

7th August 2026

LAND AT USK WAY, NEWPORT

SECTION 73 APPLICATION – DRAINAGE STRATEGY ADDENDUM

PHG Project Ref: 2177

PHG Consulting Engineers Ltd has prepared this Drainage Strategy Addendum in support of the Section 73 application for the residential development at Land off Usk Way, Newport.

This note should be read in conjunction with the previously submitted drainage information and the surface water drainage strategy approved by Newport City Council as Sustainable Drainage Approval Body (SAB) under **Full SAB Application Reference 22/0006/SAB**.

The purpose of this addendum is to identify the drainage implications of the amendments associated with the Section 73 application and, in particular, the relocation of the below-ground cellular attenuation storage within the Public Open Space (POS).

1. Approved Surface Water Drainage Strategy

The surface water drainage strategy for the development has previously been considered by Newport City Council as SAB under application **22/0006/SAB**.

The SAB assessment confirmed the proposed drainage strategy as being compliant with the overall ethos of the Welsh Government Statutory Standards for Sustainable Drainage Systems.

The approved drainage strategy follows the surface water discharge hierarchy. Rainwater reuse is provided through water butts; infiltration was discounted due to site contamination and tidal levels; and a direct connection to the River Usk was considered impractical due to the intervening promenade and third-party land. Surface water is therefore discharged to the existing surface water sewer, which ultimately outfalls to the River Usk. This discharge arrangement was accepted by SAB.

The approved SuDS management train incorporates rain gardens/bioretention features, tanked permeable paving, below-ground cellular attenuation, rainwater harvesting and flow control prior to restricted discharge.

The approved hydraulic design restricts surface water discharge to **8.4 l/s for the 1 in 100-year event plus a 40% climate-change allowance**. This represents a 50% betterment against the calculated existing QBAR Urban rate of 16.8 l/s and was accepted by SAB.

The approved engineering arrangement incorporates the following principal attenuation components:

- **Permeable Paving Storage 1:** 167 m² plan area providing approximately 49 m³ attenuation;
- **Permeable Paving Storage 2:** 582 m² plan area providing approximately 160 m³ attenuation; and
- **Cellular Attenuation Storage:** 6.50 m × 16.50 m × 0.75 m deep, providing approximately 71.25 m³ attenuation.

The cellular storage has a design base level of **7.70 m AOD**, with a minimum cover of approximately 0.75 m. The downstream Hydro-Brake flow-control chamber is designed for a discharge of **8.4 l/s at a design head of 1.80 m**.

The SAB approval also accepted the proposed volumetric control, exceedance, water-quality, amenity and biodiversity provisions.

2. Section 73 Amendment

As part of the coordination of the revised Section 73 layout and associated landscape proposals, a conflict was identified between the position of the below-ground cellular attenuation storage and the proposed planting within the POS.

The engineering layout has therefore been amended, as shown on PHG Drawing **2177-100 Rev G – Engineering Layout**, to relocate the cellular attenuation storage southwards within the POS, clear of the proposed planting.

The amendment represents a **localised relocation of an existing SuDS component** and does not constitute a change to the fundamental drainage strategy for the development.

The cellular storage retains the same design dimensions and attenuation capacity of approximately **71.25 m³**, together with the same design base level of **7.70 m AOD**.

The associated drainage pipework has been locally adjusted as necessary to accommodate the revised tank position; however, the hydraulic function of the system and its downstream flow-control arrangement remain unchanged.

3. Hydraulic Performance

The Section 73 amendment does not alter the hydraulic design criteria previously considered and accepted by SAB.

In particular, there is **no change** to:

- the overall surface water drainage strategy;
- the surface water discharge destination;
- the restricted discharge rate of **8.4 l/s**;
- the 1 in 100-year plus **40% climate-change** design standard;
- the cellular attenuation volume of approximately **71.25 m³**;
- the attenuation provided within the permeable paving;
- the Hydro-Brake flow-control principle;
- the interception strategy;
- the water-quality treatment train; or
- the established exceedance strategy.

The cellular storage is therefore being **relocated rather than reduced or replaced**. The amendment does not result in an increase in the rate of surface water discharge from the development relative to the SAB-approved strategy.

The original SAB assessment confirmed that attenuation was provided within the cellular storage and permeable paving to accommodate the 1 in 100-year event plus 40% climate change. These fundamental parameters remain unchanged by the Section 73 proposals.

4. Volumetric Control and Interception

The principles of the previously submitted volumetric control and interception assessments are unaffected by the proposed amendment.

The approved volumetric assessment was based upon an existing site area of approximately 0.8 ha, effectively treated as impermeable, compared with a proposed positively drained impermeable area of approximately 0.5275 ha. The assessment concluded that the development would not result in an increase in runoff volume entering the ultimate receptor, the River Usk.

Similarly, the interception strategy utilises the proposed vegetated SuDS features and rainwater harvesting, with the permeable paving systems being tanked rather than infiltrating.

As the Section 73 amendment comprises the relocation of below-ground attenuation storage within the POS and does not materially alter the contributing impermeable areas or the above-ground SuDS treatment components, the conclusions of these assessments remain applicable.

5. Water Quality, Amenity and Biodiversity

The approved SuDS treatment train remains in place and the Section 73 amendment does not adversely affect the water-quality treatment provided by the development.

The SAB assessment previously confirmed that the Simple Index Approach demonstrated that the proposed SuDS features provide sufficient treatment of pollutants. SAB also considered the proposed landscape and wildlife planting acceptable in respect of amenity and biodiversity.

The relocation of the cellular storage has specifically been undertaken to **remove the conflict between the buried attenuation structure and the proposed planting within the POS**. The revised arrangement therefore facilitates delivery of the proposed landscape planting whilst retaining the required below-ground attenuation provision.

The amendment consequently does not compromise the water-quality, amenity or biodiversity objectives of the approved SuDS strategy.

6. Foul Drainage

The Section 73 drainage amendment does not alter the established foul drainage strategy.

Foul drainage continues to be conveyed through the proposed foul drainage network to the existing adopted foul sewer, in accordance with the established Section 104 drainage proposals.

No material changes to the foul drainage strategy arise as a consequence of relocating the surface water cellular attenuation storage.

7. Conclusion

PHG Consulting Engineers Ltd has reviewed the drainage implications of the amendments proposed as part of the Section 73 application for the development at Land off Usk Way, Newport.

The principal drainage-related amendment comprises the **southward relocation of the below-ground cellular attenuation storage within the Public Open Space to avoid conflict with the proposed planting**.

The revised arrangement retains the cellular storage dimensions and approximately **71.25 m³ attenuation capacity**, together with its design base level. The established permeable paving attenuation and downstream Hydro-Brake flow-control arrangement are also retained.

There is no change to the approved **8.4 l/s restricted discharge rate**, surface water discharge destination, design return period, climate-change allowance or fundamental SuDS management train.

The revised arrangement therefore represents a **minor physical relocation of a component of the approved SuDS system and does not constitute a material change to the approved drainage strategy or its hydraulic design criteria**.

On this basis, the Section 73 amendments are not considered to adversely affect the drainage or flood-risk performance of the development, and the principles and conclusions of the drainage strategy previously accepted under **SAB Application 22/0006/SAB remain applicable.**

We trust that the above provides sufficient clarification in support of the Section 73 application. Should you require any further information or clarification, please do not hesitate to contact the undersigned.

For and on behalf of PHG Consulting Engineers Ltd

Michael Pope GMICE

Associate Director – Civil Engineering

Enc:

PHG Drawing 2177-100 Rev G – Engineering Layout