on the ground floor does have external windows and passive cooling will certainly prove adequate in most situations, however it does contain substantial process heat sources and comfort cooling is therefore required on the hottest days. The additional insulation proposed will reduce overheating in other areas of the building. Stack ventilation has been introduced by the use of a single stair void throughout the building with opening window at high level, this will provide additional cooling.

End. 01.11.11

Kingspan Kooltherm K17
45+ mm to internal face of external walls
Resulting in 0.021W/mK



- Proposed Notes:**
- 01 Access ladder
 - 02 Lift
 - 03 External planter to terrace
 - 04 Lightwell with grille
 - 05 Green roof
 - 06 Replacement timber framed window with metal detailing to match existing
 - 07 New timber gate
 - 08 New timber garage door
 - 09 New brick pier to boundary wall
 - 10 New metal gate with light over
 - 11 New automatic opening metal vehicle gate
 - 12 New tiled dormer with timber framed windows
 - 13 Rear extension clad in terracotta tiles
 - 14 New metal framed doors
 - 15 Side extension constructed in bricks to match existing
 - 16 Glazed bay window
 - 17 Metal railings
 - 18 Rooflight
 - 19 Timber framed doors with metal detailing
 - 20 Acoustic plant enclosure
 - 21 Brick Planter
 - 22 Electric vehicle charging point
 - 23 Acoustic louvre
 - 24 New metal frame glazing
 - 25 New brick finish to match existing house
 - 26 New terracotta tile finish to match rear extension
 - 27 Bin Store
 - 28 Frameless glazed link



Hall Floor Plan

Kingspan Kooltherm K17 Insulated Plasterboard.

Kooltherm K17 is a high performance, insulated plasterboard featuring dry-lining and vapour control in one board, benefitting from a quick response to heating and resistance to water vapour.

45+ mm thickness resulting in 0.021 W/mk, whilst in locations where such thickness is not possible, such as dormer cheeks and openings near corners, we propose using 25-44mm thickness, resulting in 0.022 W/mk.

To be applied to all internal surfaces of the external wall, with skirtings, architraves and plasterwork re applied to the new internal face.

Key.

- Full wall coverage. 45+mm thickness
- Part wall coverage. 45+mm thickness
- Full wall coverage. 25-44mm thickness

Dwg Ref. P2000 A / Energy
 Date 28th October 2022

First Issue 03.02.22 Issued for Planning

PLANNING

Project No. 21043

Client Mr G. Fazio and Mrs K. Fazio

Date September 2022

Scale 1:100 @ A3 / 1:50 @ A1

Project 2 Templewood Avenue

Drawing Title: Proposed Ground Floor Plan

Drawing No. P2000 Rev. A.

Drawn Approved Signed

Templeton Associates

44 Molyneux Street, London W1H 5JD T. 07768 960 588

Kingspan Kooltherm K17
45+ mm to internal face of external walls
Resulting in 0.021W/mK

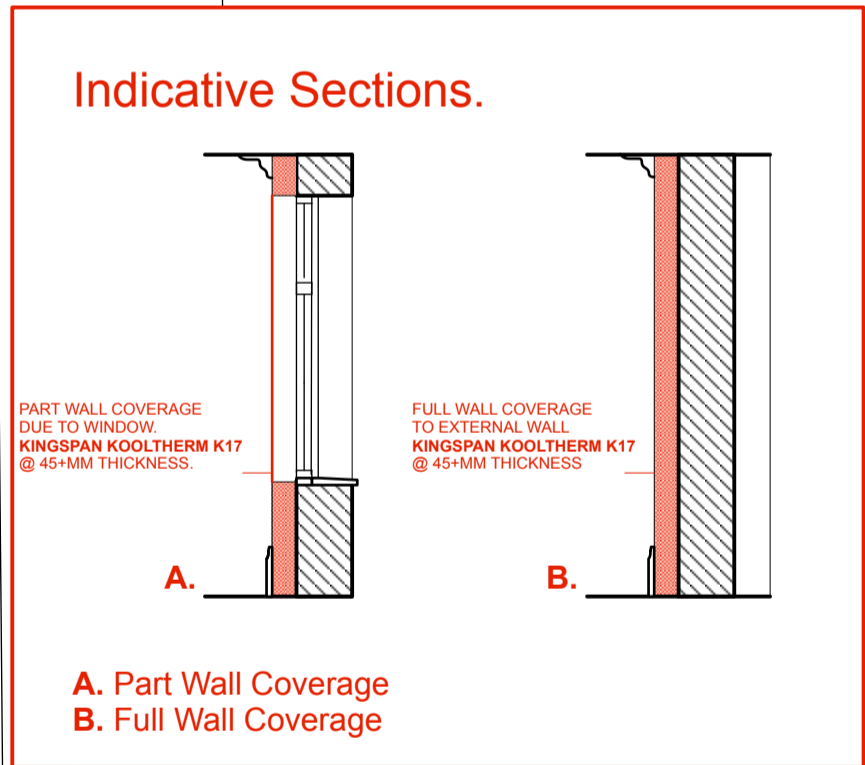
Key Site Plan 1:250

Key:

- Existing structure / earth
- New structure

Proposed Notes:

- 01 Access ladder
- 02 Lift
- 03 External planter to terrace
- 04 Lightwell with grillage
- 05 Green roof
- 06 Replacement timber framed window with metal detailing to match existing
- 07 New timber gate
- 08 New timber garage door
- 09 New brick pier to boundary wall
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First Floor Plan

Kingspan Kooltherm K17 Insulated Plasterboard.

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45+ mm thickness resulting in 0.021 W/mk, whilst in locations where such thickness is not possible, such as dormer cheeks and openings near corners, we propose using 25-44mm thickness, resulting in 0.022 W/mk.

To be applied to all internal surfaces of the external wall, with skirtings, architraves and plasterwork re applied to the new internal face.

Key.

- Full wall coverage. 45+mm thickness
- Part wall coverage. 45+mm thickness
- Full wall coverage. 25-44mm thickness

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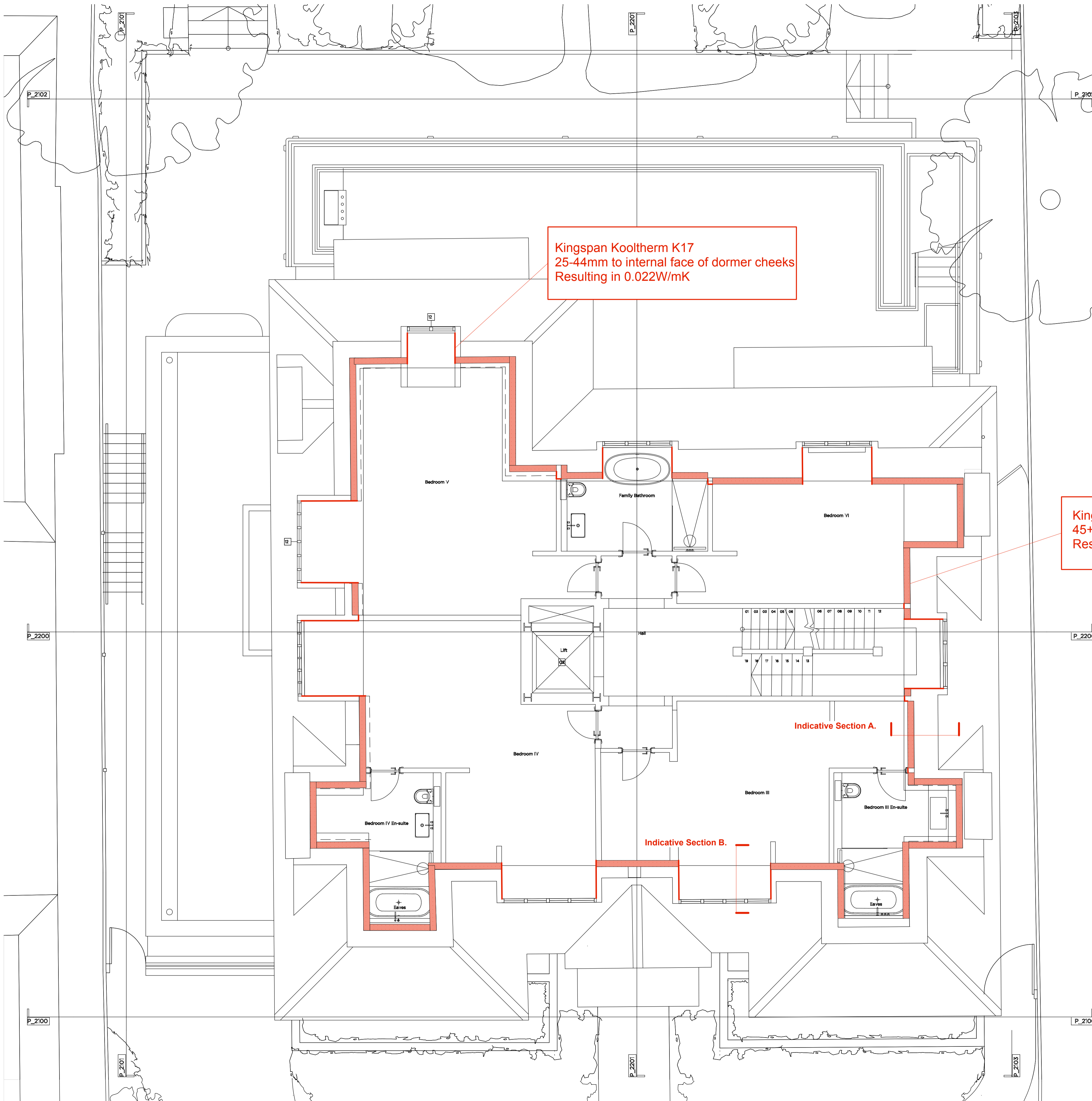
Drawing Title: Proposed First Floor Plan

Drawing No. P2001 Rev. A.

Drawn Approved Signed

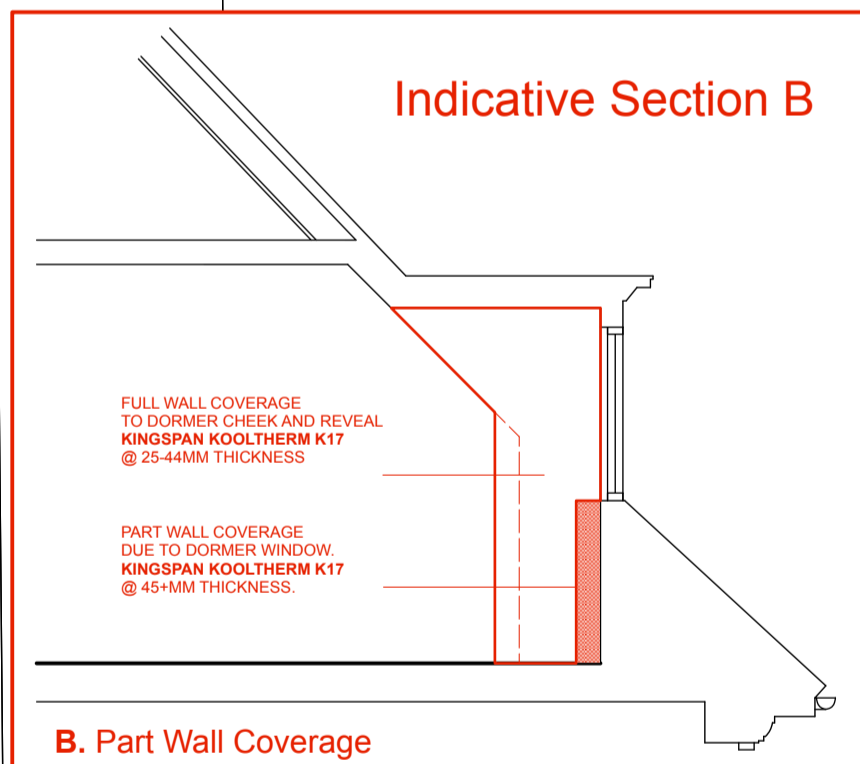
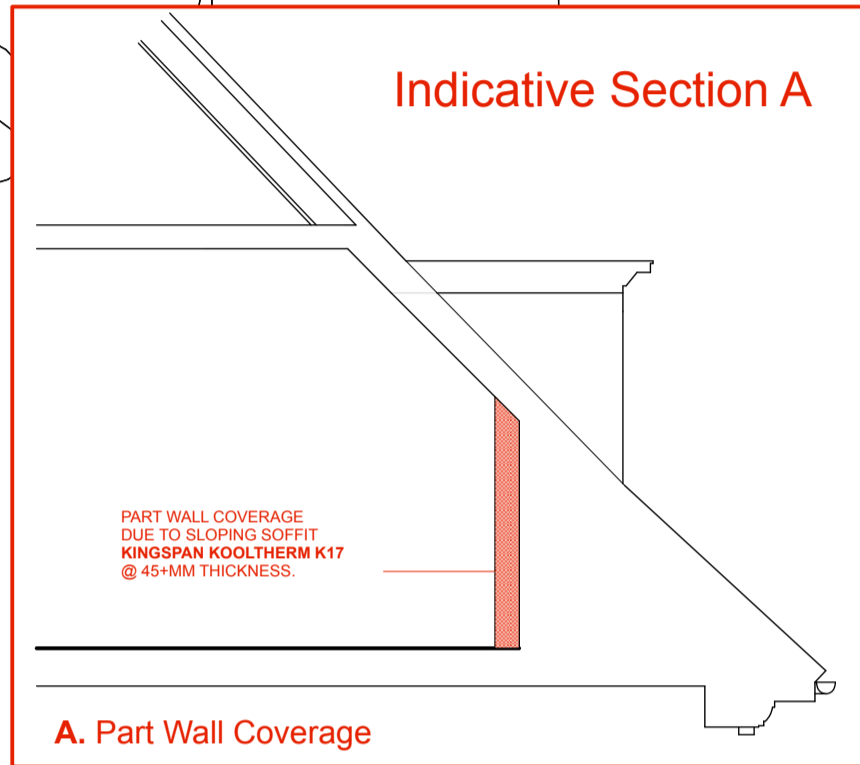
Templeton Associates

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Kingspan Kooltherm K17
25-44mm to internal face of dormer cheeks
Resulting in 0.022W/mK

Kingspan Kooltherm K17
45+ mm to internal face of external walls
Resulting in 0.021W/mK



Second Floor Plan

Kingspan Kooltherm K17 Insulated Plasterboard.

Kooltherm K17 is a high performance, insulated plasterboard featuring dry-lining and vapour control in one board, benefitting from a quick response to heating and resistance to water vapour.

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To be applied to all internal surfaces of the external wall, with skirtings, architraves and plasterwork re applied to the new internal face.

Key.

- Full wall coverage, 45+mm thickness
- Part wall coverage, 45+mm thickness
- Full wall coverage, 25-44mm thickness

Dwg Ref. P2002 A / Energy
Date 28th October 2022

Key Site Plan 1:250

Key:

- Existing structure / earth
- New structure

Proposed Notes:

- 01 Access ladder
- 02 Lift
- 03 External planter to terrace
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Date September 2022

Scale 1:100 @ A3 / 1:50 @ A1

Project 2 Templewood Avenue

Drawing Title: Proposed Second Floor Plan

Drawing No. P2002 Rev. A.

Drawn Approved Signed

Templeton Associates

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