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PRELIMINARY GROUND INVESTIGATION REPORT

UPON

PROPOSED PLOTS 1 TO 6

MARSH ROAD

HOLBEACH HURN

SPALDING

LINCS

D. Brown Building Contractors Ltd
Seas End Road
Moulton Loosegate
Spalding
Lincs
PE12 6JX

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REF: 37917 **NOVEMBER 2017**

INTRODUCTION

Acting upon instruction from D. Brown Building Contractors Ltd, we visited the site on the 7TH of November 2017, with a view to determining the Basic Characteristics of the soils strata.

Simple trial pits were carried out and our comments are based upon a Visual Inspection only of the disturbed samples obtained.

Please note that no Insitu testing was undertaken, but based upon the information gathered and previous experience in this area, these are not considered to be necessary.

We would suggest that groundwater conditions may vary seasonally and that the water levels as recorded at the time of investigation should not necessarily be taken as being constant as they may be subject to fluctuations.

The opinions and comments expressed in this report are based upon ground conditions encountered in the boreholes sunk at the time of our visit.

If during excavations the ground strata varies significantly from that which is shown in the borehole section, the Architect / ourselves must be immediately informed to allow the foundations to be modified if necessary.

D. Brown Building Contractors Ltd/32917

LOCATION & BRIEF DESCRIPTION OF THE SITE

Situated on the North West side of Marsh Road, Holbeach Hurn, approximate National Grid Reference TF 393 272. The site is presently open farm land, slightly lower than the roadway which extends along the frontage.

Mature Horse Chestnut trees are situated within the site, just beyond a small dyke immediately behind the footpath.

GROUND WORKS UNDERTAKEN

On the 7th of November 2017 a atrial pit was excavated in the approximate location shown on sheet no.d 37917/TP1.

A description of the disturbed samples obtained is reproduced on sheet no.d 37917/TP1.

Whilst on site we carried out a soakaway test in accordance with BRE Digest 365. Please refer to sheet no.d 37917/S1, for results and calculations of soil infiltration rate.

CONCLUSIONS

The strata encountered in the trial pit was identical to the one carried out in 2009 foir a previous neighbouring development and typical of that found in this area of South Lincs.

Once the Topsoil was penetrated, firm moist mid brown sandy silt was encountered to a depth of 1.3m below the surface.

At this level the strata became mid/light brown moist silty fine sand, becoming wetter with depth, this layer continued to a depth of 3.0m at which the trial pit was terminated.

Standing water was recorded at a depth of 2.6m.

This non-cohesive granular strata possesses relatively good ground bearing properties and can sustain bearing pressures in excess of 80 KN/m², however in order that initial settlements are kept within acceptable limits, bearing pressures should be restricted to this figure.

Since the strata is non-cohesive it is not susceptible to shrinkage and will not be adversely effective by the trees along the frontage of the plot.

We did not undertake any environmental analysis of the soils strata, however, we were not aware of any contaminants from fill material or dubious ground. The site has clearly been used for agricultural purposes for many years.

The results of soakaway testing indicates that the soils strata is capable of being used to store and dispose of surface water.

RECOMMENDATIONS

The ground conditions on this site are suitable for traditional strip foundations to be used, of a suitable width to support the applied loading.

A minimum excavation depth of 0.6m is required, below existing ground level, however if disturbed strata is encountered at this depth, excavations are to continue until original strata is encountered, with trenches backfilled to formation level with lean mix concrete.

All strip footings should contain a layer of mesh fabric reinforcement, to bridge any soft spots.

If there is a possibility of water entering the footings during excavation, a layer of lean-mix concrete should be placed into the 'bottom' of the trench to stabilise the strata.

The necessity of this blinding largely depends upon the time of year and weather conditions prior to the foundations being poured.

Dependant upon the level of ground floors it may be necessary to incorporate suspended ground floors.

For and on behalf of **SIDEBOTTOM RICHARDSON CHENG LTD**

J.A. RICHARDSON I Eng.AMIStructE **27th November 2017**