

/ CASE STUDY

Tillydrone Affordable Housing

Tillydrone is the first social housing scheme in Aberdeen to achieve gold standard under the Scottish Building Regulations. Working in collaboration with ARRC contractors BriggsAmasco, AccuRoof assisted architects Oberlanders to find a cost effective and attractive pitched roofing solution to meet these rigorous requirements.

The 11 blocks of 70 dwellings are the first to meet gold standard under the Scottish Building Regulations.



Project:
Tillydrone Affordable Housing Programme

Client:
Aberdeen City Council

Products Used:
IKO Armourplan PSG
Rockwool Roll/Rollbatt and Flexi-slab

Supplier:
Architects: Oberlanders
Main Contractor: CHAP Construction
Specialist Roofing Contractor: Briggs Amasco

Location:
Aberdeen

Completion:
October 2023

The Project

The Tillydrone scheme is a development of 11 apartment blocks that form part of the Aberdeen City Council Housing Programme 2022, seeking to address the city's long-term shortage of affordable social rented housing. The 70 dwellings are designed to strengthen community spirit, building in adaptability and ensuring a warm, healthy environment and low energy bills for the residents.

The Challenge – Sustainable, Safe Affordable Housing

Sustainability is a key focus of the scheme, which meets gold standard under the Scottish Building Regulations. This is achieved throughout the design, from orientation to maximise the benefits of solar gain, to high levels of insulation to reduce operational energy use, all within a tight budget. The architects specified a cold roof design with a $0.11 \text{ W/m}^2\text{K}$ U-Value – a considerable reduction from the elemental U-Value of $0.15 \text{ W/m}^2\text{K}$ required in 2022.

Fire performance was also a top priority. The entire roof deck was to consist of a cementitious non-combustible board and waterproofing would be installed without a naked flame.

The original design featured a profiled zinc roof, but as global metal prices soared, architects Oberlanders looked for a system to emulate the required aesthetic whilst upholding the highest levels of weather-tightness and fire performance. Contractors CHAP construction approached ARRC registered installers BriggsAmasco for a solution.

The bonded single ply roofing system emulates the aesthetic of zinc whilst meeting the project's performance and budget requirements.





Additional testing commissioned by AccuRoof enabled the membrane to be installed over a non-combustible cementitious board roof deck.

Pitched Roofing for Affordable Housing

AccuRoof recommended and specified an Armourplan PSG single ply bonded waterproofing system with Standing Seam Profile. Armourplan PSG is a glass tissue reinforced fleece-backed PVC membrane that meets the aesthetic needs of the project, is adhesive bonded to the roof deck and allows joints to be welded using a hot air gun.

The cementitious board deck does not meet the requirements of BS6229:2018 and is a non-standard substrate for the Armourplan product. The AccuRoof design team therefore carried out a peel test and wind uplift calculation which, alongside a structural engineer's advice, ensured that the adhered system would be suitable.

In Aberdeen's notoriously wet weather, installation on a 15-degree pitch was a challenge, but BriggsAmasco's team upheld the highest health and safety standards. The system was installed over a 14-month period by a team of directly employed, fully qualified operatives, all of whom received specific product training from AccuRoof. The high-quality installation was supervised by BriggsAmasco Contracts Manager Derek Stehen, supported by Paul Hart from our

dedicated team of field technicians. The project was completed in October 2023.

It was extremely important to all stakeholders that this high-profile development in Aberdeen was completed on time to an exceptionally high standard. CHAP's Senior Quantity Surveyor Kenny Falconer is full of praise for the BriggsAmasco team,

"Can I say - again - it's been an absolute pleasure working with both you and the site team. Briggs are the 'mentioned contractor' when we have to say - a lot, unfortunately: 'Why can't they be more like Briggs?' Please pass this on to your colleagues and the site team and take a bow.

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01509 505714 or visit
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