TOPPING ENGINEERS

CONSULTING CIVIL & STRUCTURAL ENGINEERS

PERCOLATION TESTING REPORT

LOCATION:

Howbrook, Sheffield
S35 7EJ

CLIENT:

The Wharncliffe Estate

DOCUMENT REF:
21362-PTR-001

REVISION/DATE:
Revision A

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CONTENTS & AMENDMENT HISTORY

Revision	Description	Date	Author	Checked
A	First Issue	October 2021	T Moorhouse	R Thacker

1.0 TESTING REPORT

The Percolation Testing was carried out on site on 12th October 2021 to establish if infiltration methods were going to be a suitable solution for draining the site.

1 Trial Hole was formed with the following dimensions;

Test Pit 1 1600mm x 950mm x 1600mm deep

The water level drop was monitored and recorded (see test sheets attached).

For Test 1 (Test Pit 1), water was filled to a depth of 640mm, the water level dropped 0mm after 1 hour of testing.

During the testing period, the water level dropped 0mm within one hour of testing.

Calculation sheet 1 shows that the infiltration rates are not high enough and do not satisfy BRE 365 requirements. Therefore, Infiltration methods of drainage will not be viable for this site and strategy.

2.0 APPENDICES

Appendix A – Percolation Test Sheet

METHOD (from BRE Digest 365)

- Excavate a soakage trail pit to the required depth (typically 1.0m - 2.0m deep) using minimum width (0.3m) and length (1.0m). Carefully trim sides and bottom.
- Carefully measure size of pit and note sizes below.
- Fill soakage hole briskly with water (from bowser) to at least three quarters full. Being careful not to wash away the sides. (Note: a 0.3m wide, 1m long, 1.5m deep trench needs at least 350 litres (80 gallons) of water)
- Place straight edge over top of soakage pit and measure (dip) to the top of the water.
- Record time versus dips in table below. Dip every 5 minutes for the first hour and every hour until pit is one quarter full. Repeat test 3 times in total on the same or consecutive days.

DETAILS

Site Location	**Howbrook, Sheffield, S35 7EJ**
Date of Test	**12/10/2021**
Weather Conditions	**Dry – Autumn**
Engineer Name	**Tom Moorhouse**

SIZE OF PIT

Length	Width	Depth
1.6m	0.95m	1.60m

RESULTS

Time (mins)	Dip (mm)
0	640
5	640
10	640
15	640
20	640
25	640
30	640
35	640
40	640
45	640
50	640
55	640

Appendix B – Photographic Evidence