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Do not copy from this drawing, use figured dimensions only.

The drawing must be read in conjunction with all other related drawings and documentation.

It is the contractor's responsibility to ensure compliance with the Building Regulations.

It is the contractor's responsibility to check all dimensions on site, any discrepancy to be reported immediately.

Details and sizes shown are indicative only and are subject to confirmation by the relevant Specialist Sub-contractor.

This drawing is not to be for Land Registry purposes.

Revision: - Date: -

FOUNDATIONS
Foundations to be subject to any existing trees within 30m of proposal and existing soil conditions. Foundations details as directed by the Building Inspector.
Concrete must not be poured in freezing conditions.

FOOTINGS
Walls below damp proof course to be built in solid or cavity construction to suit wall construction above and as shown on drawings.
Footings to be constructed using FL or FN bricks or suitable brick specified by the manufacturer.
Blockwork used for the inner skin of cavity construction or to internal walls should be strictly in accordance with manufacturer's specification.
For cavity walls, provide concrete cavity fill to within 225mm of the DPC.
Damp proof courses to be bitumen, to BS 6398, or minimum 0.5mm black polyethylene, to BS 6815, with wetted or 100mm lepped joints, to each skin of footings. Backfill trenches in compacted layers to a maximum of 150mm below DPC.

GROUND FLOORS (Insulated suspended beam and block - 0.22 U-value)
Floor to be minimum 75mm sharp sand and cement screed, to BS 8204, reinforced with D49 fabric mesh poured on vapour control/slip layer over min. 125mm Polyfoam Plus Floorboard Standard floor insulation, or similar equivalent performing floor insulation achieving 0.22W/m²K or better U-value (p/a = 0.8). Insulation to be closely butted and taped with a 25mm upstand to perimeters, and laid in accordance with manufacturer's details and Robust Details. Provide a 1200 gauge polythene DPM laid over pre-cast reinforced concrete beam and block suspended floor, to BS 8110.
Floor beams to be designed and supplied by specialist, with light weight infill blocks and laid in accordance with manufacturer's details on DPC and over minimum 225mm void. Void to be provided with 600mm² ventilation per metre run of external walls (typically 215 x 75mm truncated air bricks with 1200mm² net area positioned at 2.0m c/c to BS 493). Provide additional DPC on top of floor beams where underside of beam is less than 150mm above finished external ground level.

EXTENSION RAIN WATER DISPOSAL
Unless otherwise noted on drawings, provide 100mm half round PVC-U gutters fixed level or to gentle falls of 1:800 and discharging to minimum 68mm downpipes (all to BS 6397).
Provide roddable bottle gullies connected to drain runs discharging into new soakaways (where possible, subject to soil conditions) or a watercourse or new/existing surface water system.
Soakaway sizes to be calculated in relation to the drained area and the permeability of the ground (calculated using percolation test if required) in accordance with BRE Digest 365 and/or N-HBC Chapter 5.3. Soakaways to be constructed using honeycomb brickwork or perforated concrete rings surrounded with granular material and positioned at least 5.0m from the nearest building's foundation.

BELOW GROUND DRAINAGE
Provide 110mm diameter PVC-U Corradrain, or similar equivalent, with flexible joints and laid on 50mm (minimum 1:40-fall, minimum 1:80-surface water) and bedded on minimum 50mm, surrounded by 150mm, and covered by 100mm of granular bedding material.
Drains to be laid in accordance with manufacturer's recommendations and discharge to inspection chambers/manholes/connections with existing drains as shown.
Where flexible pipes are to be laid shallower than 900mm below roads or drives the run affected is to be protected by a reinforced concrete raft supported beyond the width of the drainage excavation 100mm above the drain to allow for a cushion of fill.
For flexible drain runs less than 600mm below non-vehicular areas provide bridging slabs.
Protect drains passing through foundations by encasing drain in plywood ducting and 100mm glassfibre quilt within foundation, and install 2no 12mm m.s. rods over. For shallow drains install concrete lintels over drains within brickwork with a minimum of 50mm void around the pipe.

SHALLOW INSPECTION CHAMBERS
Shallow inspection chambers to be used only for invert depths of 600mm maximum.
250mm diameter one piece moulded polypropylene unit bedded on and surrounded with minimum 150mm granular material to BS 7156. Chamber to be fitted with 325mm diameter cast iron cover and frame. Only to be used in situations inaccessible to vehicles.

UNIVERSAL INSPECTION CHAMBER
Universal inspection chambers to be used only for invert depths of 1000mm maximum.
450mm diameter moulded polypropylene unit bedded on and surrounded with minimum 150mm granular material to BS 7156 with 150mm concrete around top of shaft to support 450mm diameter Class C cast iron cover and frame. Where situated on driveways provide shuttering around chamber and form 150mm thick concrete slab at a suitable level for Class B cover and frame.

MANHOLES (up to 2.7m deep)
Manholes to be 1200 x 750mm internally and consist of 150mm C15 concrete base with 225mm Class B engineering brick fitted internally with 1:3 cement mortar and fitted with a reinforced concrete cover slab. Alternatively use 1050mm diameter (1200mm diameter if deeper than 1.5m) pre-cast concrete chamber and shaft rings to BS 5911 fitted to manufacturer's specification.
Provide 800mm square or circular BS cover and frame suitable for loading situation.
Form smooth rounded benching at a minimum fall of 1:12. Manholes deeper than 1m to be fitted with metal step irons or fixed ladders.

PITCHED ROOF (vented sloping ceiling - working within existing roof structure)
Construct loft conversion within existing roof structure retaining existing rafters (except for within new rear dormer). Existing purlins are to be removed & existing rafters are to be re-supported by being bolted to adjacent new rafters.
Existing fascias, soffits, verges and the like to be retained unaltered through the works. Loft conversion is to be formed within existing roof structure, and if possible existing roof tiles, battens, felt & the like are to be kept in place during formation of loft conversion.
Insulate sloping ceilings between new / existing rafters from ridge to insulated dwarf walls with 2 layers 75mm thick Kingspan Kooltherm K7 insulation with 50mm air gap over to underside of existing felt (roof to be ventilated at eaves & ridge through ventilation gap).
Soffit u/s new rafters to achieve insulation / air gap thickness (see detail) and line internally with 500 gauge vapour control barrier with 12.5mm plasterboard with aluminium taped joints and skim finish to achieve overall U-value of 0.18 W/m²K.
Dwarf Ashlar/parlin walls to be 150mm thick w studwork insulated with 120mm Kingspan Thermawool TW55 insulation and finished internally with 12.5mm plasterboard and skim-walls to achieve min. 0.28 U-value.
Insulate between new / existing ground floor ceiling joists to all loft voids, to full depth of joists (minimum 100mm) using Crown Wool Infill and cross lay 200mm Crown Wool to achieve 0.16 W/m²K U-value. Provide 12.5mm plasterboard and skim finish ceilings. All insulation and roof coverings to be fitted in strict accordance with the manufacturer's specification.

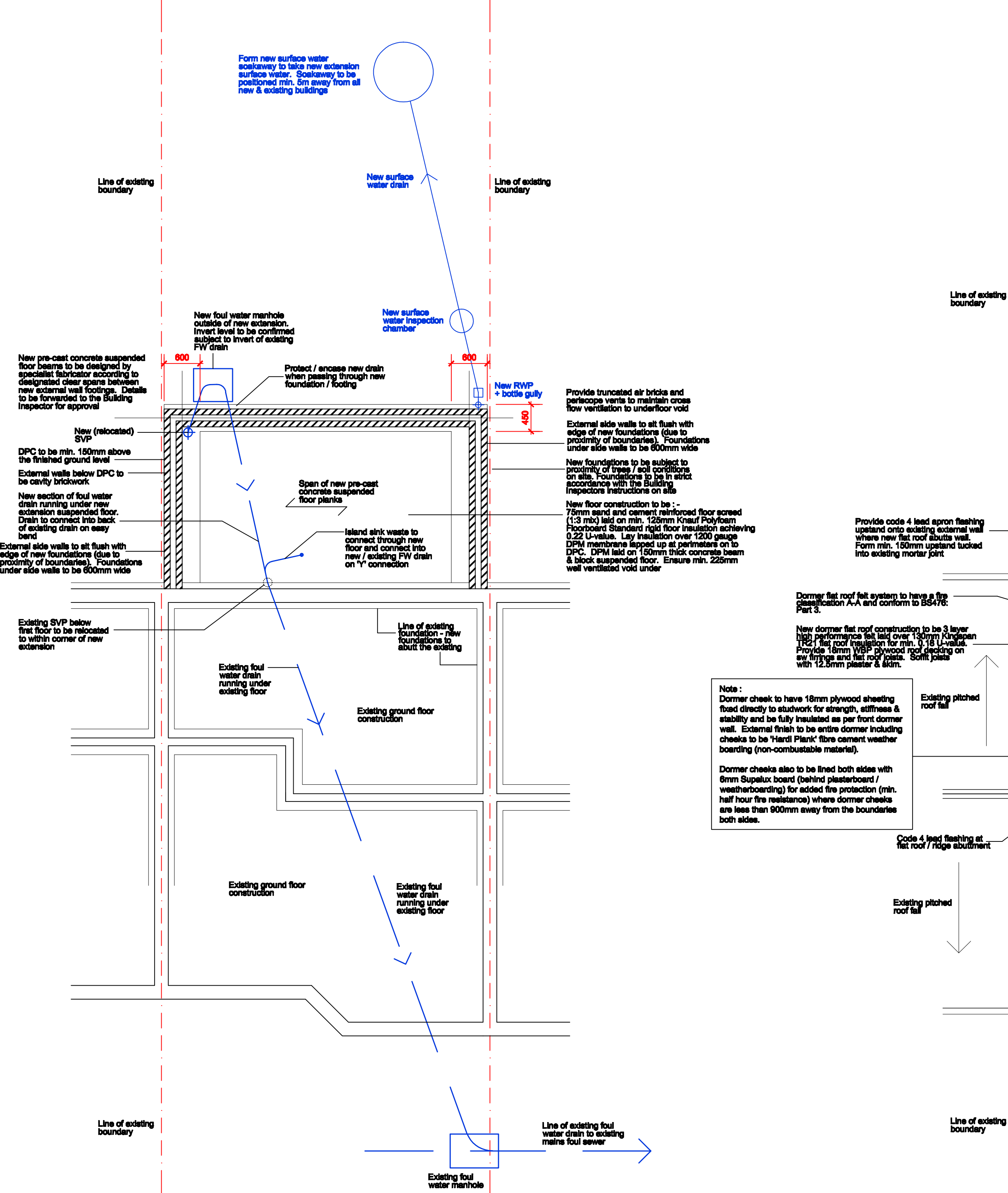
ROOF VENTILATION (10,000mm²/m)
Eaves to be fitted with Glidevale, or similar approved, SV Soffit or FV Fascia insect screened ventilators and RV Rafter/cross flow ventilators to achieve minimum 25,000mm²/m continuous air path to roof space. Ventilators to be installed on the two long edges of the roof, fitted in accordance with manufacturer's recommendations to comply with BS5250.

RIDGE TILE / TILE VENTILATION (5000mm²/m)
Provide Glidevale or similar ridge tile / tile vents, or similar approved, at 1.8m centres (12,000mm² capacity tiles) to achieve equivalent to 5000mm²/m continuous ventilation gap.

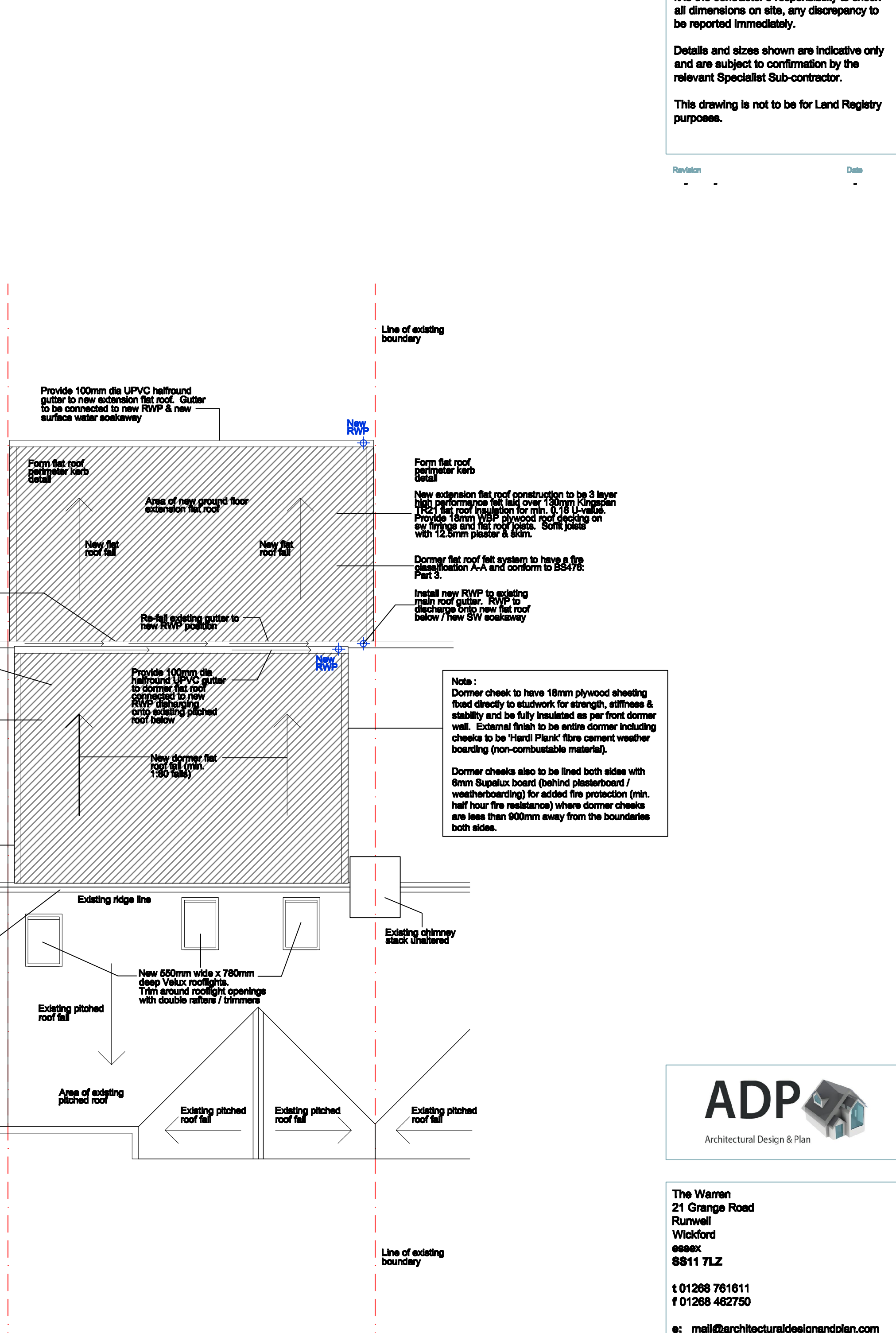
FLAT ROOFS (including dormer) (warm deck 0.18 U-value)
Provide and install three layer built up high performance elastomeric felt system with SBS modified bitumen, to BS147 laid to CP144 including mineral surfaced cap sheet on total 130mm Kingspan Thermafloor TR21 insulation (2 layers - 30mm + 100mm). 30mm layer insulation to be laid first on top vapour check / roof deck, then further 100mm layer laid over. System to achieve 0.18 U-value. System to be approved by Contract Administrator and include 15 year insurance backed manufacturer's guarantee. System to be installed in accordance with manufacturer's specification on 18mm WBP plywood roof deck on SW firings (min 1:80 fall) on metal deck or joists with noggins at mid spans and to edges of insulation board.
Flat roof joists to be strapped down to walls with Galvalised twist straps at 1200mm centres. Supply and fit code 4 lead to wall abutments and point using low modulus mastic.
Flat roof felt system to have a fire classification A-A and conform to BS478: Part 3.

LEAD FLASHINGS (apron-pitched roof)
Provide preformed cavity trays to new cavity walls, one course above flashing level, and Code 4 lead apron flashings with minimum 75mm upstand and 150mm lap onto tiles. Flashing to be tucked into mortar joint, or 25mm deep chase, with lead wedges and pointed with 1:3 mortar. Apply patination oil coat to lead.

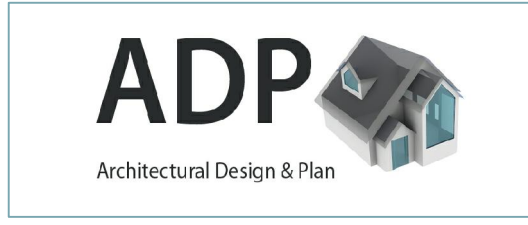
LEAD FLASHINGS (flat roof)
Form standard flat roof abutment detail, with triangular fillet, and weatherproof with Code 4 lead apron flashing, tucked 25mm into mortar joints with lead wedges, a minimum of 150mm above roof level. Provide preformed trays to new cavity walls, one course above flashing level. Apply patination oil coat to lead.



FOUNDATION & DRAINAGE PLAN 1:50



PROPOSED ROOF PLAN 1:50



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Description	PROPOSED REAR EXTENSION AND LOFT CONVERSION WITH DORMER	
PROPOSED FOUNDATION & DRAINAGE PLANS WITH ROOF PLAN		
Scale	Drawn	Date
A1@1:50	PDE	JUL 2012
Job number	Drawing no.	Revision
ADP164BRG	03	-