Case Study

Lost Property Hotel, St Paul's, London

SDS compact water recovery and reuse system selected for central London heritage redevelopment

SDS Systems

SDS Grey Water Recycling System;
SDS Intellistorm®.

SDS Customer

Lost Property Hotel (Curio Collection by Hilton).

Client

Sharpe Group.

Project

Creed Court Redevelopment, Ludgate Hill, St Paul's.

Purpose

To provide visitors to London with a unique place to stay, designed to evoke the lost arts and activities of eccentric living and to provide guests with an unforgettable experience offering unrivalled proximity to some of the city's most iconic landmarks.

Brief to SDS

To design and install a bespoke water reuse system capable of harvesting and recycling rainwater and grey water within the highly constrained footprint of a historic site, while also contributing to stormwater resilience through pre-emptive release.

Timing

Works commenced in December 2020.

Project Background Information

Situated just a few steps from the iconic dome of St Paul's Cathedral, Creed Court is home to the Lost Property Hotel — a member of the Hilton Curio Collection. The hotel opened following the sensitive redevelopment of a listed building on Ludgate Hill, carefully blending modern amenities with the architectural heritage of one of London's most historic streetscapes.

Occupying a prominent corner site in the City of London, the 145-room boutique hotel forms part of a wider regeneration scheme aimed at enhancing the area's appeal to visitors and businesses alike. In line

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with the London Plan and city sustainability policies, the development was required to implement water efficiency measures and reduce the burden of runoff on the local drainage infrastructure.

With the building surrounded by narrow, one-way streets and hemmed in by neighbouring heritage assets, the project presented significant logistical and spatial challenges. These constraints demanded a water management system that could meet performance expectations without compromising internal floor space or the architectural integrity of the refurbished site.

Project Objectives

To reduce potable water consumption and manage surface water runoff within a heritage property retrofit, ensuring alignment with planning requirements and demonstrating a commitment to modern, sustainable building design in one of London's most prestigious locations.

Project Requirements

Creed Court's central London location placed extreme limitations on available space for infrastructure. The system had to deliver meaningful reductions in water demand and provide stormwater attenuation — all within a building envelope where internal plant space was at a premium and external access was heavily restricted.

The hotel's commitment to responsible development, combined with city policy mandates, required a solution that was not only compact but intelligent — autonomously optimising water storage tank levels in response to actual and forecasted rainfall to prevent unnecessary overflow during storm events.

SDS Product Features

SDS delivered a dual-function system comprising a 36m³ GRP storage tank with integrated Intellistorm® controls, and a high-efficiency grey water recycling unit capable of treating up to 1m³ of water per hour. Grey water from showers and wash basins is filtered, treated and reused for non-potable applications including toilet flushing — a significant source of daily demand in a busy hotel environment.

Intellistorm® provides active stormwater management by monitoring weather forecasts and triggering pre-emptive releases from the tank ahead of heavy rainfall. This helps to maximise reuse potential while maintaining critical attenuation capacity, preventing peak discharges to the local sewer network at times of stress.

The compact footprint of both the tank and grey water unit was a key factor in overcoming space limitations within the development.

Issues Overcome

The building's location directly opposite St Paul's Cathedral on Ludgate Hill introduced a range of operational constraints. With no loading bay and only single-lane access, all plant deliveries had to be carefully timed and coordinated. Equipment needed to be broken down and craned into position with minimal disruption to pedestrian and vehicle traffic in one of London's busiest and most sensitive heritage zones.

In addition to the physical constraints, the team had to account for changing water demand patterns across hotel operations, ensuring the system would deliver consistent savings while being resilient to variations in occupancy and use.

While some aspects of the system are currently pending a final upgrade — including the installation of a new UF membrane to optimise grey water treatment — the core infrastructure is in place and designed to meet full water reuse functionality once operational.

Results

The combined grey water recycling and smart rainwater management system supplied by SDS provides a tailored solution for high-density urban developments with strict planning and space constraints. By enabling non-potable water reuse and intelligent stormwater control, the Lost Property Hotel is actively reducing its environmental footprint and aligning with the long-term goals of the London Plan.

The project highlights the role of smart infrastructure in unlocking sustainability within historic and architecturally sensitive sites. SDS's integrated approach ensured that environmental performance could be delivered without compromising on design, heritage or operational efficiency — even in one of the most tightly constrained construction environments in central London.

Sam Burgess, Water Reuse Manager, SDS, said: *"Delivering water reuse and stormwater management in a heritage-constrained central London site was a real challenge. Our compact grey water recycling system, paired with a 36m³ Intellistorm®-controlled tank, maximises non-potable water reuse while intelligently managing stormwater. The Lost Property Hotel now achieves significant water savings and resilience, all without compromising the building's design or operations."*