



Royal Courts of Justice - Black Lift

by Alan Knight, Guideline Lift Services Ltd



Guideline Lift Services Limited were established in 1972 and are one of the leading independent lift companies within the South East of England, with expertise in the installation, modernisation, maintenance and repair of all types of passenger lifts from simplex to 8 car groups.

We successfully tendered for the replacement of the 'Black Lift' within the Royal Courts of Justice, Strand, London. The Consultant and CDM Coordinator were the Gerald Honey Partnership, their specification called for the complete removal of an existing 9 person lift including the existing shaft structure and enclosure, with the installation of a 13 person lift within a steel and glazed structure, including all associated builders and electrical works.

The Royal Courts of Justice were opened in 1882 by Queen Victoria. In 1868, it was decided that George Edmund Street R.A. was to be appointed the sole architect and it was he that designed the whole building from its foundations to the varied carvings and spires, sadly he died prior to its completion.

The building has a grade 1 listing by English Heritage and therefore extensive discussions were undertaken by the design team to ensure the lift appearance and design would be acceptable, whilst retaining special features, including the decorative iron works around the lift entrance (portal) required by grade 1 listing.

No alteration to the existing building fabric was permitted and the use of diagonal bracing to the structure had to be avoided in order to provide a minimalistic structure, with laminated glass cladding thus allowing light into the well and providing a view of the stone stairwell and balustrade, as the original architect intended.

The structure had to be designed and constructed to be self supporting with attachment to the shaft front floor beams only. No fixings or steady bolts to the stone stairwell or balustrade were permitted.

As this was to be a turnkey project, Guideline Lift Services were appointed as Principal Contractor and in conjunction with our specialist subcontractors, Access Technology and Perdan Limited, commenced design and planning for the structure enclosure and lift installation. This entailed firstly the removal of the existing installation, protection of the stone balustrade and staircase and the excavation to the rear of the shaft to accommodate the revised shaft size; these works were undertaken by Perdan Limited.

The shaft structure not only had to be self supporting but also would have to provide support and loadings for the lift installation, together with the concept

design criteria of the specification. This proved to be a challenge but our project team working closely with Access Technology and the design team achieved an aesthetically pleasing design, whilst encompassing the engineering design for the lift installation.

Due to the fact that the portal was being retained as part of the Grade 1 listing, the structure and lift installation had to be set out from the line of the portal prior to the installation of the structure, in order to provide a 900 x 2000 clear opening.

The glass enclosure was designed to be symmetrical with cross members and the entrance fronts, however the wing panels were site measured to provide clean lines to the enclosure as a whole.

The lift was installed during normal working hours and for safety reasons the glass enclosure was fitted at night, as the building was mostly empty.

The lift installation consisted of LiftStore Ethos Control with Full Flux Vector Drive operating at 1.6 m/s with an MF82 SASSI machine. Sematic glass doors with special depth kick plates together with DC door operation. Fixtures were supplied by LiftStore, Windcrest, Stentogate and Memco. Steel work was manufactured by Access Technology and overall responsibility for design, procurement, installation, testing and management was undertaken by Guideline Lift Services, all in accordance with the Gerald Honey Partnership Specification, EN81-1 and the Lift Regulations 1997.

Whilst this project was both different, interesting and challenging it was the positive input of all parties to work together to achieve what we believe was a modern and acceptable design, which compliments the original architecture.

Client

Her Majesty's Court Service

Principal Contractor

Guideline Lift Services Limited

Design Team

Gerald Honey Partnership – Lift Consultants & Construction Design Management Co-ordinator

EC Harris – Project Managers

Purcell Miller Tritton – Historical Building Consultants

Structure and Enclosure Manufacturer and Installer

Access Technology

Associated Builders Works

Perdan Limited

Royal Courts of Justice - Black Lift



Before alteration



After alteration



Royal Courts of Justice - Black Lift



Before alteration



After alteration



Royal Courts of Justice - Black Lift



Before alteration

After alteration

