

Project Overview



Programme Duration:

30 Weeks

Scope:

- Licensed and non-licensed asbestos removal
- Demolition of 1970s canteen block
- Demolition of 1970s computer building
- Full internal soft strip back to shell
- Works within and adjacent to Surrey County Hall (Grade II listed)

Case Study: Kingston upon Thames - Surrey County Hall

Shorts Group was appointed to deliver a **complex demolition and asbestos removal project** at Surrey County Hall, Kingston upon Thames. The works involved demolition of two 1970s-era ancillary buildings alongside a **full internal soft strip of the main County Hall building**, which is **Grade II listed**.

The project was technically challenging due to the **structural connection of the computer building to the listed building at both ends**, combined with unknown structural conditions uncovered following possession of the site.



Key Challenges

1. Demolition Adjacent to a Grade II Listed Building

The computer building was physically tied into the listed County Hall structure at either end, requiring careful separation and protection to prevent damage during demolition works.

2. Unforeseen Structural Conditions

Following soft strip and intrusive pre-demolition inspections, several critical issues were identified:

- Concrete cladding panels could not be crane-lifted due to **grouted-in lifting eyes**
- The building was found to have **no first-floor columns**
- Structural investigations confirmed the building was an **underslung structure**, with slabs suspended from the roof

Proceeding with the original high-reach demolition methodology would have presented a serious risk of **structural instability and uncontrolled collapse**.



Our Solution & Methodology

Engineering-Led Review

Upon identification of these issues, Shorts Group paused the original methodology and engaged structural engineers to undertake a **global stability assessment** and review the impact of demolition at each stage.

Revised Demolition Strategy

The demolition methodology was fundamentally revised and included:

- Introduction of **temporary works** to provide stability during demolition
- Adoption of a **top-down demolition sequence** to first-floor level
- Controlled removal of suspended slabs hung from the roof structure
- Use of **remote-controlled demolition plant** to safely reduce loadings

Once the building had been stabilised and loadings reduced, the remaining structure was **safely demolished using high-reach plant**.

Protection Measures

To protect the Grade II listed County Hall:

- Structural separations were formed at both ends of the computer building
- **Scaffold protection with fully boarded elevations** was installed to act as a physical barrier
- Demolition sequencing and plant selection were carefully managed to minimise vibration and risk



Outcomes & Learning

- ✓ Critical structural risks identified through thorough pre-demolition inspections
- ✓ Methodology safely revised to reflect actual site conditions
- ✓ No damage to the Grade II listed building
- ✓ Elimination of uncontrolled collapse risk
- ✓ Project delivered **within the 30-week programme** and **within the budget**

Learning Outcome:

This project highlights the importance of **robust pre-demolition inspections, engineering-led methodology reviews, and the flexibility to adapt demolition strategies when unforeseen structural conditions are identified.**

