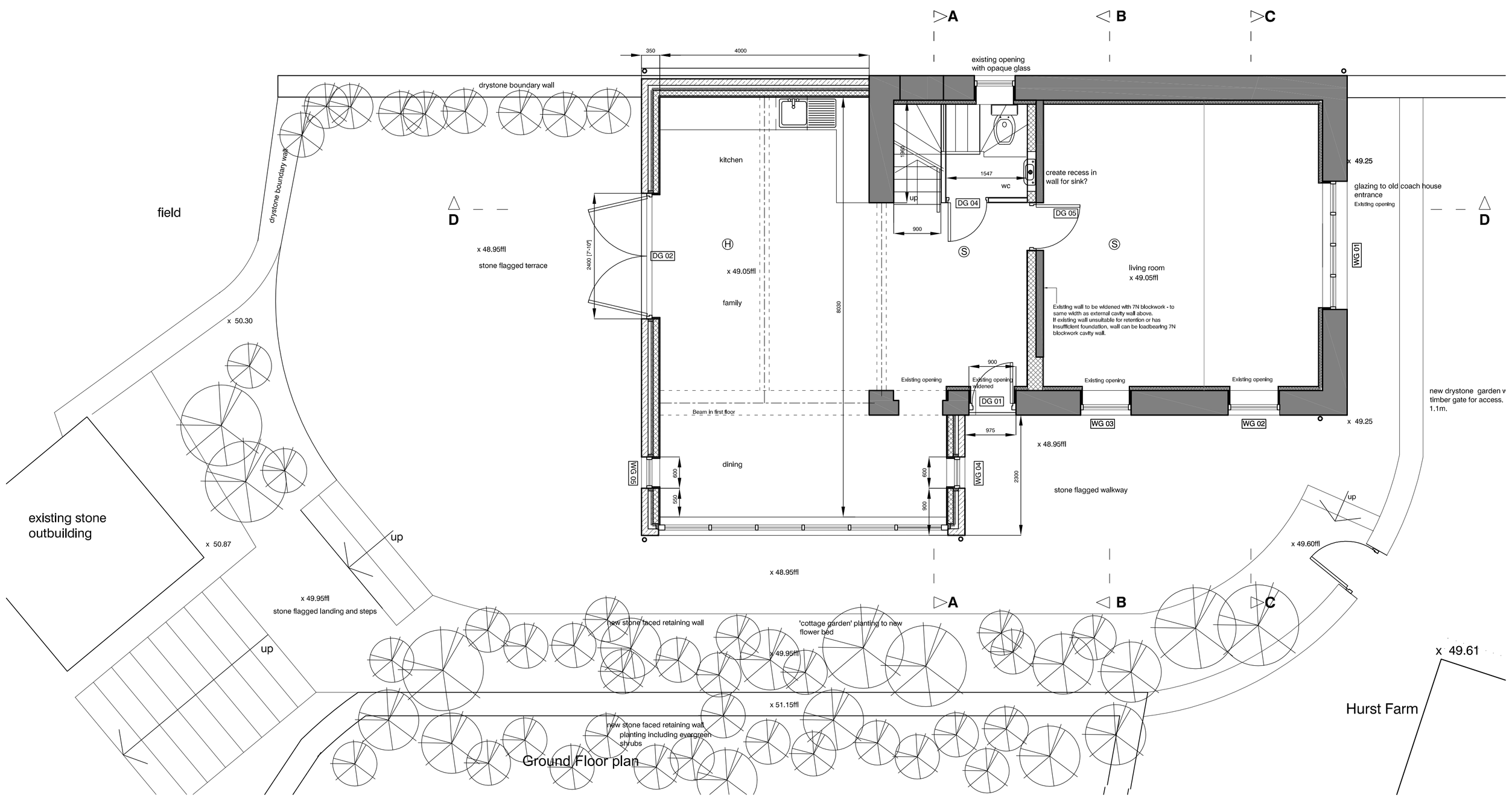

(1) **Roof :**
Natural slate to be laid on 38 x 38 treated timber battens, on Tyvec or similar approved breathable untearable roofing felt. 120mm Kingspan TP10 Pitched Roof Board (or similar approved) between 150 x 50 timber rafters, fit 37.5mm Kingspan Kooltherm Insulated Plasterboard (or similar approved) to underside of rafters. Roof to achieve minimum 0.16w/m2K U-Value.
75mm treated timber wallplate strapped down at min 1m centres with 30 x 5 m.s strapping down 900mm.
254 x146 UB 31 ridge beam bearing on concrete padstones.
Structural engineer to confirm steel and timber sizes and requirement for any framing.

(2a) **External Walls :**
Existing external stone walls to be pointed and coverered with scratch coat. Line with 72.5mm Kingspan Kooltherm Insulated Plasterboard (or similar approved) with integral vapourcheck. Window and door reveals to be lined with 32.5mm Kingspan Kooltherm Insulated Plasterboard. Walls to achieve minimum U-Value of 0.28W/m2K.
(2b) New External walls to be 100 - 125 natural grtstone, 50 cavity, 50mm Kingspan TW50 or similar approved, 100 7N medium density concrete block and 13mm plaster. Wall ties to be BBA Approved double drip type with retaining clip. Walls to achieve minimum U-value of 0.28W/m2K.

(3) **Ground Floor Construction:**
Floor finish on 75mm level sand / cement floor screed including underfloor heating pipe system on polythene on 70mm Kingspan Thermafloor TP70 Floorboard, on 150mm reinforced concrete slab, on 1200 gauge dpm, on min 100mm MOT with fines. Minimum 20mm thick perimeter insulation. All joints in dpm to be twice folded to give 100 welt. Any steelwork below ground to have min 100mm cover. Ground floor to achieve minimum 0.22 W/m2K U-Value. Refer to 1111.13 for typical ground floor section.
Foundations : To new external walls and new internal loadbearing walls. 1m min depth. Nom 600 x 200dp C35 concrete. Depth to be agreed on site site Building Inspector when the exact ground conditions are known. Any retaining wall and underpinning details to be agreed with Building Inspector on site.

(4) **DPC :** Bituminous felt dpc and mastic sealant to heads jambs and cills of all external openings. (min 150 girth dpc pinned forward to door & window frames).
Insulated cavity closers at openings; Thermabate or similar.
Cavity trays with weepholes above at all openings in wall and above existing wall.

(5) **Radon and waterproofing Protection:** Basic radon protection provided by minimum 1200 gauge visqueen (or similar approved) dpm lapped and taped to dpc and cavity trays, in new extension. Junctions of new floors with existing wall, bituminous paint and dpm turned up existing wall to minimum 200mm above external ground level. This requirement is to be confirmed by Building Control.

(6) **Tanking :** External tanking membrane and protection board by IKO Hyload or similar. Details as manufacturer recommendation. Internal membrane to solid walls taken up to a height 1m above external ffl. Retaining wall and tanking detail to be agreed with Building Control.
Drained system may be required depending on extent of water in the ground as the floor level is partly below the external level.

Internal Walls :
(7) Ground floor new: 100mm thick lightweight concrete blockwork, finished with 13mm plaster and skim to both sides.
First Floor new: 125mm wide timber stud partition with full mineral wool insulation infill. 13mm plasterboard and skim to
(8) both sides.
Existing masonry: existing plaster removed where loose, lime plaster finish. Any areas to be left as exposed masonry to be cleaned and repointed as required.

All SVP's to be formed with mdf or similar with fibre glass insulation within boxing. One side of duct to be fixed with brass cups and screws or similar to provide acess.

(9) **Lintels :** new internal 900mm blockwork wall openings - use Naylor S4 100 x 110, min 100mm bearing.

(10) **Intermediate Floor:**
New in extension: min 18mm engineered board or flooring grade chipboards on underfloor heating pipe system (pipes with insulation and diffuser panel, 25mm) by Nu Heat or similar approved. Perimeter insulation for acoustics. 22mm floor deck on 150 x 50 Dc16 joists @ 400cc (TBC by structural engineer) on joist hangers. Joists stiobilised under first floor partitions.
Fit 100mm fibre glass Insulation between joists and fix 12.5mm plasterboard and skim to underside.
Steels within the floor void with min 100mm bearing on concrete padstones in the inner wall leaf. Steels to be set down to allow underfloor heating over.
Floor to be strapped to walls at intervals not exceeding 2m with tension straps in accordance with BS EN 845-1, 2 rows of Herringbone bracing to joists, mid span.
Joists to be supported at external walls using restraint type joist hangers, in accordance with Diagram 18 of Approved Document A.
Structural steel beams and connections to Structural engineer design to be 1hr fire protected

(11) **Ventilation :** Habitable rooms to have min 1/20 floor area opening windows and 8000m2 background ventilation - trickle vents/night opening latches in windows (to Part F 1 Section 2. Table 2 Building Regulations). Kitchens and bathrooms to have openingn windows and 4000m2 background ventilation. Kitchen to have 30 litres/second extract ventilation adjacent to cooker, or 60 litres/second elsewhere. Bathrooms to have 15 litres/second operated by light switch, with 20 minute overrun facility.

(12) **Heating :** Via underfloor heating by nu-heat or similar from efficient condensing boiler. Installation by a Corgi registered contractor.

(13) **Windows :**
Painted hardwood framed double glazed to achieve U-Value of 1.6 W/m2 K.
Rooflights to be Velux type M06 and S06 with glazing bar, integral blinds and electrically operated.Conservation flashing so rooflight is flush with roof finish with insulated collar, --73 glazing with 1.4 w/m2k u value.
Escape windows to bedrooms to have unobstructed min. openable area of 0.33m2, with minimum clear horizontal and vertical opening of 450mm. Bottom of openable area to be max 1100mm from floor.
Platform required under escape rooflight to bedroom 2 to achieve correct height.
Glazed roof design and hardwood structure by manufacturer / contractor. Shop drawings to be provided for approval. Min 1.4 w/m2k u value.

Guarding: 900mm high guarding to all openable windows with cill below 800mm. Any guarding to escape windows should be removable, to prevent obstruction in the event of a fire.
Guardling should be capable of resisting at least the horizontal force given in BS 6399-1 1996.

Safety Glazing : Provide safety glazing to all windows below 800mm and all doors with adjacent windows below 1500mm above finished floor level. Safety glazing also to glazed roof.

(14) **Doors :**
External : Part double glazed with draught seals at terrace. (Aco drain in front of all external doors with level thresholds).
Internal : Existing timber doors retained if good condition. New timber doors.

Safety Glazing : Provide safety glazing to all windows below 800mm and all doors with adjacent windows below 1500mm above finished floor level. Safety glazing to all guarding / balconies as well as glazed roof.

(15) **Juliette balcony:** to bedroom 1; glass and stainless steel system by Elysion or similar approved (??) to height of 1100mm above ffl. Guarding should be capable of resisting at least the horizontal force given in BS 6399-1 1996.

(16) **Staircase:**
Timber staircase, width 900mm clear, handrails 900mm above pitch line. Minimum 2m clear headroom above pitchline. 230mm goings and 14 no. risers @ 188.2mm. Total rise 2635mm.

1100mm high ballustrades to all landings. Ballustrade to resist 0.36kN/m of horizontal force and guarding to prevent passage of 100Ø sphere. Ballustrading should not be climbable.
Fabricator to provide drawings for approval.

Internal Drainage : 100Ø pvc wastes from toilets, 38Ø pvc wastes from sink, baths and showers, 32Ø pvc wastes from wash hand basins, common wastes 50mm. 75mm deep seal traps to all fittings.

Sanitation:
Water efficiency - not to exceed 125 litres per person / day.
Where hot and cold taps are on a sanitary appliance, the hot tap should be on the left.

Lighting : Provide 1 energy 'efficient' light for every 25m2 of floor area, or at least 1 in every group of four lights. In accordance with Approved Document L.

Electrical Installation : All electrical design, installation, inspection and testing will be carried out by will be carried out by a competetent electrician in accordance with Approved Document P and BS 7671 2001. The contractor will provide Building Control with a copy of the Electrical Installation Certificate and the IEE Model forms on completion.

Part M : Switches and sockets between 450mm and 1200mm from finished floor level (in accordance with Section 8, Diagram 29 Approved Document M).

(H) Heat detector installed to B.S. 5445.
(S) Smoke detector installed to B.S. 5839 Part 6 2004. Interlinked and wired to mains electricity with battery backup.

Structural engineer to provide design / calculations
Building Control to approve all details

All construction to be carried out in accordance with manufacturers and suppliers recommendations and to comply with current Building Regulations and standards. Any discrepancies to be reported to the Architect/ contract administrator.

Refer to Accredited Construction details for Part L - series MII and MCW found on Planning Portal for workmanship with regards to heat loss and airtightness.

Rev B 13.03.13 Issued for revised planning application and building regulations submission
Rev A 06.02.13 Generally updated with construction information

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Conversion and extension **Building Regulations Plans**

Coach House, Hurst Farm, Derbyshire Level 1100.11

Scale: 1:50 @ A1 Date: December 2012 DO NOT SCALE OFF THIS DRAWING Rev: B