EXTENSION

GENERAL NOTES:
This document to be read in conjunction with all drawings, structural calculations and manufacturers installation details.
All construction to be in strict accordance with relevant British Standards, Codes of Practice and Building Regulations to include materials and workmanship standards.

All contractors and subcontractors must visit site to ascertain all existing conditions as ignorance of such will not give right to claim for additional costs. All specifications and drawings are to be read together. Any discrepancies must be reported to the contract administrator prior to undertaking work.

Builder to check all dimensions before commencement.
No liability is accepted for any works commencing without full Local Authority Building Control approval.
Gaining party wall agreements is the responsibility of the client.

DEMOLITIONS:
Demolish structures in accordance with BS 6187.
As depicted on the floor plans, subject to retention requirements specified elsewhere, deconstruct/demolish walls where shown down to top of ground bearing slab level only.

LOCATION OF SERVICES:
Decommission existing services as necessary prior to commencement of demolitions and alterations. Services affected by the works to be located and positions marked. Main services to be located and marked.

LIVE FOUL AND SURFACE WATER DRAINS:
Protect drains and fittings still in use. Keep free of debris and ensure normal flow during the works. Make good any damage arising from the works and leave clean and in working order at completion of works.

SITE HAZARDS:
Precautions: Prevent fire and/or explosion caused by gas and/or vapour from pipes etc.
Site operatives and general public: Protect from vibration, dangerous fumes and dust arising during the course of the works.

ASBESTOS-CONTAINING MATERIALS - UNKNOWN OCCURRENCES:
Give notice immediately of suspected asbestos containing materials discovered during deconstruction/demolition. Avoid disturbing such materials. Prepare and submit statutory risk assessments and details of proposed methods for safe removal by an approved and licensed contractor.

SITE CONDITION AT COMPLETION OF DEMOLITIONS:
Clear away debris and leave site tidy upon completion of demolition works.

EXCAVATIONS:
Excavate drainage trenches to the necessary levels required. All trenches to be free from vegetation and to be protected from un-controlled collapse and risk of falling into.

DRAINAGE:
To be "OSMA" underground plastic drainage 100mm diameter, bedded & surrounded in 150mm pea gravel. Where drains pass through a wall or foundation a lintel or duct is to be inserted with an all round clearance around the pipe of 150mm, this is to prevent any loads being exerted onto the pipe. 50mm movement joint where passing through foundation.
All downpipes to have P'trap or gulley. New manholes to be 600mm plastic up to 900mm deep.
Porosity test to be carried out.
Soakaways to be provided for storm water minimum 5m away from buildings.

RAINWATER GOODS:
100mm profiled gutters to square down pipes connected to rodable trapped gullies. Drainage connected into existing below ground drainage system.
All rainwater goods to match existing.

SUB STRUCTURE

FOUNDATIONS:

All foundations to be constructed in accordance with Part A1/2 of the Building Regulation and BS8004:2015 Code of Practice for Foundations and BS EN 1997-1:2004.

Trench fill:
Foundations to be taken down below level of existing adjacent drains and to bear on ground with a safe bearing pressure of 75kN/m².
All foundations to be 600mm wide C20 trench fill unless noted otherwise.
Foundation to be a minimum depth of 2.04m below ground due to leyland Cypress Trees 4m away from proposed then stepping up 100mm every 1m away. All footings are to be in accordance with the NHBC Standards chapter 4.2. Final depth of footing s to be confirmed by BCO. Concrete mix to be in accordance with BS 8110:Part 1:1997 for designed mixes to have a minimum crushing strength of 35.0N/mm² @ 28 days. Ordinary Portland Cement to be used with a minimum cement of 300kg/m³ and a maximum free water/cement ratio of 0.5 by weight using 20mm aggregate.

Stepped foundations:
Stepped foundation should overlap by twice the height of the step or by 1m., whichever is the greater. The height of the step should not be greater than the thickness of the foundation.

BEAM & BLOCK FLOOR

70mm sand cement screed trowel finished smooth. Laid on 1200G damp proof membrane lapped with DPC at floor level. 100mm of Celotex GA4000 with 25mm upstand to perimeter under living space only. Secondary 1200G DPC under insulation. Beam and block floor to manufacturers specification with 200mm air gap beneath and periscope air vents at 1.8m centres. 1200dpm laid on ground beneath floor to prevent weed growth. Layer of pea gravel to hold in place. Final Design and layout & Specification of Beam and Block floor to be designed and confirmed by manufacturer. 100mm Hyload DPC to both skins of masonry at floor level. Dpc to be min 150mm above external ground level.

MASONRY BELOW DPC:
Masonry below DPC to consist of dense concrete blockwork (7N/mm²) or semi engineering brickwork all laid in class iii mortar to BS5628. Cavities filled with lean mix concrete up to a level 225mm below D.P.C.

SUPERSTRUCTURE

EXTERNAL WALL:
Bricks/blocks: To BS EN 771-1
Mortar: To BS EN 998-2.
100mm facing brickwork, 100mm cavity and 100mm Thermalite blockwork to internal skin. 100mm Dritherm 32 full fill cavity wall insulation. Internal face to have 50mm Knauf PIR Laminate with 12.5mm plasterboard on dabs with plaster skim. Both leafs of wall to be tied at 900 mm maximum horizontal centres (staggered alternate courses) and 450 mm maximum vertical centres, using stainless steel wall ties. Fix additional ties within 225 mm of edges, joints and roof verges at 300 mm maximum vertical centres.
Cavities to be closed around openings with returning lightweight thermal blockwork & 150mm vertical DPC or thermal cavity closing system.
Wall construction to achieve a U value of 0.18 W/m²K.

New brick and blockwork to be tied into existing brick and blockwork using stainless steel firfix wall starters.

BEAMS:
Steel to BS EN 10025-2 or BS EN 10210-1, as appropriate.
Supply and install new structural elements, such as new beams,roof structures, floor structures, bearings, and padstones according to Structural engineer's calculations and details.
All new beams are to be encased in 2 layers of 12.5mm thick plasterboard to achieve min 1/2 hour fire resistance, all joints to be filled and staggered.

LINTELS:

Proprietary insulated steel combined lintel, Catnic or similar approved, with cavity trays, to external walls. Cavity trays to incorporate stop ends. All lintels to have minimum 150mm end bearings on full blocks where possible. Brickwork not to overhand lintel by more than 25mm.

Concrete Lintels: to BS 8500-2: Minimum RC30
Aggregate nominal maximum size: 20 mm.
Minimum bearing 150 mm at both ends.
Reinforcement: min one 12 mm carbon steel bar for each 105 mm of wall thickness.
Cover to reinforcement (nominal): 20 mm minimum.

FLAT ROOF

Warm roof construction:
Flat roof covering lapped into guttering at eaves. Single ply membrane aa fire rating laid to specialist's specification, fixed to 22mm exterior quality plywood over 150mm Celotex Crown-Up insulation laid to 50mm firing strip. 195x 50mm timber joists to BS EN 338:C24 at 400mm centers. Insulation board to have a noggin under all unsupported ends and a double bead of mastic along all firings and noggins. 100x75mm treated wall plate fixed with 30x5x1200mm galvanised wall plate straps at max 1800mm centres. Ceiling to be finished with 12mm plasterboard and skim. 400x19mm fascia board.
100mm plastic guttering to 75mm down pipe.
Joists to be tripled either side of Lantern Lights.
All trimmers are to be confirmed by structural engineer.
Code 4 lead cavity tray where roof abuts with existing dwelling.
Insulation to achieve a U value of 0.15W/m²K.

INTERNAL PLUMBING:
All new radiators are to have controllable thermostatic valves.
Generally to be 'Hepworth' fittings. Internal waste pipes are to be to sizes indicated on drawing and where pipe runs are in excess of 2.5m they are to be 50mm diameter. All furniture generally to be fitted with 75mm deep seal traps / "u" bends:-
WC pan:- 100mm dia.
Shower:- 42mm dia.
WH Basin:- 32mm dia.

SOIL AND VENT PIPES
100mm dia. uPVC SVP to wc. Internal SVP's to have air admittance valve as indicated on floor plans. Internal SVP's to be encased in 38x50mm timber framework at maximum 600mm centres covered with 12.5mm plasterboard and skim finish with access panels at low level. SVP to be wrapped in 25mm thick insulation where passing through habitable rooms. Soil Pipes are to terminate 900mm above openable window.

COLD AIR INFILTRATION
To comply with Approved Document L 1.25 a-e.
All doors and windows to have mastic seals at perimeter of openings externally and draft seals internally.
Loft hatches to include draft seals.
Service pipe penetrations to be sealed.
Concealed services to be sealed where they penetrate floors and ceilings.

ELECTRICAL INSTALLATIONS:
To be in accordance with the latest I.E.E regulations. Final locations for power points, switches and light fittings to be decided on site with client & electrician. Provide a minimum of 2 low energy light fittings, ideally in lounge & master bedroom or hall having a luminous efficiency greater than 40 lumens per circuit-watt.
New mechanical extract fans are to extract a min of 60L/s extractor to kitchen, 30L/s extractor to utility, 15L/s extractor to bathroom operated off light switch with 15minute overrun.
All fans are to be ducted to external air through walls or through ducts to roof.
All electrical work required to meet the requirement of Part P (Electrical Safety) must be designed, installed , inspected & tested by a person competent to do so.
Prior to completion the council should be satisfied that Part P has been complied with. This may require an appropriate British Standard 7671 electrical installation certificate to be issued for the work by a person competent to do so.
100% of lighting to be energy efficient fittings.

SOCKETS AND SWITCHES
Low level socket outlets to be positioned 450mm above finished floor level. switch outlets to be positioned 1050mm above finished floor level.

GLAZING:
All new glazing to be double glazed using low E or Pilkington K glass to achieve a value of 1.4W/m2k or better.
All habitable rooms are to have trickle vents fitted to the heads of windows 8000mm2 equivalent. All window & door frames are to be sealed both internally & externally against the structure with suitable flexible sealant to comply with Robust detail 3.09, 3.10. Toughened or laminated glass to comply with BS 6206 to be used in doors & windows within 300mm of a door from finished floor level up to a height of 1500mm above & in windows or glazed partitions from finished floor level up to a height of 800mm above.

INTERNAL STUD PARTITIONING:
Internal stud partition to be constructed of 100x50mm timber framework at maximum 600mm centres and finished with one layer of 12mm thick plasterboard to each face of the partition with skim finish. The whole of the partition is to be insulated with 100mm of 12kg/m3 fibreglass insulation between studs.

FIRE PROTECTION:
Building must be provided with fire detection and a fire alarm system to BS5839-6:2004 to at least a Grade D category LD3 standard.

Smoke and heat alarms should be interlinked in order to maximize sound levels throughout the property and must be located in the circulation space within 7.5m of every habitable room; there should be at least one for each floor.

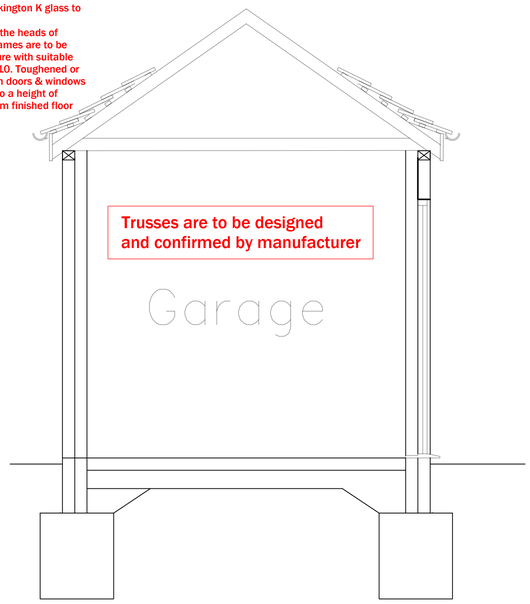
FD = 30 minute fire door with self closer and intumescent strip.

SD = Mains operated interlinked smoke detector with battery back up

HD = Mains operated interlinked heat detector with battery back up

MEANS OF ESCAPE:

GROUND FLOOR: except for kitchen, all habitable rooms should open directly onto a hall leading to the entrance or other suitable exit or be provided with a window or a door with unobstructed openable area of 0.33m2, min. 450mm x 450mm clear opening to each bedroom. Cill to be max 1100mm off the floor.



Proposed Section C:C (1:25)

GARAGE

SUB STRUCTURE

FOUNDATIONS:

All foundations to be constructed in accordance with Part A1/2 of the Building Regulation and BS8004:2015 Code of Practice for Foundations and BS EN 1997-1:2004.

Trench fill:
Foundations to be taken down below level of existing adjacent drains and to bear on ground with a safe bearing pressure of 75kN/m².
All foundations to be 600mm wide C20 trench fill unless noted otherwise.
Foundation to be a minimum depth of 1m below ground. Final depth of footings are to be confirmed on site by building control officer due to a number of trees within close proximity. All foundations are to be in accordance with NHBC Standards chapter 4.2. Concrete mix to be in accordance with BS 8110:Part 1:1997 for designed mixes to have a minimum crushing strength of 35.0N/mm² @ 28 days. Ordinary Portland Cement to be used with a minimum cement of 300kg/m³ and a maximum free water/cement ratio of 0.5 by weight using 20mm aggregate.

Stepped foundations:
Stepped foundation should overlap by twice the height of the step or by 1m., whichever is the greater. The height of the step should not be greater than the thickness of the foundation.

MASONRY BELOW DPC:
Masonry below DPC to consist of dense concrete blockwork (7N/mm²) or semi engineering brickwork all laid in class iii mortar to BS5628. Cavities filled with lean mix concrete up to a level 225mm below D.P.C.

GROUND FLOOR SLAB:
100mm C20 concrete ground bearing floor slab, trowel finished smooth, laid on 1200G damp proof membrane lapped with DPC at floor level. Secondary DPM, 150mm minimum selected hardcore fill compacted in maximum 150mm layers. Brick and dense blockwork below ground to have 1:3 sand-cement mortar with C20 concrete cavity fill to 225mm below floor level. 100mm Hylad DPC to both skins of masonry at floor level. Dpc to be min 150mm above external ground level.

SUPERSTRUCTURE

EXTERNAL WALL:
Bricks/blocks: To BS EN 771-1
Mortar: To BS EN 998-2.
100mm facing brickwork, 100mm Thermalite blockwork to internal skin. Internal face to have 12.5mm plasterboard on dabs with plaster skim. Both leafs of wall to be tied at 900 mm maximum horizontal centres (staggered alternate courses) and 450 mm maximum vertical centres, using stainless steel wall ties. Fix additional ties within 225 mm of edges, joints and roof verges at 300 mm maximum vertical centres. New brick and blockwork to be tied into existing brick and blockwork using stainless steel firfix wall starters.

BEAMS:
Steel to BS EN 10025-2 or BS EN 10210-1, as appropriate.
Supply and install new structural elements, such as new beams,roof structures, floor structures, bearings, and padstones according to Structural engineer's calculations and details.
All new beams are to be encased in 2 layers of 12.5mm thick plasterboard to achieve min 1/2 hour fire resistance, all joints to be filled and staggered.

LINTELS:

Proprietary insulated steel combined lintel, Catnic or similar approved, with cavity trays, to external walls. Cavity trays to incorporate stop ends. All lintels to have minimum 150mm end bearings on full blocks where possible. Brickwork not to overhand lintel by more than 25mm.

Concrete Lintels: to BS 8500-2: Minimum RC30
Aggregate nominal maximum size: 20 mm.
Minimum bearing 150 mm at both ends.
Reinforcement: min one 12 mm carbon steel bar for each 105 mm of wall thickness.
Cover to reinforcement (nominal): 20 mm minimum.

PITCHED ROOF:
Tile roof covering to suit 35 degree pitch on 50x25mm treated laths on Tyvec breathable felt.

Roof Trusses are to be designed and confirmed by manufacturer.

30x5 galvanised straps passing over minimum 3 nr. joists and hooked over wall plate where joists run parallel to masonry.

At eaves level rafters to be secured to 100x75mm wall plate using 30x5x1200 galvanised wall plate straps at max 1.8 centres.

150x19mm fascia board.
100mm plastic guttering connected into 75mm downpipe.

COLD AIR INFILTRATION
To comply with Approved Document L 1.25 a-e.
All doors and windows to have mastic seals at perimeter of openings externally and draft seals internally.
Loft hatches to include draft seals (IF REQUIRED).
Service pipe penetrations to be sealed.
Concealed services to be sealed where they penetrate floors and ceilings.

ELECTRICAL INSTALLATIONS:
To be in accordance with the latest I.E.E regulations. Final locations for power points, switches and light fittings to be decided on site with client & electrician. Provide a minimum of 2 low energy light fittings if possible.
All electrical work required to meet the requirement of Part P (Electrical Safety) must be designed, installed , inspected & tested by a person competent to do so.
Prior to completion the council should be satisfied that Part P has been complied with. This may require an appropriate British Standard 7671 electrical installation certificate to be issued for the work by a person competent to do so.
100% of lighting to be energy efficient fittings.

SOCKETS AND SWITCHES
Low level socket outlets to be positioned 450mm above finished floor level. switch outlets to be positioned 1050mm above finished floor level.

GLAZING:
All new glazing to be double glazed using low E or Pilkington K glass to achieve a value of 1.6W/m2k or better.
All habitable rooms are to have trickle vents fitted to the heads of windows 8000mm2 equivalent. All window & door frames are to be sealed both internally & externally against the structure with suitable flexible sealant to comply with Robust detail 3.09, 3.10. Toughened or laminated glass to comply with BS 6206 to be used in doors & windows within 300mm of a door from finished floor level up to a height of 1500mm above & in windows or glazed partitions from finished floor level up to a height of 800mm above.

All dimensions to be checked on site
All drainage positions and inverts to be checked on site.
No work to commence until receipt of Water authority approval.
It is the responsibility of the property owner to comply with the party wall act where building near to a boundary.

Revision	Date	Description	Drawn By

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Drawn by	Date	Proposal	Project
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