



BELOW GROUND DRAINAGE SYSTEMS

Below ground drainage pipes will comprise of either 100mm diameter Hepworth vitrified clayware to BS 65 or 100mm diameter PVCU to BS 5481/ BS 4660 laid on granular bedding materials to BS 882 Table 4. The selected fill materials should be free from stones larger than 40mm, clay exceeding 100mm, timber, frozen materials or vegetable matter. Where rigid pipework of less than 150mm diameter have less than 300mm of cover or a rigid pipe of 150mm diameter or more has less than 600mm of cover, then these pipes should be suitably encased within 150mm of concrete surround. Where flexible pipework are not located under a highway and have less than 600mm of cover then these pipes should be suitably encased within 150mm of concrete surround. When drainage runs are within 1.000m of any foundation and the level of the drainage trench is below the level of the foundation then that trench should be suitably backfilled with concrete. Any drainage pipe which may penetrate through a building structure below the finished ground level will be protected with a lintol support and a settlement gap of not less than 25mm which incorporates a flexible material to provide necessary protection to the drainage. All gravity drainage will have a minimum fall requirement of 1:40 to provide for self cleansing velocities. All gully systems will be back inlet trapped type unless otherwise stated. Inspection chambers/ manholes up to a maximum depth of 900mm may be a proprietary system of PVCU material otherwise they will be constructed of 150mm thickness concrete base slab 1:2:4 mix with benching formed in 1:2 concrete mortar to 1:12 gradients. all trowelled smooth with appropriate channels, branches and connection bends. The walling of the chamber will be constructed with 215mm thickness Class B engineering brickwork to BS 3921 formed in English Garden wall bond to the required invert. 150mm concrete cover slab with the appropriate haunching forming the cover levels and frame. The inspection chamber cover will be mild steel and medium duty screw down sealed type unless otherwise stated. On completion of the works the entire drainage system will be tested for water tightness to the satisfaction of the local authority building control officer. (APPROVED DOCUMENT H 1991 BUILDING REGULATIONS)

LATERAL RESTRAINT TO FLOORS AND ROOFS.

All floors and roofs should be suitably anchored with BIRTLEY or CATNIC type metal anchors comprising of galvanised mild steel straps having a cross section of 30mm x 5mm x 1000mm secured to brickwork and timbers at intervals not exceeding 2m to provide horizontal and vertical restraint

NATURAL SANDSTONE AND BLOCKWORK CONSTRUCTION

The external facing materials will be of Random Stone approved by the Local Planning Authority, comprising of 140 thickness facing stone to the external leaf constructed with 100mm thick concrete blockwork and wall ties 5no per m². Brickwork below ground levels will be built with special quality brickwork as described in BS 3921 CLASS B Engineering brickwork. All the external walling situations will have ventilation openings in the form of air bricks to BS 493 ensuring that the ventilation air will have a free continuous path between opposite sides and to all parts of any enclosed floor voids. The openings shall be large enough to give actual openings of at least equivalent to 3000mm² for each metre run of walling. Any trunking of pipework needing to carry ventilation air will have a diameter of at least 100mm. Movement joints to the external walling will be filled with Serviced Aerofil materials with Evode Low Modulus Silicone Sealant to brickwork faces. Foundations supporting any masonry structure will be in accordance with the approved document A1/2 SECTION 1E 1991 BUILDING REGULATIONS. All foundations are subject to existing ground conditions and will have not less than 600mm cover below ground levels. When the route of any drainage comes into contact with any external loadbearing structure supported with foundations then that foundation will be suitably positioned at a depth below the invert of that drain. Any oversite concrete floor slab will be level with or above the finished ground levels. Foundation designs must be approved by the local authority building control officer and subject to site investigations revealing the loadbearing strata. An unsuitable strata will necessitate the deposit of supporting structural information. Any steel reinforcement to foundations to comprise of mesh steel fabric ref: B283. Any steel reinforcement to oversite concrete floor slabs to comprise of mesh steel fabric ref: A142

DAMP PROOF COURSES AND MEMBRANES

The horizontal and vertical damp proof courses will comply with the requirements of BS 743 and will be of a pitch polymer DPC material such as RUBEROID HYLOAD and will be incorporated in the following locations:

- Not less than 150mm above ground levels to all loadbearing walls and continuous with the inner leaf and with oversite concrete floor slab damp proof membranes.
- Positioned vertically and built into the jambs of all external door and window openings and behind cills and door thresholds.
- Positioned horizontally to all external door and window openings and behind all cills and door thresholds.

Project

OVERDENE EQUESTRIAN CENTRE AND STABLES at OVINGTON, NORTHUMBERLAND

Title

PROPOSED STABLES (110M2)

Date

15/07/20

Scales

1:100, M.

Job Number

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