



# INFILTRATION TESTING REPORT

PROPOSED RESIDENTIAL DEVELOPMENT LOCATED AT  
34 CADNANT PARK, CONWY

**MÔN CIVILS**  
LIMITED

**March 2024**  
**Revision P01**

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## 1.0 Introduction

This report has been compiled to supplement the proposed drainage strategy for the proposed residential development located at 34 Cadnant Park, Conwy, LL32 8PE (**SH 77523 77665**). The location and site boundary of the site is illustrated on the attached plan contained within **Appendix A**.

The proposed development involves the demolition of an existing property and the construction of 13 new dwellings.

### 1.1 Scope of Report

In accordance with CIRIA C753 'SuDS Manual' 2015 and The Statutory SuDS Guidance for Wales 2018, surface water run-off generated from all new developments should consider a discharge into the ground via a proposed soakaway as the highest priority. In order to confirm the sites suitability infiltration testing should be undertaken.

This report provides a summary and conclusion of the infiltration testing carried out on site.

## 2.0 Infiltration Testing

Infiltration testing has been undertaken on the 11<sup>th</sup>/04/2024. 3No trial holes were excavated within the site referenced TP1, TP2 & TP3. TP1 was excavated to a maximum depth of 1.26m, TP2 was excavated to a maximum depth of 1.21m & TP3 was excavated to a maximum depth of 1.13m. All trial holes were used for infiltration testing. The location of the trial pit is indicated on the trial pit location plan contained within **Appendix B**.

A trail pit log along with comments and photographs of the trial hole is contained within **Appendix C**. The below ground strata located on site consisted of gravely grey clay, gravels were small to large angular to rounded. The clay gravels were damp but no water ingress. Roots and rootlets were present within the dark brown sandy & slightly gravely clay topsoil to 220mm bgl.

In accordance with BRE digest 365 which outlines the best practice procedure for undertaking porosity tests, each trail pit should be filled and the rate in which the water level drops should be recorded until it is dry, this should be repeated for three consecutive tests. The design of any proposed soakaway structures should then be based upon the poorest infiltration rate of the three tests. Due to the lack of infiltration recorded the first test was abandoned after 2 hour and 13 minutes and therefore a second or third test was not undertaken.

The test results of the infiltration tests undertaken are summarised within **Tables 1**.

**Table 1.** TP1 – Test 1 results

Time	Duration (mins)	Depth to water from GL (m)	Drop in water level (mm/min)
10:45	0	0.750	--
10:55	10	0.770	2.000mm
11:25	40	0.785	0.500mm
11:45	60	0.790	0.250mm
12:00	75	0.790	0.000mm
<b>Infiltration Rate (f)</b>		<b>Test Abandoned</b>	

**Table 2.** TP2 – Test 1 results

<b>Time</b>	<b>Duration (mins)</b>	<b>Depth to water from GL (m)</b>	<b>Drop in water level (mm/min)</b>
11:10	0	0.500	--
11:45	35	0.500	0.000mm
12:05	55	0.500	0.000mm
<b>Infiltration Rate (<i>f</i>)</b>		<b>Test Abandoned</b>	

**Table 3.** TP3 – Test 1 results

<b>Time</b>	<b>Duration (mins)</b>	<b>Depth to water from GL (m)</b>	<b>Drop in water level (mm/min)</b>
11:12	0	0.450	--
11:46	34	0.450	0.000mm
12:05	53	0.450	0.000mm
<b>Infiltration Rate (<i>f</i>)</b>		<b>Test Abandoned</b>	

# APPENDICES

# **APPENDIX A**

## **Site Location Plan**

# **APPENDIX B**

## **Trial Pit Location Plan**



# **APPENDIX C**

## **Trial Pit Logs**

## Trail Pit 1 (TP1)

0.000m – 0.220m	Topsoil: Dark brown made ground. Very sandy, slightly gravelly silt, gravels are fine angular to rounded. Roots & rootlets were present throughout.
0.220m – 1.260m	Light brown made ground, very gravelly clay. Gravels are small to medium angular to sub-angular.
1.260m	Light brown made ground, very gravelly clay. Gravels are medium to large with boulders & broken brick.

### Comments

1. Trial pit dimensions: 1.200m (L) x 0.700m (W) x 1.260m (D)
2. No ground water was encountered within the trial pit.
3. Sides of trail pit where stable throughout.



## Trail Pit 2 (TP2)

0.000m – 0.300m	Topsoil: Dark brown made ground. Very sandy, slightly gravelly silt, gravels are fine angular to rounded. Roots & rootlets were present throughout.
0.300m – 1.210m	Light brown made ground, very gravelly clay. Gravels are small to medium angular to sub-angular.
1.210m	Light brown made ground, very gravelly clay. Gravels are medium to large with boulders & broken brick.

### Comments

1. Trial pit dimensions: 1.300m (L) x 0.750m (W) x 1.210m (D)
2. No ground water was encountered within the trial pit.
3. Sides of trial pit where stable throughout.



## Trail Pit 3 (TP3)

0.000m – 0.300m	Topsoil: Dark brown made ground. Very sandy, slightly gravelly silt, gravels are fine angular to rounded. Roots & rootlets were present throughout.
0.300m – 1.130m	Light brown made ground, very gravelly clay. Gravels are small to medium angular to sub-angular.
1.130m	Light brown made ground, very gravelly clay. Gravels are medium to large with boulders & broken brick.

### Comments

1. Trial pit dimensions: 1.400m (L) x 0.750m (W) x 1.130m (D)
2. No ground water was encountered within the trial pit.
3. Sides of trial pit where stable throughout.

