



Peckham Rye Station

Frankham provided a scope of works and technical specification for restoring Peckham Rye station.

Overview

Peckham Rye Station, built in 1865 by the architect Charles Henry Driver, is one of South London's finest junction railway stations. Leaks to the original Victorian roof were a key catalyst for this project. The considerable expense of a full scaffold around the station led to the decision to carry out a comprehensive restoration of the station externally. This £2.5M project was funded by Network Rail, with co-funding from the Railway Heritage Trust and the Heritage of London Trust.

The Building Surveying and Infrastructure Engineering teams at Frankham were employed by BAM Nuttall to provide a scope of works and technical specification for restoring Peckham Rye station including:

- Roof repairs and replacement to the four wings
- Installation of new roof cresting
- Structural assessment of main roof for new cresting
- Repairs for main roof
- External redecorations
- Window repairs
- Cast iron gutter replacement
- Design of new decorative balustrade ledge
- Stone & brickwork repairs and repointing in traditional lime-based materials
- Structural assessment of building for accessing scaffolding

Client:
Network Rail

Value:
£2.5m

Services:
**Building Surveying
Civil Engineering**



Overview *Cont.*

The four roofs to the station wings needed localised repairs to the original roofs and for the newer raised roofs to be replaced due to their condition. The Building Surveying designed the roofs to include natural ventilation and insulation whilst retaining the impressive, original appearance. Our designs incorporated the lead work detailing, tiling (using the original Patent Taylor Clay tiles), crest fixing and waterproofing details. The services of our Infrastructure Engineering team were utilised to undertake a condition inspection of the roofs, provide repair details, and undertake a structural assessment of the existing timber structure for installing the heavier cast iron gutters.

The team examined the condition, assessed the structural capacity, and detailed repairs for the main roof. The Building Surveying and Infrastructure Engineering teams worked together to design the new aluminium cresting and the associated fixings into the roof, whilst ensuring the roof remained waterproof.

A bespoke adjustable base plate was designed by the Building Surveying and Infrastructure Engineering teams. This plate was clamped to the underside and the top of the roof allowing very base plate to be levelled according to the pitch of the roof. A water proofing solution was design by the Building Surveying team which provided a totally sealed base plate.

The teams also provided services on the outside of the building with stone & brickwork repairs and repointing using traditional lime-based materials, and the design of a new decorative balustrade ledge to replace an existing damaged ledge.

Our involvement on this exciting project continued once work on site was underway. Network Rail requested that Frankham delivered on-site technical assistance and inspections to assist with the detailing to the tiling and leadwork.



Challenges

The original Patent Taylor Clay tiles are very distinctive and not mass produced. The tiles were loose and appeared susceptible to wind up lift and a solution was required to avoid this. Test panels of tiles were laid, and various fixing techniques were trialled. We identified that the most effective method was to screw the tiles with large washers. This due diligence and on-site testing will prevent future issues caused by extreme weather.

The cresting fixing to the original zinc roof posed a challenge due to the different levels and falls of the rooftop, and an overall structure that comprised numerous forms of construction throughout. The fixing post had to be inch perfect as it was computer designed and cast in aluminium. The Infrastructure Engineering team examined and measured the entire roof soffit structure to ensure the design was buildable.



Award Winning

The success of this project was due to a winning blend of innovation and experience. By understanding the features and challenges of the existing historic materials, we were able to adapt and preserve them to meet the project requirements.

- Shortlisted for the 'Heritage Category' in the RICS regional awards 2024
- 'Best Use of a Heritage Roof' - the Pitched Roofing Awards

