



Stormwater Soakaway Report

Site address

**45 Homelawn Road
Tallaght
Dublin 24**

Date

21/06/2022

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Professional Waste Water Services

PO Box 1014, Blessington Road, Naas, Co. Kildare Tel: 045-447585 email: info@wastewater.ie

1.0 INTRODUCTION

Waste Water Maintenance Ltd were commissioned to assess a site located at 45 Homelawn Road, Tallaght, Dublin 24 to determine if the site has the capacity to handle the discharge of storm water from the hard stand areas of the proposed extension to the existing house and a small home office.

There is an existing house on the site and the home owner is applying for planning permission to add an extension. The total hard surface area of the extension will be 43m squared. All paving around the extension will be permeable.

The proposed home office will have a total hard surface area of 23m squared. All other areas around the structure will be permeable.

Therefore the total hard surface area combined will be 66m squared.

The site consists of a concrete front driveway and a rear garden with some grass and paving. The garden is narrow at 9m wide leaving a very limited area for any soak-a-way as there is a requirement to retain a separation distance of at least 5m from foundations.

Scope of Works

Complete a BRE365 storm water test on the proposed site in order to facilitate the design of a storm water soakaway system in accordance with BRE Digest 365 to accommodate the storm water run off from the total hard surface area of 63m squared.

2.0 FIELDWORK

A test pit was excavated on the site measuring 0.8m wide X 1.4m long X 1.2m deep which revealed a top layer of firm brown slightly gravelly CLAY to a depth of 0.4m which in turn overlies a soil stratum of brown very firm compact slightly gravelly CLAY with occasional cobbles to a depth of 1.2m.

Due to the limited site access a mini digger was used. The subsoil is so compact that the digger was unable to excavate below 1.2m.

No groundwater or rock was encountered at 1.2m.

The soil types encountered are likely to have a very low permeable rate due to the very firm compact nature of the soils.

The test hole was saturated to a depth of 0.5m below ground level and monitored for one hour during which time there was no notable drop in the water level.

3.0 DESIGN

The soils encountered from ground level to the base of the excavated pit at 1.2m are considered to have very low permeable characteristics and due to the limited available space on the existing site the site is considered unsuitable for a storm water soak-a-way system.

Therefore, any storm water generated from the hard surfaces of the proposed development will need to discharge to the existing mains system which serves the existing house.

4.0 RECOMMENDATIONS

The storm water generated from the proposed extension will need to discharge into the main system along with the existing house.

Permeable paving and drive way is recommended to reduce the hard surface area on the site.

An attenuation tank may be considered if deemed necessary. This would allow for the storm water to be collected in a tank on the site with a controlled discharge to the mains line over a period of time.

APPENDIX
Pit Log

Professional Waste Water Services

PO Box 1014, Blessington Road, Naas, Co. Kildare Tel: 045-447585 email: info@wastewater.ie

Job No:

WASTE WATER MAINTENANCE LTD.

PO Box 1014, Blessington Road, Naas, Co. Kildare

Site location: 45 Homelawn Road, Tallaght, Dublin 24

Pit No: SA1

Client: Darragh Satelle

Page No: 1 of 1

Architect: Brendan Johnson

Date: 6/21/2022

Depth (m)	Geotechnical Description	Depth	Sample Number	Sample Type	Sample Depth
- 0.5	Brown Firm slightly gravelly CLAY	0.4			
- 1.0	very compact brown slightly gravelly CLAY with occasional cobbles				
- 1.5	END OF PIT AT 1.2M	1.2			
- 2.0					
- 2.5					
- 3.0					
- 3.5					
- 4					
- 4.5					

Depth to groundwater:

Not encountered at 1.2m

Depth to bedrock:

Not encountered at 1.2m.

Notes:

Unable to excavate any deeper - limited site access and - small mini digger used. Ground is very compact / hard

Site Pictures

45 Homelawn Road, Tallaght, Dublin 24

