

## **Drainage Strategy for New SEND Unit at Radstock School**

### **1. Introduction**

This drainage strategy outlines the proposed approach for managing surface water runoff from the new SEND unit at Radstock School. Ground investigation surveys have determined that the ground is not suitable for an infiltration system.

The existing hard standing currently drains into a Thames Water surface water sewer.

### **2. Objectives**

- To manage surface water runoff effectively and ensure compliance with local and national drainage regulations.
- To incorporate sustainable drainage systems (SuDS) where feasible.

### **3. Proposed Drainage Solutions**

**3.1. Rain Gardens** A rain garden will be provided to the East boundary of the SEND unit external play area to capture and attenuate surface water runoff. This will be designed to hold and slowly release water, reducing the immediate impact on the drainage system.

**3.2. Permeable Paving** Permeable paving will be installed in the car park and external play areas. This paving will allow water to pass through the surface and be stored in a sub-base layer before being released at a controlled rate. The permeable paving will be lined with a tanked system to prevent water from infiltrating the unsuitable ground. This system will also help to reduce surface water runoff and improve water quality.

**3.3. Tanked Lining** The drainage areas will all be lined with a tanking membrane. This system will ensure that water is collected and directed to the appropriate drainage channels without infiltrating the ground.

**3.4. Flow Restriction** A flow restriction device will be installed to control the rate at which water is discharged into the surface water drainage system from the proposed development area. The discharge rate will be restricted to **2 litres per second** to prevent overloading the existing system during heavy rainfall events. This controlled discharge will help to mitigate the risk of flooding and ensure compliance with Thames Water's requirements.

This will be a significant improvement over the existing system which discharges directly into the surface water drainage without attenuation.

**5. Appointment of Drainage Engineer** A drainage engineer has been appointed to provide a detailed drainage strategy. This outline strategy is intended to support the planning application and will be further developed and refined by the appointed engineer.