

Station Hill Reading

LOCATION
Reading

CLIENT
N/A

SECTOR
Residential

PROJECT TYPE
New Build



Accredited Installer
McMullen Facades Ltd

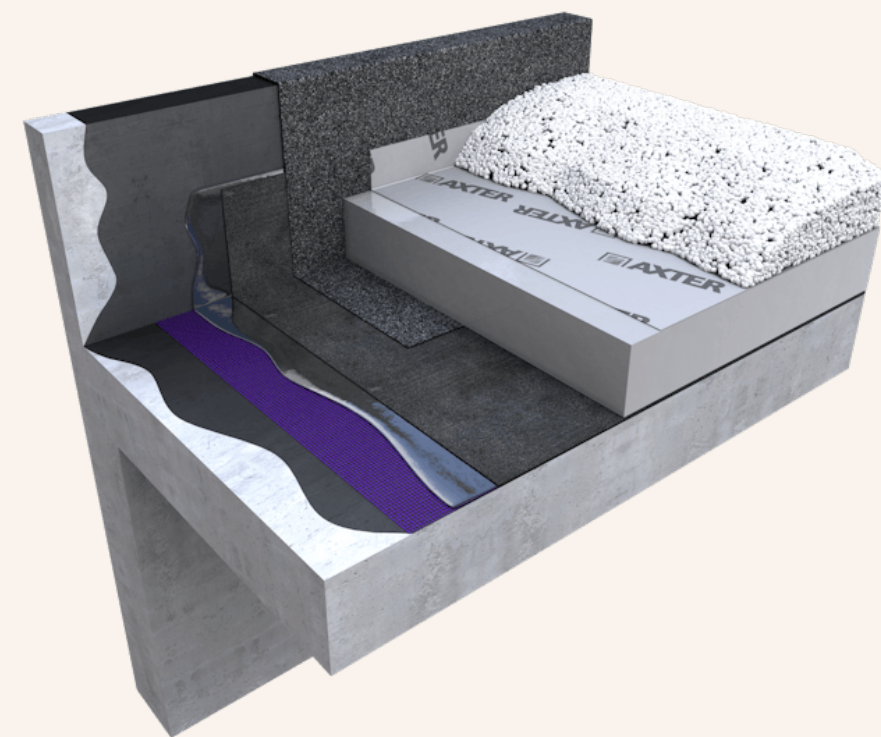
Project Overview

Axter was appointed by the principal contractor, Midgard, to work with its in-house team to develop detailed designs for the Station Hill project, which included confirming the thickness of insulation, appropriate roof waterproofing, and complex detail for upstands and junctions, including penetrations and movement joints.

Axter provided turnkey solutions for several roof areas, including green roof finishes, paved finishes and blue roof SuDS attenuation systems. The Axter team also helped Midgard achieve compliance with local planning requirements by providing technical calculations and advice on SuDS

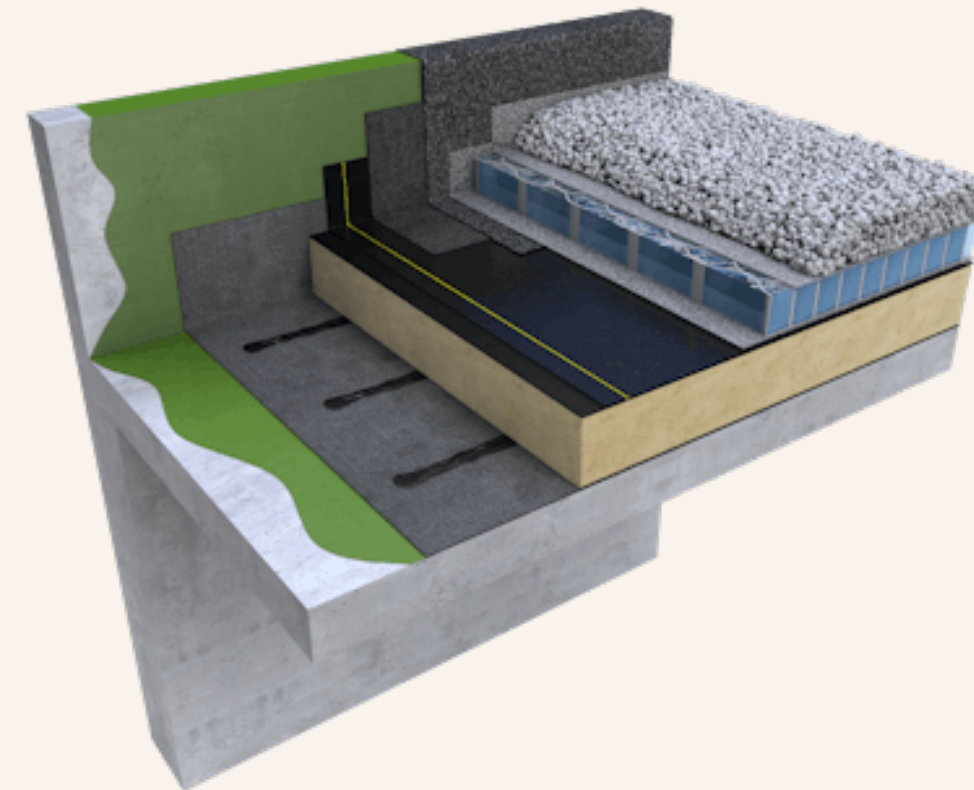


Systems in use



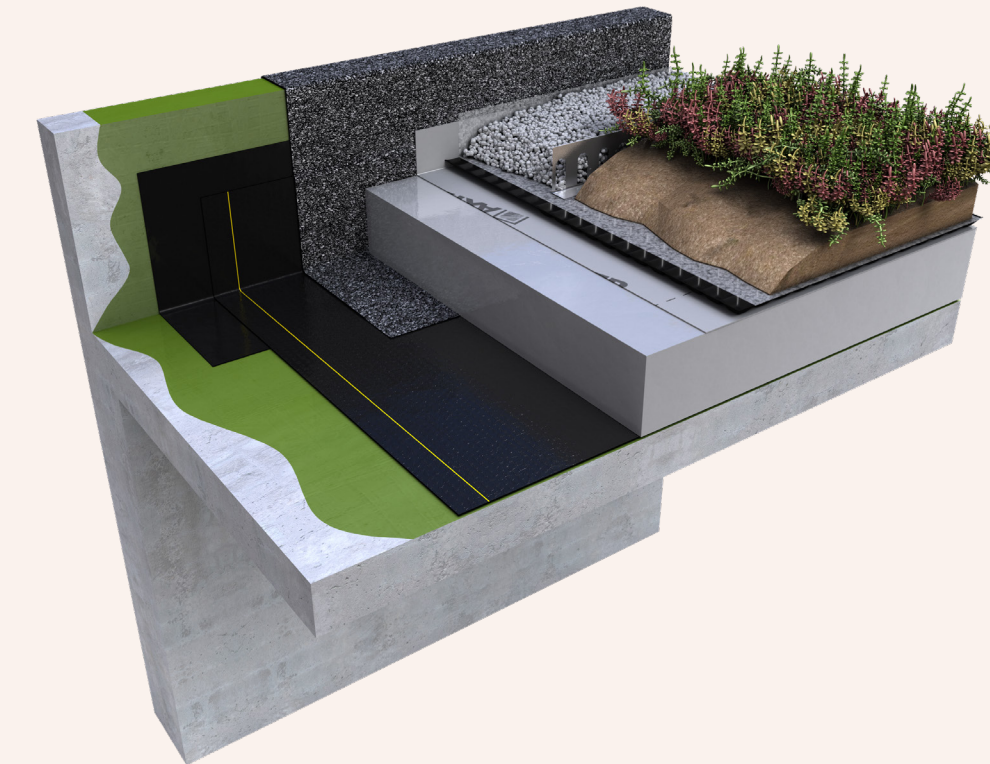
Wilotekt®-Plus

The original and industry renowned second generation hot melt system. Unique structural waterproofing designed and manufactured for use on all inverted roofs, podium decks, living roofs, blue roofs and car park decks.



Aquamodul®

The Aquamodul blue roof sustainable drainage system is designed to attenuate, control and manage rainwater at source, providing attenuation capacity within the flat roof or podium deck construction of a development that can be combined with living roof, Solar PV and multi-functional mixed amenity finishes.



Extensive Living Roof

Extensive Living Roofs are often created to benefit the wider environment through their positive visual impact and to enhance building performance by reducing rainfall run-off and improving thermal efficiency. Extensive green roofs are normally intended to be viewed from another location as visual or ecological features, and are usually not trafficked.

Blue roofs – SuDS (Sustainable Drainage Systems) attenuation systems designed to manage the discharge of rainwater from roofs at a controlled rate – are having a transformative effect on our urban environments, mitigating the risks of flash flooding and contributing to effective stormwater management strategies.

Axter was appointed to provide detailed design, turnkey solutions, and construction-stage support for a blue roof system – as well as providing green roof finishes and waterproofing – at the high-specification, contemporary Ebb & Flow apartment buildings. These apartments are part of a thriving new community in Reading – Station Hill – which comprises retail, leisure, office, and amenity spaces, along with thousands of new homes.

Challenges and Solutions

“There were complex elements in the design of the Station Hill project. We brought Andrew Keer in as a blue roof product specialist, and he worked very closely with Midgard’s design team and its consultants, including architects, structural and civil engineers, and landscape architects,” says Michael Anaxagorou, Sales Director at Axter.

“This collaboration was crucial for addressing the complex design and load requirements of the blue roof system. Andrew and the Axter team provided technical calculations and advice that helped achieve the site-wide SuDS strategy required by the local planning requirements.”

“The blue roof SuDS attenuation had to deliver the significant discharge reduction required at planning stage, and this needed to be achieved within a maximum depth of 88mm, to meet strict design constraints on the three podium areas,”

comments Andrew Keer. Andrew joined the Station Hill project with Axter as their blue roof specialist supplier and has since joined the Axter team as Product Manager – Blue Roof Systems.

Andrew adds, “The Friars Walk North and South podiums also had to cater for emergency fire engine access – with one podium also needing to withstand the live loads anticipated from regular vehicle traffic. So, we uprated Axter’s Aquamodul blue roof system to a heavy-duty version to allow for this access in these areas.”

In total, Axter supplied 1814m² of its Aquamodul blue roof attenuation system, providing a peak attenuation capacity of 128m³ to help cope with a ‘1-in-100 year +40% climatic change’, design storm event. The blue roof system can control the rainwater outflow from these three podium areas to a peak discharge rate of only 2.4 l/s.

In terms of waterproofing, the project dictated that the waterproofing elements required quick application, cost effectiveness and robustness in-situ.

“Wilotekt®-Plus was chosen because of its inherent fast application, cost effectiveness and robustness in-situ when compared to other structural waterproofing and or first-generation hot melt systems,” says Michael. “With almost all roof areas were completed in Wilotekt®-Plus, either with or without XPS insulation to achieve 0.15Wm²k with gravel ballast, or paving finishes achieving a 35 Year Platinum Guarantee.”

Some of the higher-level roof areas received a Hydrosoil Sedum Green Roof finish.

Project completion

During the construction phase, Axter provided ongoing support through regular site visits and quality assurance inspections. “This ensured that all aspects of the roof installation adhered to the specified standards and performance criteria,” Michael comments.

“Axter added value at the front end through early design support and detailed technical specifications. By providing construction stage support and continuous on-site quality assurance, our team contributed to an overall satisfactory product completion.”

The roofing and waterproofing works have been delivered successfully, and the overall project is nearing completion. Axter’s expertise and comprehensive range of solutions was pivotal in achieving a functional and durable roofing system.

Blue roof systems

Blue roof systems are increasingly being used to deliver SuDS and manage local flood risk, particularly in dense urban environments.

“As climate change heightens the risk of flooding in our communities, effective rainwater management in urban areas is becoming increasingly vital,” says Andrew. Read more about Andrew and his expertise with these blue roof systems, here.

The Aquamodul® blue roof system is an innovative, sustainable drainage method specifically designed to attenuate and manage stormwater on flat roofs.

Aquamodul® blue roofs can be used beneath a multitude of different surface finishes including living roofs, solar PV, plant & trafficked areas, and multi-functional mixed amenity finishes, or combinations of them all.





For more information, get
in touch with **our experts:**

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