

Case Study

London Victoria Station Porte Cochere

12 October 2017

We recently reglazed the porte cochere at Victoria Station using our aluminium-framed Multi-Link-Panel fitted with our Georgian wired polycarbonate glazing. This virtually unbreakable glazing mimics the traditional Georgian wired glass that would have been fitted to the three roofing areas when it was first built, but it has all the many benefits of polycarbonate, as well as Heritage approval for use at this prestigious and busy London station.

Director Vicky Evans worked with Graham Richards, a Network Rail Senior Asset Manager on the South East Route, on the specification for this project that involved reglazing over 1,000 square metres on the three adjacent lantern lights that make up the port cochere. Bespoke Multi-Link-Panels are manufactured in our quality controlled factory environment and have a fix and link installation feature that enables quick fixing when they arrive on site. They consist of powder coated aluminium frames fitted with 6mm polycarbonate glazing. Both of these product are light in weight, a feature that helps to maintain the fabric of older buildings. Multi-Link-Panels are classified as Non-Fragile to the recommended ACR:M[001]2014 drop test. The panels for Victoria station were manufactured at 600mm centres using our 50mm wide bars in order to further replicate the original fixing system.

The first station at Victoria was built in 1861. This was demolished in 1898 and replaced with the enlarged red-brick Renaissance-style building you see today. This was designed by Engineer Sir Charles Langbridge Morgan and the whole site at that time covered 16 acres with 2.25 miles of platforms. The porte cochere enabled deliveries to the station, usually by horse and cart, to be made under cover. Today it serves the same purpose, enabling taxis to drop off their passengers whilst protecting them from the weather.

Working with BAM Nuttall, the main contractors, this was the first rail project that we at Twinfix had installed ourselves after gaining our RISQS status. Tom Bray, our Project Office Manager, visited the site regularly throughout the project to ensure the smooth running of the refurbishment, which, as is to be expected on a building of this age, threw up some unexpected challenges that had to be solved on site. One of these was the necessity to carry out redemial works on some of the original timber supports in order to accommodate our Multi-Link-Panels. It was Tom's responsibility to ensure that all our deliveries were made between 10.00pm and 5.00am, using a narrow lorry due to the severely restricted site access. Luckily installation of the glazed panels could take place overhead throughout the day as the area was fully scaffolded and included a working platform.

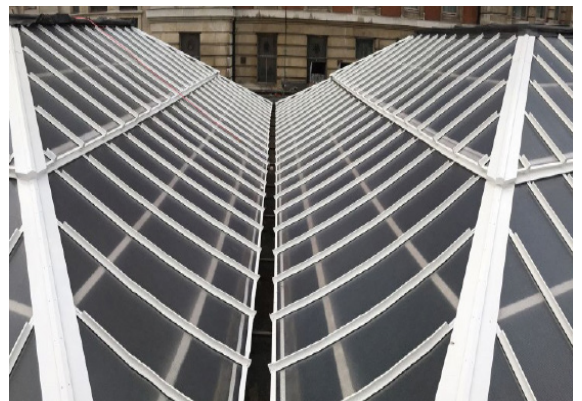
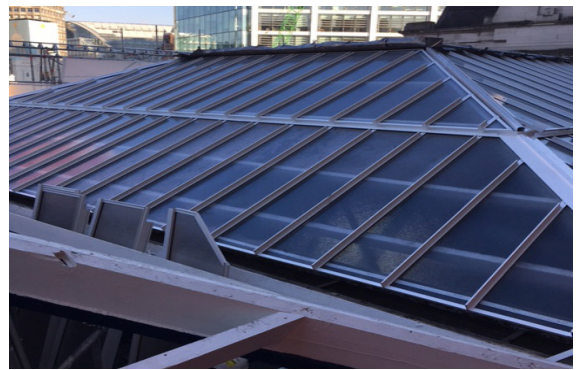


The three lantern lights are rectangular in shape and each of the four sides has two tiers of glazing. The flat top of each lantern light is solid, finished with a lead flashing. In order to accommodate the final stages of this lead flashing we left out one top panel on each light. Once the flashing had been completed we were able to install our latest design of break panel that is fitted from below the glazing. This also created an access panel, a great safety feature that will enable safe maintenance access in the future.

Part of the Network Rail specification for the glazing was that it had to be watertight, so we included flashing where the two tiers of glazed panels meet. Once three sides of each rectangle had been glazed we carried out water testing of the system. It passed the test.

The fourth side of each rectangle had to be completed in double-quick time as we could only do it once the scaffolding was removed – the scaffolding legs went straight through the area we had to glaze. It had taken the scaffolders six months to erect their scaffolding but only two weeks to dismantle it. It was a race for our team to keep up with them, but we did and we completed the job on time!

The final word on this project goes to Graham Richards: "Both myself and Terry Denyer (Sponsors/Clients) are extremely pleased with the completed works which have been delivered to a very high standard. During the development phases we were very conscious of the need for quality products and materials befitting this station, we also considered carefully about the design life of products and materials along with future maintenance. The Twinfix glazing system ticked all the boxes and is the reason why it was chosen for this scheme."



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