

Victoria Price

**19 Featherston Drive,
Burbage
18/37**

**PROPOSED BUILD
SPECIFICATION**

FOR

Domestic Extensions & Alterations

1.0 PREAMBLES

- 1.01 The Contractor will be responsible for the design and construction of the whole of the development as described.
- 1.02 The Contractor will comply with all requirements of the Town Planning and Building Regulation Acts and the requirement of the Fire Authority and include for all costs. Compliance with any outstanding planning requirement not cleared at the date of tender shall be at the Clients cost – the contractor will not be liable for any commuted sums in respect of any Planning requirement. We have not included for the supply of any play equipment or areas whatsoever.
- 1.03 The Contractor will be responsible for the cost of all design work except where appointed directly by the client or where alterations to the scheme are requested by the Client.
- 1.04 All capital contributions, connection charges and supplementary charges by the Statutory Undertakings and for all builders work, in respect of Gas, Electricity, Water and British Telecom are to be included in the Contractors costings.
- 1.05 All works will be in accordance with the relevant British Standards, Codes of practice and other relevant standards in force or promulgated at the time of Tender. The Contractor will comply with the Health and Safety at Work Act.
- 1.06 The whole of the electrical to comply with the latest edition of the Regulations issued by the Institution of Electrical Engineers and Local Electricity Board Regulations and shall comply with the Electrical Equipment (Safety) Regulations.
- 1.07 The whole of the plumbing works is to be executed by JIB registered Plumbers in accordance with the requirements of the Local Water Authority and local Bye-laws, and all cocks, valves and fittings to be approved.
- 1.08 All public footpaths, service reservation strips, footpath crossings, street lighting and roadways and associated drainage to be adopted to be constructed to the minimum specification and standards suitable for adoption by the Local Authority and acceptable to the Planning Authority. The Contractor will use his best endeavor's to negotiate for and enter into Section 104 and 38 Agreements with the Local Authority, the costs of which will be borne by the Contractor. Road and Sewer bonds will be provided by NHBC
- 1.12 The Contractor's signboard to be located at the entrance to the site and shall remain until such time as the development is completed or earlier at his convenience.
- 1.16 **Insolvency cover to be agreed with the client.**
- 1.17 This specification has been developed to achieve a minimum 'Pass'.

- 1.17 All work is to be carried out in accordance with current Building Regulations, LA Approval, Public and Private Utilities regulations and approvals.
All materials, construction and workmanship in strict accordance with current relevant Codes of Practice, British and CEN Standards and Manufactures Specifications.
Do not scale drawings.
Client should check that works shown on plan do not contravene any Covenants.
Comply with NHBC Technical Requirements.
- 1.18 The works are to be carried out in strict accordance with the CDM2015 Regulations. All parties are to ensure that they discharge their responsibilities in line with the requirements of the regulations. Contact architect if further guidance is required.

2.0 GROUNDWORKS

2.1 General

2.1.1 Site Strip

Strip existing topsoil vegetation from construction areas.

2.1.2 Existing Trees/Hedgerows

Remove as necessary including grubbing up any roots. Trees or hedges to be retained must be properly fenced off or protected.

2.1.3 Excavations

Levels should be reduced as necessary to the correct construction levels prior to trench excavations.

2.1.4 Earth Filling

All earth used for making-up levels should be clean subsoil free from rubbish and waste materials. This should be compacted in layers under construction areas.

2.1.5 Weed Killers

An appropriate weed killer is to be used on ground under suspended floor areas.

2.1.6 Hardcore

Shall be stone, quarry waste, broken brick, or other approved material to pass a 100mm ring.

2.1.7 Blinding

Blinding materials shall be 'as dug' sand or other approved material.

2.1.9 Existing services

Position and route of all gas, electricity, water and telephone to be checked with appropriate Public / Private Utilities and installed / altered in strict accordance with their regulations and requirements.

3.0 GENERAL CONCRETE WORK

3.1 General

3.1.1 Cement

Shall be normal setting ordinary Portland cement unless site conditions or design dictates otherwise.

3.1.2 Aggregates

Any loose aggregates used shall comply with the relevant B.S. and be used in accordance with the engineers designs and recommendations.

3.1.3 Concrete

The following concrete mixes are to be used unless specified otherwise on drawings:-

	<u>Ready Mixed</u>	<u>Site Mixed</u>
Drainage Surrounds	Gen 1	ST2
Cavity Filling	Gen 1	ST2
Foundations (unless otherwise specified on Engineers Drawings)	Gen 1	ST2
Insitu Slabs	N/A	N/A

Sulphate resisting designs required – No.

3.1.4 Curing Concrete

Newly laid concrete shall be properly protected from adverse weather conditions.

3.1.5 Surface Finishes

The concrete surface shall be finished and left suitable for its intended use.

3.1.6 Reinforcement

Where required, shall comply with the engineers design. The steel should be reasonably rust free, properly lapped/tied and have adequate concrete cover in all directions. Concrete shall be well tamped or vibrated around the reinforcement.

4.0 FOUNDATIONS

4.1 General

4.1.1 Mass Concrete Foundations

C20 mass conc. Foundations to comply with B.S 8004:1986 founded at 1050mm min. below ground level or as directed by the Engineer or Building Inspector. Unless otherwise stated the cement content of all foundation concrete is to be 250kg/cub.m. Engineer to confirm the necessity for sulphate resisting cement when assessing strata from trial excavations.

4.1.2 Special Foundations

Special foundations and/or column foundation pads to the sizes and concrete mixes shown on engs details.

4.1.3 Foundations in the vicinity of trees

Foundations in the vicinity of trees that are to remain or have been removed are to be constructed in accordance with NHBC chapter 4.2 Precautions To Take When Building Near Trees taking into account the species of trees & the soil shrinkage potential. If in doubt seek eng's advice

5.0 GROUND FLOOR

5.1 General

5.1.1 Finished G.F level to be min 150mm above finished ground level. Fill cavities with lean mix concrete between foundation & ground level.

5.5 Ground bearing slab floor

5.5.2 Ground Bearing Slab

75mm cement sand & fine aggregate screed with D49 BRC crack control reinforcement on a separating layer of building paper type B1.F to BS:1521:1980 & amendments. 100mm thick Celotex FR5000 insulation laid with tight butt joints & turned up the full screed depth at room perimeters. Lay on 100mm thick C30 concrete slab to BS:5328:1981 & amendments, Visqueen 1200 super DPM on 50mm sand blinding & approved crushed hardcore broken to pass 50mm ring compacted in 150mm layers. DPM to be continuous with DPC's in walls.

Floor U-Value = 0.18W/m²k. (0.25 W/m²K limiting value)

5.6 Damp Proof Membranes

5.6.1 Damp Proof Membrane

Damp Proof Membrane - 1200 gauge polythene lapped minimum 150mm at joints.

6.0 WALLS

6.1 General

6.1.1 All walls are to be built in accordance with the latest British Standards

6.2 Walls up to DPC

6.2.1 Common Bricks (below ground)

May be L.B.C., sand lime load-bearing brick or reject facing bricks.

Construct walls below ground level to the dimensions & thicknesses shown on the drawings in 7N/mm² concrete blockwork to BS 6073 1981 in class ii mortar or common brickwork in class ii mortar. Check site investigation with reference to the necessity for sulphate resisting construction. Tie leaves of cavity walls as specified for walls above DPC Provide min. 65mm deep precast concrete lintels over all services/drainage pipes passing through walls. Maximum opening in walls to be 250mm. Maintain a 50mm clearance between structure & drains/services & close with rigid sheet material to prevent ingress of vermin.

construct sleeper walls where necessary to support suspended ground floors, built off conc. Foundations as shown in approved 100mm thick blockwork. Build in at 1800mm c/c max. 215x65mm terracotta air bricks to provide cross ventilation.

6.2.3 Splash Courses

Shall be a semi engineering brick or a facing brick of FL quality in accordance with the Architects Schedule or drawings.

6.2.4 Facing and Feature Bricks

Shall be in accordance with the drawings which were approved at planning.

6.2.5 Mortar to walls below ground.

Foundations - shall comprise one part of cement (sulphate resisting if required) to one half part of lime to four and a half parts of sand, by volume or equal proprietary mix.

Pointing will generally be 'bucket handle'.

6.2.7 Lintols over services

Provide min. 65mm deep precast concrete lintels over all services/drainage pipes passing through walls. Maximum opening in walls to be 250mm. Maintain a 50mm clearance between structure & drains/services & close with rigid sheet material to prevent ingress of vermin

6.2.8 DPC

Build into all walls at ground floor level Permabite or 'ZX' bitumen polymer DPC positioned 150mm above new ground level Build in additional DPC's at 150mm above raised paving providing access for the disabled or other purposes

6.2.9 Finished Ground Level externally

Finished G.F level to be min 150mm above finished ground level. Fill cavities with lean mix concrete between foundation & ground level

6.3 External Wall- Masonry

6.3.1 Masonry external wall

302.5mm cavity walls, 102.5mm facing brickwork 100mm nominal cavity, filled with insulation, 100mm Celcon Standard (3.6N/sq.mm) block work, 15mm dabs air space, 12.5mm plasterboard (gyproc/Knauf/Lafarge, 2mm skim coat.

6.3.7 Minimum U-Value

The minimum 'U' Value for all external walls is to be 0.28W/m.sq/K

6.4 Cavity Wall ties

6.4.1 Cavity wall ties

Connect the leaves of external cavity walls with S.S vertical twist cavity ties as described in B.S.1243:1978 & AD.E2.20, spaced in broken bond at 450mm c/c vertically and 750mm c/c horizontally. Provide additional ties in narrow wall widths & at openings in walls

6.5 Cavity Wall insulation

6.5.4 Knauf Dri-Therm 32 Insulation

External cavity walls shall have 100mm Knauf Dri-Therm 32. Insulation to typically have a thermal conductivity (Lambda value) of 0.23 W/m.K. Insulation to be installed to a minimum 225mm below DPC to prevent cold bridging.

Wall U-Value = 0.22 W/m²k. (0.35 W/sq.m./K limiting value)

6.6 Cavity Closers/Tray/Barriers

6.6.1 Cavity Closers

Provide & fix approved proprietary insulated cavity closers & DPC's at all openings in external cavity walls as shown to prevent cold bridging

6.6.2 Cavity Closers

Timloc or similar approved and installed in strict accordance with the manufacturer's instructions.

6.6.5 Cavity trays

Proprietary cavity trays where required, Timloc or equal, installed in accordance with the manufacturer's instructions

6.7 General Masonry External Walls notes

6.7.2 Bonding

Facing brickwork shall be in stretcher bond unless otherwise specified on the drawings.

6.7.3 Mortar Type

Superstructures - shall comprise of one part of cement to one part of lime to five and a half parts of sand by volume, or equal proprietary mix.

6.11 Internal Partition walls

6.11.1 Internal Masonry Walls

All internal masonry walls to be constructed in approved concrete blockwork in the thicknesses shown with a minimum mass per unit area of 120kg/m² excluding the finish to comply with A.D. 'E' para. 5.19

6.11.3 Acoustic wall system

Studded walls in 50 x 75mm C16 studs at 450mm c/c. complete with similar sectioned sole, & head plates & two lines of noggins, cover both sides with Gyproc wallboard 10 providing 10kg/sq.m & plaster skim. Fix between studs & noggins 25mm acoustic insulation min density 10kg/cub.m

6.11.4 Studwork Walls

Studded walls in 50 x 75mm C16 studs at 450mm c/c. complete with similar sectioned sole, & head plates & two lines of noggins, cover both sides with 12.5mm plaster board & plaster skim.

6.11.7 Finish to Studwork walls

Internal stud walls to generally have 12.5mm plasterboard and skim to both sides unless the walls are structural in which case they will have 2 layers of 12.5mm plasterboard to either side. Walls requiring sound resisting (generally those between

bedrooms and between bedrooms and rooms containing a WC) should be boarded with a 15mm board, skimmed with a 25mm quilt insulation fitted in the cavity (minimum density 10kg/m³).

6.14 Wall Finishes

6.14.1 External Wall double layer.

External walls to be lined to the inner face with two sheets of 12.5mm plasterboard, all joints staggered, with either taped and filled joints finished with drywall primer or 3mm plaster skim.

6.14.2 Wet Plaster

Carlite or similar approved wall plaster 13mm total thickness.

6.14.5 Previously external walls that are to become internal.

Thistle dry-lining system on plaster dabs sealed at perimeters of all surfaces to comply with A.D. L1.

7.0 LINTELS & STRUCTURAL STEELWORK

7.1 *Isolated steel beams*

7.1.1 Steel Beams

Steel beams to BS:5950 primed with red oxide before fixing. See engineers details for sizes and padstones information.

7.2 *Cavity Trays*

7.2.1 Ploythene Cavity Trays

2000 gauge polythene. Proprietary weepholes at 450mm centres – minimum two per opening placed minimum 150mm from ends.

7.2.2 Cavity Trays

Insert cavity trays over all lintols in external walls. Provide weep holes with openings at 1000mm c/c.

7.2.3 Combined Lintol and Cavity tray

Use Catnic 'dual product' including cavity trays over all lintols. Provide weep holes with openings at 1000mm c/c.

7.3 *Fire Protection to steels*

7.3.1 One hour Fire Protection to steels

One hour protection to steel with two layers of 12.5mm fireline gypliner system with staggered joints on 44 x 44mm framing at 600mm c/c. with skim finish.

7.3.2 Half hour fire protection to steels

Half an hour protection to steel with one layer of 15mm fireline gypliner system with staggered joints on 44 x 44mm framing at 600mm c/c with skim finish.

7.4 *External wall Lintols*

7.4.2 IG Galvanised Steel lintols

IG or similar insulated galvanised steel lintols with 150mm min. bearings. See eng's. details for special cases.

7.5 *Internal wall Lintols*

7.5.1 Prestressed Concrete Lintols

Prestressed conc. lintols over internal masonry wall openings with 150mm end bearings. See engineers details for special cases.

7.5.2 Lintols over pipes passing through walls.

100 x 70mm Lintels with a minimum bearing of 100mm ether side are to be used over pipes or ducts passing through foundation walls. This applies to pipes of 100mm diameter or more.

8.0 UPPER FLOORS

8.1 *Suspended Upper Floors – Timber*

8.1.2 New Timber upper floor.

23mm T & G boarding or flooring grade type 2 chipboard, 47 x 150mm deep C24 joists at 450mm c/c with double joists where shown & 12.5mm plaster board & skim soffits.

8.1.8 Strapping to floors.

Strap floors to walls positioned at 90 degrees to the span of the floor with lateral restraint straps at max. 2m c/c to be fixed back to min. 3 timber joists. Straps to be a minimum dimension of 30mm wide x 5mm thick.

8.1.9 Bracing to timber floors.

Brace timber floors with spans greater than 2500mm with joist depth solid bridging staggered alternately and 30x5mm galvanised ms straps to adjacent walls.
For spans greater than 4.5m use two lots of solid bridging at third spacings along span.

8.1.11 Stud wall on Timber Floors.

Where stud walls run parallel to the main span of the floor joists and/or where support is required for a bath double up joists under.

10 ROOF CONSTRUCTION

10.1 *Timber Roof Trusses*

10.1.1 Timber Roof Trusses

Timber roof trusses at 600mm max. c/c braced and strapped as shown and to comply with BS:5268 and A.D. A1-2 Section 1c 34 & 38. Strap wallplates to walls with 30 x 5mm thick galvanised ms straps at 2000mm max, built in 900mm below wallplates.

10.2 *Cut Timber Roof*

10.2.1 Cut Timber Roof

Cut timber roof in C16 timbers unless otherwise shown in the timber sizes shown on the drawings. Strap wallplates to walls with 30 x 5mm thick galv. ms straps at 2000mm max. built in 900mm below wallplates.

10.2.2 Cut Timber Roof

Any cut timbers not supplied by truss manufacturer to be to section sizes, strengths & spacing as noted on plans. Strap wallplates to walls with 30 x 5mm thick galv. ms straps at 2000mm max. built in 900mm below wallplates.

10.8 *Pitched Roof Coverings*

10.8.1 Plain Tiles

Plain tiles in an approved colour on treated battens and Tyvek breather underlay, or similar, with approved ridge tiles to match tiles. Fix in accordance with Fix in accordance with B.S.5534 2003. Breather membrane to be draped between rafters to allow water runoff in to gutter. If membrane is not draped ensure counter battens are fixed beneath tile batten to allow water runoff.

10.8.2 Concrete Interlocking Tiles

Concrete interlocking tiles in an approved colour on treated battens and Tyvek breather underlay, or similar, with approved ridge tiles to match tiles. Fix in accordance with B.S.5534 2003 and B.S. 8000 part 6. Breather membrane to be draped between rafters to allow water runoff in to gutter. If membrane is not draped ensure counter battens are fixed beneath tile batten to allow water runoff.

10.8.4 Roof Flashings

Flash roof at abutments with walls & chimneys etc with code 4 lead. Valley gutters will be constructed using valley tiles, matching main roof. Code 4 lead flashing to all service pipes & other projections through the roof covering.

10.8.5 Leadwork

The thickness of lead for flashings etc., shall be appropriate for its use. (minimum code no. 4).

Cavity trays/flashings shall be built in at roof/wall junctions.

10.8.9 Ridge Tiles

Ridge tiles to be mechanically fixed with an approved system and will not be wet set. Dry ridge system may include ventilation is required.

11 ROOF INSULATION

11.1 *Insulation to loft space.*

11.1.1 Loft Insulation.

Insulate roof space with 100mm thick Rockwool laid between joists, and 200mm thick Rockwool laid over joists. [Roof 'U' value 0.11W/sq.m/K.](#)

11.2 *Insulation to roof-slope*

11.2.4 Insulation to roof-slope

To ceilings that follow roof slope, Insulate with 100mm thick Celotex between (assumed min. 150deep truss rafters) with 50mm air gap over. Drape breathable membrane over truss or rafters. To the underside of the rafters line internally with 52.5mm Celotex Insulation and tape joints to form a VCL. With taped joints clad with 12.5mm Gyproc wallboard and skim to finish offering a [U Value of 0.15 W/sq.mK](#) incorporate accredited construction details

12 ROOF VENTILATION

12.1 *Roof Ventilation*

12.1.1 Warm Roof without insulation

No eaves or ridge ventilation is required with a warm roof construction well sealed & linked with wall insulation.

12.1.2 Where Ceilings follow the roof pitch.

Vent two opposite sides of roof equivalent in area to continuous 25mm wide openings x full length of eaves together with ridge ventilation equivalent to a continuous 5mm wide opening x the length of ridges. Similarly vent lean-to roofs at eaves with equivalent ridge ventilation at abutments of roofs to walls.

12.1.3 Where Ceilings form a loft space

Vent two opposite sides of roof equivalent in area to continuous 10mm openings x the full length of eaves. Similarly vent lean-to roofs at eaves with equivalent ridge ventilation at abutments of roofs to walls.

12.1.4 Ridge Vents

Where opposing eaves ventilation cannot be achieved, ventilate roofs with 1no. Proprietary ridge vents at 1000mm c/c equivalent in area to a continuous 5mm wide opening by the full length of ridge.

12.2 *Vent Terminals within roof.*

12.2.1 S&VP Terminals

Allow to vent the head of every foul run within the drainage system.

13 CEILING FINISHES

13.1 *Ceiling Finishes to Roofs*

13.1.1 Soffits of Timber Framed Roofs

Cover soffits of timber framed roofs with 12.5mm plaster board skimmed with Gypsum Plaster

13.1.3 Soffits of Timber Framed Roofs

Cover soffits of timber framed roofs with 15mm Gyproc wallboard with plaster skim coat.

14 EAVES CONSTRUCTION

14.1 *Eaves Constructions*

14.1.3 uPVC or wood Soffits for extensions

Client to determine if they wish to install timber or uPVC fascia & soffit on softwood framing.

15 R.W. GOODS

15.1 Rainwater Goods

15.1.2 uPVC Rainwater Goods

Proprietary UPVC rainwater goods. Nominal sizes 100mm dia or equal profiled gutters and 75 mm square RWP's.

16 TIMBER TREATMENT

16.1 General

16.1.1 Treatment to Structural Timbers

Structural timbers will be preservative treated where required by Building Control or warranty provider.

16.1.2 Treatment to Exposed External Timbers

Timbers treated are to be any external exposed timbers.

16.1.4 Treatment to Structural Timbers

All structural timber is to be treated with an approved vacuum or pressure applied preservative treatment to BS; 5707.

16.1.5 Site fixed joinery items

Shall be supplied suitable for its intended use. General joinery items may be specified to be primed at works.

16.1.6 Chain of Custody

All timber including doors must be certifiable by one of the following bodies: CSA, FSC, MTCC, PEFC or SFI. Proof of the source of the timber is required and should be retained for a period of 5 years from the date of completion

17 PIPE DUCTS

17.1 General

17.1.1 Pipe Ducts

Shall comprise of softwood framing finished with plasterboard and skim for decoration or WBP Exterior plywood for tiling. Access panels to be provided as required. Draught seal around pipes passing through duct to comply with A.P. L1.

17.1.3 Access panels to Pipe Ducts

Provide screw fixed draught proofed panels to give access to service pipes for rodding and cleaning.

17.1.7 Intumescent fire collars

Where service pipes and ducts pass through compartment/separating walls and floors fit Quelfire or similar approved intumescent fire collar.

18 DOORS

18.1 *External Doors*

18.1.3 External Doors to extensions

External doors to have 'U' value of 1.8W/sq.m./K. Doors with glazed panels are to be double glazed in low-E safety glass to comply with B.S.6206:1981 & fitted to comply with B.S.6262:1982 to have 'U' values of 1.8W/sq.m./K. all external doors to have draught seals to comply with A.D. L1B Client to confirm Powder coated aluminium bi-fold units will be used. All door security elements to be in full accordance with Approved Document Q of the Building Regulations.

18.2 *Internal Doors*

18.2.1 Internal Doors

Jeld Wen or equivalent molded 'middleweight' door, colour & style to approval with softwood door linings. All doors generally 926 or 826mm wide (excl stores & shafts etc). Fire doors as required (see architects drawings) fitted in softwood frames. Allow for 150mm wall up stand to cill of services & shaft doors.

20 WINDOWS

20.1 *Windows Generally*

20.1.1 Mastic Work

Mastic shall be applied to joint of window & door frames and brickwork/external facing material. Jamb of window/door frame and cill mastic colour shall match colour of facing material as near as possible. Head mastic colour shall remain white.

20.1.2 Windows within 800mm of FFL

Where glazing is within 800mm of FFL install suitable child safe escape override facility which provides a maximum opening of 100mm when child safe mode is in operation. Ensure facility offers appropriate escape in emergencies.

20.2 *Windows*

20.2.3 Extension to dwelling

Client to determine window material either uPVC or Powder coated Aluminium framed windows glazed with low-E double glazed units to give a 'U' value of 1.6W/sq.m/K. All glazed doors & adjacent side lights and all glazing within 800mm of FFL must be in safety glass to comply with B.S.6399-1:1996 & fitted to comply with B.S.6262:1982 Draught seal all doors and opening windows to A.D. L1B Where glazing is within 800mm of FFL install suitable child safe escape override facility which offers a maximum opening of 100mm when child safe mode is in operation. Ensure facility offers appropriate escape in emergencies. All window security elements to be in full accordance with Approved Document Q of the Building Regulations.

20.3 *Escape Windows*

20.3.1 Windows to Habitable rooms in houses

To all habitable rooms in the upper stories of a house with one staircase, provide escape windows or doors with unobstructed open able area of at least 0.33m² & 750mm high x 450mm wide, the open able area being not more than 1100mm above floor level & not less than 800mm except for a window in a roof where bottom of window may be 600mm above the floor.

21 VENTILATION

21.1 *Whole House Ventilation*

21.1.3 Background ventilation

Provided by proprietary trickle ventilators built into the window frame at min. 1750mm above floor level & fitted with controllable operation & built in fly screen. Whole House ventilation rate as prescribed on plans of individual house types. Which is to be split

equally between front and rear windows to provide cross ventilation. Ensure all internal doors have 10mm gap under above final floor finish (including carpet etc).

21.1.4 Background ventilation

To be by trickle ventilation in accordance with approved document F Table 5.2a designed for background trickle ventilation & intermittent fans. All apartments have a single exposed façade & must be vented at high & low levels in accordance with step 3 of Table 5.2a. To habitable rooms along road fronts, acoustic trickle ventilation is required as per the acoustic report.

21.2 *Mechanical Ventilation*

21.2.1 Mechanical Ventilation

Mechanical Ventilation: Bathrooms with windows, ventilators to provide a minimum of 4 air changes per hour, extracting 15 litres per second & operated manually.

Sanitary Accommodation with windows to have ventilators to provide 4 air changes per hour and to extract 6 litres per second & be operated manually.

Kitchens with windows, ventilators to extract 30 litres per second if over a hob or 60 litres per second if situated elsewhere.

Extract vents are subject to test and should be designed to work with dwelling air pressure test of $<5\text{M}^3/\text{hM}^2$

Utility Rooms with windows, ventilators to extract 30 litres per second

In kitchens, utility rooms, bathrooms & sanitary accommodation without opening windows provide similar rates of extraction scheduled above plus having 15 minute overrun. Operated by pull cord light switches if there is no natural light or by sensor controller in other cases.

21.2.2 Mechanical Ventilation

Standard extractor fans 60 l/s to kitchen (30 l/s if directly over hob) and 15 l/s to bathroom. Fans to be Vent Axia Solo Plus (or similar approved). Note: where no external drying facility is provided the bathroom fan should be fitted with a humidistat. Where ceiling mounted fans are used the fan should be centrifugal. Note: fans to be tested 'as installed' to confirm extraction rates are being achieved & certification provided to the building control body.

22 ABOVE GROUND DRAINAGE

22.1 *Above Ground Drainage*

22.1.1 Soil & Waste Pipes

Shall be plastic fitted as the manufacturer's instructions. Fire collars to be fitted to soffit of every floor penetration.

22.1.2 Soil & Waste Pipes

100mm dia upvc soil & vent pipes to BS to connect to foul drain, min dia. 100mm. Vent to terminate above roof level with upvc terminal, or at ridge terminal to suit.

- a) SVPs' and VPs' not situated at head of drain run, to terminate with Marley 'Durgo' valve or similar, in roof space or other void.
- b) Pipes passing through compartment walls and floors to be fitted with intumescent collars
- c) Fittings connected to vertical stacks to have 75mm anti syphon traps. Fittings discharging to back inlet gully, to have 75mm deep seal traps
- d) 100mm waste connection to WCs'.
- e) 50mm waste pipes to sinks and baths.
- f) 40mm waste pipes to wash hand basins, showers and bidets.
- g) All w.c. cisterns to have internal overflows to comply with the local water authority bye-laws.

22.1.3 All pipework installations shall comply with the latest codes of practice and British Standards.

23 SPACE HEATING & HOT WATER

23.2 *Gas Fired Space Heating and Hot Water*

23.2.1 Gas Fired Space Heating and Hot Water

Heating and hot water provided by mains gas Combination boiler min 90% efficient via radiators.

Use Baxi Duo-Tec 2 combination boiler. All heating systems are to have zone controls as timing controls (min 2 zones) & weather or load compensator, along with modulating burner controls. A.D. L.1A and domestic heating compliance guide NBS 2006. Provide operating & maintenance instructions in accordance with A.D. L.1A 67 to 72 Insulate all pipework in accordance with A.D. L.1A 39. Client to determine the final Boiler position within each dwelling with plumber to suit.

23.2.4 Flue Guards

SS guards to any balanced flues below 1500mm above ground level.

23.2.5 British Standards

The heating & hot water systems are to be installed in accordance with the recommendations of B.S.5864

23.5 *Space Heating Controls*

23.5.2 Space Heating Controls.

The heating & hot water systems are to be installed in accordance with the recommendations of B.S.5864:2004 including the timing, zoning & interlock features described in A.D. L1A and the “ODPMs Domestic Heating compliance guide.”

23.6 Service & Commissioning

23.6.1 Heating and Hot Water Commissioning Certificate

Prepare & provide a heating & hot water commissioning certificate for the information of the building control body & the end user to comply with A.D. L1A and the “ODPMs Domestic Heating compliance guide.”

23.6.2 Heating and Hot Water Commissioning

On completion of all works the system should be commissioned in accordance with the Manufacturer's instructions. The user manual and any special operational, servicing or maintenance instructions are to be provided for the end user of each new dwelling.

23.6.3 Heating and Hot Water Commissioning

On completion of all plumbing works the system should be commissioned in accordance with the Manufacturer's instructions which will be boiler specific. The manufacturer should provide a Benchmark approved checklist with every boiler and this is to be completed and a copy is to be passed onto the end user of the dwelling a copy is to be given to the Local Authority Building Control Department for their records. All gas boilers are to be installed by a Gas Safe registered engineer and the relevant certificate is to be provided to the Local Authority Building Control Department upon completion of each system. The user manual and any special operational, servicing or maintenance instructions are to be provided for the end user of each new dwelling.

23.7 Chimneys, Flues and Fires

23.7.8 Protection to structure.

Protect all parts of the structure from hot flues to comply with A.D. Part J.3.30 to 3.35

23.7.9 Safety Notice

Provide & fix a safety notice concerning all flues as shown in A.D. Part J. diagram 1.9 to be fixed adjacent to the electric consumer unit.

23.7.11 HEATAS Approved Appliances.

Use only HEATAS approved appliances in all new dwellings. Appliances are to be commissioned by suitably qualified person prior to final sign off by Building Control.

24 UNDERGROUND DRAINAGE

24.1 Generally

24.1.1 All drains are to comply with A.D. part H

24.1.2 uPVC drainage system

Proprietary UPVC drainage system to the layout shown on the drawings with polypropylene IC's where depth to the invert is less than 900mm.

24.1.3 Drainage

Shall be to the engineers design drawings. If stoneware pipes are used they should have flexible joints. The engineers will give advice on pipe surrounds if required.

Inspection chambers will generally be plastic type. Larger manholes may be plastic, engineering brick or p.c. concrete depending on the size and situation.

Covers will be galvanized steel, the grade being suitable for its location.

24.1.5 Drains under Buildings

Drains under buildings and with less than 450mm cover, encased in 150mm 'C' conc.

24.1.6 Drains under new extension

Excavate all existing drains to be covered by the new extension and surround drains in 150mm thickness of C15 concrete. Remove existing cover and replace with a double-seal screw down type with recessed lid to receive floor screed.

24.2 Inspection Chambers and Manholes

24.2.1 Inspection Chamber

PPIC's accessible to wheeled traffic or inside a building to be bedded & surrounded with 150mm thick C20 conc. Elsewhere IC's to be bedded & surrounded in granular material.

24.2.3 Manhole Covers

All MH's to have covers to BS.EN 124:1994 Class 'B1235' covers in areas accessible to wheeled traffic, Class 'A15' covers in paved areas inaccessible to wheeled traffic and light-weight steel covers elsewhere externally. Internal MH covers to be double-sealed screw down type with recessed lid.

24.3.4 Drains under Buildings

Drains under buildings and with less than 450mm cover, encased in 150mm 'C' conc.

24.2.5 Drains passing through walls

Build into walls suitable RC lintel's immediately above drains which pass through.

24.3 Foul Drainage

24.3.1 Foul connections to existing drains

Connect foul drains to the existing foul sewers strictly in accordance with the Local Authorities requirements as shown on the drainage drawing.

24.3.2 Foul connections to existing drains

Connect foul drains into existing foul sewer on site via a gravity connection if possible - See drwg's. If after site testing a gravity system cannot be installed a pump may have to be introduced. See drainage drawing.

24.4 Storm Drainage

24.4.1 Road Gulleys

Road gulleys to be Hepworth or other approved to BS.65,1988, gulley gratings and frames to be Grade 'B' straight bar gratings and frames. Set on two course of semi-eng. brickwork.

24.4.2 Storm water connections to existing Sewers

All storm water drainage to discharge to existing storm water storm water sewers as shown on the drainage drawings.

24.4.3 Storm water connections to soakaways

All storm water drainage to discharge to soakaways shown on the site plan. Soakaways are to be situated not less than 5metres from any building, and be designed by engineer. Ensure percolation tests are carried out in line with BRE Digest requirements.

24.4.6 Level Threshold Drainage

Allow to install a level threshold drainage channel to collect and discharge storm water into the new system on site, located generally adjacent to the front door to the dwelling or at another entrance point on the principle entrance level if identified upon the drawing.

24.4.9 Where Soakaways are not suitable

Where porosity test shows that a soakaway is not suitable. Rainwater down pipes to connect into 100mm dia drainage connection into surface water main sewer. Manholes and rodding eyes in locations shown on main site drawing.

24.5 Water Connections

24.5.1 Water Connections

Where the length of connection exceeds 30m the minimum pipe size is to be 22mm.

25 ELECTRICAL

25.1 Generally

25.1.1 Switches, Sockets etc

All lighting switches, ceiling fittings, power points and cooker outlets will be installed as indicated on the drawing. They will be white in colour and left flush with the finished plaster and all accessories will be manufactured to the relevant British Standards.

25.1.2 Switches, Sockets etc

Consumer Unit, Switches & socket outlets for lighting & other equipment in habitable rooms are to be positioned between 450mm & 1200mm above finished floor level.

25.1.3 Wiring

All wiring is to be installed within the fabric of the building.

25.2 Internal Lighting

25.2.1 Internal Lighting

Provide internal artificial lighting to comply with A.D. L1A paragraph 42 & external artificial lighting to comply with A.D. L1A paragraph 45.

25.5 Smoke/ Fire Alarms

25.5.2 Smoke Alarms in Dwellings less than 200m² & less than 3 storeys

Mains operated self-contained smoke alarms to conform to BS:5446 Part 3 2005 where there is more than one alarm these are to be inter-connected.

25.5.4 Heat Detectors

Heat detectors (in addition to smoke detectors) are to be provided to all kitchens to be positioned a minimum of 2m from any cooking appliance.

25.5.6 Smoke & Heat Detectors

Smoke detectors to be mains operated self-contained smoke alarms with audible or visual signals each unit to BS 5446 Pt1, all interconnected within an individual flat (not to communal areas) and positioned within dwelling circulation areas & within 7.5m of the door to every habitable room and ceiling fixed min. 300 from wall. They are also required to inner rooms & associated outer (living) room. Denoted 'ds ' on plan.

Heat detectors to be located within kitchens (in addition to other detectors noted). Generally as noted on plans.

25.7 *General electrical works*

25.7.2 Electrical Installation Part P

All electrical work required to meet the requirements of part 'P' (electrical safety) of the A.D. & must be designed, installed, inspected and tested by a person competent to do so. Prior to completion the L.A. should be satisfied that part P has been complied with, this may require an appropriate BS: 7671 electrical installation certificate to be issued for the work by that person.

25.8 *Electrical compliance & Certification*

25.8.1 Part P Certification

All electrical work required to meet the requirements of part 'P' (electrical safety) and current addition of the IEE Wiring Regulations; must be designed, installed, inspected and tested by a person competent to do so.

An appropriate BS 7671 electrical installation certificate is to be issued for the work by a person competent to do so.

Cables within / fully enclosed by insulation to have circuit protection and increased size cables. Switches and sockets that are on party walls to be provided with a minimum 150mm edge to edge stagger.

25.8.2 Commissioning

On completion of all works the system / components should be commissioned in accordance with the Manufacturer's instructions. The user manual and any special operational, servicing or maintenance instructions are to be provided for the end user of each new dwelling.

26 ACCESIBLE APPROACH TO DWELLING

26.1 *Level Approach to Dwelling*

26.1.1 Level Approach

900mm wide paved approach footpath at max. gradient of 1 in 20 with accessible threshold to entrance door, to comply with A.D. part M see details of access & threshold where relevant. Build in additional DPC's 150mm above the main dpc level to the outer leaves of all cavity walls which are adjacent to paths less than 150mm below the main DPC level.

26.1.2 Level Approach

Level access in accordance with "level access requirements" shall be allowed for between the car parking and principle entrance.

26.2 *Ramped Approach to Dwelling*

26.2.1 Ramped Approach 1:12

900mm wide paved & ramped approach footpath at a max gradient of 1 in 12 with flights not exceeding 5m in length & having landings at each end min. 1200mm in length with max cross falls of 1 in 40 accessible threshold under entrance door to comply with A.D. part M Build in additional DPC's 150mm above the main DPC level to the outer leaves of all cavity walls which are adjacent to paths less than 150mm below the main DPC level.

26.2.3 Ramped Approach 1:12

900mm wide paved & ramped approach footpath at a max gradient of 1 in 15 with flights not exceeding 10m in length & having landings at each end min. 1200mm in length with max cross falls of 1 in 40 accessible threshold under entrance door to comply with A.D. part M
Build in additional DPC's 150mm above the main DPC level to the outer leaves of all cavity walls which are adjacent to paths less than 150mm below the main DPC level.
Handrails to extend by 300mm beyond top and bottom of ramp.

26.3 *Access into Buildings*

26.3.1 Clear door widths

All clear door widths throughout the building are to comply with A.D.M section 7 Table 4.

26.3.2 Accessible Threshold

Accessible Threshold to be achieved with slot drainage channel detail to front of level threshold, with paving gradients at no more than 1:12 . Level landings to be minimum equal to width of ramp.

Revision Record

**Victoria Price – 19 Featherston Drive. Burbage
Project no. 18/37 - Extensions & Alterations**

Date	Issue	Ref	Amendment
10.09.18	2	A	Amendments made via Building Control

DRAFT