

This drawing and the information provided is the property of Thorns Young Architectural and shall not be copied whole, in part, or used for any other purpose without written permission from the company.

Principle Contractor is to ensure all materials and workmanship complies with Regulation 7 of the Building Regulations whether or not specifically stated on these drawings. It is the Principle Contractors' duty to ensure all works on site are approved by an appointed Building Control body.

Principle Contractor is to ensure dimensions are taken on site before procurement of any materials/work proceeding. Structural members are not to be ordered scaling from this drawing.

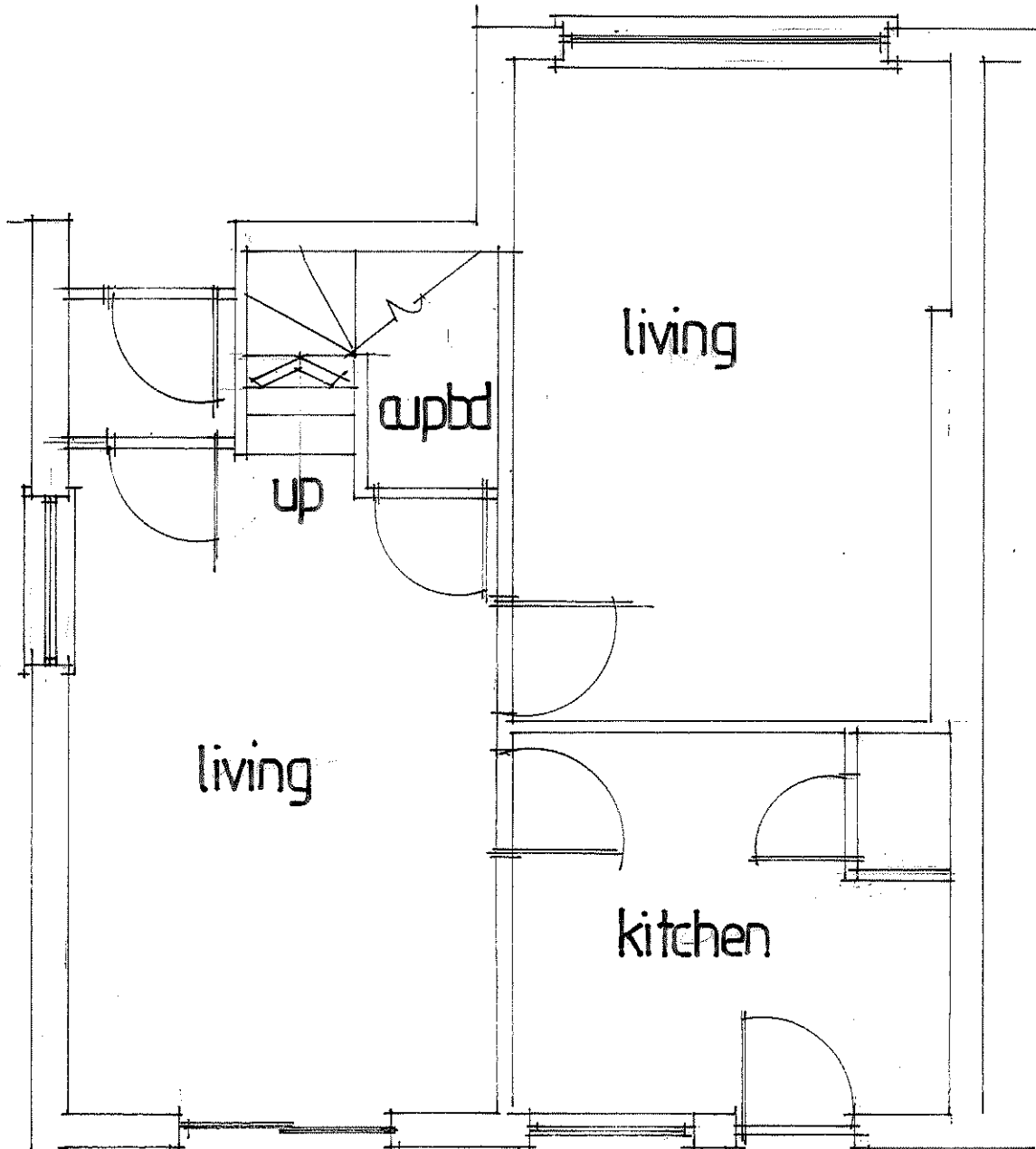
Existing structure including foundations, beams, walls and lintels carrying new and altered loads are to be exposed and checked by Principle Contractor before commencing the works for adequacy prior to commencement of work and as required by the Building Control Officer. Any discrepancies please contact Thorns Young.

Principle Contractor to ensure full compliance with the amended CDM Regulations (2015) if the project requires.

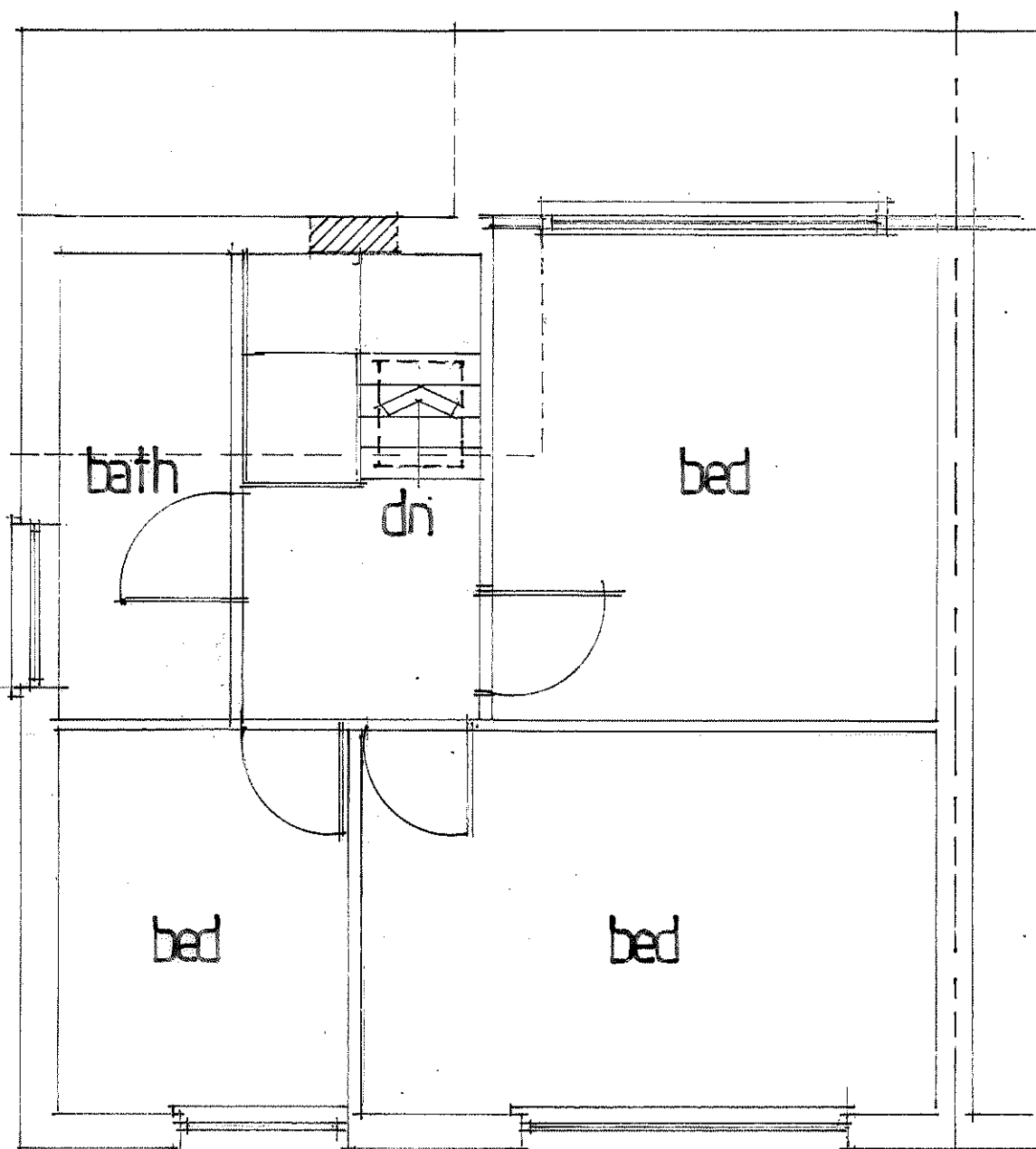
This drawing, unless noted, does not represent compliance with the Party Wall Act 1996 and if required, all agreements are to be in place before works commence.

It is the Principle Contractors' responsibility to ensure Planning/Building Control approvals are in place prior to works commencing. Should works commence prior to relevant approvals Thorns Young Architectural accept no responsibility.

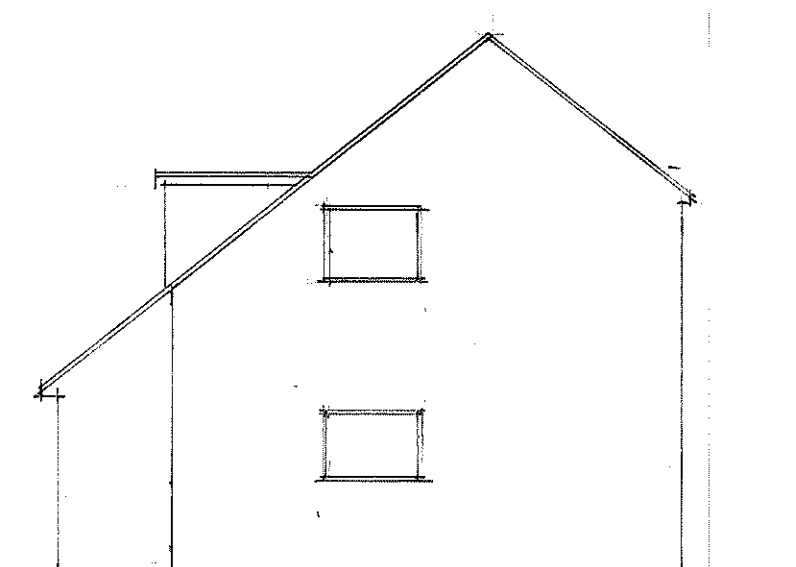
Do not scale from this drawing except for the purpose of Local Authority Planning department.



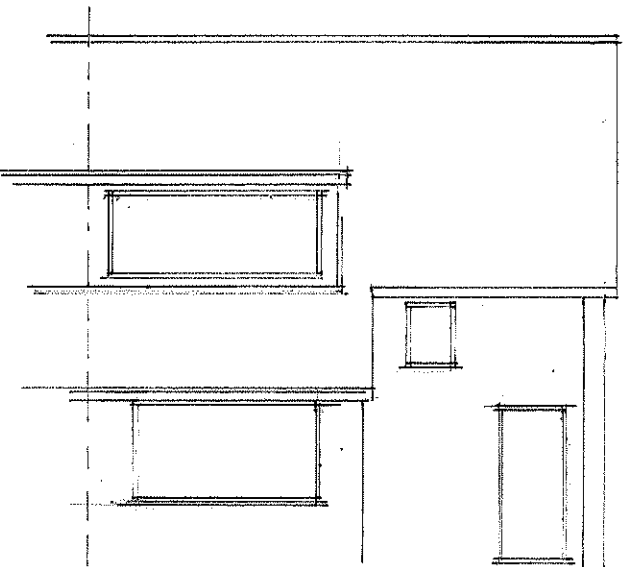
existing ground floor



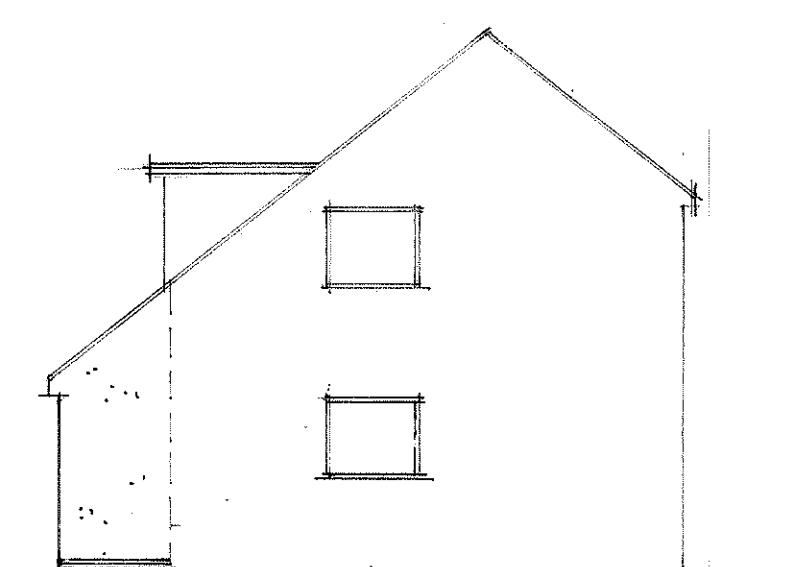
proposed first floor



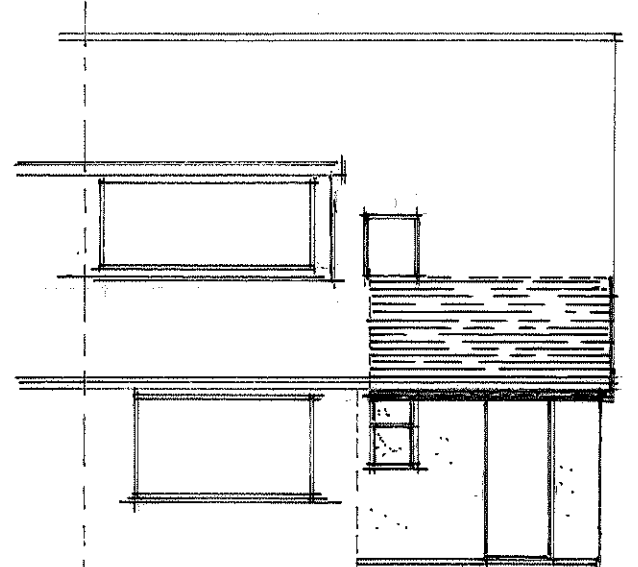
existing side



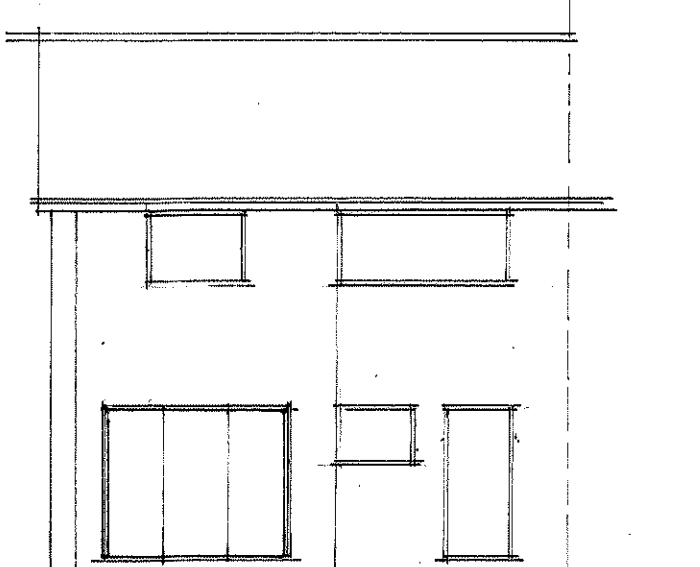
existing front



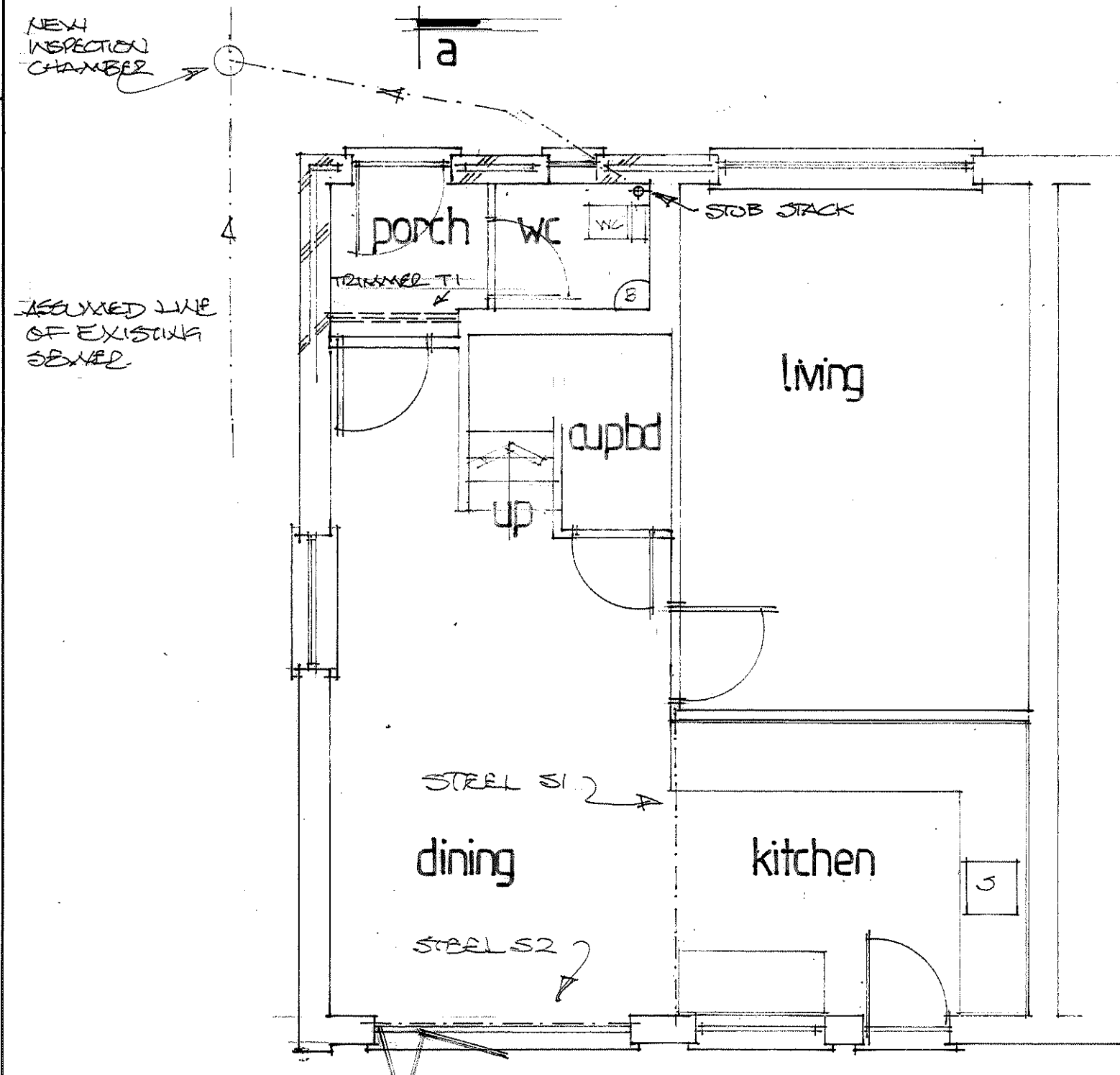
proposed side



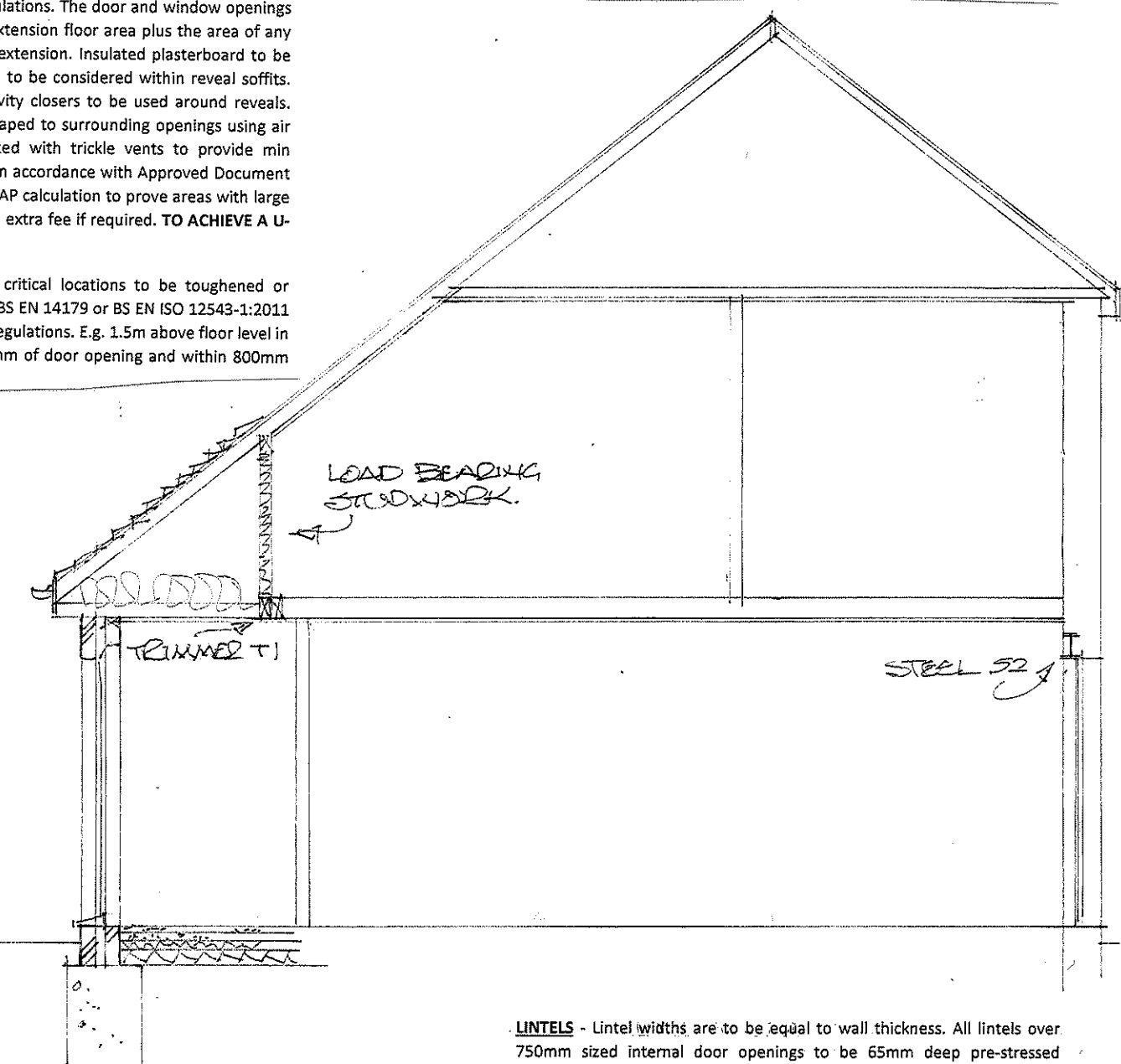
proposed front



proposed rear



proposed ground floor



section a-a

STEELWORK AND TIMBERS - Supply and install new structural elements such as new beams, roof structure, floor structure, bearings, and padstones in accordance with the attached structural calculations and details. Minimum bearing 100mm on concrete padstones, prestressed concrete lintels or metal bearing plates. New steel beams to be encased in 12.5mm 'Gyproc FireLine' board with staggered joints, 'Gyproc FireCase' or painted in 'Nulifire S' or similar intumescent paint to provide 1/2-hour fire resistance as agreed with Building Control at floor levels. All fire protection to be installed as detailed by specialist manufacturer.

LENGTHS OF STEELS TO BE SITE MEASURED TO INCLUDE BEARINGS. FABRICATION DETAILS TO BE PROVIDED IF REQUIRED BY BUILDING CONTROL.

NEW AND REPLACEMENT DOORS/WINDOWS - Glazed areas to be double glazed with 16-20mm argon gap and soft low-E glass. Glass to be toughened or laminated safety glass to BS 6206, BS EN 14179 or BS EN ISO 12543-1 and Part K of the current Building Regulations. The door and window openings should be limited to 25% of the extension floor area plus the area of any existing openings covered by the extension. Insulated plasterboard to be used in reveals to abut joints and to be considered within reveal soffits. Fully insulated and continuous cavity closers to be used around reveals. Windows and door frames to be taped to surrounding openings using air sealing tape. Windows to be fitted with trickle vents to provide min 8000mm² background ventilation in accordance with Approved Document F. Local authority may insist on a SAP calculation to prove areas with large amount of glazing. This will involve extra fee if required. TO ACHIEVE A U-VALUE OF 1.4W/m²K.

SAFETY GLAZING - All glazing in critical locations to be toughened or laminated safety glass to BS 6206, BS EN 14179 or BS EN ISO 12543-1:2011 and Part K of the current building regulations. E.g. 1.5m above floor level in doors and side panels within 300mm of door opening and within 800mm above floor level in windows.

CAVITY RENDER WALL - 20mm two coat sand/cement render to comply to BS EN 12924-1 with waterproof additive on 100mm 7.3N dense concrete blocks, 1.13 W/m²K e.g. Stowell. Full fill the cavity with 90mm Celotex Thermaclad Cavity Wall 21 as manufacturer's details, leave 10mm cavity between the insulation and outer skin. Inner leaf to be 100mm lightweight, 0.15 W/m²K e.g. Celcon solar, Toplite standard. Internal finish to be 12.5mm plasterboard on dabs. Walls to be built with 1:1.5 cement mortar. Vertical joints in the board must be staggered and all joints tightly butted. All details including corner and junction to be as relevant BBA certificate. Location to be assessed for suitability of insulation boards. All new walls below ground to be constructed using blockwork compliant with BS EN 771 and suitable for below ground level or semi engineering brickwork. Walls to be built using 1:4 masonry mortar mix or equal approved specification to BS EN 1996-1-2. Cavities below ground level to be filled with lean mix concrete min 225mm below damp proof course. Or provide lean mix backfill at base of cavity wall (150mm below damp course) laid to fall to weepholes. TO ACHIEVE A U-VALUE OF 0.18W/m²K.

DRAINAGE - All drainage to BS EN752 plus approved doc H 100mm diam. UPVC drain ware minimum fall 1:40 in 150mm concrete surround new or existing inspection chamber on the existing run. The public sewer being accurately located by the applicant on site prior to commencement of foundation excavations in order that the effect of the proposed works can be determined. Where the public sewer is to be built over, the condition of the public sewer being camera surveyed or fully exposed and determined as satisfactory. Failing this the affected length of pipework being replaced with new. All foundations within min. 3.0m of the public sewer being taken down to below invert level of the public sewer. No structures running parallel to the line of the public sewer being located within 500mm of the public sewer. Crossings being adequately supported using pre-cast or appropriately designed in-situ concrete lintels or beams flexible packing surround.

IN SOME CIRCUMSTANCES IT MAY BE NECESSARY TO APPLY TO THE MANAGING WATER COMPANY FOR A "BUILD OVER AGREEMENT" PRIOR TO THE WORKS BEING CARRIED OUT. ADVICE CAN BE SOUGHT FROM THORNS YOUNG OR YOUR LOCAL BUILDING INSPECTOR.

PIPES PASSING THROUGH TRENCH FOUNDATIONS - The load-bearing capability of foundations must not be affected where services pass through. The pipe work should be sleeved and be provided with 'rocker pipes' at 150mm either side of the foundation concrete. The 'rocker pipes' should have flexible joints and be a max. length of 600mm. Alternatively, pipework should pass through a suitably strengthened opening in the foundation, i.e. foundation shuttered and a provided with suitable lintel over the pipe allowing for sufficient space for movement to ensure that the drain is capable of maintaining line and gradient. Opening should be masked with granular backfill (pea shingle) around pipe. DPC to be provided as required by BCO. Advice from Building Control to be sought on suitability of pipe running through foundation before construction.

PIPES PASSING THROUGH WALLS - Walls above pipes passing through substructure walls to be supported on suitable lintel on semi-engineering bricks. Pipe to be provided with a 50mm clearance all round, opening to be masked with granular backfill (pea shingle) around pipe. DPC to be provided as required by BCO. Alternatively, where new pipework passes through external walls the pipe work is to be provided with 'rocker pipes' at 150mm either side of the wall face. The 'rocker pipes' must have flexible joints and be a max. length of 600mm.

INSPECTION CHAMBERS - Sizes to suit invert of drains min. sizes 600mm x 450mm internal with 102mm semi-engineering brickwork sides 215mm where invert exceeds 2m, built up from 150mm concrete slab base and fitted medium duty cover and frame. New and existing drains where passing beneath building encased in 150mm minimum of concrete.

UNDERGROUND DRAINAGE - Foul drainage to consist of 100mm diameter UPVC proprietary pipework to give a 1:40 fall. Surround pipes in 100mm pea shingle. Provide 600mm suitable cover (900mm under drives). Shallow pipes to be covered with 100mm reinforced concrete slab over compressible material. Provide rodding access at all changes of direction and junctions. All below ground drainage to comply with BS EN 1401-1.

INNER PARTITIONS - 100mm x 50mm timbers studs at 400mm cts. with 50 x 100mm head and sole plates and solid intermediate horizontal noggins at 1/2 height or 450mm cts. Provide min. 10kg/m² density acoustic soundproof quilt tightly packed (e.g. 100mm 'Rockwool' or 'Isowool' mineral fibre sound insulation) in all voids the full depth of the stud. Partitions built off doubled up joists where partitions run parallel or provide noggins where at right angles. Walls faced throughout with 12.5mm plasterboard with 3mm skim plaster finish. Taped and jointed complete with beads and stops.

LOADBEARING STUDWORK - Min. 100mm x 50mm treated timbers studs at 400mm cts. with 50 x 100mm head and sole plates and solid intermediate horizontal noggins at 1/2 height or 450mm cts. Provide min. 10kg/m² density acoustic soundproof quilt tightly packed (e.g. 100mm 'Rockwool' or 'Isowool' mineral fibre sound insulation) in all voids the full depth of the stud. Partitions built off doubled up joists where partitions run parallel or provide noggins where at right angles. One side of wall to be faced with 12.5mm plasterboard and one side to be 12mm Plywood glued and screwed to studs both with 3mm skim plaster finish. Taped and jointed complete with beads and stops.

ROOF LIGHTS - To be double glazed with 16mm argon gap and soft low-E glass. Window Energy Rating to be Band C or better. Roof lights to be fitted in accordance with manufacturer's instructions with rafters doubled up to sides and suitable flashings etc. TO ACHIEVE A U-VALUE OF 1.6W/m²K.

MECHANICAL EXTRACT - Provide mechanical extract ventilation to WC/bathroom/shower room ducted to external air capable of extracting at a rate of not less than 15 l/sec. Vent to be connected to light switch and to have 15 minutes over run if no window in the room. Internal doors should be provided with a 10mm gap below the door to aid air circulation. Ventilation provision in accordance with the Domestic Ventilation Compliance Guide. Intermittent extract fans to BS EN 13141-4. All fixed mechanical ventilation systems, where they can be tested and adjusted, shall be commissioned and a commissioning notice given to the Building Control Body.

MECHANICAL EXTRACT (KITCHEN) - Kitchen to have mechanical ventilation with an extract rating of 60 l/sec or 30 l/sec if adjacent to hob to external air, sealed to prevent entry of moisture. Internal doors should be provided with a 10mm gap below the door to aid air circulation. Ventilation provision in accordance with the Domestic Ventilation Compliance Guide. Intermittent extract fans to BS EN 13141-4. Cooker hoods to BS EN 13141-3. All fixed mechanical ventilation systems, where they can be tested and adjusted, shall be commissioned and a commissioning notice given to the Building Control Body. If applicable utility room provide mechanical ventilation ducted to external air capable of extracting at a rate of 30 l/sec.

ELECTRICAL WORKS - All electrical work required to meet the requirements of Part P (electrical safety) must be designed, installed, inspected and tested by a competent person registered under a competent person self-certification scheme such as BRE certification Ltd, BS, NICEIC Certification Services or Zurich Ltd. An appropriate BS7671 Electrical Installation Certificate is to be issued for the work by a person competent to do so. A copy of a certificate will be given to the Council.

INTERNAL LIGHTING - Install low energy light fittings that only take lamps having a luminous efficiency better than 80 lumens per circuit watt. All fixed to have lighting capacity (lm) 185 x total floor area, to comply with Part L of the current Building Regulations and the Domestic Building Services Compliance Guide. Any recessed ceiling lights to be 30-minute fire resisting.

PITCHED ROOF (INSULATION AT CEILING LEVEL) - Roofing tiles to match existing on 25 x 38mm treated battens on sarking felt supported on 125 mm x 50 mm grade C24 rafters at max. 400mm cts. Rafters supported on 100 x 50mm wall plates. Insulation at ceiling level to be two layers of Rockwool insulation to total 300mm laid between over joists (cross direction). Construct ceiling using 100 mm x 58mm C24 joists at 400mm cts, finished internally with 12.5mm plasterboard and min. 3mm thistle multi-finish plaster. Provide polythene vapour barrier between insulation and plasterboard. Provide opening at eaves level at least equal to continuous strip 25mm wide on two opposite sides to promote cross-ventilation. Mono pitched roofs to have ridge/high level ventilation equivalent to a 5mm gap via proprietary tile vents spaced in accordance with manufacturer's details. Restraint strapping - 100mm x 50mm wall plate strapped down to walls. Ceiling joists and rafters to be strapped to walls and gable walls, straps built into cavity, across at least 3 timbers with noggins. All straps to be 1000 x 30 x 5mm galvanized straps or other approved to BS EN 845-1 at 2m cts. Loft hatches should be suitable designed and installed to ensure optimum air tightness. TO ACHIEVE A U-VALUE OF 0.15W/m²K.

HEATING - Extend all heating and hot water services from existing and provide new TRVs to radiators. Heating system to be designed, installed, tested and fully certified by a GAS SAFE registered specialist. All work to be in accordance with the Local Water Authorities by laws, Gas safety requirements and IEEE regulations.

RAINWATER GOODS - New rainwater goods to be new 110mm UPVC half round gutters taken and connected into 68mm dia UPVC downpipes to existing drainage system.

It is the client's responsibility to ensure the contractor has the latest set of drawings and calculations

TRENCH FOUNDATION - Provide 750mm thick trench fill concrete foundations with a minimum width equal to the width of the wall plus 300mm. Concrete mix to conform to BS EN 206:2013 (+A2:2021) and BS 8004:2015 Code of practice for foundations (+A1:2020). All foundations to be a minimum of 1.0m below ground level, exact depth and foundation size to be agreed on site with Building Control Officer to suit site conditions. All constructed in accordance with 2010 Building Regulations A2/2 and BS 8004 Code of Practice for Foundations (+A1:2020). Ensure foundations are constructed below invert level of any adjacent drains. Base of foundations supporting internal walls to be min 600mm below ground level. Sulfate resistant cement to be used if required. Please note that should any adverse soil conditions or difference in soil type be found, or any major tree roots in excavations, the Building Control Officer is to be contacted and the advice of a Structural Engineer should be sought.

SOLID FLOOR (P/A 0.5) - Solid ground floor to consist of 150mm consolidated well-rammed hardcore. Blinded with 50mm sand blinding. Provide 100mm ST2 or Gen2 ground bearing slab concrete mix to conform to BS 8500-2 over a 1200-gauge polythene DPM. DPM to be lapped in with DPC in walls. Floor to be insulated over slab and DPM with min. 90mm 'Celotex GA4007' insulation. 25mm insulation to continue around floor perimeters to avoid thermal bridging. A VCL should be laid over the insulation boards and turned up 100mm at room perimeters behind the skirting, all joints to be lapped 150mm and sealed. Finish with 65mm sand/cement finishing screed with light mesh reinforcement. Where drain runs pass under new floor, provide A342 mesh 1.0m wide and min 50mm concrete cover over length of drain. Where existing suspended timber floor air bricks are covered by new extension, ensure cross-ventilation is maintained by connecting to 100mm dia. UPVC pipes with 100mm concrete cover laid under the extension. Pipes to terminate at new 65mm x 215mm air bricks with cavity tray over. TO ACHIEVE A U-VALUE OF 0.18W/m²K.

LINTELS - Lintel widths are to be equal to wall thickness. All lintels over 750mm sized internal door openings to be 65mm deep pre-stressed concrete plank lintels. 150mm deep lintels are to be used for 900mm sized internal door openings. Lintels to have a minimum bearing of 150mm on each end. Any existing lintels carrying additional loads are to be exposed for inspection at commencement of work on site. All pre-stressed concrete lintels to be designed and manufactured in accordance with BS EN 1992-2-1, with a concrete strength of 50 or 40 N/mm² and incorporating steel strands to BS 5896 to support loadings assessed to BS 5977 Part 1. For other structural openings provide proprietary insulated steel lintels suitable for spans and loadings in compliance with Approved Document A and lintel manufacturer's standard tables. Stop ends, DPC traps and weep holes to be provided above all externally located lintels. Independent lintels to have an insulated cavity closure between the inner and outer lintel.

STUB STACK - Run to 100mm dia. stub stack terminating above appliance flood level with 'Durgo auto-vent'.

PLUMBING - All to BS EN 2056 plus approved doc H 38mm dia. wastes from the sink, shower and bath, 32mm dia. waste from wash hand basin, all with rodding access on changes of direction and with deep seal traps. Run to new 100mm dia. Stub stacks finishing above highest appliance flood level with 'Durgo auto vent'.