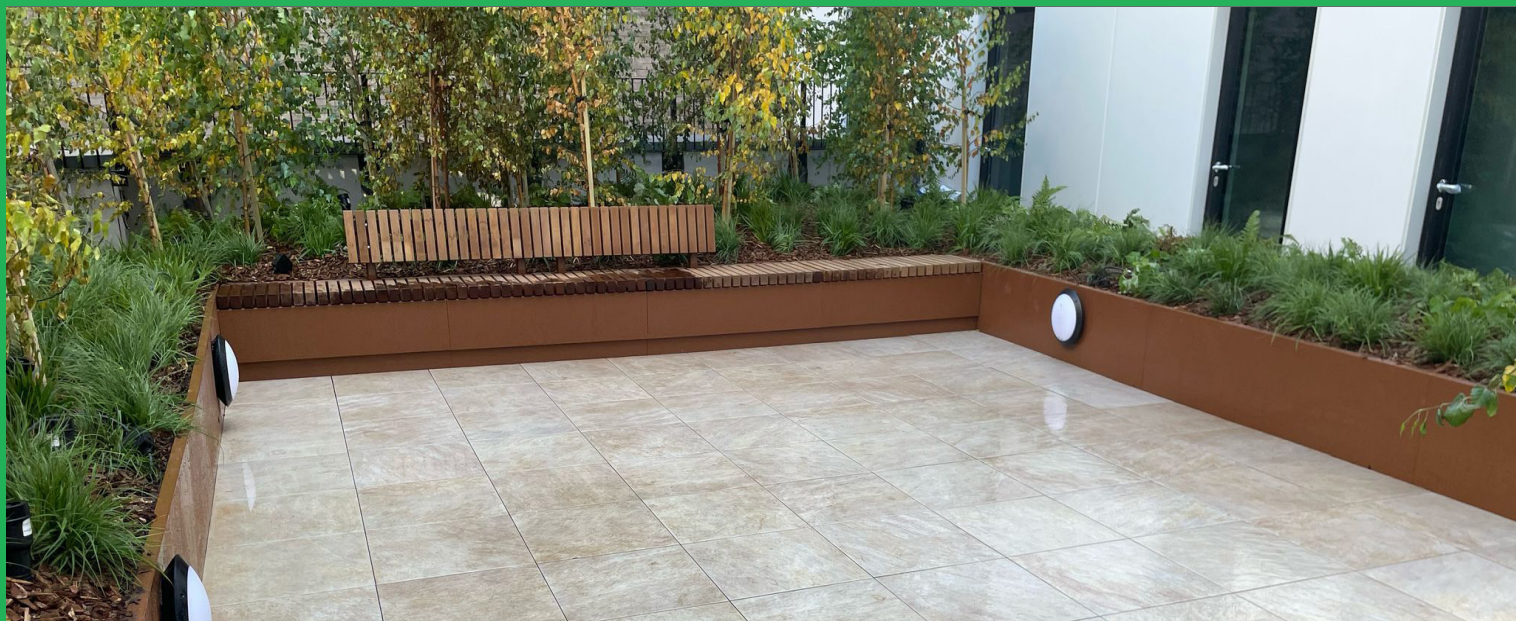




Innovative green roof transforms city centre student accommodation

# Briggate Studios



 **Contractor:** HG Construction

 **Briggate Studios, Leeds, LS1 6AA**

 **Sector:** Education

## Project Overview

Located on Briggate Street in the heart of Leeds city centre, this new student accommodation development forms part of a growing trend toward high-density, eco-conscious living in urban centres. With limited available land and increasing sustainability requirements, the client sought to incorporate green infrastructure into the building design – including a green roof system that would offer ecological, thermal, and visual benefits.

The urban location presented both opportunity and constraint: space was limited, but rooftop areas offered untapped potential to add value, mitigate heat island effects, and manage stormwater runoff in line with local planning and BREEAM targets.

## The Challenge

**Structural limitations:** The project site presented typical urban constraints, including limited roof load capacity, requiring a lightweight system that wouldn't compromise the building's structural integrity.

**Urban construction constraints:** A tight construction schedule with restricted delivery access posed significant logistical challenges for material delivery and installation in the dense city centre environment.

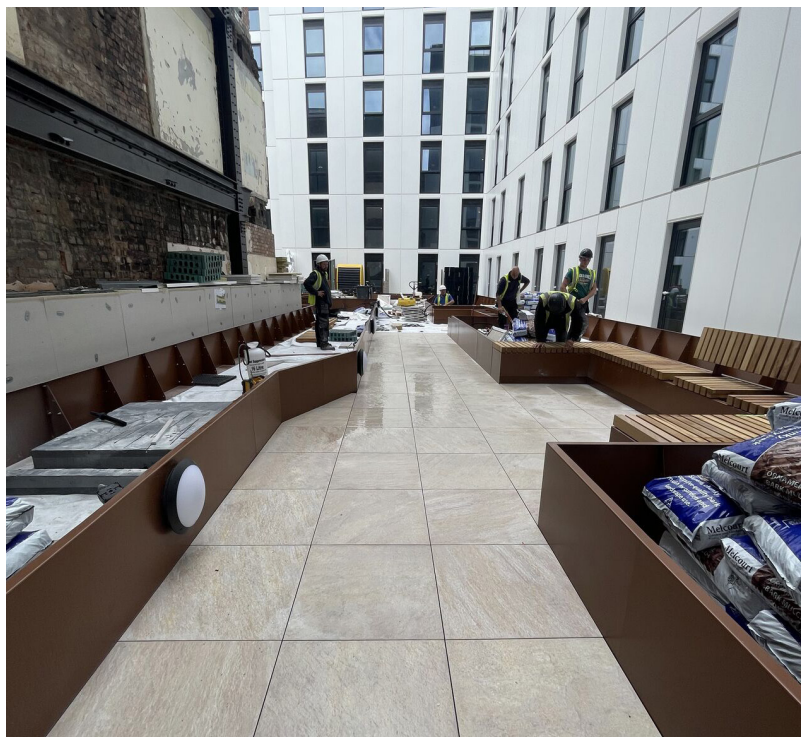
**Stormwater management demands:** Rainwater attenuation needs due to dense city-centre development and limited ground-level drainage capacity required an effective solution to manage surface water runoff.

**Sustainability compliance:** The requirement to provide green amenity space and improve the building's environmental credentials meant meeting strict BREEAM targets and local planning policies for sustainable development.

## Innovative Solutions:

To meet the challenges, we supplied and supported the installation of our Roofcell modular green roof system, specifically designed for urban developments where weight, performance, and ease of installation are critical.

- ◆ **Lightweight construction:** Our Roofcell system is engineered to provide excellent drainage and root support whilst adding minimal structural load to new-build structures. This addresses the critical weight constraints whilst delivering superior performance.
- ◆ **Integrated water management:** Built-in water retention and drainage channels allow for controlled water release, supporting SuDS compliance and reducing pressure on local drainage systems. This dual-function approach manages both immediate drainage needs and long-term stormwater attenuation.
- ◆ **Modular installation efficiency:** The modular panels are ideal for restricted access rooftops, reducing installation time and labour costs whilst enabling Sky Garden to work efficiently in the challenging city centre location.
- ◆ **Biodiversity support:** The system supports extensive and biodiverse planting, suitable for sedum, wildflowers, or low-maintenance green roof build-ups that enhance urban ecology.
- ◆ **Durable performance:** UV-stable and durable materials provide long service life, resistant to root penetration and weathering, ensuring minimal maintenance requirements.



## Key Benefits Delivered:

**1 SuDS-friendly stormwater management:** Our solution provides effective rainwater attenuation whilst supporting compliance with local planning policies for sustainable development.

**2 Efficient urban installation:** Quick installation with no heavy machinery required enabled HG Construction to maintain tight construction schedules despite restricted city centre access.

**3 Enhanced building performance:** The lightweight design improves thermal performance of the building whilst supporting biodiversity and meeting urban greening targets.

**4 Environmental benefits:** The system reduces urban heat island effects whilst providing low-maintenance, long-term durability that supports the building's environmental credentials.

## Measurable Impact

### Key project metrics:

- **Minimal structural load** – lightweight design maintaining building integrity
- **20 tonnes** – optimised material efficiency
- **Same volume** – efficient space utilisation

**Supporting sustainable student living:** By enabling green roof installation in constrained city centre locations, this project demonstrates how innovative geosynthetic solutions create valuable green space whilst meeting strict sustainability targets and enhancing the student living experience.

