BROXTOWE BOROUGH COUNCIL

18 Derbyshire Ave, Trowell, NOTTINGHAMSHIRE

PROPOSED DISABLED ADAPTATION

Broxtowe Borough COUNCIL

PRICED SCHEDULE OF WORKS

April 2018

PRICED SCHEDULE OF WORKS

18 Derbyshire Avenue, Trowell, NOTTINGHAMSHIRE

ADAPTATION AND EXTENSION

1:00 DEMOLITION and ALTERATION:

1:01 GENERAL

All work is to be carried out in accordance with all relevant building regulations, planning approval and building control instructions and to the satisfaction of the Contracts Administrator. Please note Building Regulations will apply for this development (to be obtained by the Council). If, in the opinion of the contractor, any detail or part of the specification does not conform to current Building Regulations, they should contact the Contract Administrator before submitting a tender. All work should be based upon drawing Nos. CW18:012/1-7

1:02 SITE PREPARATION

The Contractor will need to allow for all site preparation to facilitate the works; including but not limited to:
Removal of all debris arising from demolition in a timely manner.
Retaining safe access to the house and parking for the tenant and their family throughout the works.
Protection and security of the site.
Protection of existing structures and landscaping.
Area must be left clean and tidy upon completion.
Provision of onsite welfare facilities, including a WC.
Provide protection from dust and debris, including but not limited to sealing of doors and protection when chopping out plaster form walls.

1:03 DEMOLITION

1:03:01 Demolish internal store wall and doorway in existing extension to the kitchen as shown on drg no CW18.012/04..

1:03:02 Breakout and remove grass and paved area to rear of property to extent of new extension and as necessary to allow formation of new ground bearing floor as section CW18:012/06&07 according to the area shown on drawing CW18.012/01.

1:03:03 Drain down and remove radiator RD1 and set aside for possible reuse.

1:03:04 Disconnect and remove all existing services and remove redundant light fittings in store areas shown on drawing CW18.012/08.

1:03:07 Remove Windows exW1and exW2 cart away from site. **Allow to temporary prop structure.**

1:03:08 Form opening in external wall between store and new extension.
Allow to temporary prop structure as necessary.
NOTE: Opening to be secured throughout works.

1:03:09 Widen existing door openings to 1000mm for D1 & D2 doorsets in entrance hall. **Allow to temporary prop structure.**

1:03:10 Take up existing floor in stores ready to receive full floor build-up as extension.

1:03:11 Take up existing external surface and ground to new extension and drainage connection.

1:03:12 Cart away from site all debris arising from the demolitions.

2:00 GROUNDWORKS:

2:01 EXISTING DRAINS

2:01:01 Protect all drains, manholes, gullies, vent pipes, rainwater pipes and fittings that are retained for use and ensure that they are kept free of debris at all times.

2:01:02 Make good any damage to existing drains arising from demolition work and leave clean and in working order on completion.

2:02 FOUNDATIONS

2:02:01 Excavate and prepare ground for strip foundations, provide CA with specialist design and calculations prior to commencement. Actual size and depth to be agreed with the Building Control officer.
Note: Due to the close proximity to the boundary wall and neighbouring extension, excavations must be filled as soon as possible.

2:02:02 Prepare level base and sand blinding ready to cast C35 reinforced concrete strip foundation. Allow for chasing out existing foundations and incorporating starter bars, tying new foundation to existing as required.

2:02:03 Remove all organic materials to full extent of extension, excavate to reduced levels and prepare ready for ground floor. Apply weed killer to full extent of excavations.

2:02:04 Brickwork below dpc level to be Class A BLUE engineering bricks in 1:3 cement: sand mortar.

2:02:05 Blockwork below dpc level to be underground quality blocks in 1:3 cement:sand mortar as recommended by the manufacturer.

2:02:06 Cavity below ground level to be filled with weak mix concrete sloped to the outside.

2:03 GROUND FLOOR

2:03:01 Lay a min. 150mm graded, well compacted hardcore to extent of floor to bedroom and wet room as indicated on drawings CW18.012.04,06&07. Hardcore to receive 25mm sand blinding and dpm.

2:03:02 Cast 150 mm reinforced concrete slab to full extent of excavations, concrete to be C35 grade tamped and vibrated.

2:03:03 Lay 1200g DPM above concrete slab and run up external wall to lap into and be jointed continuously with the polymer DPC within the external walls.

2:03:04 Lay 100 mm Kingspan TF70 (or similar approved) rigid floor insulation slab to full extent of excavations.

Allow for min 25mm thick perimeter edge insulation cut and placed to full depth of screed as 'edge-of-screed' insulation.

2:03:05 Lay a 1200g polythene separating/vapour control layer over the insulation to prevent risk of condensation.

2:03:06 Lay a 65 mm self-levelling screed, with D49 fabric mesh reinforcement as necessary.

2:03:07 Screed finish to extension to be trowelled smooth and sealed ready to receive tenant-supplied floor finish in bedroom and non-slip vinyl to wet room (with fall to gully). Floor finish to provide level access to existing house.

SUPERSTRUCTURE:

3:01 BEAMS:

3:01:01 Supply and install 150mm rc beams to full width of opening formed in external wall between new bedroom and wet room with 150mm bearing.

3:02 EXTERNAL WALL CONSTRUCTION:

3:02:01 OUTER SKIN:

- 102mm facing brickwork to be Ibstock Aldridge Brown Blend or similar approved, laid in approved 1:3 cement: sand mortar in accordance with manufacturer's instructions.
- Laid with recessed joints in approved mortar to manufacturer's instructions, including all necessary expansion joints where appropriate.
- Allow for soldier courses above new window.

3:02:02 INSULATION:
50mm thermoset phenolic insulation batts in 50mm cavity, held in position with manufacturer approved stainless steel wall ties.

3:02:03 INNER SKIN:
100mm Thermalite Shield close textured load bearing lightweight block work laid with recessed joints in approved mortar according to manufacturer's guidelines, including all necessary joints where appropriate.

3:02:04 Cavity to be closed with slate bedded on 1:3 cement sand mortar.

3:02:05 Allow for Ancon Staifix universal wall starter system or equal approved, fixed to existing external wall as necessary. Mastic sealant to joint.

3:02:06 WALL TIES:
First run of wall ties to be fixed at 600mm spacing horizontally, and then at max 900 centres, and maximum 450mm centres vertically (300mm within 225mm of all jambs). Wall ties to slope down to outer leaf to prevent water ingress.

3:02:07 LINTELS

- Lintel to windows and doors to be Catnic (or equal approved) steel lintels.
  a) W1 Catnic ref CH50/100mm
  Lintels must have at least 150mm bearing on each side.

3:03 ROOF

Workmanship of the structural members should comply with the relevant requirements in BS 5268-2:2002.

3:03:01 Supply and fit class C16 47×175mm timber rafters at maximum 450mm centres. Rafters to be double trimmed for Velux rooflight opening. Rafters to be securely fixed with truss clips to 100×65mm sw wall plate bedded on 1:3 sand mortar and to extg masonry at the head.. Wall plate fixed with Galvanised wallplate straps. Galvanised wall hangers to be used to fix rafters to existing wall structure. Allow for noggins between joists.

3:03:04 Supply and install 140mm Celotex 300 or similar approved securely between rafters with no gaps.

3:03:05 Supply and lay Marley Eternit Duo Edgemere interlocking slates to manufacturers guidance with 100mm lap on 38x25mm battens on 18mm counter battens over Tyvec or equal roofing membrane

3:03:06 Install code 4 lead flashings and soakers to junctions with existing two walls and have a minimum upstand of 150mm.

3:03:07 Supply and install 18mm white UPVC fascias, and white UPVC soffits with supporting sw framework and for all necessary joints, angle corners and fixings. Allow to pack out void behind fascia with flexible insulation to prevent cold bridging.

3:03:08 Supply and install black 100mm UPVC guttering to fascia as indicated on drawing CW18.012.06 connected to existing. Include for replacing 75mm black UPVC downpipe into existing gulley. Rainwater goods to be securely fixed strictly according to manufacturer's instructions.

3:03:09 Supply and fix MK04 Velux with EDW standard flashing and electric controlled blackout blind all to drawing GGL-EDZ-0114-1001 & manufacturers instructions.

3:03:10 Svp to be taken up through lead tile and dressed with cage to top.

3:04. CEILING

Underside of roof joists to be lined with 30mm Thermalite plasterboard securely fixed to roof spars. Allow to box around the Velux rooflight

3:05 INTERNAL WALL CONSTRUCTION

3:05:01 Block up existing openings in blockwork to the following areas as shown on drawings CW18:012/04.

- Existing window opening between new bedroom and living room to side of D3
- Existing small window opening between kitchen and new wet room
- Wall between wet room and rear lobby

3:05:02 Allow for all necessary skirting boards, architraves, beading, etc. throughout (Inc. new external walls, and all existing walls bounding the newly formed bedroom), all to be pressure treated.

3:05:03 LINTEL

- Lintel to for D1&2 to be Catnic ANG 102mm (or equal approved) steel or rc conc lintels. Lintel must have at least 150mm bearing on each side.

3:06 WET ROOM:

3:06:01 Shower Area: Supply and install AKW Tuff Form or equal trapped floor gully.

3:07 FLOOR COVERINGS (Wet Room)

3:07:01 Supply and lay POLYFLOR Polysafe Hydro 2.5 slip resistant vinyl sheet floor covering; with edges dressed up wall to form continuous cove skirting with POLYFLOR cove formers and Ejecta CT strip to junction with wall. Colour to be chosen by tenant from list supplied by Broxtowe Borough Council to link with standard modernisation schemes.

4:00 WINDOWS AND DOORS:

4:01 WINDOWS

Allow for fitting of 1 no. PVCU window in accordance with the attached specification – see Appendix 1 attached – PVCU windows. Windows configuration to match existing in new wet room as indicated on drawings CW18.012/04&05.

W1: approx 1240 x 770(w x h)

The windows to be complete with insulated DACATIE ref: TF1000 (or equal approved) cavity closer/plastic vertical dpc to both sides of each new window opening.

Supply and install bullnose sw timber window sill to internal of window openings.

exW2: clean and prepare glass and apply plain 'frost' privacy film to manufacturers recommendations.

(Velux rooflight covered in ROOF section 3:03:09)

4:02 DOORS

4:02:01 DOOR D1

Supply and fit new paint grade door & min 25mm thick liners with 13mm stops in widened opening to provide a minimum 850mm clear opening and 15mm carpet clearance. C/w 65mm tubular latch, 3no 100mm hinges and lever handles to match existing.

Supply and fit SW door lining and architraves to door to match existing.

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4:02:04 DOOR D2

Supply and fit new paint grade FD30 fire door with intumescent strips & min 25mm thick liners with 13mm stops in widened opening to provide a minimum 850mm clear opening and 15mm carpet clearance. C/w 65mm tubular latch, 3no 100mm hinges and lever handles to match existing.

Supply and fit SW door lining and architraves to door to match existing.

4:02:03 DOOR D3

Supply and fit new half glazed paint grade door & min 25mm thick liners with 13mm stops in widened opening to provide a minimum 850mm clear opening and 15mm carpet clearance. C/w 65mm tubular latch, 3no 100mm hinges and lever handles to match existing. Glazing to be clear safety glass.

Supply and fit SW door lining and architraves to door to match existing.

4:02:04 DOOR D4

Supply and fit new paint grade door & min 25mm thick liners with 13mm stops in widened opening to provide a minimum 850mm clear opening and 15mm carpet clearance. C/w 65mm tubular bathroom latch with external overide, 3no 100mm hinges and lever handles to match existing.

Supply and fit SW door lining and architraves to door to match existing.

5.00 SANITARY FITTINGS:

GENERAL

Provide and fit new WC and washbasin. General fitting heights have been suggested however where possible it is suggested that heights are agreed with users on site.

5:01 NEW WC (including WC pan and cistern)

- Supply and install new Armitage Shanks "WHITE" 'Contour 21' close coupled WC pan, seat and cistern; complete with all cold water connections, overflow and connections to stack. Include for all new pipework back to the existing cold water system and waste discharge pipework to adjacent stack.
- WC to be set 500mm from wall to centre line, with waste pipework adjusted accordingly.

5:02 WASH BASIN (No Pedestal)

- Supply and install new Armitage Shanks "WHITE" 'Portman 21' 60cm washbasin REF S2256 with one taphole; complete with all hot and cold water connections, 75mm deep seal trap and waste connections to new waste stack; include for all new hot and cold water pipework and waste discharge pipework.

  Wall mounted wash hand basin set at approx. 800mm from floor.

5:03 SHOWER

5:03:01
Supply and install new aluminium rail shower rail fixed to the walls in accordance with the manufacturer's. Minimum dimensions to be 1100x1500mm. Include for electric bonding
Complete with "WHITE" 2200 mm long shower curtain.

5:03:02
Supply and install new AKW iCare electric care shower, white, 9.5kW unit securely fixed to tiled wall at a height to be agreed with the tenant, with an extended hose and sidebar. Allow for all electrical connection from the shower unit as specified; and including new circuit back to the consumer unit together with new Fuse/circuit breaker; include for bonding as necessary; allow for all exposed plumbing connections including installation pipework in chromium plated copper and all cold water connections to the shower unit and existing cold water system.

5:04 HANDWASH BASIN

- Supply and install new Armitage Shanks Contour 21 37cm Handwash basin with REFA6697 mixer tap or similar approved In wc with waste into svp.

6:00 PLASTERER

6:01 GENERAL

6:01:01 Allow for plaster patching in small areas for a total of 5m2..

6:01:02 All exposed brick or blockwork and plaster patching (including new walls and existing walls stripped of plaster) to receive a plastered finish comprising of not less than 2mm thick British Gypsum Thistle MULTI-FINISH plaster on not less than 11mm thick Thistle Bonding coat plaster undercoat in accordance with BS 5492: 1977 and manufacturer's recommendations.

6:01:03 New plasterboard ceilings to be tape jointed prior to receiving 10 mm coat of Gypsum Thistle Universal One Coat all in accordance with manufacturer's recommendations.

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6:02 BACKING TO WALL TILES

Prepare two walls as shown and apply 1:3 cement:sand backing as specified to same overall thickness as the adjacent plaster; apply 2 coats 'Unibond' or similar approved bonding agent, to full height tiled walls, window opening and sink splashback, to receive new ceramic wall tiles as specified in Wet Room.

7:00 WALL TILING

7:01 GENERAL

Wall tiling generally to be British Ceramic Tile Compendium range wall tiles on prepared walls. Colour to be either Beige Satin or White Satin 148x148 wall tile. Colour to be agreed between Contracts Administrator and Tenant.

Allow for all making good of plaster prior to fixing of all trims; "WHITE" grout, approved WATERPROOF ADHESIVES, ARBO mastic to ALL internal corners, and the like to be included.

All edges will be formed by a white plastic trim.

7:02 WALL TILING TO WET ROOM

- Apply full height tiling above top of coved skirting to the full extent of the shower area and 8 no. tiles (2 rows) to sink splash back.
- Make good tiling around all appliances, pipework, etc.

8:00 HEATING AND PLUMBING INSTALLATION

8:01 EXISTING INSTALLATION

The existing plumbing installations must be tested prior to any alterations in the presence of the Clients' representative. Any defects which affect the operation of the system, which become apparent, to be rectified by the contractor at the Clients expense or the Client may at his discretion employ others to carry out the work. On completion of work to the existing system it shall be fully operational to the satisfaction of the Clients' representative.

8:02 GENERAL

The whole of the work shall be carried out by experienced plumbers under the direction of a registered Master Plumber.

8:03 HOT AND COLD WATER SYSTEM

Modify existing hot and cold water system as necessary to

supply facilities to the new bathroom. Allow for all pipework and installation together with insulation of all pipework within unheated roof voids. No dead legs are to left in the pipework.

8:04 SANITARY INSTALLATION

- The whole of the sanitary installation and cold water and hot water installation shall be executed in accordance with the Regulations and Bye-Laws of the Water Authority, and all pipes shall be of the weights and gauges required by them.

- All valves, including any valves supplied by a Nominated Supplier, shall be submitted to, tested approved and stamped by such Authority before being used in the work.

- Immediately upon completion of the installations, the Authority shall be notified and all requisite tests carried out, including tests to ensure that the water is uncontaminated and suitable for drinking.

- All plastic overflow pipes to have plastic 'T' piece solvent welded onto external end as it passes through fascia or walling to prevent wind ingress and hence freezing.

8:05 CENTRAL HEATING

- It is essential that heating and hot water to the dwelling is maintained at all times. The tenant must be notified when it is proposed to carry out the work.

- Allow for removal of all unused materials and rubbish appertaining to the installation.

- Allow for new distribution pipework, drain cocks, vents, pipework, etc. required for extending existing system, together with the replacement of any ports and/or equipment due to the increase in the existing system.

- Allow for all builders' work commissioning and testing in connection with the below installation.

8:05:01 The plumbing sub-contractor is to install a new Stelrad Elite range radiator, where indicated on drawing CW18.012/04:
a.) Wet room radiator R1.(900lx900h)
b.) Bedroom radiator R2.(1200lx 900h)
c.) WC radiator R3. (450lx600h)
d.) Living room R4. (double panel sized to match extg)

Allow for Danfoss (Randall) Thermostatic Radiator valves to all new/relocated radiators.

8:06 GAS SAFETY REGULATIONS

- The whole of this contract must be carried out in accordance with Statutory Instrument 1998 No. 2451 Health and Safety The Gas Safety (Installations and Use) Regulations 1998 and any subsequent amendments.

- This will include certifying that the appliance is checked for electrical or gas supply safety.

- A certificate will be completed on the completion of any servicing or pipe work alterations and submitted to the employer on a daily basis. In addition any work carried out during a breakdown visit will be recorded and a copy of the report submitted to the employer at the end of each day.

- Each person employed to carry out this work will be competent to carry out such work. Broxtowe Borough Council defines competence as that detailed in the Health and Safety Commission Approved Code of Practice Standards of Training in Safe Gas Installation (ISBN 07176 06031). The criteria for qualification, training and experience of gas fitting operatives will be employed to carry out repairs and maintenance of the Council's gas appliances. Furthermore they shall have reached the Health and Safety Commission Approved Code of Practice and Standards of Training in Safe Gas Installation or Nationally Accredited Certification Scheme Assessment courses in the following elements (if relevant):

  Safety Legislation and Basic Safety
  Combustion and Control
  Flues and Ventilation
  Pressure and Flow
  Domestic Pipework Installation
  Electricity and Its Control
  Control System
  Central Heating Wet Systems
  Domestic Cookers
  Domestic Space Heaters
  Domestic Hot Water Heaters
  Fault Diagnosis, Service and Maintenance

- Evidence will be required that all operatives employed on the works are qualified prior to the contract commencing.
  Note: Any work carried out during the out of hours service will be carried out by staff who reach the qualification criteria described above.

a) Appliances and Services

All appliances and services must be installed in strict accordance with the manufacturer's instructions and Gas Safety Regulations. On completion of the final checks to ensure the system is fully commissioned the contractor will submit to the employer a completion certificate.

b) Registration of Gas Safe.

- All contractors who submit tenders must be or use a subcontractor who is a member of Gas Safe, the Council for registered gas installers and be approved for the type of work relating and described in this document.
- As part of the tender the contractor will be required to submit details of his membership, and/or the details of any sub contractors who are to be employed.

c) Attendance by other trades

- Should any other trades be employed on the works the contractor must make them aware of the Gas Safety (Installations and Use) Regulations 1998 and any subsequent amendments.

- On completion of works by other trades appliances must not be used, until this installation has been checked for correct operation and installation together with safety checks which must be carried out by a person qualified as described in the Gas Safety Regulations.

In completing the proposed works the following statutory documents must be complied with (This is not an exhaustive list):-

Health & safety At Work Etc Act 1974
Gas Act 1986
Latest Edition of Building Regulations
Gas Safety (Installation and Use) Regulations 1998

9.00 ELECTRICAL INSTALLATION

Please note, the contractor is not required to rewire the whole dwelling. This specification is given to the quality and type of equipment expected to the new extension.

9:01 GENERALLY

Regulations

The work must be carried out by a member of the National Inspection Council for Electrical Installation Contracting and shall comply with the latest edition of the Regulations for the Electrical Equipment of Buildings issued by the Institution of Electrical Engineers including all current amendments, the 17th Edition of the IEE Wiring Regulations, Building Regulations, Regulations of the local electricity supply authority, British Standards Code of Practice, Health and Safety at Work Act, Electrical Equipment (Safety) Regulations, Plug and Socket (Safety) Regulations and the Gas Safety (Installation and Use) Regulations 1998.

9:02 Testing

- The contractor will supply all notices upon the supply Authority for testing, pay all fees in connection therein and any additional fees required for re-testing.
- The Contract Administrator shall have the authority to require any material or work to be tested at the contractor's expense, in order to prove both soundness and good practice.
- The installation shall be tested for insulation and continuity in accordance with the I.E.E. Regulations as the work proceeds and before any connection is made to the switch or consumer unit terminals.
- In the event of either materials or work, with or without being tested, be considered defective, such materials or work at the contractor's own expense, shall be amended immediately in a proper and satisfactory manner, upon notification by the Contract Administrator.

9:03 Earthing and Bonding

- The whole of the Electrical Installation and all other equipment and apparatus connected thereto, shall be earthed in accordance with the I.E.E. Regulations and the Supply Authority. P.M.E. earthing shall be used if the local supply authority will make it available. All installations must be fitted with R.C.D. Protection.
- The contractor shall include for bonding all services and ascertain from the supply authority that they will supply an earthing terminal or allow earthing to their incoming

cables.

- If the Supply Authority will not accept the above methods, for earthings, the Contract Administrator must be informed forthwith.

9:04 Position of Points

- The position of switches and sockets will nominally be as follows,
  Exact locations and heights etc will be agreed with tenants prior to fixing to suit disabled tenants needs.

Light Switches	1350mm	
Switched Socket Outlets	900mm	
Spur switches	2180mm	
Luminaire	2400mm (Min)	To the underside.
Ceiling switch pull cords	600-800mm	To the end of cord.
Shower pull switch	1000mm	To the end of cord.

9:05 Description of Work

9:05:01 Supply and install new Wylex NM 10 way Metal consumer unit (or similar approved) to suit. Consumer unit to meet the current regulation, including but not limited to the latest editions of BS 7671 IET Wiring Regs, and BS EN 61439-3, and their subsequent amendments. Consumer unit located under stair off hall.

9:05:02 All wiring to run from the new consumer unit and will include provision for cutting chases, cutting holes capping and making good of plaster. Location of fittings indicated on drawing CW18.012/04.

Bedroom 3 new Double sockets with outboard rockers,
1 light switch for bedroom lighting
1 light switch for wet room
Power for electric Velux blind

Hall 1no. wired smoke detector Aico Ei166e Optical detector with built in rechargeable battery.

WC/ Shower 1 50 Amp pull switch for elec. shower
1 AKW iCare Electric Care Shower (White, 9.5 kw)
1 Manrose 150mm or equal extract fan

Kitchen 1 wired heat detector Aico Ei164e with built in rechargeable battery.

Extg wc 1 Manrose 150mm or equal extract fan

Smoke detectors/heat detector to be interlinked

9:06 Lighting

Wetroom	1 no. Tamlite CIRCLIGHT Circular domed profile bulkhead	CLD36017LEDNW
Bedroom	1 no. Tamlite Elegance Plus Circular Bulkhead, colour Polished Chrome. Light fitting to be switched as shown.	PEL17LED2LNW

9:07 Electric Shower Unit

See Sanitary Fittings

10:00 DRAINAGE

10:01 GENERAL

- Before starting work, check flow, levels and positions of existing drains, inspection chambers and manholes against the assumed positions on drawings and report any discrepancies.
- The whole of the drainage shall be carried out in accordance with the rules and regulations of the Local Authority and no trenches shall be filled until the drains have been tested and passed by the Authority.
- All pipework will be suitable for purpose, i.e. for installation above ground and underground.

10:02 EXISTING DRAINAGE

10.02.01 Locate existing drain and open up to form manhole for new connection to the drainage system as required (Indicated on drawing CW18.012/01).

10:03 NEW DRAINAGE

10:03:01 All new sanitary fittings to be provided with necessary waste pipework to connect to existing drainage system.

10.03.02 Supply and lay new 100mm sgw flexible jointed drain pipe from svp and connect to new inspection chamber as indicated in drawing CW18.012/01. Joints to be clean and smooth.

NOTE: All pipes to be laid with care to true and even falls, perfectly straight both in line and gradient and the inside of each pipe to be wiped clean so that the full bore is truly concentric and unobstructed.

10.03.08 Allow for all associated work e.g. excavation, jointing, haunching, backfilling, and reinstatement of concrete pathways.

11:00 EXTERNAL WORKS

11:01 Form minimum 600mm deep path with concrete paving slabs to rear of property to extents indicated on drawing CW18.012/01. Slabs on bed of sand blinded hardcore min. 100mm deep.

Allow to make good lawn following excavations for foundations and concrete.

12:00 FITTINGS

12:01

Allow to fit of 6 number client supplied grab rails, locations to be specified at the end of the job with the input of the OT and tenant.

13:00 CONTINGENCY

Allow and include for a £3,000.00 only to be expended by instruction from Broxtowe B C.

18 DERBYSHIRE AVENUE, TROWELL, NOTTINGHAM

COLLECTION

1.0	Demolition and Alterations	£	
2.0	Groundworks	£	
3.0	Superstructure	£	
4.0	Windows and Doors		
	4.01 Windows	£	
	4.02 Doors (Internal and External)	£	
5.0	Sanitary Fittings	£	
6.0	Plasterer	£	
7.0	Wall Tiling	£	
8.0	Heating and Plumbing Installation	£	
9.0	Electrical Installation	£	
10.0	Drainage	£	
11.0	External Works	£	
12.0	Fittings	£	
13.0	Contingency	£	3,000.00

TOTAL CARRIED FORWARD TO PRICE BREAKDOWN _____

_____

APPENDICES

Appendix 1 – Window Specification

APPENDIX 1

STANDARD SPECIFICATION FOR HIGH IMPACT PVCU WINDOW SYSTEMS

PLEASE NOTE: Latest editions of all regulations and standards to be adhered to, with any subsequent amendments.

Profile and Material

1.1

(All profiles shall be impact modified PVCU (polyvinyl chloride unplasticised).

The profile shall be multi-chambered with an external wall thickness of 3mm minimum. The external thickness of the frame front to back shall be no less than 70mm.

1.2

The material from which the profiles are made shall consist of white polyvinyl chloride. Only those additives and pigments may be used that are needed for the manufacturer of the compound and its subsequent conversion into sound, durable extrusions of good surface finish and mechanical strength, as assessed by the requirement of the trade standard for PVCU windows published jointly by the British Plastics Federation, 6 Bath Place, Rivington Street, London, EC2 3JE, and The Glass and Glazing Federation, 44 - 48 Borough High Street, London, SE1 1XB.

1.3

PVCU extruder shall operate under a quality management system complying with the requirements of the National Standard for Quality Assurance, BS EN ISO 9001:2000 or latest equivalent. The extrusion shall also comply with the requirements of, and be extruded in accordance with BS EN ISO 9001:2000 and QAS4834/18 1987 or latest equivalent.

1.4

The windows shall not contain materials which by direct contact or otherwise be detrimental to the comfort and safety of the users, or which are liable to emit abnormally toxic products. There shall be no detrimental reactions from contact between the windows and their fixings or adjoining materials - COSHH Regulations shall apply throughout.

1.5

The finish of the profile as extruded shall be white in colour.

1.6

The cross section of the profile shall conform in shape and dimensions to the manufacturers specification. Surface dimension shall deviate by no more than +/- 1.5mm.

1.7

The colour of the profile shall be uniform and free from foreign bodies, cracks, scratches and sink marks.

1.8

The profiles shall be straight so that the longitudinal axis of the profile as measured on the base surfaces shall deviate from the straight line by no more than 1mm per metre.

1.9

The main frame and sash profiles of each window shall be permanently marked approximately 1m intervals with an identifying mark which will enable the manufacturers name, date of manufacture and extruder to be identified without extraction of the window.

1.10

The profile shall show no bubbles, cracks or de lamination when subjected to ageing as defined by BPF/GGF Trade Standards.

1.11

The main frame and sash profile shall resist impact at low temperature and no sample, when tested, shall exhibit cracking through the entire wall thickness of the profile.

1.12

Profile material shall be tested in accordance with BS EN 20105-A03: 1994 for colour fastness and the maximum colour change shall not be more than 3 on the grey scale. It shall be tested in accordance with BS2782: 1976 (ISOR/182 Method A), and shall be stable for not less than 85 minutes. **The system shall be through coloured**

1.13

All frames shall meet the regulations of BS 6375-1:2004 for air and water tightness with a minimum wind loading of 1,500 Pascals.

1.14

No profile shall contain or be produced from reformed material or reworked material of any kind.

1.15

The system shall be resistant to chemicals and be fungal and vermin proof. Profiles must also be resistant to attack by cement mortars and other materials used in building construction and refurbishment.

1.16

PVCU shall be classed as self-extinguishing to prevent support or enhancement of accidental fires to class 1, i.e., most resistant as defined in BS476 Part 1.

1.17

Combination Windows and Screens

Where combination windows or screen are specified the frame shall be manufactured complete and shall incorporate panels manufactured from the colour coat HP200 range with an insulated panel to an overall thickness of 24mm. The contractor must allow for a choice of colours.

1.18

New PVCU window boards **shall** be incorporated except for kitchen and bathroom windows. The window boards will be a minimum thickness of 8mm, and be fitted with all end caps, trims and the like. Take care to ensure they do not protrude too far from the wall. Fit on top of existing timber boards unless otherwise agreed.

1.19

Bathroom Windows

The contractor must check and allow for an appropriate profile to allow for internal beading where ceramic tiling has been carried out on internal reveals.

Reinforcement

2.1

Length and Fitment

Window design calculations require that the reinforcement is continuous within the profile and that it does not move relative to the profile under load, reinforcing shall meet 1,500 pascals wind pressure loading.

2.2

The system suppliers reinforcement should be designed to fill the reinforcing space provided within the profile after allowance for extrusion tolerances. In order to achieve the maximum rigidity from the reinforcement, it should be fixed to the PVCU profile at a maximum distance of 100mm from either end and at the maximum of 400mm centre thereafter.

2.3

Definitions

The definitions given in BS6100 and the Codes of Practice for installation apply, together with the following.

Design Wind Loading

That load, determine by calculation, which the window is designed to withstand.

Load Span

The effective length of the member upon which the design acts.

Loaded Area

The expanse of the designed wind load which acts upon the member under design.

2.4

Selection of Reinforcement Materials

Reinforcement for PVCU windows are to be either cold rolled, mild steel suitably protected against corrosion, mill finish aluminium or stainless steel.

Where curved or radius profiles are mechanically jointed, aluminium reinforcement shall be incorporated. It shall be used:-

b. to hold and clamp the joint

c. to provide reinforcement and rigidity.

Mild Steel

Mild steel sheet hot dip zinc coated upgrade Z2G275N complying with BS EN 10143:1993. Alternatively, reinforcement shall be manufactured from mild steel of a similar grade which is subsequently given a corrosion resistant coating to equal the above. Reinforcement of this quality shall be used only in profiles or systems so designed and sealed so that no exterior moisture can come into contact with the reinforcement. All cut ends of Reinforcement must be recoated with zinc to prevent atmospheric attack.

Note: In practice this means that the reinforcement must be in fully welded frames, and that the reinforcement cavity is not breached on the weather side of the windows.

Stainless Steel

Austenitic stainless steel sheet or strip of grade 304, or ferritic stainless steel grade 403 complying with BS EN 10095:1999. Reinforcement of this quality can be used in any type of profile or system.

Aluminium

Extruded aluminium alloy 6063 condition TB, TE or TF or 6082 conditioned TB, TE or TF

complying with British Standards BS4174. Reinforcement to this quality can be used in

any type of profile or system.

Use of Reinforcement Materials

Design

All PVCU windows should be manufactured to resist the designed wind loads. Methods of calculation, these are given in CP3 Chapter V Part 2, the abbreviated version given in BS 6375-1:204 can be used when buildings are of simple rectangular shape and up to 10M high to the eaves from ground level, unless there are special conditions see notes 1 and 2 to 83, BS 6375-1:2004. The components of the window that will deflect under wind loads are transoms including door sides and rails, mullions including composites. Reinforcement shall be installed so that it does not move or rattle when the window is in use and so that it makes an immediate and consistent contribution to the stiffness of the profile during bending.
Frames, Transoms, mullions and casements exceeding 750-800mm to be fully reinforced. Reinforcements shall be fitted to receive fixings at all hinges, fasteners and stays.

Deflection

The calculation of deflection for mullions, transoms and sashes at the right angles to the window pane must not exceed 1/200 of the support width for the most unfavourable loading of support widths of up to 3.00M and must not exceed 1/300 of the supported widths over 3.00M. When insulating glass panes are used data supplied by the manufacturer must be taken into consideration when calculating the permissible deflection.

Horizontal members of windows which support the dead weight of the glass or infill panels will deflect under the loads. To maintain the proper functioning of the hardware, glazing gaskets and weather seals, to prevent excessive strain on sash joints, and to avoid unsightly visual distortion, deflection under dead load shall be limited to a maximum of 3mm.

Structural Design

It must be ensured by appropriate structural measures, that the maximum variation in a position of structural elements deflection, thermal movement etc, to which the window frame is secured, is such that forces do not act upon the panes either in plans or at right angles to it.

Anchorage at the Window Frame to the Building Structure

The type and installation of the anchorages must be established when planning the assembly. The anchorages must not in any way impair the load carrying capacity of the structural element of the surrounding structure to which they are fixed.

Because of the maximum deflection of 8mm permissible for insulation glass, pane lengths will be restricted to a maximum of 2.4M.

Wind Loading

The system shall be so designed to suffer no permanent distortion or other damage when subject to positive and negative pressure as determined by in accordance with BS Code of Practice CHV Part 2.

Thermal Movement

The PVCU frame work and glazing assemblies shall be constructed and installed in the prepared location with sufficient tolerance and where necessary expansion incorporated within the couplings, to provide for expansion and contraction as will be caused by the climatic conditions and temperature changes, winter to summer, day to night, without buckling, distortion of joints, ability of fit, damage to sealants or other detrimental effects over the temperature range of -20℃ to +45℃ (surface temperature). The design shall accommodate noiselessly, thermal movement within the combination units and the curtain wall without distortion. Details shall be prepared based upon dimensions at 20℃ and take account of the ambient temperatures at the time of the assembly and installation. Details and joint positions of expansion joints to be shown on the contractor's submission drawings.

Fabrication

3.1

All corners, mullions and transoms shall be heat welded and finished with a groove, the weld factor to conform to the requirements of BS 2782, method 320C. They are not to less than 0.7. The strength of the corner weld to comply with appendix N and the BPF/GGF standards. **All glazing beads to be internal**. Reinforcing shall meet 1,500 pascals wind pressure loading.

3.2

In all cases, it must not be possible for any opening light to become accidentally disengaged from the outer frame.

3.3

The seam on the outer edge of the frame shall be milled off and the seam on the inner edge be removed.

3.4

Under no circumstances will adhesive bonding be permitted.

3.5

A corner weld test shall be carried out daily during the manufacture using a calibrated machine capable of carrying out such test.

Welds should be capable of withstanding a deflection of a minimum of 4mm as defined by the BFP/GGF Trade Standards without fracturing. Testing can continue to destruction of the weld and records kept of all tests and findings. The corner when fractured shall not split more than 70% along the line of the weld.

3.6

All frames shall incorporate internal drainage, this shall be isolated from chambers into which reinforcement can be placed or through which frame fixings pass, and drainage shall be through the base.

3.7

Pressure equalization holes shall be drilled in accordance with the system extruder recommendations to ensure efficient drainage in adverse conditions.

3.8

Handling and Transport

Windows may be transported either glazed or unglazed.

All windows or prefabricated units shall be transported and stacked in a vertical position and properly anchored to prevent movement in transit, windows shall be separated from each other by adequate packing pieces during transit. All frames shall be delivered to site protected by self adhesive tape which shall be left on the frames for as long as possible before removing.

4.0

Furniture and Ironmongery

4.1
Handles (to be the "Virage" Espagnolette range or similar approved)

Ground Floor - All windows to have Satin Anodised Aluminium (SAA) or white plastic coated key locking handles (offset style). Except dedicated egress openings in conjunction with ground floor flats and bungalows.

The locking system should operate normally at ambient air temperatures within the range of
– 20° C to + 35° C.

4.2

Hinges

Ground Floor - Stainless steel friction type hinge with integral button operated child restriction mechanism to meet BS EN 12046-1:2003. In Ground Floor Flats and Bungalows, dedicated fire egress windows will be used in accordance with the First floor recommendations.

All hinges to be austenitic 304 stainless steel friction type to withstand corrosion to BS 7479:1991, ISO 9227:1990 and should be the right size to suit window size and weight. All windows to be fitted with the "Vector excluder" anti wrenching fixing fitted to hinged cavity.

Manufacturers recommendations for hinges in respect of size and weight limitations must be strictly observed. It is the responsibility of the Fabricator to ensure the correct size of hinge is chosen for the weight of each opening casement or sash. For further information contact the manufacturer's Customer Help Desk.

Tenants are to be instructed on how to operate the windows including restrictors and designated fire egress window.
Note: Some design changes may be needed if existing window designs are unsuitable to meet this requirement.

4.3

Keys
Keys should be supplied for each window where required and one key should fit all windows or all windows in one property.

4.4

All screws, nuts, bolts or other fastenings or fixings to be austenitic 304 stainless steel to BS EN ISO 3506-1:1998. Coatings shall either be sheradised according to B.S. 4921:1998, diacromate, zinc coated, or bright zinc plated and recommended for the use in the fabrication of PVCU windows. Pop riveting shall not be permitted.

4.5

Metals that are in contact with each other shall be compatible so as to prevent galvanic corrosion of electronic metals by electrolytic action.

4.6

Coated steel shall be resistant to corrosion such that when subjected to 95 hours of exposure in a natural salt spray test, as defined in BS 7479:1991, ISO 9227:1990, there is no corrosion exceeding one spot per 600mm^2 of significant surface visible to the unaided eye, and no spot shall be larger than 1.6 in diameter.

4.7

Where external butt hinges are used they must be of the security pin types that do not allow removal of the hinge pin from outside.

4.8

Top and side hung opening lights shall have 2 No. stainless steel (see previous grade type) friction stays per light sized and fixed in accordance with the system manufacturers instructions.

4.9

The size of the stay shall not be less half the height of the vent. The stay shall be carefully positioned to ensure good sealing and shall be fixed using non-ferrous self-tapping screws with countersunk heads.

4.10

Hardware with provision for adjustment shall be accessible for adjustment after the window has been installed. Hardware used to open/close the window shall have the facility to be replaced without removing the outer frame from the structure.

4.11

Strength and Safety of Moving Parts

The moving parts of the window shall have sufficient strength and robustness to withstand incidental static and dynamic loads occurring during use, without any permanent deflection or breakage.

4.12

All openable windows to have night vent facility.

4.13

All furniture and ironmongery should be clearly marked so as to identify manufacturer.

4.14

All furniture and ironmongery can be supplied by:-

Securistyle Limited
Kingsmead Industrial Estate
Princess Elizabeth Way
Cheltenham
Glos. GL51 7RE
Tel: (01242) 221200
Fax: (01242) 234034

Or equally approved.

5.0

Glazing

All glazing shall be at the required thickness to meet wind load safety requirements of BS 6262-4:1994 Code of Practice for Glazing of Buildings. All glass shall comply with BS 952-1:1995. All windows and doors shall be glazed using dry glazing within **internal snap in PVCU beads** with black internal EPDM gasket. Double glazed units are to be a minimum of 26mm over all manufactured and approved under BS kite mark scheme, to BS 5713:1979, with Pilkington K glass to the inner leaf.

The spacer bar is to be marked with the manufacturers name and BS 5713:1979. Glazing shall be in accordance with BS 6262-4:1994 and BS8000 Part 7 1990, Workmanship on Building Sites, Code of Practice for Glazing. Safety glass shall conform to BS 6262-4:1994 where specified or required by the relevant British Standard. Safety glass shall be 6.4mm laminated/toughened. All toughened or laminated glass should be marked as such. Windows to bathroom, W C's, pantry walls and (landings where appropriate) shall be glazed in obscure glass (Cotswold) or other as identified. All glazing to windows, doors and screens to comply with the Building Regulations **Approved Document N – "Glazing – Safety in relation to impact, opening and cleaning."**

5.1

For the gaskets to be extruded from non-migratory EPDM based material which has compounded to comply with BS4255 Part 12 Class A 1986. The gaskets are to be supplied via the systems extruder and may be subjected to random testing. Glazing gaskets to be co-extruded.

5.2

No opening light (or glass within a fixed light) shall be openable or removable from the outside when it is fastened in the closed position.

5.3

Fixed panes or opening sashes shall have glazing beads fitted internally.

5.4

Weather seals shall consist of a double sealing system. Seals shall be a continuous length; all joints must be at the top.

5.5

Weather seals shall consist of a double sealing system. Seals shall be a continuous length, all joints must be at the top of the opening centrally located and glued together. The glue must be approved by the PVCU extrusion manufacturer.

5.6

Composite panels must be beaded in, as specified for glass. Where aggregate panels are required they will require fixing so that an adequate seal is made with a gasket.

5.7

The windows shall be constructed in such a manner that the glazing or de-glazing can take place internally without removal of the sash or frame.

6.0

Couplings

6.1

Projecting sills are to be incorporated wherever practical

6.2

Where couplings and extrusion profiles, i.e. sills or flanges are used, these shall be through fixed into the outer frame ensuring that all the fixing has penetrated into the reinforcement. All visible fittings must suit the profile colour.

6.3

Projecting sub-sills shall be manufactured by the window extrusion manufacturer so as to attain a perfect colour and technical performance match. The sills and main profiles shall be manufactured from CPE modified PVCU (to minimise the risk of impact damage by ladders etc). Sills should be of multi-chambered design.

6.4

Expansion shall be allowed for where necessary and couplings shall be sealed with silicone to produce a weather seal.

6.5

Sills, etc. are to incorporate end caps where necessary and fixed/sealed securely.

7.0

Ventilation

7.1

All window frames shall have adjustable trickle ventilators providing not less than 8,000mm^2 of ventilation without loss of security. It this is not possible, the area must be maximised. The contractor must check and ensure that the ventilators have enough clearance from the window head reveal to allow satisfactory operation. The preferred method of installation is through the top of opening sashes. Kitchen and Bathroom window to be permanently vented.

7.2

The Contractor must ensure that any permanent ventilation is not removed for gas appliances.

Where an existing circular fixed vent is installed allow for a “Titon” permanent ventilator

(or similar approved) conforming with the current Gas Regulations.

8.0

Security

8.1

The latest security standard PAS 11 now BS 7950:1997 (ISO 9000) as produced by the GGF and BSI November 1997 shall apply, window contractors are required to supply windows that will pass the specification. Evidence of compliance will be required. Windows will be tested to the standard and paid for by the employer, but if a window fails, the testing shall be paid for by the contractor. **Locking handles are required to all ground floor windows Except egress openings (push button above ground floor) and all glazing beads are to be internal. Window contractors shall furnish proof that the security standard can be met by their window suppliers.**

On completion the frame shall be washed down using general household detergents to remove building residue. The use of solvent based cleaners shall be kept to an absolute minimum and specific advice on types and approved brands may be obtained by the systems manufacturers.

9.0
Standard

All windows are to be designed, manufactured, supplied and installed in accordance with

the latest edition of BS 8213-1:2004, Windows, doors and roof lights.