

Preserving History While Delivering World-Class Theatre Acoustics



VISION

The challenge was to deliver exceptional acoustic performance within a protected 17th-century theatre, preserving its heritage while overcoming structural limitations and ensuring clarity, flexibility, and acoustic quality for modern productions and performance types.

PARTNERSHIP

AWN combined heritage-sensitive design with advanced acoustic modelling to deliver tailored treatments that improved clarity and balance without compromising the protected structure. The solution integrated seamlessly with the theatre's historic fabric while meeting modern performance demands.

VALUE-ADD

The revitalised Smock Alley Theatre reopened in 2012 with modern, high-quality acoustics integrated seamlessly into its historic fabric. AWN's work enabled exceptional clarity and performance versatility while preserving the character of Dublin's oldest theatre.

ARCHITECT
O'Keefe Architects

CONSTRUCTION
Duggan Brothers

CONSERVATION ENGINEER
Fearon O'Neill Rooney

CONSULTING ENGINEERS
MacArdle McSweeney Associates

INTRODUCTION

Smock Alley Theatre, first opened in 1662, holds a remarkable place in theatrical history as Dublin's oldest theatre and one of the earliest purpose-built playhouses in the Western Hemisphere. After centuries of varied use, the building underwent a sensitive restoration project aimed at reclaiming its identity as an intimate performing arts venue. The challenge was not only to preserve its architectural and historical character, but to equip its performance spaces with the acoustic quality demanded by contemporary audiences and artists.

AWN Consulting, a Trinity Consultants team, was engaged to provide acoustic consulting services for the restoration, working alongside a skilled team of architects, engineers, and conservation specialists. The project required a careful balance between heritage sensitivity and modern performance standards, requiring both deep technical knowledge and a collaborative approach to design.

VISION

The vision for Smock Alley Theatre was to revive one of Dublin's most storied cultural landmarks and return it to active use as a performing arts venue fit for 21st-century productions. The restored building needed to serve a diverse programme of theatre, music, and live events, each placing different demands on the acoustic environment. From the outset, the project team was committed to achieving an outcome that would honour the building's heritage while meeting the expectations of today's performers and audiences.

Our team brought a thorough understanding of performing arts acoustics to the project, ensuring that acoustic considerations were embedded in the design process from an early stage. Achieving the right acoustic environment in a historic structure requires more than technical analysis. It requires an appreciation of how a building's character, materials, and geometry contribute to the experience of sound.

PARTNERSHIP

The project brought together a strong team of specialists, including O'Keefe Architects, Duggan Brothers as the construction firm, Fearon O'Neill Rooney as conservation engineers, and MacArdle McSweeney Associates as consulting engineers. Our team worked closely with each discipline throughout the design and construction phases, ensuring that acoustic requirements were integrated seamlessly with architectural and heritage constraints.

Regular engagement with the project team enabled our team to provide timely guidance as design details evolved. Whether advising on material selections, reviewing construction details, or assessing the acoustic implications of heritage-driven design decisions, our team maintained a consistent presence throughout the project, supporting the broader team in delivering a result that met both conservation and performance objectives.

VALUE-ADD

The acoustic scope encompassed architectural acoustic design, analysis of internal sound behaviour, environmental noise control, and technical guidance throughout the design and construction process. Our team's analysis of the existing building conditions provided the foundation for acoustic design decisions, informing how materials, surfaces, and spatial geometry could be optimised to achieve the desired performance quality.

Environmental noise control was a particular consideration given the theatre's location in central Dublin. Our team assessed the potential for external noise intrusion and provided guidance on building envelope performance to ensure that audiences would be fully immersed in the performance, undisturbed by the urban environment outside.

Smock Alley Theatre opened in May 2012 to critical acclaim, offering a beautifully restored venue with acoustic qualities befitting its status as a leading cultural destination. Our team's contribution helped ensure that the restored theatre could fulfil its potential as a space where sound, history, and architecture come together, delivering an exceptional experience for performers and audiences alike.