BUILDING REGULATIONS NOTES

Please read these drawings in conjunction with all Architect's drawings, Pre-Construction Information and Design Risk Register. Please also refer to all other Consultant's, Designer's and Principal Contractor's / Contractor's drawings & information.

Principal Contractor / Contractor's to check and verify all dimensions on site before starting work or workshop drawings. Report all discrepancies, errors or omissions between drawings, site conditions and all other documents to Stephen Langer Associates Ltd.

It is the responsibility of the builder and the client to ensure compliance with the

minimum standards of the Building Regulations and Approved Documents A-R.

PART A - STRUCTURE

New thermal elements shall achieve the following U values - walls 0.28, ground floor 0.22, pitched roof 0.18 (insulated at rafter level), flat roof 0.18 (L1).

Structural elements are to the appointed Structural Engineer's design / specification.

All Structural Engineer's drawings / calculations & construction details to be provided to Building Control at earliest convenience (including new beams, bearings, new openings, floor and roof alterations etc.) (A1).

Elements of structure to have minimum 30 minutes fire resistance. Adequate provision shall be made to ensure that the building is stable under the likely imposed weight, wind or weather related loading conditions.

Galvanized wall ties to be used in new cavity walls. For a 300mm wall with a 100mm cavity a 225mm length of wall tie should be used. The correct spacing between wall ties should be to the Structural Engineer's specification and design. Wall ties to be twisted ties at 450mm centres vertically and 750mm centres horizontally. Wall ties are required at 225mm centres at all reveals (A1/2).

FOUNDATIONS - TO BE APPROVED BY STRUCTURAL ENGINEER

Design and size specified by the Structural Engineer. Final levels to Building Control approval and to take account of site and soil conditions. Structural Engineer to check if underpinning is required.

LINTELS - TO BE APPROVED BY STRUCTURAL ENGINEER

Lintels to external walls / internal walls to be lightweight in accord with the Structural Engineer's design / specification. All lintels are to lightweight and be able to be lifted safely. Contractor to provide methodology statement of how they will transport, deliver and handle lintels safely. If in doubt consult with Structural Engineer.

NEW FLOORS - TO BE APPROVED BY STRUCTURAL ENGINEER

NEW GROUND FLOOR CONSTRUCTION (In historic part of house) - TO CONTRACTORS FINAL DESIGN

Ground Floor Construction build-up includes:

- (to achieve a 0.22 W/m2k U-Value):
- 25mm Floor boards (FFL to align with existing FFL) - 150mm timber joists (to Sturcutral Eng. final design)
- 100mm Kingspan Kooltherm K103 Floor Board (Insulation) between joists
- Min. 150mm airspace below joists
- DPM to top of brickwork supports (to Sturcutral Eng. final design)
- (Any continuous brickwork support to have openings to allow for cross-ventialtion

NEW FLOORS - TO BE APPROVED BY STRUCTURAL ENGINEER

- NEW GROUND FLOOR CONSTRUCTION (In extension)
- TO CONTRACTORS FINAL DESIGN

Ground Floor Construction build-up includes:

(to achieve a 0.20 W/m2k U-Value)

- 5mm Floor finish zone (FFL to align with existing FFL in house)
- 75mm screed with underfloor heating (to contractors design)
- Vapour separation layer
- 70mm Kingspan Kooltherm K103 Floor Board (Insulation) below screed - DPM
- Concrete beam and block floor (to Sturcutral Eng. final design)
- Min. 150mm ventilated sub-floof
- 50mm Vegetation screed
- 150mm hardcore

NEW GROUND FLOOR CONSTRUCTION (In garage)

- TO CONTRACTORS FINAL DESIGN

Ground Floor Construction build-up includes:

- Concrete finish (laid to falls) - 150mm concrete slab (to Sturcutral Eng. final design)
- DPM
- 50mm Vegetation screed
- 150mm hardcore

(All floors subject to Structural Engineer's design and specification).

EXTERNAL WALLS - TO BE APPROVED BY STRUCTURAL ENGINEER

All existing internal and external walls used to take additional loads must be structurally adequate and capable of transmitting the load safely and without deflection/deformation of any part of the building. (A1)

Ground & First Floor Wall Linings Construction build-up to include (HISTORIC **PORTION OF HOUSE):**

(to achieve a minimum 0.27 W/m2k U-Value) WHERE SPACE PERMITS - Existing Wall build-up

- 75mm timber studs with DPC strip on studs @ 400mm centres.
- 25mm stop battern with DPC strip
- 50mm Kingspan Kooltherm K12 insulation board between studs
- Where there is a resultant gap between the back of the new studs and the face of the existing wall, mineral wool insulation to be used
- * 3mm plaster skim & painted onto 32.5mm Kooltherm K118 insulated plasterboard

Outshot Ground Floor Wall Lining Construction build-up to include (HISTORIC **PORTION OF HOUSE):**

(to achieve a minimum 0.29 W/m2k U-Value) WHERE SPACE PERMITS - Existing Wall build-up

- 62.5mm Kingspan Kooltherm K118 Insulated Plasterboard on acrylic sealant / PU foam adhesive
- * 3mm plaster skim & painted

Ground Floor Wall Construction build-up to include (EXTENSION): (to achieve a minimum 0.25 W/m2k U-Value)

- 102.5 exposed brickwork (as approved)
- 50mm clear residual cavity
- 40mm Kingspan Kooltherm K108 insulation
- 100mm thick Lightweight (0.15wm²) blockwork
- * 3mm plaster skim & painted onto 12.5mm plasterboard on dabs

Ground Floor Wall Construction build-up to include (GARAGE): (to achieve a minimum 0.25 W/m2k U-Value)

- 102.5 & 215mm exposed brickwork (to match existing)

All external walls with cavity's to have high quality cavity closer's around openings / reveals.

NEW ROOF CONSTRUCTION - TO BE APPROVED BY STRUCTURAL ENGINEER

Pitch roof / Skeilings (HISTORIC HOUSE)

Construction build-up includes: (to achieve a 0.16 W/m2k U-Value) - Cold Roof

- Existing roof build-up
- Assumed 100mm deep rafters

- 75mm Kingspan Kooltherm K7 Pitched roof Board partially filling space between rafters *3mm plaster skim & pinted onto 62.5mm Kingspan K118 Insulated plasterboard fixed to the underside of the rafters

Pitch roof / Skeilings (EXTENSION) Construction build-up includes:

(to achieve a 0.16 W/m2k U-Value) - Cold Roof

- Clay roof tiles (to match existing) on timber batterns
- 38mm x 38mm counter batterns
- Kingspan nilvent breathable membrane
- 150mm minimum timber rafters (to Structural engineers final design)

- 150mm Kingspan Kooltherm K7 Pitched Roof Board fully filling space between rafters - *3mm plaster skim & pinted onto 32.5mm Kingspan K118 Insulated plasterboard fixed to the underside of the rafters (at skeilings), taped and jointed in roof void

Pitch roof / Skeilings (GARAGE)

Construction build-up includes:

- Clay roof tiles (to match existing) on timber batterns (every tile to be double nailed due to low roof pitch)

- Roofing felt
- 150mm minimum timber rafters (to Structural engineers final design)

NEW INTERNAL WALLS

All existing internal and external walls used to take additional loads must be structurally adequate and capable of transmitting the load safely and without deflection/deformation of any part of the building. (A1)

Internal walls to be 100mm timber studwork with painted plaster skim 12.5mm plasterboard to both surfaces. Plasterboard to be taped skimmed and painted. 100mm full fill insulation between studs.

Proposed blocks (blockwork) can't exceed 20Kg. If blockwork is 8Kn or dense blockwork of 140mm or over a manufacture's specification is required. The block type is required to be less than 20Kg. Contractor to provide information and methodology statement.

