CONSTRUCTION NOTES...
FOUNDATIONS...
Foundations to be constructed in RC28/35 concrete to BS 8500 with a maximum aggregate size 20mm.
Foundations are to be 200mm thick reinforced with A393 bottom mesh and 75mm cover. Widths are to be as shown on plan. Strip foundations laid on load bearing strata, 450mm below finished ground level.
External Walls: house 700x200mm...dwarf walls 500x200mm
Ground conditions must be checked on site as the above sizes are for good ground bearing conditions. Structural Engineer to be informed if any variance in ground conditions occur over site.
Top of foundations minimum 450mm below finished ground level
Any step in foundation to be 225mm high with a 500 mm horizontal overlap.
SUBSTRUCTURE:
300mm dense blockwork substructure built up 400mm then cavity wall construction to dpc level with 100mm outer leaf, 50mm cavity, 150mm inner leaf block
DPC:
All horizontal and vertical DPC's to be 1200 gauge and placed 150mm minimun above ground level horizontally and 150mm vertically. DPC to be lapped at all corners. DPC to all fire stops round openings. All dpc/dpm members to overlap. DPM joints in floor min. 150mm folded & taped .
GROUND FLOOR:...
100mm concrete laid in extension flush level with existing and tied to existing laid over
140mm Celotex GA4000 Insulation board laid over Bituthene DPM which should be bonded with existing dpm in floor and taken through new external cavity wall rising against existing blockwork garden wall to a point 150mm aboce garden level and held in place with new blockwork outer leaf of cavity wall as tanking to new construction and should be carried round edge of new wall all insttal;ed to manufacturers written instructionas. Bituthene laid over 50mm site concrete on 50mm sand on 150mm hardcore. Junction with 1200 gauge polythene DPM having joints being rolled and taped with minimum 150mm overlap dressed up all round concrete edge through wall overlapped with wall dpc .
Form max.15mm high threshold bar at entrance doors and concrete entrance platt at weatherbar.
Floor level to match that of house at breakthrough of door. This is a site measure for contractor.
SUPERSTRUCTURE:.
New extension to rear of house to be insulated timber framed cavity wall construction as follows
100mm dense blockwork on garden wall up to garden level then facing brick to match existing and to outer faces of new construction as requied, 50mm cavity them Tyvek Reflex stapled to
9mm OSB board nailed to 147x45mm Structural timber stud frame with double top and bottom rails built up from floor level held in place with galvanised joist straps built into new cavity wall at floor level.
Timber frame infilled with 150mm quilt insulation between vertical studs all faced with 25mm Celotex GA4000 faced with 12.5mm wallboard. Timber frame fixed to existing wall using HILTI impact anchors @ 450mm ctrs, 80mm bedded into sound masony. At junction of new blockwork with existing walls, form junction using Expamet Wall Starter Units type WS185 installed to manufacturer's instructions.
Vertical DPC to Architect's details. Ties to be sleeved U.N.O. See SBSG section 1.C.5 for further info.
Internal stud wall finished with 12.5mm wallboard having joints taped and plastered.
Fit new double glazed windows and doors with max 1.4 U value as noted on plans.
Fit fire breaks at dpc, wallhead, round all doors and window openings using 45x45mm treated timber wrapped in dpc. Timber frame tied to external skin of blockwork with s/s wall ties installed at 600mm horizontal ctrs and 450mm vertical ctrs. and round all openings.
Install micro vents at 1200mm ctrs above dpc level and at wallhead all round as noted on elevations.
Existing wall now internal to have 45x25mm battens fixed at 600mm ctrs faced with 12.5mm duplex wallboard.
Timber lintols over windows constructed with 3x200x47mm C16 timbers spiked together at 300mm ctrs
Robeslee type C 150x100mm PC concrete lintel over window / door openings with 200mm rest either side.
Extract vents for bathroom, shower room, en-suite, kitchen taken through walls unless otherwise noted.
All structural timbers to be in accordance with BS 5268 Part 2:1991 and BS 5268 Part 3:1985
Existing internal doors retained and re-used in hall to be removed and framed in with a plasterboard finish on timber stud frame.
Form new window in wc and kitchen and infill part of existing cavity wall with facing brick and timber frame.
Install Robeslee Type C lintels having min 150mm edge support. Make good brick cousing externally and install cill to match existing in style. Window to be PVC framed double glazed with 1.4max U value.
All structural steelworks to be CE marked including fixings
All steelworks to have 2/12.5mm plasterbaord cover to give medium fire protection duration.
PARTITIONS...
New timber stud partitions formed with 70x45mm timber stud frame, non load bearing,
with single stud top and bottom rails. All frames infilled with 25mm mineral wool batts or quilt with min. thickness of 25mm and density of 10kg.m3. (wire reinforced if required) 12.5mm plasterboard with density of 10kg/m2 screw fixed at max. 200mm ctrs both sides with taped/ filled joints between board on wall and ceiling and at all junctions.
95x12mm pencil round skirting boards all round with door blocks giving break to door facings
Shower room to have 12mm plywood fixed on internal walls under plasterboard to allow future grab rails to be installed as required for disabled use.
ROOF:..
PC concrete tile to match existing clipped and nailed to battens and counter battens nailed through
1 layer roofing felt fully nailed at 100mm ctrs through sarking to prefabricated trusses nailed through galvanised cleats to 147x45mm timber wallplate over new wallhead an held with Galvanised shoes bolted to 200x45mm timber plate bolted to existing wall at 600mm ctrs.
Front of truss to have a 20 degree pitch as per elevations allowing for continuous air vent at eaves of 25mm and between insulation and u/s sarking of 50mm.
Code 5 lead dressed into facing brick wall forming valley gutter at connection feeding into new gutters.
Install 200x45mm rafters at 600mm ctrs to allow 150mm Celotex insulation and 50mm air gap to u/s sarking faced internally with 25mm Celotex GA4000 faced internally with 12.5mm wallboard all taped and plastered.
25mm continuous vents using pvc trays at eaves level between all trusses on both sides and a continuous 5mm vented felt ridge stitched to sarking and over roof felt under dry fixed ridge.
100mm dia pvc gutters screw fixed to PVC fascia boards laid to fall to 75mm dia. rwp fixed back to wall with screw fixed clips. Gutter end clips to be fitted. New fascia board on boundary to be 9mm Suplux board screw fixed to rafter ends and soffit finished with supalux for fire resistance.

See Structural Engineers design for roof structure over extension.

ELECTRICAL:
All electrical work to be installed, designed, tested and constructed in accordance with BS 7671:2018 (4.5) fitted with RCB's. Any recessed lights fitted with fire hoods to maintain fire resistance of 30 minutes.
Switch outlets positioned min. 350mm from internal corners, projecting walls or similar obstructions and not more than 1.2m above floor level. Light switches positioned between 900and 1100mm above floor level. Sockets should be min. 150mm above worktops. and 400mm above floor level.
Isolation switches for below counter sockets in kitchen only
Isolation switches for MEV to utility, toilet, bathrom, kitchen
New lights to be fire rated recessed light unit with LED lighting.

SMOKE DETECTORS/FIRE ALARM UNITS:
Electrically operated smoke detectors/fire alarms wired to independant circuit electrically protected consumer unit. Units to be mains powered complete with battery backup.
All detectors to be interconnected to ensure all operate when activated.
Smoke detectors located maximum 3m from bedrooms and 7m from lounge, 300mm from light fittings. Supply and fit Grade D fire detection and fire alarm sytem in accordance with BS5839: Part 6: 2004 comprising at least 1 powered smoke alarm and at least 1 mains powered heat alarm in kitchen.
Smoke detectors located in hall max 3m from all doors , heat detector in kitchen
Fit C02 alarm in kitchen where gas fired boiler is located with 1-3m of boiler

PLUMBING & DRAINAGE:
100mm dia. deep flow PVC gutters with brackets at 600mm ctrs screwed back to fascia & 68mm dia. PVC downpipes with holderbats at 1800mm crs, 100mm dia.
Internal drainage pipe sizes to be as follows:-
WC.....100mm uPVC, WHB.....32mm dia. ABS
BATH.....40mm dia. ABS SINK.....50mm dia. ABS
SHOWER.....40mm dia. ABS...fit removable grate for cleaning, 75mm deep seal trap.
All drainage pipework exceeding 6.0m to be vented with internal access for rodding purposes to be located 1.0m above floor level
Hot and cold water extended from existing in house to outlet taps as necessary in extension
Hot water for shower from central heating systme
Discharge from sanitary fittings to prevent scalding should not exceed 48 degree C.
If thermostatic mixing valves are used then the above temperatures apply to
BS EN 1111:1999 or BS EN1287: 1999 and fitted as close as possible to outlet.
S&VP to rise min 900mm above any window within 3.0metres.
All hot and cold water heating pipes and hot water pipes to be insulated to comply with BS:5422 : 2001. Thermostatic mixing valve limited to max 48degree C and comply with BS5422: 2009
Existing drainage sytem is a combined drain feeding out onto main road.

MECHANICAL VENTILATION:
Mechanical extract fan capacities ducted to external air wired to independant switch :-
Kitchen...30l/sec, Utility room...30l/sec, bath, shower & wc...15l/sec
Vertical ducts to be fitted with condensation trap.
All ducted to extract vents as noted on elevations.
Trickle vent to apartments 12,000sq.mm, all other rooms 10,000mm fitted in window head frames.
Infiltration of air into buildings is to be prevented as far as reasonably practicable by:
A...sealing dry lining junctions between walls and ceilings and floors and at window, door and roof openings.
B...Sealing vapour control membranes intimber framed and other framed panel construction.
C...Sealing at services pipe penetrations through the fabric of the building and around pipe and other service boxing.
D...Fitting of draught exclusion stripos in the frames of opening sections of windows, external doors and rooflights..

CENTRAL HEATING:
Extend existing heating to supply thermostically controlled radiators in positions noted on plan. Allow towel radiator in shower room.
Install new gas fired combi boilers as noted on plans having min. 90% efficiency located at new entrance cupboard with flue rising through roof at first floor and in kitchen at ground floor
Unit to be room sealed and fixed to existing brick wall through 12.5mm Glasroc
Multiboard Class 0, non-combustible glass reinforced gypsum fire protection board.
fire board. Gas and water mains supply taken to boiler which then supplies all water outlets and radiators. Radiators fitted with TRV. Mains water feed to kitchen with T off before the connection to combi boiler.

WINDOWS /DOORS: ...
Double glazed high performance timber framed windows with adjustable trickle vents in head frame.
All safety/ toughened glazing to be designed to BS6262: Part 4 : 2005
External doors to be high performance with double glazed panels. Clients specification.
Trickle vents to apartments to be 12,000sqmm, all other rooms 10,000sqmm. Trickle vents should be min 1.75m above finished floor level.
Timber cills/ apron internally to be 19mm thick.
Windows to have opening sections as per elevations with internal locking mechanism.
External doors to have 5 lever locking mechanism and flush fitted threshold bar.
Restrictor stays to be fitted to all new windows opening over access routes.
All new doors and windows to have U-value of 1.4 ma
Rooflights to be 1180x780mm with centre pivot with double glazing to 1.4 u value max.

ENERGY...
Minimum of 75% of fixed light fittings are to be low energy type in compliance with Technical Standard 6.5.1
External lighting to be low energy fittings with PIR activation.
Heating and hot water system inspected and commissioned in acordance with manufacturers recommendations and Technical Standard 6.5.1

SECURED BY DESIGN (SBD)...
Doors ... Front entrance doorsets shall be certificated to one of the following standards:
••PAS 24:2007 *(Note 21.1.1)* or WCL 1 *(Note 21.1.2)*
Windows ... The SBD standards for ground floor, basement and easily accessible windows *(Note 28.1.1)* are as follows: ••BS 7950: 1997 or WCL 4 *(Note 28.1.2)*
All windows must incorporate key lockable hardware unless designated as emergency egress routes,1 *b*

STRUCTURAL NOTES...
All structural timber to be grade C16 to BS 5268 unless otherwise specified by Structural Engineer.
All lintols in timber frame: 3/220x45Dp timbers supported on double cripple studs at each end.
All timber to timber fixings at bridles, beams etc. made using fully nailed joist hangers speedy type.
Founds built off original subsoil soil bearing pressure 200kN.m2. Engineer informed of soft spots
Concrete grade C30 to BS 8500 parts 1&2.with min cement content 250kg/m3.
Top of foundation 450mm min below finished ground level
7N dense blockwork min density 1800kg/m3 and mortar designation (111) all to BS5628

WATER EFFICIENCY...
Water efficient fittings should be provided to all WCs and WHBs within a dwelling. Dual flush WC cisterns should have an average flush volume of not more than 4.5 litres. Single flush WC cisterns should have a flush volume of not more than 4.5 litres. Taps serving wash or hand rinse basins should have a flow rate of not more than 6 l/min. When specifying water efficient fittings consideration should be given to the operational flow rates that some heating or hot water appliances, such as combination boilers, need to activate their water heating function.
When installing low volume flush WCs, the pipe diameter, discharge and gradient interrelationship of the drainage system is critical in order that the new and any existing sections of the drain operate as intended. Plumbing and associated water installations should be carried out and commissioned by persons who possess sufficient technical knowledge, relevant practical skills andexperience for the nature of the work undertaken.
An approved Certifier of Construction, who has been assessed to have the professional skills and relevant experience, can certify compliance of plumbing, heating or drainage installations

LEADWORK:
All leadwork code 5 to BS EN 12588 raggled into walls with min. 150mm upstand fixed in place with proprietory fixing clips to BS 6915 at max. 450mm ctrs. Lead sealant applied to raggles. Lead forming valley gutters to be dressed vertically 150mm above slate and under timber wall linings and under slate to sides by 150mm over 45x25mm battens

GLAZING:
All glazing below 800mm to be toughened safety glass to BS6262: Part 4 2005
All glazing below 1500mm in doors and side lights to be toughened safety glass to BS 6262:2005
Protective barrier fitted in front of all glazing below 800mm above floor level capable of resisting loads specified in BS 6399:Part 1:1996

GENERAL...
1 All electrical work to be to the latest IEE rules and regulations with electrical work undertaken by contractor who can sign electrical completion certificate.
2 The building owner is responsible for notifying the Local Authority when the works are due to start on site. Any change however minor should be discussed with the Local Authority prior to carrying out any works as any unspecified works may require an amendment to building warrant.
3 All service position on drawings are indicative only. The building owner should contact all services angencies to locate exact positions of all services required.
4 All apartments to have transluscent glazed openings with area of at least 1/15th of the floor area of the apartment located in an external wall or in a wall between the apartment and conservatory.
5 Construction and work carried out to ensure there are no substantial thermal bridges or gaps of insulation occur within building elements.

STRUCTURAL ENGINEERS...
Design certificate and specifications for all steel and structural timber requirements to be adhered to.
Steel work fabricationcertificate or certificaet of performance is to be provided.
Roof truss manufacturers certificate is to be provided.

Client: Mr & Mrs Mohammed Ajaz	Address: 22 Colwood Place, Glasgow		
Project: Proposed Internal Alterations/ extend sun lounge		Dwg: A1477.21.10	
Title: Specifications	Date: 04.03.21	Scale: no scale	

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