**Management & Maintenance Plan for the Sustainable Drainage System at Troutbeck Crescent Development, Blackpool**

April 2021

Introduction

This management and maintenance plan is relevant to planning approval notice referenced 19/0144 dated 07/03/19.

It is a requirement to discharge condition 13 of the above referenced planning approval.

The purpose of this management and maintenance plan is to demonstrate how the sustainable drainage system will be managed and maintained during the lifetime of the development.

The development consists of the following 75 Units; 19nr one bedroom flats, 27nr two bedroom houses, 18nr three bedroom houses, 9nr two bedroom assisted living units and 2nr three bedroom assisted living units, complete with all associated external works, drainage, roads and car parking.

The development is owned by Blackpool Council (BC), with the dwellings and all associated infrastructure managed and maintained by Blackpool Coastal Housing (BCH) as part of the existing Management Agreement with BC.

Overview of Development Drainage

The development is drained by a separate drainage system for the foul and surface water drainage.

The drainage system serving the dwellings and associated external areas is private.

The drainage system serving the adoptable highways is also adopted under the ownership of the local authority highway department.

The private drainage has been designed to ensure that flooding does not occur during a 1 in 100 year rainfall event, plus a 40% allowance for climate change, which was substantiated with the relevant hydraulic calculations.

The private surface water drainage is provided by a network of pipes which collect the surface water from roof’s, driveways, parking and paving’s carrying it to the outfall position at a maximum discharge rate of 5.0 l/s into the adjacent public combined sewer, which is owned by United Utilities PLC.

To ensure that the surface water discharge from the development does not exceed the maximum permissible discharge rate a flow control device has been fitted and during exceedance rainfall events the surface water will be temporarily stored in an offline cellular attenuation tank. The attenuation tank is designed to attenuate surface water up to and including the 1 in 100 year (+40% climate change) critical storm event.

The reason for providing an off line attenuation is so that the during rainfall events the initial rainfall (known as the first flush) will pass directly through the flow control with all normal solids that can be expected to accumulate in a normal surface water drainage system. These accumulations will include silts, deposited by rainfall, leaf matter and moss that grow on roofs and in gutters etc. By allowing these accumulations to pass through the drainage system there is a greatly reduced chance of future blockages within the pipe network and attenuation tank during times of increased rainfall events that require attenuating to maintain the maximum allowable discharge rate off site.

Maintenance Regime

The following table provides a maintenance schedule that will be required by the managing agent for the development.

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| **Item Requiring Maintenance** | **Maintenance** **Required** | **Maintenance Frequency** |
| Rainwater Gutters | Clearing of gutters to remove leaf matter, moss and any other blockages to ensure they are free flowing to convey water to drainage network | As advised by residents when overflowing or identified by BCH Repairs Inspectors |
| Gulleys | Cleaning out of gulley’s to remove silt from gulley trap to ensure they are free flowing to convey water to drainage network | As advised by residents or identified by BCH Repairs Inspectors |
| Flow Control Manhole | The manhole cover shall be lifted to expose the Hydro-Brake flow control to ensure the control is free from silt and any other items that may cause a potential blockage.Replacement of the Hydro-Brake would not be anticipated for a minimum of 20 years. | 6 months during first year of development operation.Every 2 years thereafter. |
| Cellular Attenuation | No regular maintenance of the attenuation is required. Cleaning of the catch-pits or silt traps, by lifting the lids, removing debris and flushing silt to ensure free flowing | As required & noted within Modular Geo-Void Systems Maintenance & Access Manual |

Maintenance Funding

BCH will include a levy to the rent as part of an on-going service charge.

The service charge is levied to cover items such as maintenance of the sustainable drainage system, external communal lighting, communal grounds maintenance, etc. The service charge will include a charge to cover maintenance costs associated with the aforementioned maintenance requirements.

Provision for ongoing maintenance

BCH will provide ongoing repairs and maintenance via their in-house Direct Labour Organisation (DLO). Where specialist repairs or maintenance is required, an approved contractor will be appointed.

All residents will be provided with the necessary details for reporting repairs in their Home User Guide/ handover pack at the point of sign up.

Means of Access for Maintenance

As per their Tenancy Agreements, there will be an access clause giving BCH, or an appointed contractor, the right to access to all areas to undertake emergency maintenance / repairs.

Where routine maintenance is required BCH will write to the residents informing them that access to their property is required.