

# Supporting Sustainable Urban Development

## CHALLENGE

College Square presented significant acoustic challenges including elevated environmental noise from road and rail traffic, noise from building services, and the need to achieve excellent internal acoustic comfort for both office tenants and residential occupants.

## SOLUTION

Despite its challenging location in a busy city-centre environment, AWN's acoustic design expertise has ensured that the development meets the highest standards of acoustic comfort and environmental performance.

## RESULT

College Square stands as a flagship example of sustainable, high-performance urban development. The LEED Platinum certification is a testament to the project's quality and sustainability credentials. AWN is proud to have contributed to this iconic project, which is set to become a central feature of Dublin's built environment.

## INTRODUCTION

AWN Consulting, a Trinity Consultants team, has provided expert acoustic design services for College Square, a landmark mixed-use development located in the heart of Dublin city centre. Set to become a defining feature of Dublin's skyline, the project has been designed to an exceptionally high standard and has achieved LEED Platinum & BREEAM certification, reflecting its commitment to sustainability and occupant wellbeing.

Located on a high-profile corner site at Tara Street, Poolbeg Street, and Townsend Street, College Square comprises 540,000 sq ft of modern Grade A office space, delivered across 10 floors over a double basement. The development also features 54 high-end apartments and 17,000 sq ft of retail space, contributing to a vibrant and active streetscape.

This contemporary development is designed to meet the highest environmental and performance standards, with a focus on creating premium commercial and residential environments in a prime city-centre location.

AWN's acoustic strategy focused on:

- **Baseline Noise Surveys:** Conducting detailed noise and vibration monitoring to establish an accurate understanding of existing environmental noise impacts.
- **Façade and Glazing Design:** Developing specifications for robust façade and glazing systems to ensure internal noise levels met or exceeded residential and office standards, even on the most exposed façades.
- **Mechanical Plant and Services:** Designing effective noise control measures for mechanical and electrical plant, ensuring compliance with strict planning conditions and minimising disruption to occupants and neighbouring properties.
- **Internal Sound Insulation:** Providing detailed acoustic input to optimise sound insulation between office spaces, apartments, and retail units, supporting privacy and comfort.

AWN's comprehensive acoustic consultancy services included:

- Noise and vibration impact assessments
- Acoustic design of façades, glazing, and ventilation systems
- Noise control strategies for mechanical and building services
- Internal sound insulation design for commercial, residential, and retail uses
- Acoustic testing on completion to ensure compliance with Building Regulations and project design goals
- Mitigation strategies to reduce emissions and ensure compliance with local air quality standards.
- **Noise & Vibration:** We performed comprehensive noise and vibration studies to assess the impact of construction activities and operational noise on neighbouring properties and residents. Our recommendations included noise reduction measures and vibration control strategies to minimise disturbance.

## ABOUT TRINITY CONSULTANTS

Trinity Consultants, a leading global environmental consulting firm, provides services and solutions in the EHS Regulatory Compliance, Built Environment, Life Sciences, and Water & Ecology markets. Founded in 1974, Trinity has the technical expertise, industry depth, and capabilities to help clients achieve their goals across the natural and built environments.