

Our ref: ML/GML23101/S1

Date: 22nd May 2023

BY EMAIL

Robert Muir
E.P Barrus Limited
Glen Way,
Launton Road,
Bicester,
Oxfordshire
OX26 4UR

For the attention of Mr R Muir

Dear Robert,

GML23101: Targeted *In Situ* Infiltration Tests – Site off Launton Road, Bicester.

Recent In Situ Infiltration Rate Testing

As instructed by Armstrong Stokes and Clayton Ltd on behalf of the client we attended the above site to undertake targeted infiltration rate testing, to confirm suitability; or not; for soakaways to be incorporated as part of any proposed drainage design for the proposed future residential redevelopment of the site.

Following discussions with Armstrong Stokes and Clayton Ltd, these tests were targeted to provide a good coverage of the site, with the soakaway test undertaken within the natural strata beneath the topsoil. Exploratory Hole Location Plan (Drawing 001), General Photographic Record (Drawing 002), Exploratory Hole Logs and Soakaway Calculation Sheets are enclosed.

Geo-Matters Ltd have not been made aware of any other previous reports relating to soakaway testing or ground conditions across the site.

This part of the site is recorded to be underlain by Cornbrash (gravelly/cobbly LIMESTONE). The remainder of the site is recorded to be underlain by the Oxford Clay Formation.

1no. soakaway was completed (SA01) to 1.30m below existing ground level (begl), and infiltration rate testing was then undertaken in general accordance with BRE 365. Soil conditions were encountered which comprised a sequence of topsoil to an a depth of 0.175m begl, which was underlain by Cornbrash (LIMESTONE) recovered as a matrix of gravelly sandy slightly silty LIMESTONE matrix.

The soakaway location was filled with water following excavation and was subsequently monitored at regular intervals throughout the day. Within a really short period of time (<30mins) of testing the soakaway test pit had emptied and so tests 2 and 3 were undertaken. All 3no. monitoring tests were completed on Day 1.

The infiltration rates recorded in the recent investigation are shown in Table 1.0 below with the soakaway calculation sheets included at the end of this report:

Table 1.0: Summary of *In Situ* BRE Trial Pit Soakaway Infiltration Rates

Test Point	Highest Recorded Infiltration Rate	Lowest Recorded Infiltration Rate	Notes / Comments
SA01	2.37×10^{-4}	2.02×10^{-4}	Test Passed

Based on the above, it is considered that *in situ* soakaways are a feasible option for this site.

Conclusions

The soakaway tests passed the BRE365 criterion as the test pit discharged fully three times, and therefore it is considered that *in situ* soakaways are a feasible option for this site.

All soakaway designs should be approved by the relevant statutory authority prior to implementation.

Confirmation of ground conditions at the site of the actual soakaway may need to be undertaken if deemed necessary and are proposed in the far east of the site where the Oxford Clay is recorded. There may be other conditions prevailing on site which have not been revealed by this investigation and which have not been taken into account by this report. Responsibility cannot be accepted for any conditions not revealed by this investigation and assessment. It should be noted that groundwater levels and quality may vary due to seasonal and other effects.

Copies of this letter report should be forwarded to the Local Authority / drainage engineers by the Client should they be required as part of any planning applications, design specifications etc. Should you have any queries or require any further information then please do not hesitate to contact us.

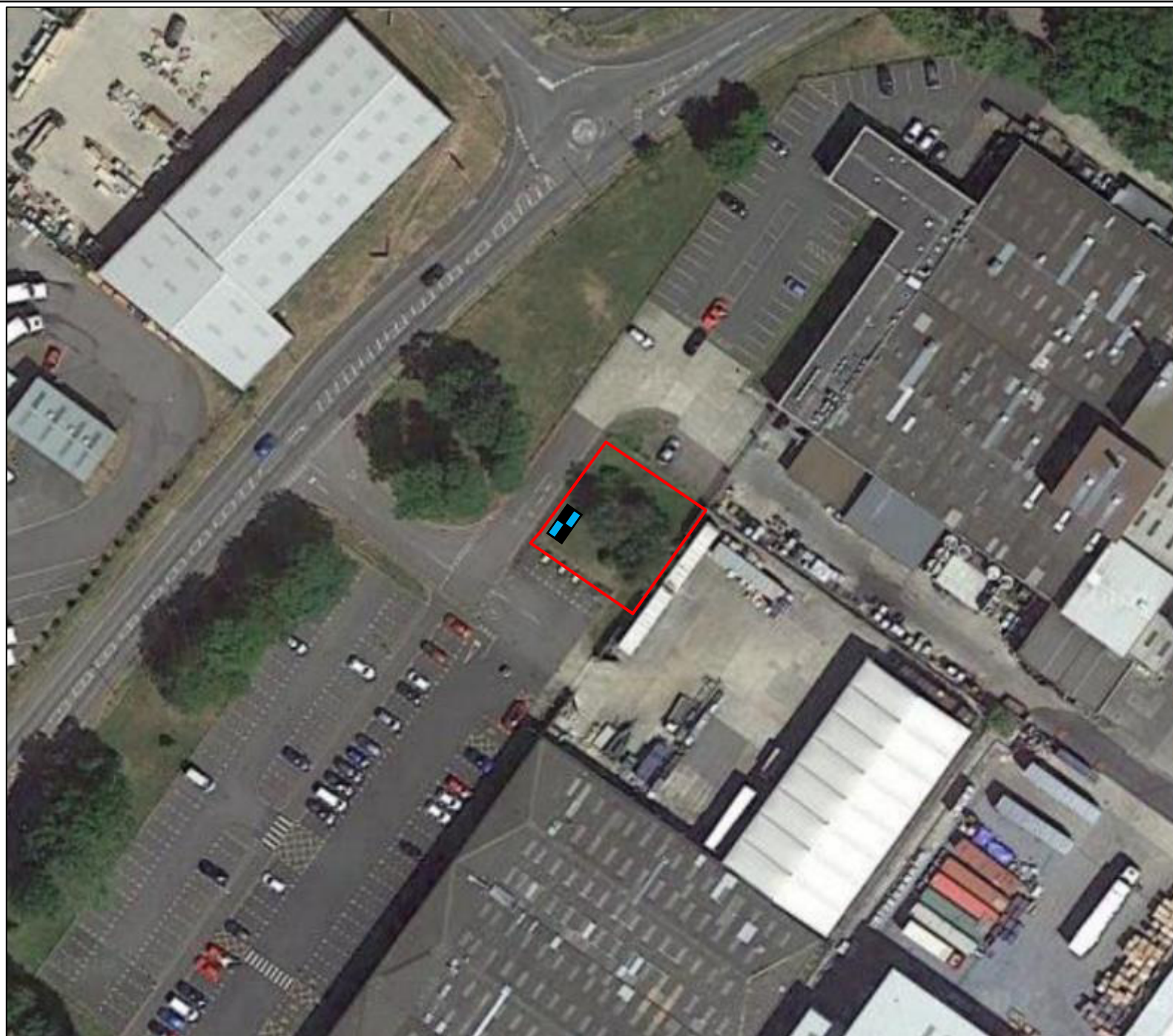
Should you have any queries or require any further information then please do not hesitate to contact us.

Yours faithfully
for Geo-Matters Ltd



Mark Lewis
Geo-Environmental Engineer

Encs. Exploratory Hole Layout Plan (Drawing 001)
General Photographic Record (Drawing 002)
Exploratory Hole Logs
In Situ Permeability Calculation Sheets



DO NOT SCALE
NOTES:



Approx. Location of
Soakaway Test Pits



www.geo-matters.com
info@geo-matters.com

CLIENT:
E.P Barrus Limited

PROJECT:
Launton Road, Bicester

TITLE:
Exploratory Hole Layout Plan

SCALE@SIZE :
NTS

ISSUE:
Final

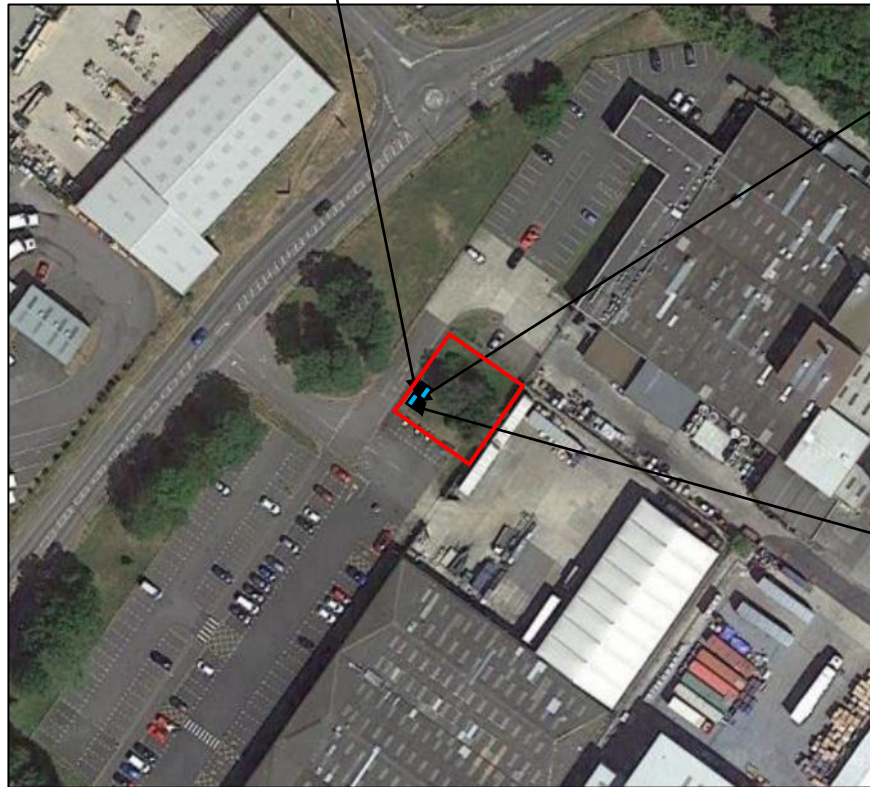
DESIGN/DRAWN:
AMT

DATE:
May 2023

PROJECT No:
GML23101

DRAWING No:
001

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DO NOT SCALE
NOTES:



Approx. Location of
Soakaway Test Pits



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CLIENT:

E.P Barrus Limited

PROJECT:

Launton Road, Bicester

TITLE:

General Photographs Plan

SCALE@SIZE :
NTS

ISSUE:
Final

DESIGN/DRAWN:
AMT

DATE:
May 2023

PROJECT No:
GML23101

DRAWING No:
002

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Contractor: N/A

Project No: GML23101

Sheet: 1 of 1

Equipment: 360 Excavator



Logged by: GML

Date: 17th May 2023

Field Monitoring and Sampling

Strata

Legend

Depth (m)	Type	Result (HSV/PP)	depth (m)	Description	Legend
			0.20	TOPSOIL comprising brown sandy silt	
			1m	Weathered LIMESTONE recovered as an orange gravelly SAND matrix	
			3m	Exploratory location completed at 1.30m depth.	
			4m		
			5m		

Sheet 1 of 1

Groundwater:
No groundwater encountered during excavation.

EXPLORATORY RECORD

Remarks:
1) Trial pit completed as a soakaway test location.
2) Trial pit sides remained stable during excavation.

