

FACTUAL GROUND INVESTIGATION REPORT

Proposed Residential Development
Rose Villa, Roundway, Devizes

Prepared for: The Crown Estate

Date: May 2026

Report No: TF-25-441



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SECTION 1 Introduction and Proposed Development

The Crown Estate is proposing the construction of a new residential development at Rose Villa, Roundway, Devizes.

Savills (UK) Ltd are the Planning Consultants and WCI Group are the Consulting Engineers for the proposed development.

In order to inform the drainage strategy for the proposed development, Terra Firma has been commissioned as geo-technical and geo-environmental engineers to determine if soakaways for management of surface waters are viable.

To determine this, a ground investigation was undertaken, the main objectives of which were to:

- Establish the ground conditions of the site, including logging of the holes, and
- Undertaking of in-situ testing to determine infiltration characteristics of near surface strata.

The Ground Investigation has been undertaken in accordance with the following advisory guidance:

- Code of Practice for Site Investigations - (BS 5930): 2015 + A1:2020

In order to achieve the above objectives, Terra Firma carried out an assessment programme including a review of existing data and undertaking of a preliminary ground instability risk assessment, followed by a field investigation to determine the prevailing ground conditions and infiltration characteristics at the site.

The scope of the works including the schedule for in-situ testing was determined by Ridge and Partners LLP.

1.1 Limitations and Exceptions of Investigation

Rainier Developments has requested that a Soakaway Ground Investigation Report be performed in order to establish the ground conditions at the site and undertake in-situ infiltration testing.

The Soakaway Investigation was conducted and this report has been prepared for the sole internal reliance of Rainier Developments and their design and construction team. This report shall not be relied upon or transferred to any other parties without the express written authorisation of Terra Firma. If an unauthorised third party comes into possession of this report, they rely on it at their peril and the authors owe them no duty of care and skill.

The report represents the findings and opinions of experienced geo-environmental and geo-technical consultants. Terra Firma does not provide legal advice and the advice of lawyers may also be required.

The subsurface geological profiles and other plots are generalised by necessity and have been based on the information found at the locations of the exploratory holes and depths sampled and tested.

The soakaway investigation was limited by the following site constraints:

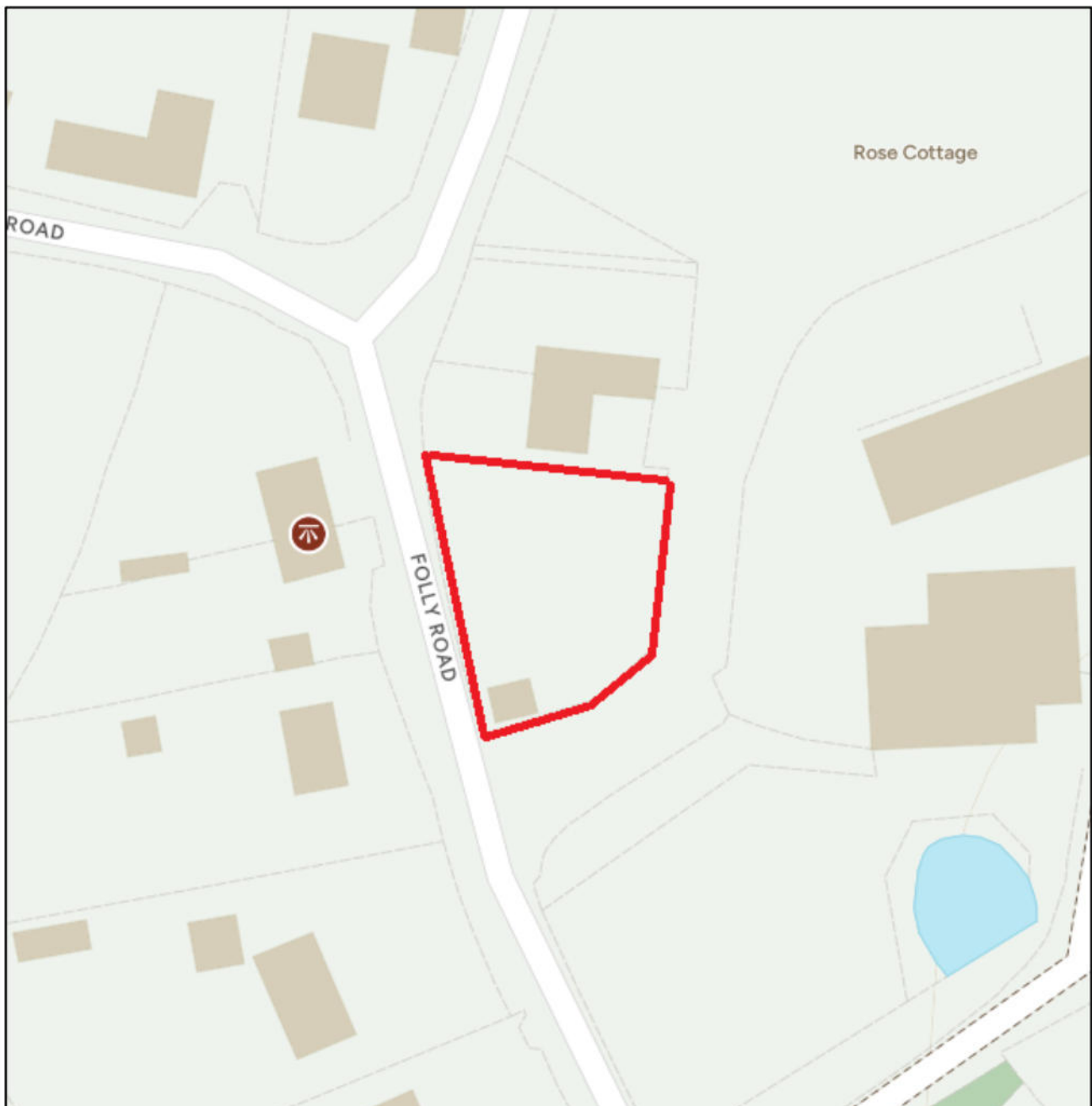
- The presence of underground services and utilities, and
- The presence of time restraints outside of our reasonable control.

SECTION 2 Site Setting

2.1 Physical Setting

The proposed development is to be located on land adjacent Rose Villa, Roundway, Devizes, Wiltshire, SN10 2LT.

The site is centred approximately on National Grid Reference (NGR) 401460, 163180. The site location is presented in **Drawing 2.1** below.



Drawing 2.1: Site Location Plan

The site is irregular in shape with a plan area of approximately 0.1 hectares and sits at approximately 144m above ordnance datum (aod). The topography of the site is typically flat.

The site is bound by Rose Villa to the north, Roundway Business Park to the east, an access track to the south, and Folly Road to the west.

2.1.1 Current Use and Site Conditions

At the time of the walk-over survey the site currently comprises a small open field with trees within the south part. A garage is located within the SW corner of the site.

2.2 Geological Setting

The 1:50,000-scale Geological Map of the area shows the site to be underlain by the Upper Greensand Formation. The BGS describes the Upper Greensand Formation as sand and sandstone, fine-grained, silt, glauconitic, and shelly.

SECTION 3 Field Investigation

3.1 General

The site works were scoped by WCI Group and comprised the following:

- 2No. machine excavated trial pits and in-situ soakaway tests (TP1-TP2)

The site works were carried out at the site on the 19th of May of 2026.

Prior to the site works, the following Health and Safety measures were undertaken:

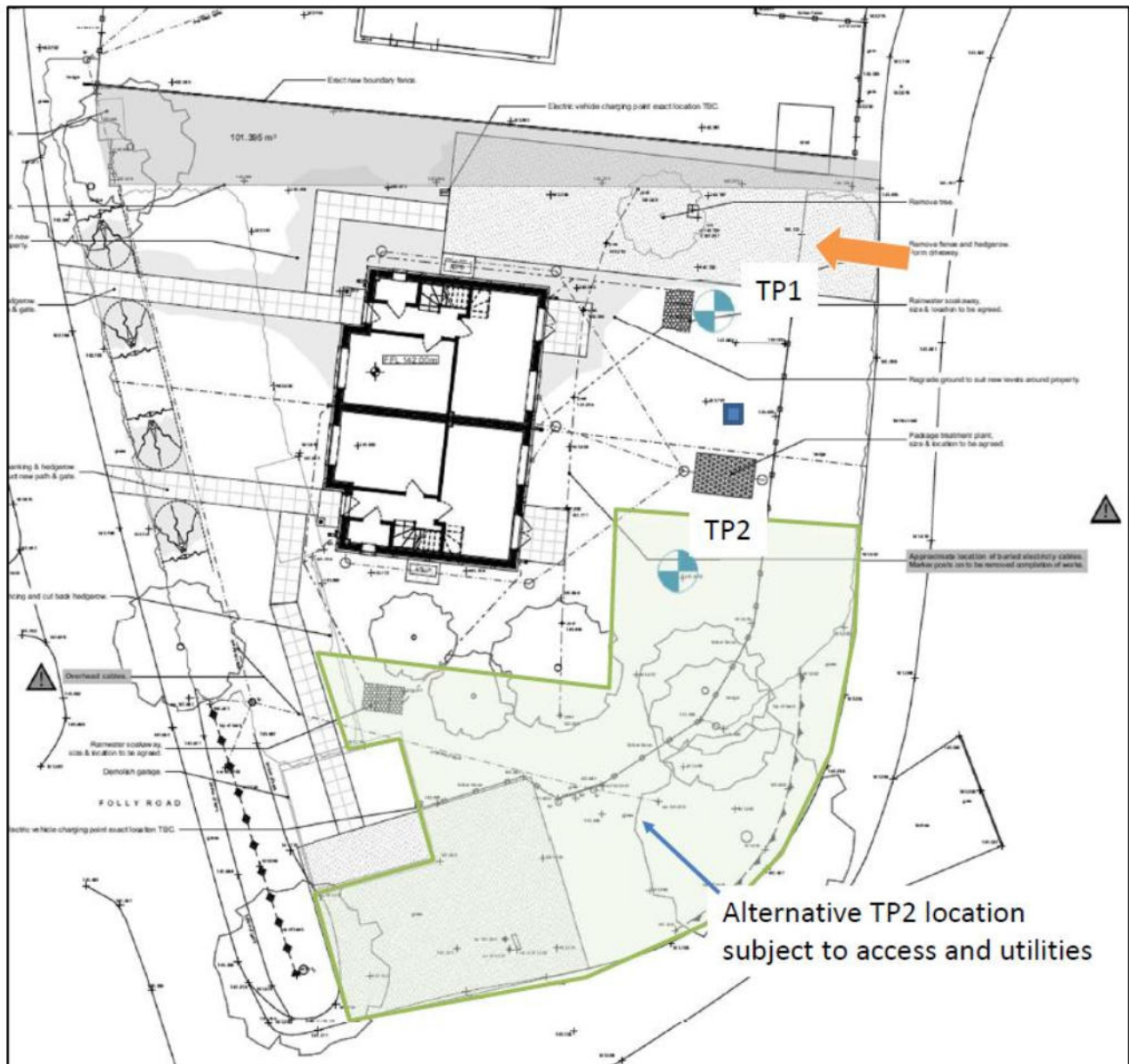
- Risk Assessment & Method Statement (RAMS) was issued and approved beforehand,
- Underground Utility Plans were obtained by the relevant Statutory Undertakers, and
- Before any excavation, all exploratory hole locations were scanned using a Cable Avoidance Tool (CAT).

The exploratory holes were set out at locations provided by WCI Group and adjusted where necessary to take account of the site constraints detailed in Section 1.1. The co-ordinates are presented in the table below:

Table 3.1: Exploratory Hole Co-ordinates		
Exploratory Hole	Easting	Northing
TP1	401465	163190
TP2	401463	163178

The site works were supervised by Terra Firma (South), who also logged the exploratory holes to the requirements of BS5930: 2015 + A1: 2020.

The exploratory hole locations are shown on **Drawing 3.1** below.



Drawing 3.1: Exploratory Hole Location Plan

3.2 Exploratory Holes

3.2.1 Machine Excavated Trial Pits

The trial pits were excavated using a JCB 3CX wheeled excavator.

Following completion of soil logging, in-situ testing and sampling, the trial pits were backfilled using arisings and re-compacted as best as practicably possible using the excavator backhoe. If necessary, the trial pit was left slightly proud in order to allow for short-term settlement.

3.3 In-situ Testing

3.3.1 Permeability Testing

The in-situ permeability tests were undertaken within the excavated trial pits in order to provide a soil infiltration rate to be used in soakaway design. A 2000 gallon tractor-towed bowser was used to rapidly fill the pit with water.

During the site investigation, in-situ permeability tests were undertaken within SA1, SA2, and SA3 and where possible were carried out to the requirements of BRE Digest 365 or BS 5930:2015+A1:2020 (Section 7).

The appropriate calculation sheets are presented in **Annex A** and the results given in the table below.

Table 3.2: Infiltration Test Results				
Soak away Test	Depth (m)	Type	Soil Type	Infiltration Rate (m/s)
TP1	2.00	Storm Drainage	Upper Greensand	*
TP2	2.00		Upper Greensand	*

Notes:

- * The test did not drain sufficiently (75% effective depth) over the effective storage depth within the time permitted in accordance with BRE365:
 - If left over 24 hours, drainage is unlikely to empty over the effective storage depth.

In both localities the tests did not sufficiently drain to 75% to give an infiltration rate and therefore shallow soakaways at these localities are unlikely to be feasible.

SECTION 4 Ground Conditions

4.1 Summary

The ground conditions encountered by the exploratory holes were variable across the site, but can in general be summarised as shown in the following table:

Table 4.1: Summary of Ground Conditions					
TP1 Depth (mbgl)		TP2 Depth (mbgl)		Stratum	
From	To	From	To		
0.00	0.15	-	-	Dark brown clayey gravelly very sandy SILT with roots, bricks and plastic	<i>Made Ground</i>
0.15	0.50	0.00	0.30	Dark brown clayey sandy SILT with roots and occasional gravels	<i>Topsoil</i>
0.50	>2.50	0.30	>2.50	Soft to firm brown becoming orange-brown and green / grey brown with red inclusions very silty very sandy CLAY / loose to medium dense very silty very clayey SAND, with occasional roots to c. 1m	<i>Upper Greensand Formation</i>

Within trial pits, the estimated strength of granular deposits was determined from visual assessment only (ease/difficulty of excavation and pit stability).

4.2 Stability

The sides of the excavations were typically found to be stable.

4.3 Water Strikes

No groundwater inflows were recorded within either exploratory hole to a maximum extended depth of 2.50m.

However, it is possible that higher groundwater levels may be encountered during winter months

Annex A: In-situ Test Results

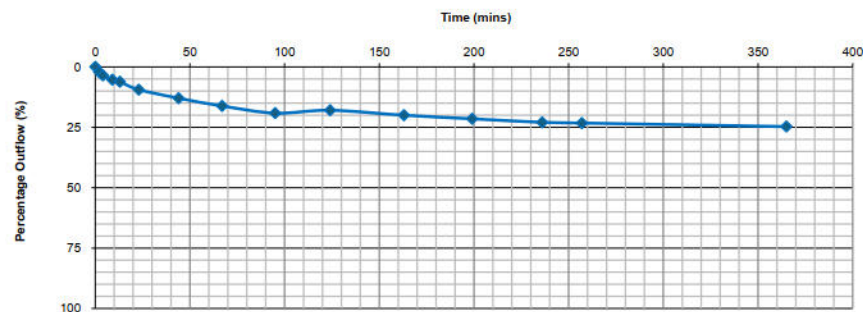
Site Name: Rose Villa, Roundway, Devizes
Trial Pit No.: TP1 / SA1

Job No.: TF-25-441
Engineer: SH

Date Undertaken: 19th May 2026

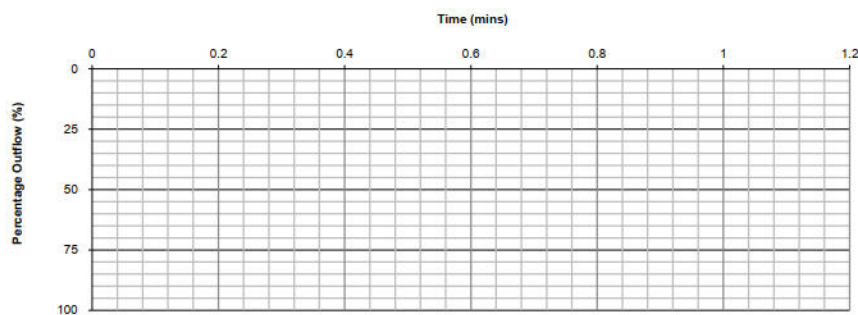
TEST NUMBER: Test 1
Length of Trial Pit (m) 2.00
Width of Trial Pit (m) 0.40
Depth of Trial Pit (m) 2.00
Top of Water 0.30
Porosity of Infill (0.3 for Gravel) 1.00
VP25 (mBGL) : 0.7250
VP75 (mBGL) 1.5750
VP25 (Mins) #VALUE!
VP75 (Mins) #VALUE!

INFILTRATION RATE (m/s): -
Drainage Field VP: -



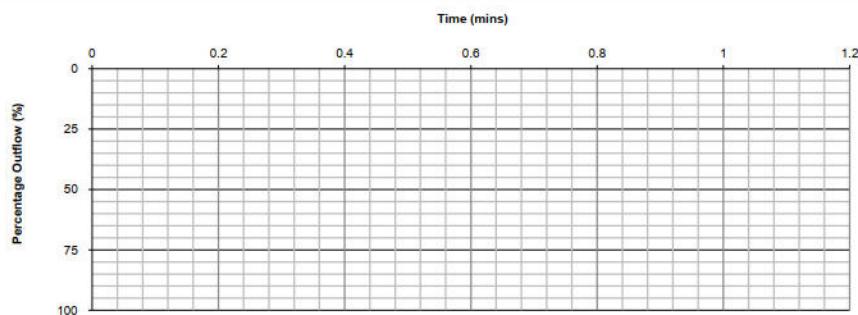
TEST NUMBER: Test 2
Length of Trial Pit (m) 2.00
Width of Trial Pit (m) 0.40
Depth of Trial Pit (m) 2.00
Top of Water 0.30
Porosity of Infill (0.3 for Gravel) 1.00
VP25 (mBGL) : 0.5000
VP75 (mBGL) 1.5000
VP25 (Mins) #NUM!
VP75 (Mins) #NUM!

INFILTRATION RATE (m/s): -
Drainage Field VP: -



TEST NUMBER: Test 3
Length of Trial Pit (m) 2.00
Width of Trial Pit (m) 0.40
Depth of Trial Pit (m) 2.00
Top of Water 0.30
Porosity of Infill (0.3 for Gravel) 1.00
VP25 (mBGL) : 0.5000
VP75 (mBGL) 1.5000
VP25 (Mins) #NUM!
VP75 (Mins) #NUM!

INFILTRATION RATE (m/s): -
Drainage Field VP: -



REMARKS: Test carried out in general accordance with BRE Digest 365 (2016) or The Building Regulations 2010, Drainage and waste disposal: Approved Document H.

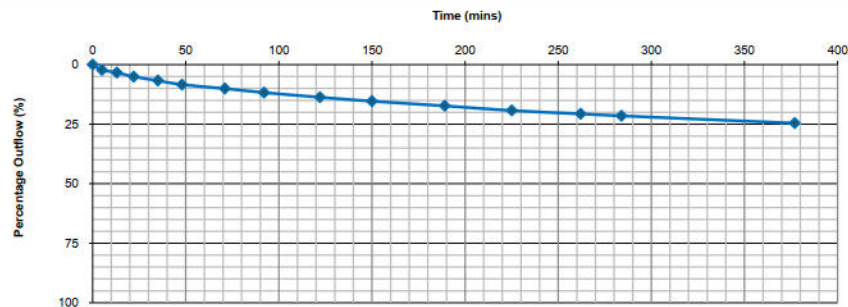
Site Name: Rose Villa, Roundway, Devizes
Trial Pit No.: TP2 / SA2

Job No.: TF-25-441
Engineer: SH

Date Undertaken: 19th May 2026

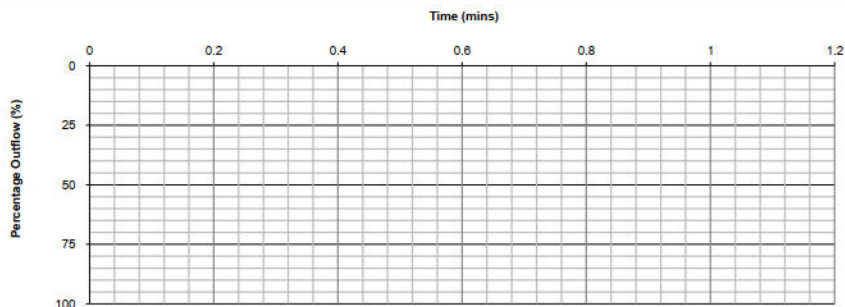
TEST NUMBER: Test 1
Length of Trial Pit (m) 2.00
Width of Trial Pit (m) 0.40
Depth of Trial Pit (m) 2.00
Top of Water 0.21
Porosity of Infill (0.3 for Gravel) 1.00
VP25 (mBGL) : 0.6575
VP75 (mBGL) 1.5525
VP25 (Mins) #VALUE!
VP75 (Mins) #VALUE!

INFILTRATION RATE (m/s): -
Drainage Field VP: -



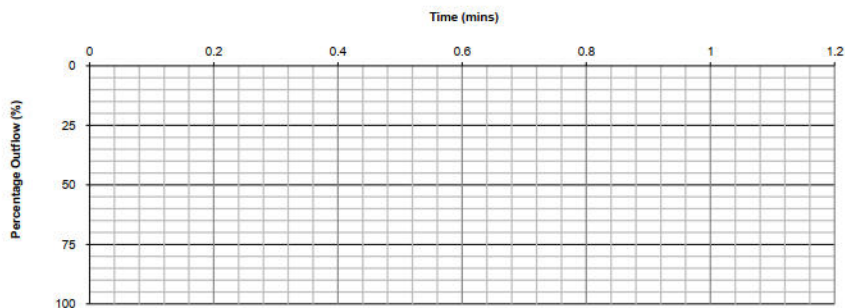
TEST NUMBER: Test 2
Length of Trial Pit (m) 2.00
Width of Trial Pit (m) 0.40
Depth of Trial Pit (m) 2.00
Top of Water 0.21
Porosity of Infill (0.3 for Gravel) 1.00
VP25 (mBGL) : 0.5000
VP75 (mBGL) 1.5000
VP25 (Mins) #NUM!
VP75 (Mins) #NUM!

INFILTRATION RATE (m/s): -
Drainage Field VP: -



TEST NUMBER: Test 3
Length of Trial Pit (m) 2.00
Width of Trial Pit (m) 0.40
Depth of Trial Pit (m) 2.00
Top of Water 0.21
Porosity of Infill (0.3 for Gravel) 1.00
VP25 (mBGL) : 0.5000
VP75 (mBGL) 1.5000
VP25 (Mins) #NUM!
VP75 (Mins) #NUM!

INFILTRATION RATE (m/s): -
Drainage Field VP: -



REMARKS: Test carried out in general accordance with BRE Digest 365 (2016) or The Building Regulations 2010, Drainage and waste disposal: Approved Document H.