

# Construction & Operational Waste Management and Design for a Post-Primary School



## CHALLENGE

AWN prepared an Operational Waste Management Plan and a Resource and Waste Management Plan for a school extension at Gonzaga College, supporting the planning application with a compliant, circular economy focused waste strategy.

## SOLUTION

The project required careful integration of waste management measures within a constrained, operational school campus while meeting evolving waste policy requirements and addressing both construction phase and long-term operational waste streams.

## RESULT

AWN delivered coordinated operational and construction waste plans, combining waste modelling, design-stage mitigation and clear management procedures to support planning compliance and practical implementation on a live school campus.

## INTRODUCTION

AWN Consulting Ltd, a Trinity Consultants team, was appointed to prepare an Operational Waste Management Plan and a Construction & Demolition Resource and Waste Management Plan for a proposed extension and refurbishment at Gonzaga College SJ, located on Sandford Road in Ranelagh, Dublin 6. The development comprised the refurbishment of an existing two-storey science block and the construction of a new three-storey extension with a rooftop observatory to deliver a new STEAM facility.

The reports formed part of the planning application and required AWN to assess both the operational waste impacts of the completed school building and the construction and demolition waste arising during the delivery phase. The plans were prepared in line with current Irish waste legislation, national waste policy and local authority requirements, including the National Waste Management Plan for a Circular Economy 2024–2030 and Dublin City Council Waste Bye-Laws.

AWN worked closely with the project team to ensure that waste prevention, segregation, reuse and recovery were embedded into the design process and that practical, site-specific solutions were identified for both construction activities and long-term school operation. Challenges linked to the nature and location of the development. The school was proposed on a constrained site within an established residential area, requiring careful consideration of waste storage, collection routes and vehicle movements to avoid conflict with pedestrians, cyclists and local traffic.

## CHALLENGE

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The primary challenge was delivering a robust waste management strategy for a live educational campus undergoing significant refurbishment and extension works. The development involved partial demolition, excavation, renovation of existing buildings and new construction, all within an active school environment with limited space for waste storage and movement.

From an operational perspective, the proposed STEAM building would increase waste arisings while needing to integrate seamlessly with existing waste storage areas, collection routes and school management practices. The waste strategy had to remain practical for staff and students, while complying with Dublin City Council Waste Bye-Laws and national circular economy objectives.

During construction, the project exceeded thresholds requiring a Tier 2 Resource and Waste Management Plan. This necessitated detailed assessment of demolition waste, excavated materials and construction waste streams, alongside clear roles, responsibilities and tracking procedures.

In addition, the waste plans needed to demonstrate how waste prevention, reuse and recycling had been considered during design, procurement and construction, rather than relying solely on end-of-pipe waste management solutions. AWN prepared a comprehensive Operational Waste Management Plan to address the long-term management of waste generated by the new STEAM facility. This included

## SOLUTION

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identifying typical waste streams, estimating waste arisings using AWN's waste generation model and confirming that the existing waste storage area could accommodate the additional waste generated by the extension.

Clear procedures were set out for waste segregation, storage and collection, including dry mixed recyclables, general waste, organic waste and confidential materials. Collection routes and frequencies were reviewed to ensure that waste collection could continue without disruption to school activities or pedestrian safety.

For the construction phase, AWN prepared a Tier 2 Resource and Waste Management Plan in line with EPA guidance. The plan embedded circular economy principles into the design approach, focusing on prevention, reuse, off-site construction, materials optimisation and future deconstruction.

The RWMP clearly defined roles and responsibilities, waste handling procedures, tracking requirements and targets for reuse, recycling and recovery, providing a clear framework for contractors to implement during demolition and construction.

## RESULT

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The completed Operational Waste Management Plan and Resource and Waste Management Plan provided a clear and proportionate waste strategy for the Gonzaga College extension, supporting the planning submission and demonstrating full compliance with legislative and policy requirements.

The operational waste strategy confirmed that sufficient storage capacity, segregation facilities and collection arrangements were in place to manage increased waste arisings from the new STEAM building without adverse impacts on the school or surrounding area. The approach supports high levels of recycling and recovery while remaining straightforward for staff and students to manage on a daily basis.

The construction phase RWMP established a clear framework for managing demolition and construction waste, promoting waste prevention and material reuse from the outset. By embedding circular economy principles into design and construction processes, the strategy reduces reliance on landfill and supports national waste reduction targets.

Overall, the project demonstrates AWN's ability to deliver integrated waste management solutions for complex educational developments within live operational environments.

### 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.