CASE STUDY – STRATFORD REGIONAL DLR STATION, LONDON

Landmark station in 2012 Olympic upgrade plans

Site: Stratford Regional DLR station

Location: London

Client: WWR (UK) Ltd

Architect: Alsop

Products used: 6mm clear toughened outer glass, 16mm air cavity and 10.8mm clear laminated sandblasted inner

Schüco FW50+ glazing system

Key features: Triangular-shaped glazing

Hundreds of bespoke aluminium components

On time and on budget

The new Stratford Regional Docklands Light Railway (DLR) Station transforms one of the oldest stations on the DLR network into a state-of-the-art gateway to Stratford. The station was relocated and reconstructed to increase capacity, train frequency and platform length, and overcome growing passenger congestion. It also forms part of the wider Olympic upgrade plans for the area.

CHALLENGE

Alsop was commissioned as architect for the new DLR station at Stratford, Hocktief (UK) Construction won the design and build contract and a range of specialist sub-contractors were also involved to meet specific architectural requirements. WWR (UK) Ltd was appointed to provide the roofing, cladding and skylights for the station platform roof. The skylight designs were however highly complex due to the complicated geometry of the curved steel canopy roof, which varied in height from 4m to 6m and included a 'Mexican Wave' along one edge.

SkyLight Solutions

Superlative skylights

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"The complexity of the roof canopy meant that we needed reliable, credible skylight experts. SkyLight Solutions were proactive and committed to providing the highest quality. Our teams worked excellently together to meet the specific architectural and building requirements."

Scott Norris, Design Manager, WWR (UK) Ltd

"SkyLight Solutions provided specialist skills and expertise on time and budget that helped us to create a state-of-the-art transport gateway to Stratford and a landmark for London."

Shaun Russell, Project Director, Alsop

SOLUTION

WWR (UK) Ltd turned to SkyLight Solutions to design, manufacture and install nine bespoke 10 degree mono pitch triangular roof skylights to allow daylight penetration and views out on the platform. They worked closely together on interfacing with the roofing and cladding and test built the framework prior to site delivery and installation.

The skylights required hundreds of bespoke aluminium components, including specialist structural steel brackets that connected the skylights to the underlying steel structure. The brackets raised the skylights above the main roof and created the correct glazing pitch.

The aluminium skylight framework was left with a mill finish on the interior, and the external cappings and aluminium flashings were finished with a Synthatec metallic powder coating. SkyLight Solutions selected a Schüco FW50+ glazing system with a 6mm clear toughened outer glass, a 16mm air cavity and a 10.8mm clear laminated sandblasted inner.

RESULTS

The skylights in the station platform roof took five months to complete and were delivered on time and on budget. They were effectively installed in a highly restricted location alongside a working main line railway and caused no disruption to the rail network.

The Stratford Regional DLR station is now a landmark and the first completed project in the initial phase of the upgrade plans for the 2012 Olympic Games.

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