

Restoration of Burton's Building – Whitefriargate, Hull

Project Overview



The former Burton's Menswear HQ, a **Grade II-listed** Art Deco building from the **1930s**, is a significant architectural landmark on Whitefriargate in Hull. Originally, its facade was clad in 1½-inch **Norwegian Emerald Larvikite**, sourced from a quarry now operated by **Lundhs** known as Quarry No. 30 in Klåstad.

Over time, the stone adhesion deteriorated, requiring replacement. However, modern building regulations and structural limitations posed significant challenges in restoring the building to its original appearance.

The Challenges

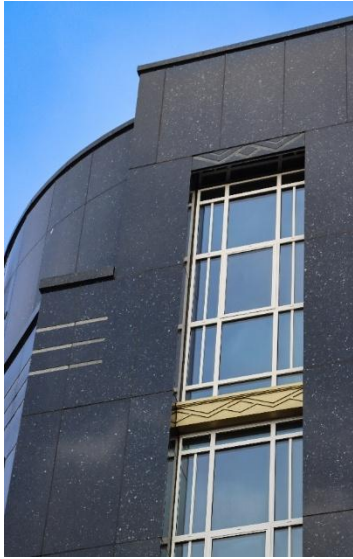
1. Weight & Structural Limitations

- The original stone was heavily mortared with partial mechanical fixing.
- Large panels (up to **1.8m x 1.1m**) could not be reinstalled the same way.
- Traditional cladding required **80+mm thick panels**, weighing **200 kg per sqm**—far too heavy for the building's structure & panel sizes.

2. Historic Preservation Requirements

- English Heritage mandated that any replacement must closely match the original panel layout and where possible relief.
 - Stone must match as closely as possible to the original.
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The Solution: Lightweight Rainscreen System



A modern solution was needed—one that maintained the **integrity of solid stone** while reducing weight & maintaining the aesthetics of the building. **Stone Cladding Systems' Aztec Rainscreen** was proposed as a potential alternative. With the ability to install the Hilti rails and brackets first whilst the stone, on a longer lead time, was being manufactured to the tight design tolerances required it was an opportunity to move the project forward at pace.

Key benefits of using the Aztec system on this project:

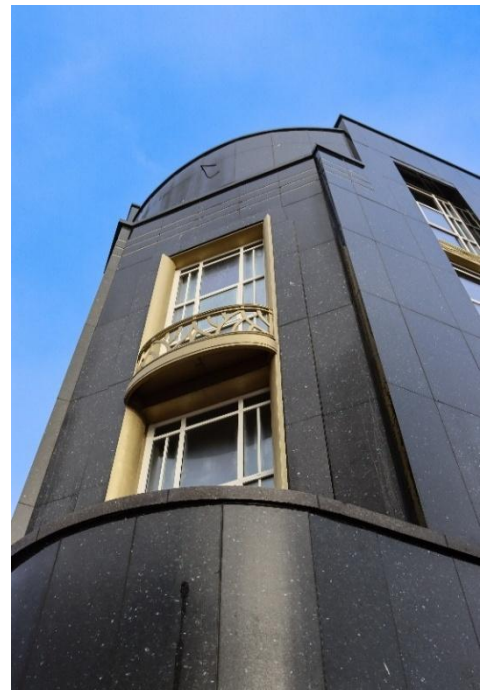
- ✓ Maintains **authentic stone appearance**
- ✓ Uses **30mm thick** panels instead of 80mm
- ✓ Weighs **85 kg per sqm**—a fraction of traditional stone cladding
- ✓ Faster and more efficient installation

To ensure viability however, the system required **rigorous testing** before approval.

Testing & Approval

- **Wind Load & Impact Testing:** Conducted at **Vinci Technology Centre, Leighton Buzzard** to assess the redesigned system's performance with the large panels.
- **Structural Integrity Check:** Hilti GB tested the building's existing structure for **pull-out resistance** to confirm it could support the new cladding.
- **Approval from English Heritage:** After successful tests, **id Architecture** collaborated with stakeholders to design a solution that met historic preservation standards.

This project marked the **first-ever approval of a rainscreen rail system for a Grade II commercial building**.



Implementation & Outcome

- **Project Duration:** 8 months
- **Key Contributors:**
 - **Developer:** Wykeland Group
 - **Main Contractors:** Hobson & Porter Ltd
 - **Architects:** id Architecture
 - **Installers:** Stone Edge Ltd
 - **Aztec System Supplier:** Stone Cladding Systems in partnership with Hilti GB

The final installation on what is now known as Burton House closely replicates the **original 1930s design**, preserving the building's heritage while ensuring long-term durability. Along with newly installed **coping and cills**, the building has been successfully **restored to its former glory**.

Conclusion

This restoration project demonstrates how **modern engineering and historic preservation** can work hand in hand. By utilising **innovative cladding solutions**, such as the Aztec Rainscreen system, Burton's Building has been transformed while maintaining its **architectural authenticity**.

An Architects point of view – James Lockwood Id Architecture

'At planning stage it was provisionally proposed to use a hand-set fixing system because the building's Art Deco façade utilised extensive relief detailing. However, following detail investigation of the panel sizes and the impact of this on their loading capacity it became apparent that a hand-set approach would necessitate the panels to be reduced in size which would have a significant impact on the appearance of the building and its proportions which was strongly opposed by Historic England.

Having originally discounted a rainscreen approach due to the impact of losing the relief details on the elevation, this was now the only fixing method available to allow the new panels to match the proportions and size of the original. Through engagement with Historic England it was agreed that it would be more harmful to the character of the building to change the panel sizes than to lose some of the relief detail and it was agreed to move forward with the Aztec system – the first time a rainscreen system has been approved for use for a listed building.

Having agreed this approach to the main façade, each junction was then carefully reviewed – window reveals, corner junctions etc to see if we could still incorporate the relief detailing in conjunction with the Aztec system – 'could we have our cake and eat it too'. The result was a hybridised approach to the installation works – the rainscreen was terminated at window reveals and corners and a hand-set system implemented for the remainder. This approach in conjunction with 'specials' – profiled granite elements – effectively recreated the original proportions and details of the historic façade and features.

The grandeur of this building has been restored and its imposing mirror finish black Larvikite façade is once again the prominent landmark of Hull's Civic Centre.'

Historic England's view

The former Burton's Department store is a landmark, Art Deco, Grade II listed building on Whitefriargate, in Hull's Old Town Conservation Area. Whitefriargate was the focus of one of Historic England's High Street Heritage Action Zones (HSHAZ), which ran from 2019 to 2024. Hull City Council approached Historic England to seek approval to offer a HSHAZ grant of £450,000, complemented by a Levelling Up Fund grant of £750,000 to restore the building's exterior. This was a somewhat controversial request, because Burtons is of a radically different character to the mainly neo-classical architecture of Whitefriargate. However the building's prominent position at the head of Whitefriargate and its striking architectural quality meant that the grant was agreed.

The 1930's granite cladding Emerald Larvikite cladding, which came from the same Norwegian quarry as the original cladding, had failed and was at risk of falling off the building. There were serious technical challenges which meant that the cladding could not be reinstalled on a like-for-like basis, and so Listed Building Consent had to be secured to allow for the granite to be carried on an innovative rainscreen cladding system. This was another controversial moment for the project, because there were serious technical difficulties in replicating the appearance and proportions of the original cladding, and thus historic integrity of the building, whilst complying with modern construction standards. Nevertheless due to dedication of Historic England's architects, inspectors and advisers, Hull's Planning & Conservation Officers, the project design team and stone cladding specialists a satisfactory solution was found.

Burtons today has been beautifully restored, not only with the Norwegian Emerald Pearl Granite cladding, but also with the restored golden feature window details and Art Deco style, double glazed windows. The building looks as striking as it did when it first opened in 1936 and demonstrates how a historic building can be successfully restored and repurposed for the 21st Century. It is a more than appropriate landmark to demonstrate the success of the Whitefriargate High Street Heritage Action Zone. Historic England is proud to have played a key role in the success of this project.

Quarrier Lundhs View

A flagship of Art Deco architecture and a Grade II-listed site, the Burton Building has undergone a full restoration of its original Larvikite façade. Large-format panels of Lundhs Emerald — a distinctive Norwegian stone formed over 300 million years ago — each measuring up to 1800 x 1100 mm were installed using the Aztec Rainscreen system to ensure precise alignment and long-term structural integrity. Renowned for its striking iridescence and exceptional durability, Lundhs Emerald is sustainably sourced and maintenance-free, offering a refined cladding solution that honours the building's historic character while ensuring resilience for the future.

And the thoughts of Stone Cladding Systems?

*As suppliers of many and varied buildings in our Aztec Stone Rainscreen we were very pleased to have been involved in and helped provide a solution to such an iconic building steeped in history. Challenges were met and overcome with the collaborative efforts of all the teams on the project. **The result?** A remarkable finish enabled by the use of the Aztec Rainscreen System, true to the original and a building that will serve the community in Hull for many decades to come.*