



CREATIVE DESIGN & STRUCTURE Ltd

Architectural Services &
Consulting Structural Engineers
Newtown House, Newtown Road, Henley-on-Thames
RG9 1HG
Telephone 01491 411922
info@creativedesignandstructure.co.uk

Ref 09026

Job: 2 RUSSET CLADE, EMMER GREEN RG4 8UJ

PILING AND REINFORCED CONCRETE SLAB

SPECIFICATION

- D.1** The works shall be to the layout, size and depths as shown on the Engineers drawings sketch nos .1,2 .3 and 4.
- D.2** The piles shall be augered and sleeved to 3m.. It is anticipated that the subsoil is clay. Groundwater may be struck.
- D.3** The Piling Contractor shall provide supportive calculations in respect of the piles to be used sufficient to show compliance with the Building Regulations, to the satisfaction of the Engineer and the Local Authority. The piles shall be designed with a Factor of Safety of 3.0 and capable of supporting a Safe Working Load of 65KN.
- D.4** The pile lengths shall be determined in the Contractors design based on the soil conditions found and by further in-situ testing appropriate for the ground conditions encountered. For tender purposes only, 8m long piles (augered) and 200mm dia shall be assumed. The Contractor is to allow for his additional /reduced rates for piles and include this in his tender.
- D.6** Reinforcement is to be provided for the full length of each pile and carried into the top of the slab/beams. Reinforcement in the slabs/beams is to be bent accurately to the shapes indicated on the drawings and bar schedule and to BS8666, fixed accurately and supported on proprietary chairs/spacers. Pile reinforcement is to be designed and provided by the Piling contractor. Contractor is to provide and fix suitable reinforcement spacers and chairs to achieve the specified cover.

D.7 CONCRETE

Piling - to be Grade 35 (20mm aggregate) with a minimum cement content of 300 Kg/cu m, and a maximum free water / cement ration of 0.50. The cement shall be OPC

Slab - To be Grade 35 (20mm aggregate) with a minimum cement content of 325 Kg/M³ and maximum free water / cement ratio of 0.55. The cement shall be OPC. The slab must be covered immediately following construction so as to suitably cure. If the ambient temperature is likely to fall below 5degC in the 24hours immediately following concreting thermal blankets must be used.

Fully compact using a mechanical immersion-type vibrator. Allow to cure for 3 days, cover for 7 days.

Services passing through the slab are to be sleeved.

D8 CLAYBOARD

160mm thick Clayboard is to be installed under the slab and edge thickening strictly in accordance with the manufacturer's recommendations. The clayboard must be kept dry prior to concreting we. **If it becomes wet before concreting it is likely to collapse and will not be suitable to support the concrete - and will requirement replacing.** When the concrete has cured the clayboard should be treated as per the attached information from the manufacturer. CLAYBOARD SHOULD BE WRAPPED AND SEALED WITH POLYTHENE BEFORE FIXING AND THE POLYTHENE CUT 72HOURS AFTER CONCRETING ALL AS PER THE MANUFACTURER'S RECOMMENDATIONS AND TO AVOID DAMAGE BY WETTING BEFORE AND IMMEDIATELY AFTER CONCRETING THE SLAB AND EDGE BEAMS.

D9 ARBORICULTURIST REQUIREMENTS

At the location of selected piles nearest to the nearby trees the contractor must hand dig a hole 450mm square (minimum) and 2m deep to check for any tree roots. If any tree roots greater than 25mm dia special reference should be made to the Arboriculturist. Trial pits must be in the area closest to the oak trees.

D10 FORMWORK AND FALSEWORK

Suitable formwork asnd falsework must be provided to ensure that the slab edge is located as indicated on the Architectural drawings. Fairface finish is required as this will be a finished and exposed surface. Any defects in the finish are to be made good by suitably experienced personnel.