

HPK/2011/0586



5. Technical Descriptions

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Technical Descriptions

Client: James Wilmot
Site: Lapwing House, Hawkshead Fold, Old Glossop
Project: Proposed Adaptations.

Existing

Lapwing house was constructed in 2003 and are of timber frame constructed completed with a stone envelope to fit in to the local vernacular.

The project comprises of the conversion and adaptation of the annex that is currently used as a double garage to the ground floor and the first floor games room. To ensure that the existing space can be fully utilised then the existing building shall have to undergo some more structural modification.

Take out the existing garage door and frame and dispose off.

The existing roof is a timber trussed rafter roof, specially designed for the span of the existing building and comprised of a ceiling tie that is located above eaves thereby providing a vaulted ceiling effect.

The level of the existing floor within the games room is lower than that of the main house. In order to provide access at the first floor from the main house the floor level shall have to be increased. The raising of the floor results in the roof having to be raised to ensure that the sufficient headroom is provided.

Trim out ceiling above kitchen door as required.

Demolition

The internal stud partitions need to be carefully removed where required in accordance with the proposed layout.

The existing roof structure and it is covering shall be carefully removed and stacked for reuse.

The window to the front elevation and the associated machine stone mullions cills and lintels are to be carefully removed ready to be reused in the new configuration as shown in the proposed.

Take out raised step and make good skirting's and architraves. Increase the size of the kitchen doorway and install new lintel above. Insert catnic lintel to suit aperture and masonry wall thickness ensuring 150mm end bearing each side. Existing timber frame to be modified internally to ensure that structure is trimmed and make good to aperture as required make good cornice above kitchen doorway.

Roof

(Pitched 'U' value = 0.20 w/msq. Deg K):

Construct roof with matching interlocking tiles (to BS 5534 Pt. 1 amended 1981) clipped at eaves and hips laid on treated s/w battens 25 x 38, over untearable



sarking felt (to BS 747: 1971) lapped a minimum of 150 and dressed into the gutter over a tilting fillet. Battens to be set out to give tile lap as recommended by the tile manufacturer to suit the exposure rating of the site. Roof covering to be supported off existing truss rafters to suit BS5268:1985 and to be complete with suitable wind bracing as required spiked to 100 x 50mm wallplate. Wallplate to be strapped down to house walls with MS 30 x 8 x 1200 strap fixed at 1200c/c. Contractor to carefully remove the existing covering where required to allow for the roof extension. Suitable temporary protection to be provided as required.

Complete new roof with matching soffits and fascia boards as required. Soffits to be complete with ventilation gap at least equal to a 10mm continuous strip.

Roof insulation to be rockwool mineral fibre 270mm thick. The quilt is to be laid between ceiling joists and the eaves ventilation is not to be obstructed. Where roof connects to existing roof to be flashed to house wall with Code 4 lead flashing fixed with lead wedges, soakers and pointed as necessary. Install proprietary brand cavity tray as shown.

The decorative roof straps that are evident on the front elevation shall be carefully removed and stack for reuse to.

Velux Roof Windows:

The relocated timber trusses provide for an vaulted style ceiling as demonstrated on the section information on the drawings. Within this location four number velux roof windows to be installed as detailed. The truss rafters shall need to be fully trimmed out to receive the velux. The velux windows are to be installed strictly in accordance with manufacturers and recommendations complete with flashing kit to suit the correct tile covering.

Walls (EXTERNAL):

Contractor to take note of the existing structure to ensure that the specification detailed below can be achieved. The existing property is timber frame in construction and therefore care should be taken not to impact the existing structural characteristics.

Construct external walls using 100mm matching stone 60mm cavity 140mm timber studs faced to the cavity side with foil face breather membrane 9mm WBP ply and filled with 140mm knauf frame therm. Internal the wall shall be completed with a 25x 50mm batten service void with OSB sheathing and plasterboard finish ready for decoration. Wall tie brackets to be inserted for stability in accordance with BS 1243:1978 at max 900 horizontally and 450 vertical centres, staggered in alternate rows. Additional ties are to be provide around openings at 225 vertical centres and 150 max from opening. Ties to be stainless steel or non ferrous in areas of severe exposure. All cavities to be closed at eaves and verge with hyload pitch polymer. DPC to be inserted a minimum 150 above adjacent finished ground level. DPC to have a minimum 150 lap at joints with DPM in order to ensure a continuous watertight seal. Proprietary thermabate cavity closer to be used at all window and door openings. New walls to be tied into existing using catnic stronghold connectors or similar approved fixed strictly in accordance with the manufacturers instructions and recommendations.

A sample of the proposed stone facing is to be presented to both the client and the planning department to ensure that approvals are in place prior to commencement.



Care to be taken not to penetrate the foil face breather membrane and to ensure that suitable connections are made between the existing and proposed.

Intermediate Floor

The existing floor complete with insulation that is tied back to the timber frame shall remain in place. A new floor shall be constructed to provide a first floor that aligns with the existing. The new floor shall be formed up using engineered timber frame I joist specifically designed by a specialist for the application. The joists shall be supported from new structural timber inserted into the existing timber frame. Once in place the joist shall be topped with 22mm T&G grade 11/111 water resistant chipboard to all areas. Joists at right angles to be supported as instructed by the specialist supplier.

Windows

The existing front window and the mullions, heads and sill to be carefully removed from the front elevation and stacked for reuse.

All new opening to be supported over with Catnic insulated lintels over with 150mm end bearing each side.

New windows to be upvc frames with low 'E' (K glass) 24mm double glazed units with a 16mm air gap to achieve a 'U' value of 0.20W/m²K in accordance to BS7412, incorporating trickle ventilators of not less than 8000sq mm. Opening lights of habitable rooms are to be greater than 1/20th of the floor areas of the relevant rooms. New Patio doors, front & rear entrance doors to be safety glazed using kite marked toughened glass. Glazing to comply with Part N of Building Regs.

Walls (Internal)

Non structural partition walls to be formed using British Gypsum 70mm metal studs at max 600crs clad each side with nom. 12.5mm plasterboard.

Partitions between bathroom/WCs and Habitable rooms to also incorporate a 70mm min mineral wool acoustic quilt.

Masonry walls to be finished with 13mm nom. lightweight plaster and finish. Plasterboard partitions to have joints fully taped and skimmed.

Internal Penetrations

To provide access from the existing bedroom to the new bathroom a structural opening shall be formed in the existing house gable. The masonry wall shall be supported via catnic lintel sized to suit the opening and complete with 150mm end bearing each side. The internal wall is constructed with timber. The contractor shall expose the timber frame locally and reconfigure the structure to trim out the opening.

Drainage.

The location of the existing drainage system is to be confirmed prior to commencement so as the new connections and intersections can be determined. The contractor is to agree proposal with building control officer, the information on the drawing indicates initial site investigation. The existing S&VP to the gable elevation is to be extended to above the verge line complete with balloon cage to top. Contractor to provide and fix new connections and waste to specialist fittings with WC having 100mm dia waste, bath having a 44mm dia waste and WHB having a 32mm dia waste connecting to new S&VP by boss connector and 75mm dst where



required. Vent new bathroom with mechanical extract fan capable of extracting at a rate of 15 litres per second operated off light switch incorporated overrun.

Existing rainwater good to be extended and modified to suit the proposed extension with matching 100mm half round gutters connecting to the existing B.I.gullies via 75mm rainwater pipes

The new kitchen shall be formed with kitchen units to suit the clients instruction. A sink base unit complete with sink shall be installed in the location shown. The sink shall be provided with mains cold and hot water. The waste from the sink is to discharge into the existing S&VP via a 38mm dia waste via a boss connector and a 75mm dst.

Ventilation:

A) Habitable rooms: Windows to have opening lights to minimum 5% (1/20th) of floor area with some part minimum 1.75m above floor level, plus background ventilation through trickle ventilator, to provide not less than 4000mm sq. of free ventilation.

B) Bathroom : Mechanical extract providing 3No. air changes/hour, with 15 litres/sec capacity, operated intermittently with 15min O/run, along with windows as in 'A' above.

C) Kitchen : Mechanical extract, with 60 litres/sec capacity, operated intermittently with 15min O/run, along with windows as in 'A' above

Contractor to ensure that adequate ventilation is provided to the roof with a 25mm continuous vent gap at eaves and proprietary brand lead flashing ventilator providing at least equal to a 10mm vent gap along the length. Alternatively contractor to supply and fix ventilating tiles fixed at high point of roof supplying the same amount of ventilating opening.

Stairs:

The existing stairs are to be retained in position and extended to the new floor level. The contractor is to remove the floor covering to establish the exact rise and going. The new treads fitted to the stairs should match as near as possible whilst ensuring alignment with the existing first floor.

Existing Balustrade to be removed and a new one reinstalled at the same height above the string as the existing.

Structural Works

Exact loading from the hoist to be established prior to commencement to consider what additional structural support are required to safely transfer the loads.

Electrical Works

New rooms are to be fitted with energy efficient light fittings to achieve 40 lumens per circuit watt, this can be done by installing a pendant CFL lampholder which takes either 4 pin CFL's type PL-C or TC-D.

All electrical work required to meet the requirements of Part P (electrical safety) will be designed, installed, inspected and tested by a person competent to do so. Prior to completion the Local Authority must be satisfied that either :-

- * An electrical installation certificate issued under a Competent Person Scheme has been issued, or

- * Appropriate certificates and forms defined in BS7671 (as amended) have been submitted that confirm that the work has been inspected and tested by a competent



person. A competent person will have a sound knowledge and experience relevant to the nature of the work undertaken and to the technical standards set down in BS7671, be fully versed in the inspection and testing procedures contained in the regulations and employ adequate testing equipment.

The existing light switches and small power sockets to be relocated at the new height to suit floor level to meet latest DDA requirements.

Smoke Detectors:

Mains operated self contained smoke detectors, interconnected to ensure that if one detector is activated, the other(s) will also be activated. Smoke detectors to conform to BS 5446 : Part1. Detectors to be permanently wired to a separately fused circuit in the consumer unit. Manufacturers instructions on operation and maintenance to be handed to client on completion. The smoke detectors will be located to the hall and landing.

Plumbing:

The existing boiler is to be checked for suitability and new radiators of correct size to be added to the system in all new rooms except for the landing, additional radiators are to be fitted with thermostatic valves. All this work to be carried out by a corrgi registered plumber to suit all the relevant regulations.

All new hot taps to bath and sinks should be positioned on the left side.

All existing radiators to be relocated to suit new configuration and differing floor levels.

Important

All proprietary brand products to be used or fixed strictly in accordance with manufacturers instructions. Contractor to obtain such from builders merchant/suppliers prior to commencement of works. Contractor shall work to written dimensions only and shall not scale from plans. Queries to be discussed with architect during contract. All new building work to comply with current building regulations and relevant British Standards with BBA certificates as appropriate water and electrical installations to comply with the relevant Authorities regulations and codes of practice.