

**Reasons For Objections** (no's 1,3 & 4)

Based on the reasons cited under Objections 1, 3 & 4, I feel some confusion may have arisen regarding the previous (2020) and current applications' drainage proposals.

The first part of the submitted *Surface Water Management* doc detailed the **2020 scheme** and reproduced sections of the previously submitted RAB Consultants *Surface Water & Drainage Report (Apr 2019)* as these remained relevant to the latest application, namely:

- calculations for the then proposed hotel were based on the entire site (0.21ha) being regarded as impermeable.
- discharge to surface sewers of all surface water was considered the best option as infiltration was not suitable.
- a storage volume of 80– 132 m<sup>3</sup> would be required for attenuation purposes.

The 2020 scheme featured two attenuation tanks totalling 112 m<sup>3</sup> in volume. These were located on the newly created basement levels 2 & 3, necessitating pumped discharge and suitable overflow arrangements - pipe sizes, gradients, flow directions, cover and invert levels were provided in RAB Consultants' *Surface Water Drainage Addendum (May 2019)*.

The **current scheme** is set out section 2 of the submitted doc.

The developed site (0.21ha) will be impermeable bar two small grassland areas (0.0144ha).

Rainfall from the impermeable area (0.1956ha) will be drained and temporarily stored to attenuate the flow. The previously calculated requirement of 80– 132 m<sup>3</sup> is still considered appropriate for attenuation purposes being based on an impermeable area of 0.21ha

Whilst still featuring two attenuation tanks (totalling 109 m<sup>3</sup>) these will now be located directly beneath the front car park, thereby avoiding the previous need for pumped discharge and overflow considerations.

This option was not possible in the 2020 proposal, due the creation of basement parking below the front car park, which no longer features.

The submitted doc suggested a suitable attenuation option as:

1 x Kingspan Klargest AquaHold SM50- Tank DIA : 2.6m DIA & 10.5m LENGTH Storage Volume: 50,000 Litre

1 x Kingspan Klargest Aqua Hold – SF59 built in flow control 3.5 L/s Tank 2.6 DIA & 12m LENGTH Storage Volume: 59,000 Litre



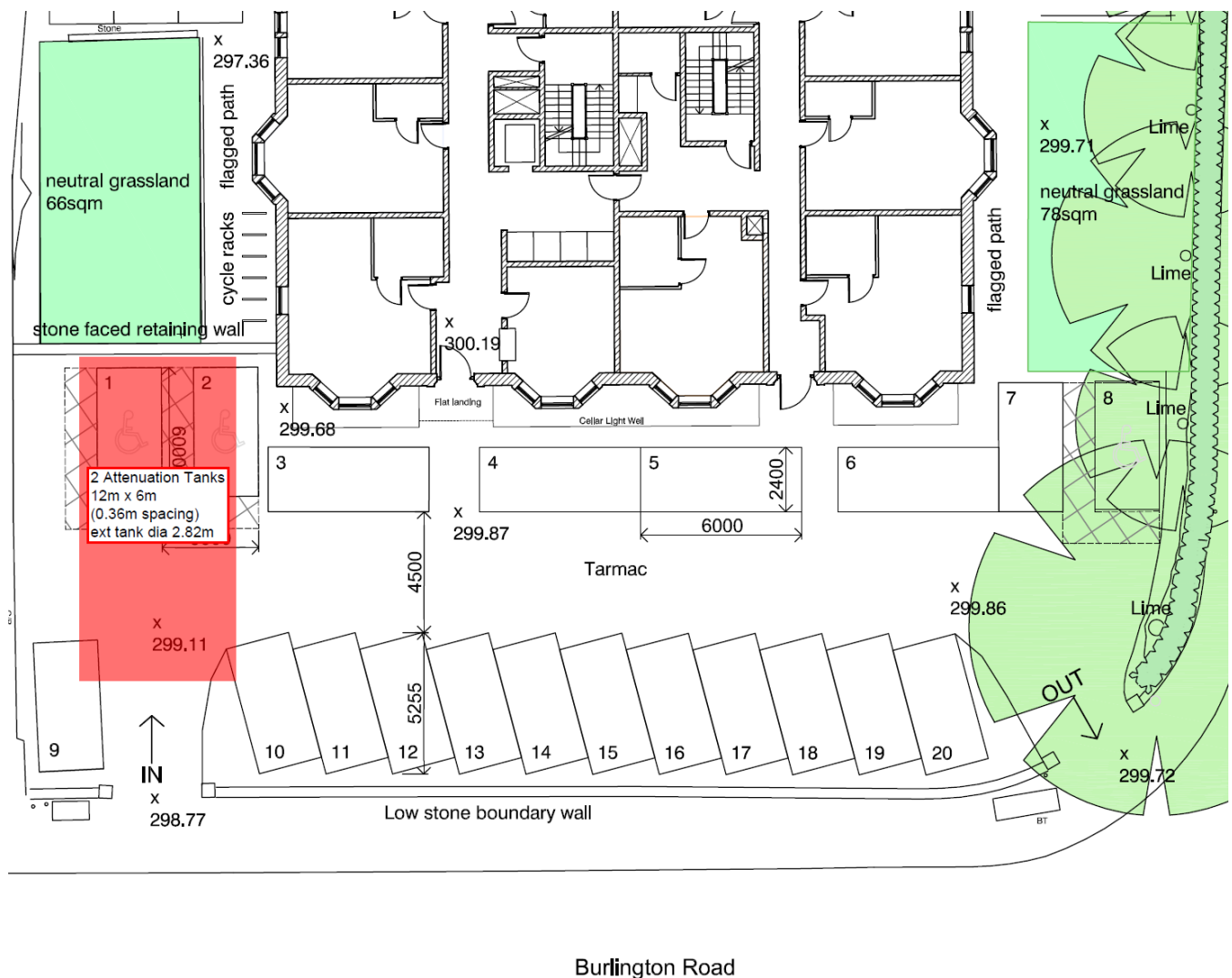
RAB Consultants' *Surface Water Drainage Addendum (May 2019)* advised the invert level of the surface water sewer adjacent to the site to be approximately 295.78m AOD.

Severn Trent Water (STW) surface water sewer along Burlington Road. A sewer map (Appendix A) was requested from STW which provided information on their assets near to the Buckingham Hotel. Given that there is no information about the invert level adjacent to the site, an approximate invert was calculated with the available information. The upstream invert of the surface water sewer is 300.67m AOD and the downstream invert is 293.88m AOD. The total pipe length is approximately 200m and the Buckingham Hotel is located 75% of the way along the sewer run (150m from the upstream invert). Therefore, assuming a constant gradient, the invert level of the surface water sewer adjacent to the site is approximately 295.78m AOD.

RAB Consultants also reported that ground level at the front of the site is typically 299.0m AOD.

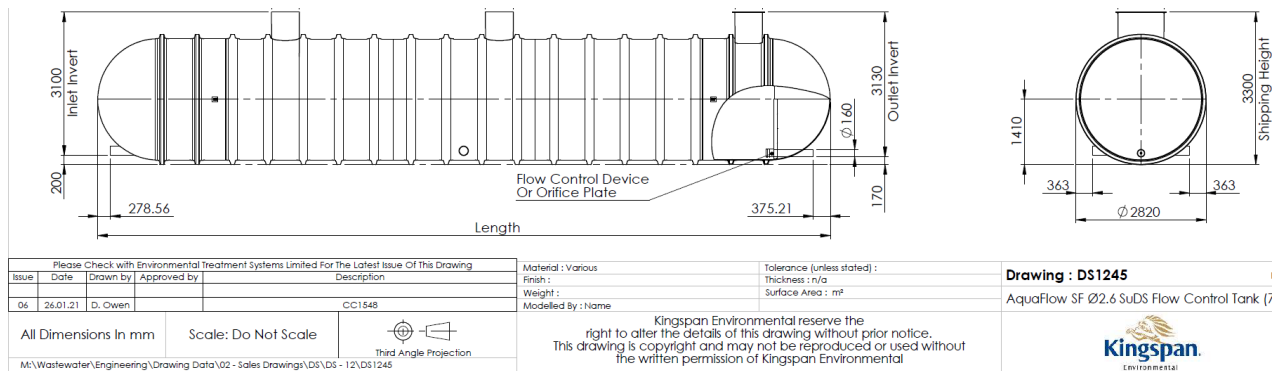
This is confirmed by the below extract from the submitted *1971.PL03A Proposed Site Plan*, which shows the ground levels of the front car park ranging from 299.86 to 299.11 (with a slope from north to south).

A suitable location at 299.11m AOD for the two tanks is shown in red.



The two tanks will be inter connected with the second tank containing a flow control device, allowing the collected water to be discharged to the surface sewer at a prescribed rate.

Based on the Kingspan's published data below, the outlet invert of the tanks is 3.130m, meaning they would discharge at 295.98m AOD (3.13m below the ground level of 299.11).



This is 0.2m higher than RAB Consultants' estimated surface sewer depth of 295.78m AOD and should provide a suitable gradient for discharge, given a maximum estimated distance between the tank outlet invert and adjacent Burlington Road surface water sewer of 7m.

#### Reasons For Objection (no 2)

Kingspan Aqua Hold tanks can feature a built in flow control device capable of operating as low as 0.5 l/s.



A proposed discharge rate to the surface sewer of 3.5 l/s is suggested, to be confirmed at detailed design stage.

#### Reasons For Objection (no 5)

LLFA's consultee response of 10 August 2021 (in respect of the 2020 application) included conditions, the first of which is reproduced below:

1. "No development shall take place until a detailed design and associated **management and maintenance plan** of the surface water drainage for the site...have been submitted to and approved in writing by the Local Planning Authority."

It is politely requested that the present application is afforded the same treatment and that the requirement for a management and maintenance plan is similarly conditioned.

This response, in conjunction with RAB Consultants' two previous submissions, demonstrates that the proposed site can be suitably drained and that due consideration has been given to the space required on site for surface water storage with an indication of the likely location.