



LeeMcCullough
Consulting Engineers

Project 3092: Office - Restoration

14/15 St. Stephen's Green

Client: Dublin City Council

Architects: David Slattery

Value: €3.5m (2002)

LeeMcCullough team:

Lorcan O'Flannery

Frank Lee

Project scope:

- *Restoration of historic structure*
- *Redesign for new office use*

Historical Renovation

At LeeMcCullough we have exceptional experience of revitalising existing buildings, which is often more complex than the structural engineering of new buildings.

Over many projects we have addressed and resolved a wide range of issues, including:

- Strengthening historical joists and beams to carry increased loading
- Masonry Decay/Delamination
- Threading modern services into old structures

At LeeMcCullough we always seek to identify and resolve issues early, innovatively address demanding building difficulties and deliver our solutions on time and cost efficiently.

When it comes to renovation and refurbishment, anticipating and resolving engineering issues effectively is the key to a successful outcome.

Restoration of flagship office development on St. Stephen's Green

Project in brief

These two neighbouring Georgian buildings occupy a prominent position on St. Stephen's Green, and are designated Protected Structures.

Formerly occupied by the Office of Public Works, they are owned by Dublin City Council and were renovated as a flagship office development. The project was featured in National Heritage Week (2002) with a guided tour of work in progress, which proved to be very popular with the general public.

The building is a four storey structure over basement comprising external and internal load-bearing masonry walls, slated timber double-pitched roof, timber floors and stairs. The property also included two large derelict Mews buildings, which were stabilised by structural remedial work.

The refurbishment contract included the repair of defective masonry, the repair or replacement of degraded structural timber, and the replacement of prominent façade ties with concealed structural ties.

Key features

Bowed front wall

The front wall, which was precariously bowed-out towards the Green, was surveyed to produce a three-dimensional contour survey in order to assess its stability. The wall was then stabilised by stitching back to each floor with customised chemical anchors. This also enabled us to remove the existing tie bars and plates and improve its appearance.

Air raid shelter

The basement under #14 had been developed as an Air Raid Shelter during the Emergency, and the wartime structural modifications were carefully reversed to restore the original character of the building.

Strengthening

The strength of the historical timber floors was assessed for the intended usage, and locally strengthened to accommodate new chandeliers.

Restoration

Cracked masonry was carefully stitched together to restore structural integrity, and un-bonded cross walls were bonded to the façade using concealed fixings.