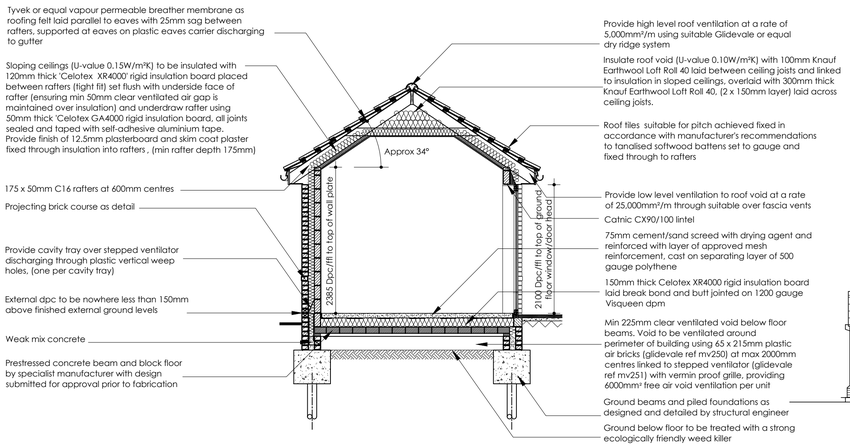
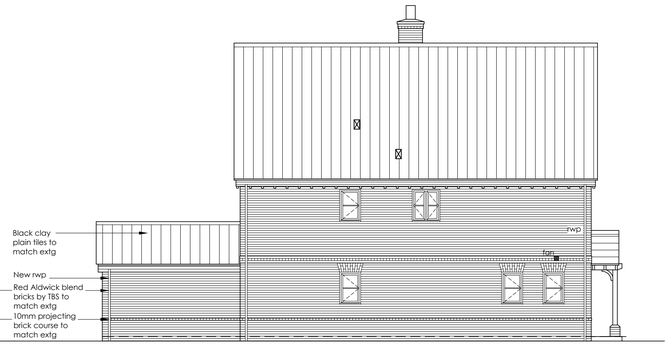


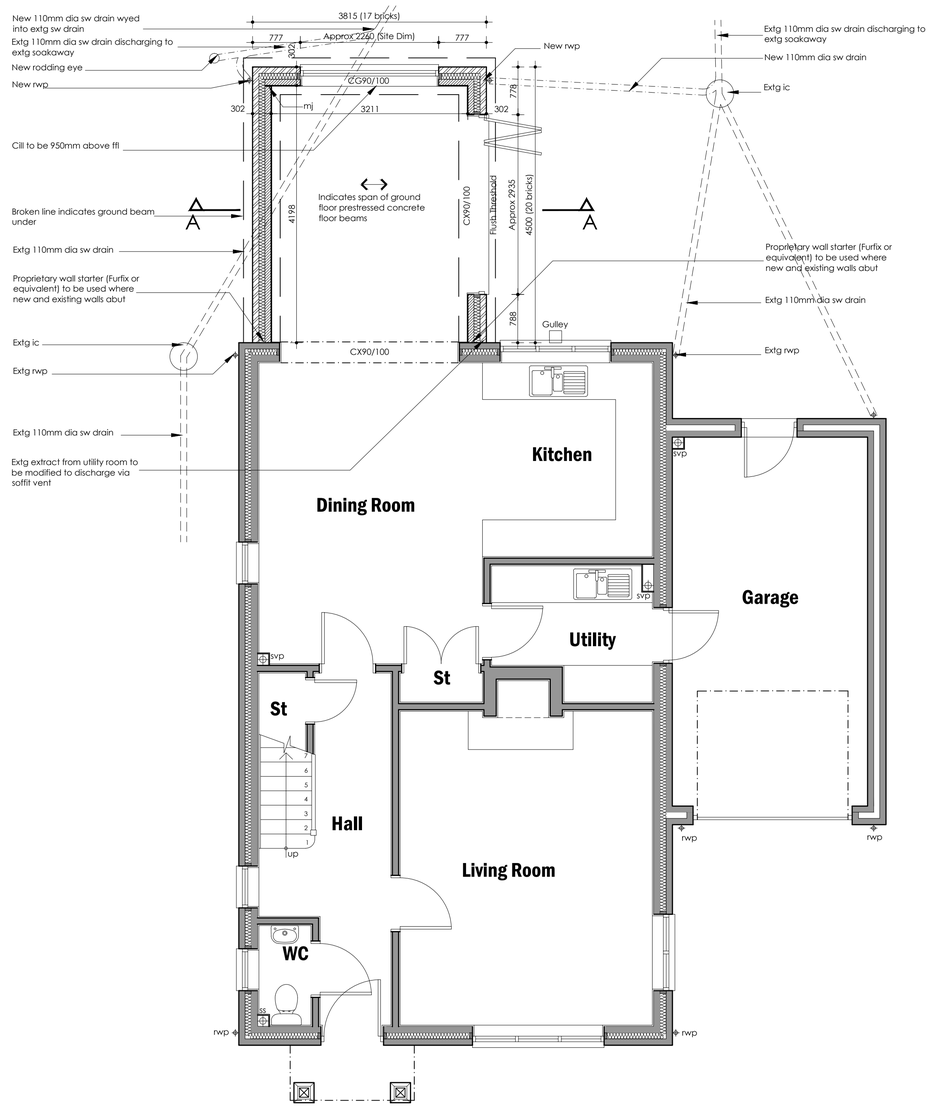
Section A - A
1:50

Side Elevation - e

Rear Elevation - n



Side Elevation - w



Ground Floor Plan
1:50

1. INSTRUCTION
The proposals incorporated in these drawings are designed to meet the current requirements of the Building Regulations 2016, with all current amendments, Approved Documents A to P, document supporting regulation 7, and all the British Standards and Codes of Practice referred to therein.
All site conditions and dimensions to be verified on site by builder
Drawings to be read in conjunction with any site investigation report.
All products referred to are to be used strictly in accordance with manufacturer's instructions.
Please do not scale off this drawing.
If in any doubt please ask.

2. SETTING OUT & PREPARATION
The development is to be positioned and set out on the site to the dimensions shown on the drawing and finally checked on site from all physical boundaries.
If any discrepancy is found, then further instruction must be requested.
Reduce levels and clear ground in readiness for construction work to commence.

3. FOUNDATIONS
Foundations to be mini piles and ground beams to design of specialist.
Cast in ducts through foundations where required for service entry pipes,cables and drains, provide flexible protection around pipe with minimum 50mm thickness of compressible sealant, and mask opening both sides of duct with rigid sheet material to prevent entry of fill or vermin.

4. GROUND FLOOR SLAB (SUSPENDED WITH SCREED FINISH) 'U' VALUE 0.12 W/m²K
To consist of pre-stressed concrete flooring beams by specialist manufacturer to BS 8110:1985 with solid, tongueless concrete infill blocks manufactured to BS 6073 pt.1 1981, (max thermal conductivity 0.15w/mk.). Beams to have minimum 100mm bearing onto inner skin of cavity external walls, bedded on horizontal dpc.
All final detailing and beam layouts to be supplied by beam manufacturer.
Apply levelling screed to surface as necessary. Lay Visqueen or equal 1200 gauge/300um polythene dpm with joints lapped and taped in approved manner with all service entry pipes sealed with proprietary top hat seals. Lay 150mm thick Celotex XR4000 rigid insulation boards, with all joints butted and taped. Finish floor with 75mm thick fibre reinforced cement/sand screed with suitable drying agent cast on 500 gauge polythene separating membrane. Provide 25mm thick Celotex GA4000 rigid insulation to perimeter of screed.
Allow to provide minimum 225mm clear void under floor beams and ventilate using 'Glidevale' plastic air brick 'ref MV250 set at 2000mm centres around external perimeter walls linked to 'Glidevale' periscope ref 'MV251 with vermin proof grille (6000mm² free air ventilation per unit). Provide cavity tray dpc in walls over periscope discharging through plastic vertical weep holes.
Ensure free flow of air between new and existing floor voids where new and existing contructions abut.
Ensure that the building is physically sealed from the ground including gaps around service entry points and any small enclosed spaces.
Ground below floor beams to be treated with a strong ecologically friendly weed killer prior to installation of floor.

5. FACE BRICKWORK EXTERNAL WALLS ('U' VALUE 0.24 W/m²K)
Cavity walling built off top of foundations up to dpc levels in external skin of 102mm thick brickwork, 100mm wide clear cavity backfilling to within 225mm of lower dpc with weak-mix concrete sloping outwards and inner skin of 100mm blockwork, (suitable for use below dpc/ground level), up to underside of floor beams, bed 'Ruberoid Hyload' or equal dpc; at underside of beam level and finished floor level to inner skin; to outer skin to be nowhere less than 150mm above ground level, stepped wherever necessary & carried under doorways.
Continue above dpc in 302mm cavity walling in 102mm thick face brickwork outer skin; and inner skin of 100mm 4.0N/mm² " blockwork, (max thermal conductivity 0.18w/mk), 100mm wide clear cavity with stainless steel wall ties at 900 centres horizontally and 450 centres vertically, with staggered spacings,and built in with raising of walls. Proprietary wall starter (Furfix or equivalent stainless steel starter channels and ties bolt fixed to existing) to be used where new and existing constructions abut.
Provide 10mm thick 'Aerofil' or equal compressible material in joint and seal with non-hardening polysulphide mastic.
Build in windows and door openings where shown as work proceeds, bedding 'Thermabate or equal insulated cavity closers/dpc around openings.
Bed 100 x 50 eaves plate to top of blockwork strapped down at 1200mm centres using 'L' shaped straps (Bat M305 or equal) fixed over plate and screw fixed every sixth hole to blockwork.
Build in all roof timber supports.
Finish walls internally with 12.5mm plasterboard on dabs and skim-coat plaster finish.
Insulate cavities with 100mm thick 'Knauf Earthwool Dritherm 32 Ultimate', (thermal conductivity 0.320W/mK), cavity batt insulation, rested on wall ties.

6. MOVEMENT JOINTS
Provide movement joint in internal blockwork in position indicated comprising 10mm aerofill, 200mm x 40mm x 1.5mm stainless steel strip ties across joint at 450mm vertical centres, de-bonded one side. Seal joint with non-hardening polysulphide mastic.

7. ROOF 'U' VALUE 0.10 W/M²K
Pitch as indicated on sections/elevations with any discrepencies reported to designer.
Roof tiles as specified, suitable for pitch achieved, laid to manufacturer's specification and fixed every course to tanalised soft wood battens fixed to correct gauge on 'Tyvek" or equal vapour permeable breather membrane as roofing felt laid parallel to eaves, with minimum 25mm sag between rafters, and supported at eaves on proprietary eaves tray discharging to gutter.
Roof frame of 175mm x 50mm C16 rafters at 400mm centres, tied by 125 x 50mm C16 ties at 400mm centres .
Fix bracketing for eaves overhang with fascia & soffitt.
Provide 12.5mm plasterboard ceiling with skim coat finish.
Insulate roof void with 100mm 'Knauf Earthwool Loft Roll 40' quilt insulation laid between ceiling joists on plasterboard ceiling and carried into eaves box to link with wall insulation and 2 layers of 150mm 'Knauf Earthwool Loft Roll 40' quilt insulation laid across ceiling joists.
Sloping ceilings to be insulated with 120mm thick 'Celotex XR4000' rigid insulation board placed between rafters (tight fit) set flush with underside face of rafter and underdraw rafter/stud using 50mm thick 'Celotex GA4000' rigid insulation board, all joints sealed and taped with self-adhesive aluminium tape. 50mm air gap to be maintained above insulation and below vapour permeable membrane, with all rafters in sloping ceiling having 170mm minimum depth. Provide finish of 12.5mm plasterboard and skim coat plaster.
Provide high level ventilation to roof void at a rate of 5000mm²/m using suitable ventilated dry ridge system and low level ventilation at eaves at a rate of 25000mm²/m using suitable over fascia vents.

8. LATERAL SUPPORT
At ceiling and roof levels where external walls are parallel to rafters/joists with 30mm x 5mm galvanised ms straps at maximum 1200mm centres, fixed across minimum three joists/rafters.
Provide solid timber noggins between joists/rafters for entire length of straps.

9. RAINWATER GOODS AND DISPOSAL
All new rainwater goods to be in upvc, guttering to be 100mm deep flow half round, complete with brackets, stop-ends and outlets fixed to fall to 65mm diameter down pipes, dropping where shown to ground level, and connected to extg rainwater drainage system discharging to extg soakaway.

10. CENTRAL HEATING
Undertake extension of extg ground floor wet system underfloor heating to serve new extension, designed and detailed by specialist contractor.

11. LIGHTING AND ELECTRICS
All light fittings to be 'cff' (compact fluorescent lamp)/LED fittings. (cfl bulbs to have a luminous efficacy greater than 45 lumens per circuit - watt).
All external lighting to have dedicated LED 'low energy' fittings operated by dawn to dusk sensors or timers. security lights to be operated by dawn to dusk and PIR sensors with switch override.
All switches, thermostats, etc to be positioned with their centre line between1000mm & 1200mm above floor level.
All socket outlets, tv aerials, telephone points etc to be positioned with their centre lines between 450mm and 600mm above floor level or above kitchen worktops.
All electrical work to be designed, installed, tested and certified by persons qualified and competent to do so and registered with an approved 'competent persons' scheme.
Provide certification on completion.

12. WINDOWS & EXTERNAL DOORS ('U' VALUE 1.4 W/M2K)
Windows to be purpose made upvc to design indicated. Glaze windows with factory sealed double glazed units using low emissivity glass and 'argon' gas fill to cavity. Opening lights to be casements as shown on elevations and draught/weather sealed. Window frames to be sealed internally and externally at cill, head and jambs with proprietary sealer.
Habitable rooms, to have opening lights equivalent in area to at least one twentieth of the room floor area.
Safety glass - 6.4mm laminated glass to BS6206: 1981: clause 5.3 is to be fitted to window panes, any part of which is less than 800mm above floor level and glazed doors and sidelights any part of which is less than 1500mm above floor level.
Window frames to be set in cavity walls so as to give a minimum of 30mm overlap with insulation and have extended cill units if necessary to ensure suitable overhang/drip.

13. LINTELS
Window/door openings in external cavity walls to be supported over with Catnic galvanized lintels as specified on plan.

14. VENTILATION
The following forms of ventilation are required:-
1) **Purge ventilation.** all habitable rooms and w.c's to have purge ventilation openings of at least 1/20th of the room floor area.

Background ventilation. Provide balanced background ventilation in the form of trickle ventilators in window heads with min. 5000mm² in any habitable room.

15. CONSTRUCTION DESIGN AND MANAGEMENT REGULATIONS 2015 (CDM)
You are advised that the proposals indicated within these drawings are subject to these regulations and there are defined roles and responsibilities during and prior to construction works of the client and his/her building contractor. For further information regarding the CDM regulations 2015, please visit the Health and Safety Executive website http://www.hse.gov.uk/pubns/indg411.htm.

Last & Tricker have been appointed on this project to provide architectural services only up to pre-construction stage and have no influences on tendering or works carried on beyond this stage, but would summarize the following roles and responsibilities prior to/and during the construction phase:

Client

(i) Ensure the Principal Building Contractor has produced a Construction Phase Health and Safety Plan and that this is satisfactory and adequate for the works.
(ii) Ensure suitable welfare facilities are provided on site.
(iii) Ensure principal building contractor is managing health and safety during construction and complying with their duties.
(iv) Check arrangements have been made for completion of building works and handover and that agreed measures to ensure health and safety in all areas are in place.
(v) On completion, obtain a health and safety file from the principal building contractor for the works that have been carried out, and maintain a copy for future use.

Principal Building Contractor

(i) Provide a Construction Phase Health and Safety Plan and ensure that works are managed during the construction phase in strict accordance with this plan. This will include planning, managing, monitoring and co-ordinating the works.
(ii) Constantly liaise with the client throughout the works and ensure they are aware of their CDM duties.
(iii) Ensure welfare facilities are provided.
(iv) Provide site induction to every worker on site. Ensure site is secured to prevent unauthorised access. working in conjunction with the client. Appoint only suitable sub-contractors and workers and ensure they are managed and supervised.
(v) Contribute to the health and safety file for handing over to the client on completion.
(vi) Ensure site is secured to prevent unauthorised access. working in conjunction with the client. Appoint only suitable sub-contractors and workers and ensure they are managed and supervised.

Rev A Dec 20 Width increased by 225mm.

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Client: Providex Property Ltd

Project: Residential Development, High Road, Bressingham, Norwich

Drawing: Rear Extension (Plot 3) Construction Drawing

Date: Dec 20 Scale: 1:100, 1:50 at A1 Drawn: SFW

Job No: 5491 Drwg No: 15 Revision: A