



Proteus Waterproofing

Case Study: Proteus Pro-System®

Roof refurbishment - Perivale Underground Station, Middlesex



Project Brief:

“Perivale Halt,” station, now simply known as Perivale Underground, was opened in May 1904 by The Great Western Railway and has provided long and distinguished service for more than 100 years, but age finally caught up with this Grade 11 listed building in 2017 due to serious roof defects.

As a consequence of the original design, it was almost impossible to maintain the roof and owners, Transport for London, needed a permanent waterproofing solution that would also provide access for routine maintenance in the future.

Key Requirements

To complete the project, Proteus Waterproofing Licensed Contractor initially had to strip off large areas of asphalt which had started to fall away from the parapet walls. This involved reverting back to the concrete substrate prior to instigating essential remedial work before installing a new waterproof membrane.

The listed status of the building meant that all work had to be carried out in a sympathetic way to make sure the elements of listing were not compromised and a comprehensive guarantee had to be issued on completion.

The right solution

Proteus' Licensed Contractor used Proteus Pro-System® to waterproof the building and at the same time installed maintenance walkways into the roofscape to allow safe access to the upper roof and plant on the lower roof. Part of the works also included the introduction of ladders to allow future maintenance.

The project started in September 2017 and took around six weeks to complete.

Why Proteus Pro-System®

Proteus Pro-System® is a high performance, seamless and cold-applied waterproofing membrane for flat and pitched roofs making it ideal for Perivale Station. It is also the membrane of choice for Transport for London because it is cold applied, seamless and, most importantly, gives off little or no odour ensuring minimum disruption for passengers and staff.

It cures to provide completely seamless waterproof protection and has excellent thermal and UV stability. Proteus Pro-System® does not brittle, wear away or yellow with age. It uses atmospheric moisture to trigger its cure process and, unlike conventional polyurethane systems, can cure under water without gassing or foaming. It also becomes resistant to rain damage and may therefore be applied in relatively poor weather without any subsequent loss of performance or durability.

Perivale Station

Perivale Underground station as it is known today was opened on 30 June 1947. It was designed in 1938 by Brian Lewis, later Chief Architect to the Great Western Railway, but completion was delayed by the Second World War. The finished building was modified by the architect Frederick Francis Charles Curtis. A planned tower and extended wing were never constructed, leaving the station smaller than intended. In July 2011 the station was one of 16 London Underground stations that were made a Grade II listed building.

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