Specification to be read in Conjunction with Working Drawings for 479 Princess Road, Manchester, M20 1BU

DESIGN AND LEGISLATION

The following notes are intended to be used for Building Regulation Approval and construction purposes and should be read in conjunction with the working drawings, trade and workmanship specifications and finishing specifications. Any discrepancies in dimensions or constructional information should be reported immediately to AECDesign.co.uk before any further work is carried out. Do not scale from the drawings, work to figured dimensions only.

All works are to be carried out to the satisfaction of the supervising Building inspector in accordance with the Building Regulations, Approved Documents and Accredited Construction details.

GENERAL NOTES

Workmanship and materials to comply with:

Building Regulations, N.H.B.C. Requirements, British Standards or Codes of Practice other authoritative documents or technical approval certification including:

- Construction Products Directive (89/106/EEC).
- The International Standards Organisation (ISO).
- The European committee for Standardisation CEN).
- The British Board of Agreement.

All materials shall be fixed, applied or mixed in accordance with manufacturer's instructions and specification. All materials shall be suitable for the purpose they are used for. Subject to confirmation of the Project Designer - similar "approved" materials of equal performance may be substituted where those specified are not available.

The Contractor shall take into account everything necessary for the proper execution of the works, to the satisfaction of the "Inspector" whether or not indicated on the accompanying drawings or in the specification.

COPYRIGHT

All Drawings and Documents are subject to Copyright, Designs & Patents Act 1988. No Drawing or Document is to be copied or reproduced without written permission of the Owner.

SITE CLEARANCE

The site is to be cleared of the existing debris, rubble and vegetation to a reasonable sub-soil level agreed with Building Inspector. Any underground chambers to be demolished filled and compacted as Structural Engineers Specification.

SERVICES

All work and installations to comply with the regulations and recommendations of the respective "BOARD" or "AUTHORITY" or the satisfaction of the "Inspector".

DRAINAGE

- Above ground drainage to comply with BS 5572 1978.
- All existing drains are assumed and are to be confirmed by contractor to satisfaction of LA prior to commencement of work. All new drains are to be 100mm diameter Hepworth super sleeve, provide min 1:80 fall to drains. All new connections to L.A. approval. Manhole Construction: Up to 1000mm - large glass reinforced polyester. Over 1000mm - P.C. concrete sections built off 150mm concrete raft foundation.
- A drain may run under a building if at least 100mm of granular or other flexible filling is provided round the pipe. BR, H1 (2.23)
- All drain trenches if required, should not be excavated lower than the foundations of any building nearby otherwise they should comply with the conditions shown on the detailed drawings, (see details of drawings) and BR H1 (2.24) & (2.25)
- Where pipes are built into structure (e.g. Inspection chamber, manhole, footing, ground beam or wall) suitable measures (such as using rocker joints or a lintel) should be taken to prevent damage or misalignment (see details of drawings). BR, H1 (2.24)
- The depth of caver will usually depend on the levels of the connections to the system, the gradients al which the pipes should be laid and the ground levels. BR H1 (2.27), (2.41-2.45) (see details of Bedding for Pipes drawing)
- The choice of bedding and backfilling depends on the depth at which the pipes are to be laid and the size and strength of the pipes, BR, H1 (2.41). Special precautions should be taken to account of the effects of settlement where pipes run under or near buildings. BR, H1 (2.23-2.25). Pipes should be protected from damage, particularly pipes which could be damaged by weight of backfilling. (See drawing diagrams of how to lay bed rigid pipes, flexible pipes, pipes laid in shallow depths and joints for concrete encased pipes. BR, H1 (2.42-2.45)
- Where sewers (drain) meet pipes serving more than one property, the minimum diameter is to be 100mm, and 150mm if it is 10 or more dwellings. BR, H1 (2.30).
- Drains carrying foul water should have an internal diameter of at least 75mm. BR, H1 (2.33)
- Drain carrying effluent from a WC should have an internal diameter of at least 100mm. BR, H1 (2.33)
- To minimize the effects of any differential settlement pipes should have flexible joints. All joints should remain watertight under working and test conditions. Nothing in the pipes, joints or fittings should project into the pipe line or cause an obstruction. BR, H1 (2.40)
- Different metals should be separated if used by non-metallic materials to prevent electrolytic corrosion. BR H1 (2.40)
- Excavate trenches and Lay 100 mm diameter vitrified clay drains (or PVC equivalent) to B. S. 65 and 540 ("surface water' quality) including all fittings on 100 mm bed of concrete, mix to be 1 part cement; 3 parts fine aggregate 6 parts coarse aggregate 20 mm down, by volume. Drains to be laid in straight lines and to even gradients.
- Construct manhole with hall brick sides in stock brickwork on 150 mm. concrete (1:3:6 _ 20 mm) bed having 150 mm spread. Render internally in cement and sand (1:3) and haunch up from drain or channels.
- Provide and fix light duty, single seal cast iron cover with hand-holes and framed to B. S. 497. Frame and cover to be delivered coated.
- Provide and fix gullies where required. Trapped gullies to have 100 mm outlet and galvanised wrought iron gratings. Provide and fix insitu concrete kerb around gullies where required.
- Drains should have enough capacity to carry the anticipated minimum flow. In compliance with BR, H1 (2.29)
- The contractor is to allow for testing all drainage and leaving in a clean and sound condition on completion to the satisfaction of the Local Authority.

EXTERNAL WALLS

- 302.5 mm overall thickness 102.5mm outer leaf of facing brick work to match existing, 100 mm min full fill Drytherm insulated cavity to give max U-Value W/m2/k as Table 2 of Approved Document L1B.
- Inner leaf **100mm** "approved" load bearing, high insulating, concrete block work (min mass 120kg/m') (min compression strength of 7N/mm2). finished with 12.5mm Vapour-check reflective Plaster board with 2-3mm finish to give 'u' value 0.35 w/m' deg c.
- Cement is to be Portland Cement to B. S. 12. Sand for mortar to be clean and sharp from an approved source. Mortar below damp proof course is to be Cement and Sand mixed in the proportion of 1:3. Mortar above damp proof course is to be Cement, Lime and Sand mixed in the proportion of 1:1:6.
- Brickwork generally is to rise a height of 300 mm for 4 courses including joints when laid. No part is to rise more than 16 courses above another at any one lime.
- No brickwork is to be executed when the temperature is below 2^0 degrees C on a falling thermometer or 1^0 degrees C on a rising thermometer. All work is to be covered up and protected during inclement weather.
- Include for all cutting necessary for bond. Leading scaffold board to faced brickwork to be turned over during inclement weather and at the end of each day's work.
- Common Bricks matching existing or close or to be Flettons or other approved facing Bricks. The Contractor must include for all unloading and stacking required.
- Bricks below damp proof course are to be well burnt stocks or other approved bricks.
- All brickwork to be laid in English bond. Faced brickwork is to be finished externally with struck weather painting and internally with neat flush painting as the work proceeds. The contractor is to include for faced brickwork sample panel of one square metre.
- Build external walls above damp proof course to thickness shown on the drawings in faced brickwork as described above. Bed all windows and door frames in gauged mortar 1:1:6 and Point externally in mastic.
- The DPC, damp-proof course should be of bituminous material, polyethylene, engineering bricks or slates in cement mortar or any other material that will prevent the passage of moisture. The damp-proof course should be continuous with any damp-proof membrane in the floors.
- Where the damp-proof tray does not extend the full length of the exposed wall, i.e. above an opening, stop ends, an at least two weep hales should be provided.
- A rigid (board or batt) thermal insulating material built into the wall should be the subject of current certification from an appropriate body or a European Technical Approval and the work should be carried out in accordance with the requirements of that document; or Other insulating materials inserted into the cavity alter the wall has been constructed should have certification from an appropriate body and be installed in accordance with the appropriate installations code. The suitability of the wail for filling is to be assessed before the work is carried out and the person undertaking the work should operate under an Approved Installer Scheme that includes an assessment of capability. Alternatively the insulating material should be the subject of current certification from an appropriate body or a European Technical Approval and the work should be carried out in accordance with the requirements of that document by operatives either directly employed by the holder of the document or employed by an installer approved to operate under the document.
- If insulating material is inserted into a cavity in a cavity wall (D1), reasonable precautions shall be taken to prevent the subsequent permeation of any toxic fumes from that material into any part of the building occupied by people
- Urea-formaldehyde foam inserted into the cavity should be in accordance with S5617:1 985 (BS 5617:1985 Specification for urea-formaldehyde (UF) foam systems suitable for thermal insulation of cavity walls with masonry or concrete inner and outer leaves), and be installed in accordance with BS 5618:1985 (BS 5618:1985 Code of practice for thermal insulation of cavity walls -with masonry or concrete inner and outer leaves- by filling with urea-formaldehyde (UF) foam system). The suitability of the wall for foam filling is to be assessed before the work is carried out and the person undertaking the work should operate under an Approved Installer Scheme that includes an assessment of capability.

CAVITY TIES

- Galvanised wire tiles to B.S.1243 every 900mm horizontally and every 450mm vertically set in diamond pattern to give min 5 No. ties per m^2. Additional ties at 300mm c/c vertically adjacent to openings.

CAVITY CLOSERS

- Cut brick or block to eaves & verge. Insulated cavity closer to reveals or openings.
 Or provide insulated vertical DPC or Thermabate proprietary cavity closer installed in accordance with the manufacturer's instructions. All cavities to be closed at wall plate level with 6mm Masterboard bedded in mortar. All cavities to be closed with 6mm Masterboard or similar along verges.

MOVEMENT PROVISION

- Movement joints to be provided in accordance with BS 5628:Part 3: 1985 - Clause 20 and NHBC Standards.

JOINTS BEETWEEN DOORS AND WINDOWS

- The joint between walls and door and window frames should:
 - Resist the penetration of precipitation to the inside of the building.
 - Not be damaged by precipitation and not permit precipitation to reach any part of the building which would be damaged by it.
- Damp-proof courses should be provided to direct moisture towards the outside:
 - Where the downward flow of moisture would be interrupted at an obstruction, e.g. at a Lintel.
 - Where sill elements, including joints, do not form a complete barrier to the transfer of precipitation, e.g. under openings, windows and doors.
 - Where reveal elements, including joints, do no! form a complete barrier to the transfer of rain and snow, e.g. at openings, windows and doors.
- In some cases the width of the cavity due to thermal insulation and the 50mm clearance for drainage may be such that the window frame is not wide enough to completely caver the cavity closer. The reveal may need to be lined with plasterboard, dry lining, a support system or a thermal backing board. Direct plastering of the internal reveal should only be used with a backing of expanded metal lathing or similar.

LINTELS

- Build in all Lintels as shown on the drawings. Suitable combined steel lintels over all openings in external walls. Suitable steel box lintels over all openings in load bearing internal walls. All lintels to have minimum end bearings as specified by manufacturer or 150mm min. All elements of structure to be encased to give full hall fire resistance.
- Catnic lintels to all windows and patio door with cavity tray DPC above and vertical DPC to bath jambs. Window sills should be laid with DPC to base, back and sides.
 Note:contractor is responsible for checking suitability of lintels once opening up works have started on site.

INTERNAL WALLS

- 100mm lightweight black work finished with DPC al slab level.
- Ex external walls on GF and FF that have become internal walls are to be finished with plaster board and finish similar to new walls.

THERMAL ELEMENTS

- The Contractor is to comply with all stated minimum 'U' values and provide to the Local Authority details including U-Value calculations to show compliance with Table 4 of the Approved Document L1B of the Building Regulations prior to occupation of the building.

THERMAL ELEMENTS

- The Contractor is to comply with all stated minimum 'U' values and provide to the Local Authority details including U-Value calculations to show compliance with Table 4 of the Approved Document L1B of the Building Regulations prior to occupation of the building.

THERMAL BRIDGING AND AIR LEAKAGE

- Thermal bridging and Air leakage to be limited by compliance with Accredited Construction details for dwellings and similar buildings.
- Provide Air leakage-Measures designed to reduce air leakage from the building.
- Air tightness measures will depend on the form of construction and level of workmanship.
- The objective being to form a definable, continuous air leakage barrier around the dwelling.
- Ways of preventing air leakage to be considered at every penetration of this barrier. Particular care on site should be paid to:
 - Joints between structural components e.g. wall to floors.
 - Joints around components and opening within walls.
 - Services penetrations - plumbing, electrical, and ventilation.
- Close any vertical duels al top and bottom (e.g. boxing in to SVPs).
- Seal any service penetrations.
- Select the appropriate sealant or gap filler for the size of gap and degree of movement anticipated

MASONRY CONSTRUCTION

- Ensure continuous ribbons of adhesive are used to fix the dry lining at perimeters of external walls, openings, and services on external walls. The importance of correct sealing of dry-lining on dabs needs to be stressed, as this is a key area of air infiltration and can seriously affect the overall ventilation rate. Seal under skirting boards or on suspended floors use joist hangers to support joists.

WINDOW AND DOOR FRAMES

- Standard double/triple glazed UPVC frames with 150mm wide DPC to B.S. 743 to frame prior to fixing. Window opening lights to all rooms 5 % min of room floor area. 16mm air gap and "soft" low E coating max 'u' value 2.OW/m' deg. c. All habitable windows to be fitted with permanent vents to give min 8000mm sq trickle ventilation all non-habitable rooms to give min 4000mm sq trickle ventilation.
- All glazing to external doors and windows to be 24mm sealed double glazed units with low E glass to the inner pane and the cavity filled with Argon Gas. Leading detail to be added between glazing. All glazing to be installed in accordance with Manufacturer's Specification.
- All glazing to be in accordance with PART 'N' of the BUILDING REGULATIONS & comply with BS 6206:1981. Provide toughened safety glazing to all entrance doors & internal doors including any side light frames.
- Safety glazing to BS6206:1981 to be installed in all critical locations i.e. between finish floor level and 800mm above that level in all wall and partitions; and between finish floor level and 1500mm above that level in all doors and door side panels within 300mm of either edge of the door.

BEAMS

- All I Beams, if used, are to be suitable for the supporting loads and forces, and all must have minimum end bearings as specified by manufacturer or 150mm min. all I beams must be coated with anti-rust and lire retardant coating and encased to give full hall fire resistance.
- All I beams are to be protected with DPC beneath and above to prevent condensation and infiltrated water reaching them.
- All calculations if required are to be provided by qualified Civil Structural Engineer or as specified by LA Engineer.

ROOF

- The proposed roofs pitches are as shown on the drawing sheets for the proposed building.
- The roof coverings are to match roof of existing building to be selected by the contractor or owner to L.A. approval on 38mm x 25mm soft wood battens on breathable and untearable sarking felt weighing not less than 22 kg per 20 square metre roll, type 11 to BS 747 (or breathable underlay membrane [Speedline or equivalent] to meet BS 5250:2002) on rafters (150mm x 50mm) (roof joists) in accordance with the design shown on drawings details designed fixed and braced to BS5268 @ pitch to match the design made by the Architect and approved by LA Engineer and in accordance with the manufacturer's instructions and specifications as staled in BS5534:2003. (See all drawing)
- 100mm x 50mm soft wood wall plate strapped to wall @ caves max 1800mm centres using 30mm x 5mm mild steel Straps. Wall plate is laid on DPC insulation in roof space to conform to Part L of the Building Regulations 2005.
- Straps @ 1000mm centres max built into wall and fixed to 3no rafters (roof joists) 200mm x 50mm soft wood blocking noggins under straps. 200mm fibreglass insulation to roof space laid between joists and 150mm laid over retained @ eaves with rafter tray ta maintain 50mm clear ventilation gap.
- 12.5mm Vapour-check reflective Plaster board with 2-3mm skim finish to soffit to underside of joists (Ceiling). Continuous 13mm fly screened vent gap full length of eaves soffit formed from 6mm or equivalent external quality PVC or plywood on 38mm x 38mm soft PVC or wood framing. Max U value 0.16 W/m^2 degrees c, (should a traditional roof construction be used the following timber will be used in lieu of trusses 150mm x 100mm soft wood sloping ceiling rafters (joists) spars at max 400mm c/c).
- Rafters (150mm x 50mm) (roof joists) are to be laterally reinforced with noggins.
- Roofing Felt to be laid lapped 75 mm at horizontal joints and 150 mm at vertical joints. Include for all concrete segmental ridge tiles and verge undercloack of 265 x 165 mm concrete plain tiles or similar or matching existing roof.
- Lead flashing dressed over new roof above the kitchen extension with min 150 mm upstand and cut into existing wall 25mm min. Make good existing external finish as required.

FLASHINGS

- Install Code 4 lead flashings with cavity trays over at roof / wall abutments

MECHANICAL VENTILATION

- Provide mechanical ventilation to utility and kitchen to give min 601 per second with 15 min over run operated by light switch.

KITCHEN-COOKER HOOD

- Kitchen to be fitted with a mechanical extractor vent providing not less than 60 litres / second intermittent ventilation. Ceiling mounted extractor to kitchen to be switch controlled.
- New WC to be fitted with a mechanical extractor vent providing not less than 6 litres / second intermittent ventilation. Ceiling mounted extractor to be switch controlled.
- New Utility area to be fitted with a mechanical extractor vent providing not less than 30 litres / second intermittent ventilation. Wall mounted extractor to be switch controlled.

NOTES

Copyright in this drawing remains with AECDesign. Do not scale from this drawing, work to figured dimensions. Check all dimensions on-site. In the event of any discrepancy, please refer query to AECDesign.

No.	Description	Date
1	Revision 1	Date 1

Revision

AEC DESIGN
ARCHITECTURE ENGINEERING & CONSTRUCTION
Committement to Design Excellence

Contact:
Tel: 07985306082
Email: aecdesign.co.uk@outlook.com
www.aecdesign.co.uk

Project Name
House Front, Side and Rear Ground and First Floor Extension

Project No.	AECD_M20 1BU_2022_0001		
Drawing No.	M201BU_2022_P110_01		
Date	Issue Date	Drawn-by	AECDesign
Status	Proposal	Checked by	AECDesign
Sheet Size	A1	Approved by	AECDesign

Sheet Name
Proposed Building Notes (1)

Scale

Client Name: Khaled Muwahed

Project Address: 479 Princess Road Manchester M20 1BU

Sheet No.: P110

Filename: 19/07/2022 08:38:18