

DRAINAGE - Surface water
New rainwater goods to match existing
 New downpipes from orangerie to be connected into new 100mm dia. drain runs and taken to soakaways min. 5metres from any building. Final size and location of soakaways to be agreed with Building Inspector on site. Generally designed in accordance with BRE Digest 365.

UNDERGROUND DRAINAGE
Generally
 100mm flexible jointed upvc pipework on bed and surround of 100mm pea gravel/laid to falls of preferably not less than 1 in 40 and 1:60 respectively and laid in accordance with manufacturers' instructions and British Standard / Agreement Board requirements (if and as applicable); Provide inspection chambers / rodding access points at all changes of direction. All pipe work to be fully sleeved when passing through foundations.

DRAINAGE - ABOVE GROUND
Generally
 Generally to comply with BS 5572: 1994
 Washbasins : 32mm diameter
 Baths and sinks : 40mm diameter, PVC wastes and 75mm d/s trap. Waste and trap provision for washing machine/ dishwasher to be as for sinks. (Use proprietary fittings). Trunk wastes where applicable to be 50mm diameter. Use anti-vac traps where necessary.
 W.C.: 100mm diameter flexible connection to 100mm PVC Soil pipe.
 Access/cleaning eyes should be provided at all changes in direction of internal drainage pipework. Any concealed waste pipes should have solvent welded joints.
 100mm diameter soil + vent pipes (S+VP) to terminate above roof not less than 1000mm above any adjacent window head level; balloon grating and code 4 lead flashing collar and apron, or patent equivalent fitting (or use ridge tile terminal).
 Soil pipe boxings are to be fully filled with mineral wool insulation. Provide access panels to SVP boxing for future maintenance
 100mm diameter air admittance valves (AAV) to terminate 600mm above highest fitting served.
 Ensure all heads of drain runs are vented.

FOUNDATIONS
 New 600mm wide trench fill foundations, to same depth as foundations of existing dwelling. Contractor to allow provisional depth of 1000mm. Foundations to go down to min. invert level of existing drain runs as applicable. Final depth dependent upon Building Inspectors approval. Top of foundation set out 525mm from finished floor level. NHC guideline for building near trees to be adhered to at all times.

GROUND FLOOR
To achieve "U" value 0.18W/m²K
 70mm sand + cement screed with fibres, on vapour barrier, on 100mm 'Celotex', on 1200 gauge polythene d.p.m/radon barrier, taken across cavity wall, on 100mm reinforced concrete slab on 125mm sand blinded well compacted hard core. Provide cavity d.p. tray over with weep hole ducts over @ max. 900cts. Floor level to be adjusted as necessary to suit Client preferred floor finish.

RADON
 600x600x450 deep radon sump vented to outside air via 100mm UPVC pipework.
 Provide full radon barrier taken across cavity as necessary.

WALLS
BELOW DPC LEVEL
 Concrete blocks suitable for use underground, or semi-engineering brickwork to BS 3921. Mortar: cement/sand 1:4 (unless sulphates are present)
 External walls generally to be cavity walls, nominal 300mm thickness. Visible work to external leaf of the cavity walls below DPC level to be class B engineering bricks.
 Prestressed precast concrete lintels to be built in to the load-bearing walls above drains and service entry points.
 'Hyload' or similar approved damp proof course to be installed in the walls: not less than 150mm above finished external ground level in the outer leaf of the perimeter walls.
 Finished floor level of dwelling to be at the same level as the DPC in the outer leaf of the perimeter cavity walls.
 Cavity tray fitted to perimeter of building above DPM fitted over aluminum cill.

EXTERNAL WALLS - ABOVE DPC LEVEL
To achieve "U" value 0.18W/m²K
 External skin of blue engineering brick work, 50mm cavity, 142 SIPs panel, breather membrane externally and vapour check membrane internally. 25x50 battens to form service void and plasterboard and skim finish.

FLAT ROOF
To achieve "U" value 0.15W/m²K
 'Resitrix' or similar single ply roofing membrane fitted in accordance with manufacturers instructions on 142 SIPs panels laid to falls on tapered firrings, underdrawn with vapour check membrane and 15mm plasterboard and skim finish.

DOORS and WINDOWS
 Double-glazed high performance doors and windows to clients requirements. Confirm final glazing arrangement and style with Client prior to ordering. New door and windows must achieve a maximum 'U' value of 1.40W/m²K. Certification that windows and door comply with this to be passed to the Building Inspector by the Contractor upon completion. New windows and doors to be fitted with trickle ventilator to give the equivalent to 8000sq.mm background ventilation. All glazing in new doors and windows within 300mm of a door jamb and below 1500mm together with windows where cill height is below 800mm is to be safety glazing in accordance with BS6206: 1981.
 New doors and windows to lap insulated cavity closers by minimum 30mm. New windows to have opening lights to give natural ventilation equivalent to min. 1/20th floor area of each room. Contractor to ensure sufficient size cill is provided to give adequate overhang to wall.
 Mastic bed and point all round new doors and windows internally/ externally.

STEELWORK
 All new steel beams in accordance with Structural Engineer's details and calculations, to include padstones. All new steelwork supporting first floor structure to be encased to achieve 1/2hrs fire protection. Locate all steelwork within floor void, i.e. no downstand. Contractor to allow for cost of engineer.

MECHANICAL VENTILATION
 Provide mechanical extract fan in the following rooms to be capable of extracting at a rate of not less than that shown -
 Kitchen - 30 litres/sec adjacent to hob, or 60 litres/sec elsewhere.
 WC - 15litres/sec
 Contractor to agree routes for all extract ductwork with Client prior to installation.

LINTELS
 New lintels to be IG Lintels sized in accordance with manufacturers load and span tables with 150mm min. end bearings. Should alternative lintel manufacturer be preferred, confirm with Building Inspector prior to commencement. Provide perp end weep holes above external openings at max 450cts.

HEATING
 Contractor to liaise with Client and agree heating items within extension prior to commencement. All new radiators to be fitted with thermostatic valves.

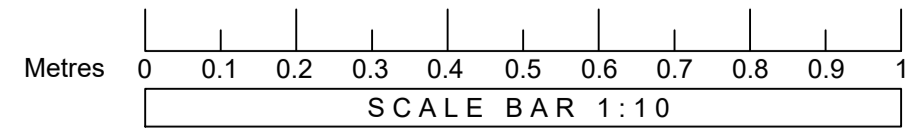
FIRE PROTECTION
Smoke Detectors
 To BS 5446 Part 1 and Building Regulations Part 8, 2000.
 To be mains operated with battery back up.
 Failure of the system should trigger a visual or audible signal on each floor or on one monitoring device suitably located.
 Detectors are to be located min 300mm from walls and light fittings. Heat detectors in Kitchens and Smoke detectors in Living Rooms to BS 5839.

ELECTRICS
 Prior to commencement of works Contractor to site check existing Distribution Board and confirm suitability to extend for proposals or advise any other remedial works to be carried out.
 Contractor to liaise with Client and agree final details of all electrical items prior to commencement. All electrical works to be carried out in accordance with Part P (Electrical safety) and must be designed, installed, inspected and tested by a person competent to do so. Prior to completion the Council must be satisfied that either:
 A. An electrical installation certificate issued under a competent person Scheme has been issued; or
 B. An appropriate electrical installation certificate has been issued for the work and that it has been signed by a person competent to do so.
 Apply sealant to perimeter of any electrical outlets within external walls to reduce air leakage.
 Any new or replacement lighting to be a satisfactory energy efficient type in accordance with regulation L18.

EXTERNAL WORKS
 Contractor to re-instate all external surfaces as existing where disturbed through proposed excavations and service trenches. Any specific changes in surface finish to be discussed and agreed with Client.

GENERAL
 All works to be carried out in accordance with current Building Regulations, whether stated or not on drawings, and to the satisfaction of the Building Inspector. Any variations to the approved drawings must be agreed in writing with the Building Inspector prior to the work commencing.
 All materials and components to be installed in strict compliance with manufacturers instructions, relevant Codes of Practice and current British Standards.
 All details on these drawings are based on typical site conditions related to the area. No responsibility can be accepted for abnormal conditions, which may be discovered during construction.

- NOTES**
1. Party Wall Act 1996: Client to notify neighbours of proposals in writing one month prior to excavations. Neighbours to confirm in writing that they have no objections to the proposals prior to commencement of works.
 2. Contractor to notify Health & Safety Executive (H.S.E.) of project prior to commencement using F10 notification form as/if applicable.
 3. All electrical works to be carried out by an approved I.E.E. electrician
 4. Any gas installation to be carried out by Gas Safe Register installer (previously CORGI).
 5. Contractor to locate all existing services prior to commencement and make safe or take precautions as necessary.
 6. Contractor and his operatives to ensure all relevant Health and Safety Acts are adhered to throughout contract.
 7. Contractor to ensure all excavations are covered and made safe at end of each working day.
 8. Contractor to make Client aware of any hazards throughout contract.
 9. Site is to be kept clean and tidy throughout works.
 10. Contractor to discuss and provide Client with programme of works.
 11. All internal finishes are to be left clean and tidy for decoration by Client unless agreed otherwise.
 12. Contractor to discuss and confirm all electrics, heating and finishes with Client prior to commencement. Socket outlet positions to be marked on wall and shown to Client for approval prior to fixing.
 13. Samples of all materials i.e. bricks, roof tiles, internal finishes etc. to be shown to Client for approval prior to ordering.
 14. Contractor to ensure existing dwelling is kept watertight throughout contract.
 15. Contractor to discuss and provide Client with programme of works.
 16. All dimensions to be checked on site. Do not scale drawing.
 17. Contractor to notify Building Control 24hours prior to commencement of the works.
 18. Contractor to ensure that Building Inspector is notified AND carries out regular inspection of works during construction.
 19. Contractor to agree area for storage of materials together with facilities available on site i.e. water, electricity, toilet provisions with Client prior to commencement.
 20. Any changes to the drawing or specification to be confirmed with Ellis Architectural Design prior to commencement.
 21. Any queries arising from structural steelwork to be discussed and agreed with the Structural Engineer direct.



NOTES

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Work to given dimensions only. All dimensions to be checked on site. Any discrepancies to be discussed and agreed with Ellis Architectural Design prior to proceeding.

The contractor is to check and verify all building and site dimensions, levels and sewer invert levels at connection points before work starts. The Contractor is to comply in all respects with current Building Legislation, British Standard Specifications, Building Regulations, Construction (Design & Management) Regulations, Party Wall Act etc. whether or not specifically stated on this drawing. This drawing must be read with and checked against all relevant Engineer's and Architect's drawings and all other specialist documentation provided.

This drawing is not intended to show details of ground conditions or ground contaminants. Each area of ground relied upon to support any structure depicted (including drainage) must be investigated by the Contractor. Any suspect or fluid ground, contaminants on or within the ground, should be further investigated by a suitable expert.

A Structural Engineer needs to be consulted to design foundations and services below ground, and to ensure the stability of the proposal. Wall strengthening/stiffening and design of spanning members needs to be undertaken and designed. This may affect the layout as shown. The Engineer is also to assess the existing structure to verify that it and its foundation is adequate to carry the additional loading to be placed upon it by the proposals.

All works to be carried out in accordance with current building regulations and relevant codes of practice.

A specialist Consultant will be required to carry out calculations to prove compliance with Part L of the Building Regulations.

The dimensions given on this drawing are for reference purposes only and are to be used as a guide only. They are all to be measured on site or in terms of the new build sections to be verified on working drawings.

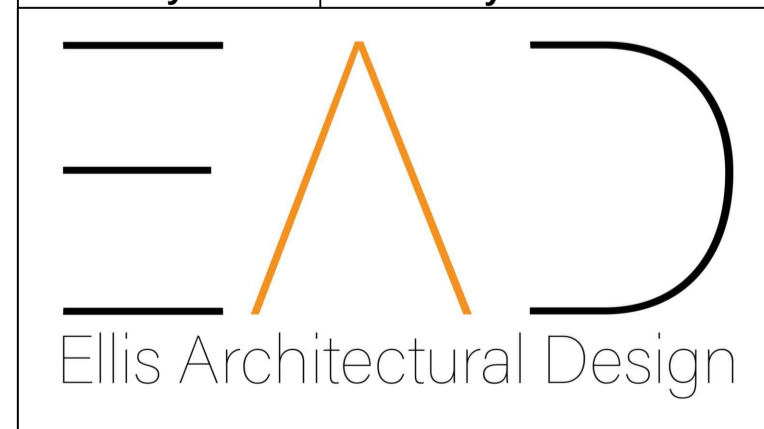
A	Roof detail altered	08/08/23
Rev.	Description	Date

Title
 Section and Specification

Project
 Glazed walkway. Internal alterations. Carport and storage/workshop.

Site
 The Old Plough
 41 Main Street, Caldecott
 LE16 8RS

Drawing No: SE/1445/7a
Date: 06/03/2023 **Scale:** 1:10 @ A1
Drawn By: LR **Checked By:** SE



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