



LeeMcCullough
Consulting Engineers

Project 3559: Mixed Use - New Build

14-16 South Gloucester Street

Client: Maple Holdings + NABCO

Architects: Brian Hogan

Value: €15m (2008)

LeeMcCullough team:

Lorcan O'Flannery

Project scope:

- *Basement car park*
- *Apartments and office space*
- *Poor ground conditions*
- *Environmentally friendly structure*

Engineering New Buildings

For more than 30 years, we at LeeMcCullough have been providing structural and civil engineering services for new buildings in the commercial, education, leisure, retail, and residential sectors.

Key aspects of our services are:

- An open, collaborative philosophy providing engineering design solutions that are appropriate for the specific project, will support architectural creativity and are cost-effective in delivery
- A close working relationship with all parties involved; effective team participation; and knowledgeable and experienced integration with other service providers
- A professional commitment to our client's projects; delivering a flexible and quality service, cost efficient and on time.

At LeeMcCullough we provide senior, experienced personnel supported by the required resources, to lead our involvement in your project, demonstration of our commitment to provide excellent client service and quality/innovative, design solutions.

Luxury Apartments and Social Housing in Central Dublin

Project in brief

This large development comprised a basement car park supporting a six storey private apartment block with ground floor office space and a four storey block of NABCO social housing. The dwellings were efficiently fabricated using the precast concrete twin-wall system and utilised kitchen and bathroom pods for additional speed of construction.

The project included an extensive basement car park over the entire footprint of the site, complete with a large stormwater attenuation tank concealed beneath the access ramp; and a podium slab supporting a paved central plaza nestled between two blocks of primarily residential accommodation. The contract included the demolition of several industrial units, and required careful consideration with regard to the foundations of adjacent structures.

Key features

The reinforced concrete substructure (basement box and podium slab) was constructed using 70% GGBS concrete which both enhanced its strength and waterproofing properties, and also provided significant CO₂ savings for superior environmental efficiency.

The site had been contaminated by previous industrial activities, so an extensive environmental assessment was commissioned.

The site investigation revealed an uncharted watercourse and the ground was particularly poor. The foundations were carefully piled to provide adequate support and safeguard against differential settlement. The basement box was carefully tanked to provide a suitably dry environment.