

Davidsons Developments Ltd
Rickyard Barn,
Blisworth Hill Farm,
Stoke Road,
Blisworth,
Northants,
NN7 3DB

FAO: PAUL WILSON, ENGINEER

RE: PHASE 2, LUTTERWORTH ROAD, BURBAGE – TRIAL PITS

Dear Paul,

In December 2024, PJS Geotechnical Engineers Limited (PJSG) were commissioned by Davidsons Homes to undertake a supplementary ground investigation at Phase 2 of the above site to determine ground conditions and delineate pockets of unstable granular strata.

1.1 Site Settings

The site is situated at land off Lutterworth Road, Burbage, Leicestershire, LE10 2DW. The site is former agricultural land currently being developed into residential housing with associated hardstanding, parking and soft landscaping for gardens and public open space.

Superficial deposits are mapped with the majority of the site underlain by diamicton of the Oadby Member or sand and gravel of the Wolston Formation.

The site is shown to be underlain by bedrock comprising mudstone of the Mercia Mudstone Group.

1.2 Site Investigation Works

PJSG undertook site investigation works on 17th December 2024. 12 No. machine excavated trial pits (TP), referenced TP301 to TP312 were excavated to a maximum depth of 3.30m bgl.

An exploratory hole location plan is available within the drawing section of this report.

1.3 Ground Conditions

Ground conditions identified during the investigation works can generally be summarised as follows:

- Grass or vegetation overlying black sandy CLAY with rootlets and roots (TOPSOIL) to thicknesses of 0.30m – 0.40m.
- Firm brown sandy gravelly CLAY to a maximum depth of 1.50m bgl.
- Firm to stiff grey and brown gravelly CLAY with lenses of orangish-brown sand to unproven depths.
- Firm reddish-brown sandy gravelly CLAY to unproven depths.
- Pockets of yellowish-brown clayey GRAVEL were also identified within TP305 to a maximum depth of 2.10m.
- Significantly unstable granular deposits of orangish-brown or reddish-brown sand were also identified within TP306, TP307 and TP312 to unproven depths.

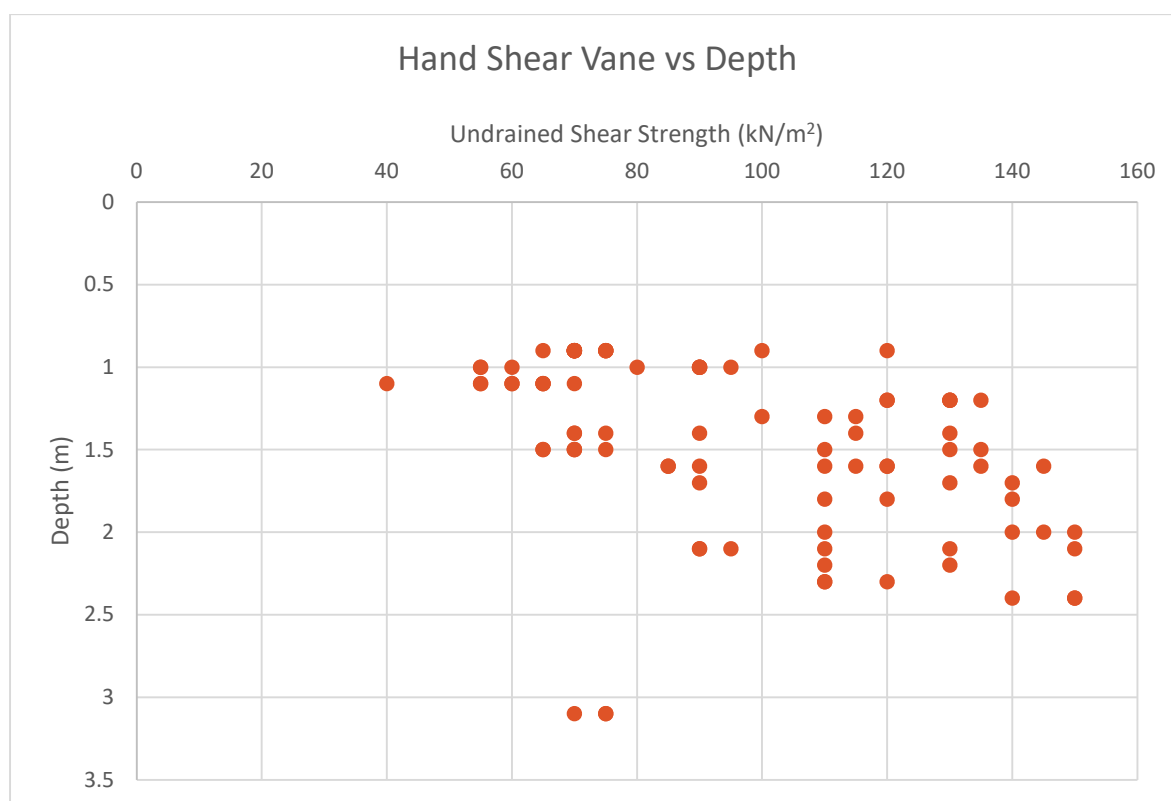


Figure 1 - HSV vs Depth

1.4 Conclusions

12 No. trial pits were undertaken by PJSG on 17th December 2024 at the above site.

Where cohesive ground conditions were encountered, it was noted to comprise of medium/high strength clays suitable for traditional foundations to a bearing capacity of 100kN/m² (PJSG21-48-DR-202).

Significant variability was noted within deposits with several large pockets and lenses of orangish-brown sand encountered interbedded within the aforementioned clays. The sand encountered appeared loose and saturated by visual inspection and where large pockets of the sand are encountered the bearing strata may not be suitable for traditional foundations based on SPT data from previous reports, there are also likely to be instability problems associated with the more granular material. In the areas where large loose pockets of sand are encountered it is recommended piled foundations are adopted.

The exact plot specific foundation solutions should be determined by completing the foundation schedule exercise with a review of ground conditions encountered, loadings and existing and proposed levels.

For **PJS Geotechnical Engineers Ltd.**

Authored By

Nicholas Brown
Geo-Environmental Engineer

Authorised By

Oliver Sharp
Engineering Manage

Limitations and Confidentiality

All comments and proposals contained in this report, including any conclusions, are based on information available to PJS Geotechnical at the time of assessment. The conclusions drawn by PJS Geotechnical could therefore differ if the information is found to be inaccurate or misleading. PJS Geotechnical accepts no liability should this be the case, nor if additional information exists or becomes available with respect to this scheme.

PJS Geotechnical has undertaken the work in accordance with our understanding of current best practice at the time of undertaking the report. Except as otherwise requested by the client, PJS Geotechnical is not obliged to and disclaims any obligation to update the report for events taking place after the date on which this assessment was undertaken, and the date on which the final report is delivered.

PJS Geotechnical makes no representation whatsoever concerning the legal significance of its findings or the legal matters referred to in the following report. This report has been prepared for the sole use of the Client. No other third parties may rely upon or reproduce the contents of this report without the written permission of PJS Geotechnical. If any unauthorised third party comes into possession of this report, they rely on it at their own risk and the authors do not owe them any Duty of Care or Skill.

Drawings





Key - Exploratory Investigation



Approximate location and reference of machine excavated Trial Pit undertaken by PJS in December 2024.

Client

Davidsons Homes

Project

Lutterworth Road, Burbage

Drawing Title

Exploratory Hole Location Plan

Initial	Drawn	Checked	Status
NB	OS	OS	INFORMATION
Date	16/12/24	16/12/24	

Scale
1:1000

Project	Drawing Number
PJSG21-58	DR-0004

Revision
-

Rev	Date	Amendments
A	17/10/24	Amended to as-dug locations.

By	Chk
NB	OS

General Notes

- Do not scale this drawing. If in doubt, ask.
- This drawing is to be read in conjunction with all other relevant Engineers, Architects and specialist design drawings and details.
- All dimensions are in metres unless noted otherwise. All levels are in metres unless noted otherwise.
- Any discrepancies noted on site are to be reported to the Engineer immediately.

Appendix A – Photographs



PJSG21-58 Burbage - Exploratory Hole Photographs

Item 1

ID: A002

17 Dec 2024
TP301



17 Dec 2024

TP302



17 Dec 2024

TP303



17 Dec 2024

TP304



17 Dec 2024

TP305



17 Dec 2024

TP306

