

Natural History Museum

Watts has recently completed a feasibility study and the design and project management of repairs to the Earth Gallery roof at the Natural History Museum in London. This Grade I Listed building required a bespoke design service as well as a close working relationship with the Museum stakeholders to ensure the project was completed swiftly and with minimal disruption.

The problem

The patent glazed, barrel-vaulted gallery roof was experiencing cracking of the Georgian wired glass. Detailed investigations concluded that the cracking was the result of the existing design being unable to accommodate and cope with differential solar/thermal expansion and cracking of the glazing. The problem was also exasperated by edge corrosion of the wiring cast within the original glass.

Watts' involvement

Watts initially carried out an inspection of the roof, to identify the cause of the cracking and then suggested remedial options to the client. We were then instructed to design and produce a specification of works for the preferred repair options, and contract administrate the works on-site.

The project required close liaison with the Museum stakeholders to minimise disruption as the museum remained open to the public throughout the duration of the work.



The outcome

The repair solution comprised the installation of new toughened, laminated glass with solar reflective film, set within the existing glazing bars allowing for and accommodating thermal movement.

An advanced set of access systems, such as internal safety netting, spider lifts, mobile access gantries, fall restraint wires and a rescue system were used to ensure the works were carried out safely, but also to protect the museum exhibits below. 91 panes of glass were replaced along with other maintenance repair items over an eight-week period.

About Watts

Watts Group PLC is a leading consultant to the property and construction industry. With more than 40 years' experience across all building types and market sectors, the Group delivers independent, expert advice.

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