

It's been a good experience working with Sapphire.

Project Director, Walls Construction





Mistory

The Grand Canal connects Dublin with the River Shannon in the West, originally used as a means of both improving water supply to the city and providing industry across Ireland. The Dublin section of the Grand Canal has a storied history, now added to by Walls Construction's development of Grand Canal Harbour.

Built right beside the Guinness Storehouse, Grand Canal Harbour has been developed at the original terminus of the eponymous canal. Potentially the most ambitious addition so far to the redevelopment of Dublin 8, Grand Canal Harbour is a wonderful new addition, adding 596 apartments and over 300 balconies to the ever-expanding Dublin skyline.

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How Sapphire Made It Simple

Grand Canal Harbour was a great example of Sapphire's ability to streamline the carbon reduction process.

Sapphire's Nick Haughton spoke on the carbon panel at Resibuild's Guinness Storehouse event (Dublin, 2022) about Grand Canal Harbour as it was being installed just next door.

"There are simple gains [in reducing embodied carbon], practical steps, [such as choosing]



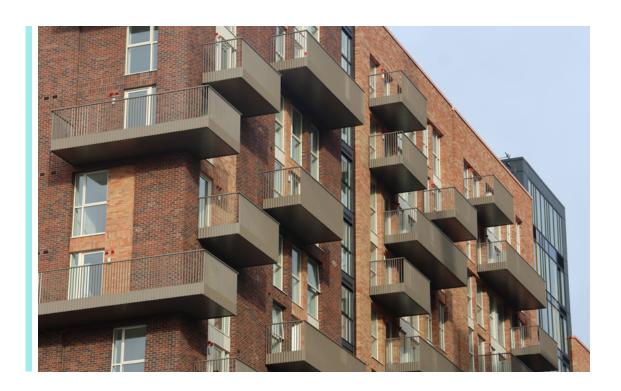
to use inset balconies. If a concrete one was used, it would have needed three sides thermally broken, even though it reduces the number of penetrations needed. That's the kind of thing we've got to look at - the embodied carbon and what's in the superstructure, to reduce the embodied carbon of a project overall."

Inset aluminium balconies, compared to a concrete alternative, require only a very small part of the product to be thermally broken, in turn reducing costs, labour and time on site. This ensured that Grand Canal Harbour's embodied carbon was lowered over the full project timeline, keeping the project as sustainable as possible.

In most inset balcony scenarios, balconies need isolating on three sides. However, Sapphire's inset Glide-On™ balconies used on Grand Canal Harbour only required thermal isolation at the point the connections penetrate the façade thanks to intelligent early design.

Due to the programme being dependant on many trades working on balconies getting sequencing right, the knock on effects one trade can have makes an installation programme very vulnerable to delays. With the inset Glide-On™ balconies used at Grand Canal Harbour, soffits were fitted during production in a fraction of the time it would have taken to fit them on-site.

Thanks to early engagement, critical analysis of the carbon reduction needed on the development and innovative use of aluminium balconies, Sapphire were able to streamline the carbon reduction process through the use of inset balconies, minimising the carbon impact of the development, all the while retaining the aesthetic continuity of the façade via brick slip fascia banding.



NBS Specification

Grand Canal Place, Dublin

| Manufacturer | Sapphire Balconies Ltd 11 Arkwright, Road Reading, RG2 0LU 0844 88 00 553 support@balconies.global www.balconies.global |
|--------------------|---|
| Reference | Glide-On™ aluminium Cassette® balconies with vertical bar balustrades; Glide-On™ aluminium Cassette® balconies with brick slip fascia banding over vertical bar balustrades |
| Balcony anchor | Cast-in M30 and M16 anchors, A2 fixings, incorporating thermal breaks |
| Arms | 2-piece, 152 UC or 203 UB galvanised steel stub and arm |
| Casette® structure | Standard 400mm modular Glide-On™ Cassette® balconies |
| Soffits | Polyester powder-coated aluminium-controlled draining soffits |
| Deck finish | Vista® aluminium decking 144 x 20mm with Qualicoat Class 2 polyester powder-coating, fixed with hidden clips |
| Toprail | 22 x 22mm (nominal) 'U' shaped satin anodised aluminium capping to the top of balustrading; Profiled, polyester powder-coated aluminium handrail. |
| Guarding | Toughened and laminated glass on first type. Brick slip fascia with flat vertical infill bars on second type |
| Base fixing | Mechanically fixed to Cassette® |
| Fascias | Polyester powder-coated aluminium fascia trim to conceal edge of balcony frame; Brick slip fascia banding with horizontal stack bond on some elevations |



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