

RAISING THE STANDARD

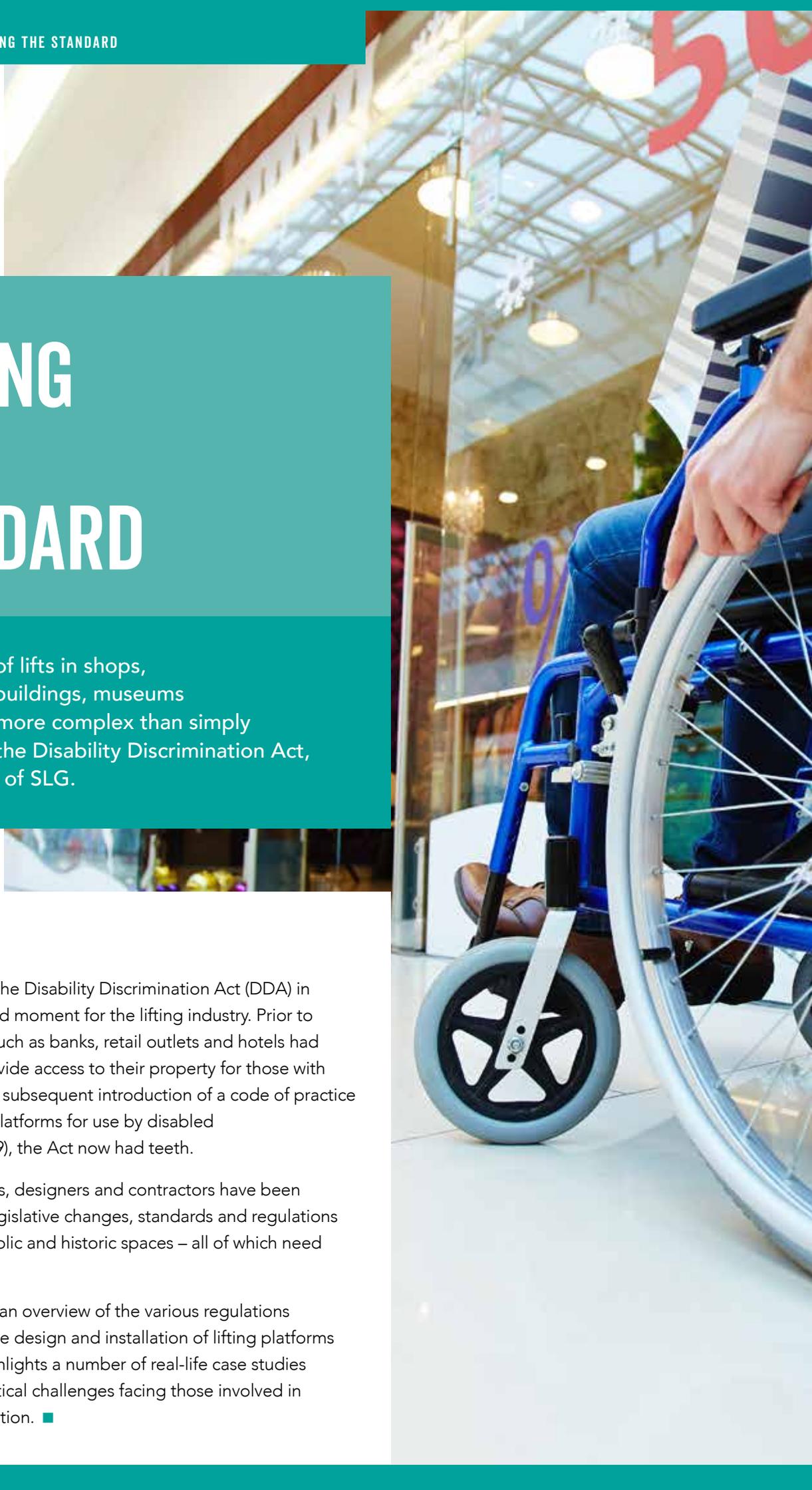
The installation of lifts in shops, offices, historic buildings, museums and churches is more complex than simply complying with the Disability Discrimination Act, says Andy Sayer of SLG.

OVERVIEW

The introduction of the Disability Discrimination Act (DDA) in 1995 was a watershed moment for the lifting industry. Prior to that, organisations such as banks, retail outlets and hotels had no obligation to provide access to their property for those with disabilities. With the subsequent introduction of a code of practice for powered lifting platforms for use by disabled people (BS6440:1999), the Act now had teeth.

Since then, architects, designers and contractors have been faced with myriad legislative changes, standards and regulations relating to lifts in public and historic spaces – all of which need to be considered.

This paper provides an overview of the various regulations and laws covering the design and installation of lifting platforms in the UK. It also highlights a number of real-life case studies to illustrate the practical challenges facing those involved in retrospective installation. ■



COMPLEXITY OF LEGISLATION

The introduction of BS6440:1999 provided recommendations for the safe design, construction, installation and operation of lifts for use by disabled people. Central to this standard was the stipulation of a maximum stroke of 2 metres without an enclosure.

This caused challenges with listed buildings that required a stroke of more than 2 metres - and hence an enclosure - where such a structure would not be allowed by English Heritage. This led to a challenging situation where regulations were stating one thing, while the British standard said something else. It was a scenario which was to be repeated across the industry for decades to come.

During the mid-2000s, the new standard proved it had sharp teeth; with the owner of several historic buildings being compelled to carry out modifications to make their properties accessible to disabled people. Following subsequent amendments to the Disability Discrimination Act 2005, the latest version of the legislation – BS6440:2011 – now represents best practice within the industry.

Paramount among the changes to the current standard was the increase in stroke from 2m to 3m without the need for a full enclosure. This move was especially significant for those working with historic and listed buildings, giving much-needed leeway which helped to maintain the aesthetic value of many historic buildings.



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COMPLEXITY OF LEGISLATION

Our experience, spanning back to the 1980s, also includes projects that fall outside of the formal standards – providing a valuable lesson for architects, installers and property owners. In these instances, it is important that Building Control sign off the development and the building's insurers are happy to cover the lifting equipment.

In addition to the BS6440:2011 standard, scissor lift manufacturers also need to consider EN1570-1:2011 +A1:2014 safety requirements for lift tables. Covering lifts serving two fixed landings, this standard needs to be implemented alongside EN 60204-1, which covers electrical machinery safety. This set of regulations is wide-ranging and includes control circuits, control devices and control functions.

As if this were not comprehensive enough, lifts of all types installed in buildings need to adhere to the EC Machinery Directive 2006/42/EC. This ensures all areas and risk assessments to machinery are considered including relevant harmonised standards.

Finally, as part of the Equality Act 2010, Part M of Building Regulations 2010, provides very specific guidance on passenger lift design. This is essential reading for anyone considering access for the disabled within public buildings – providing detailed guidance on the size of doorways, positioning of buttons, vertical travel distances and even preferences on the colours of flooring.

In addition to Part M, it is important to include consideration of approaches to a building for disabled people. This aspect of the standard is outlined in BS8300-1:2018 and includes recommendations for the design of the external building environment including ramps and other means of access to buildings. ■

IMPORTANCE OF EXPERIENCE

As demonstrated above, the design and installation of lifts in public spaces is fraught with legislative considerations.

While a solid understanding of the various British standards, building regulations and overarching EC regulations is important, so is the ability to consider how apparently conflicting rules and regulations can be negotiated and ultimately satisfied.

It is in these situations that practical experience built up over decades becomes invaluable. We have been involved in several projects where clients have not taken good advice from the outset, only to be faced with problems associated with inspections and building control. In an ideal world, meetings involving the architects, contractors and clients should be convened to scope out the intricacies of lift installation at the very beginning. This way, we can identify potential issues early on, making amendments to the designs to comply with the various regulations. ■



PROJECT EXAMPLES

SLG Group has been involved in the design and installation of lifts for more than 40 years. Specialising mostly in the historic and listed buildings sector, our experience is unrivalled, and provides value best practice models for the industry.

LINCOLN'S INN FIELDS

The installation of a DDA-compliant lift solution in a listed building in London's Lincoln's Inn fields presented a unique set of challenges for lifting specialist SLG Group UK.

Access was required to an existing Grade II listed building, remodelled to form barrister's chambers, which had steps up to the front door. For various reasons, installing a lift to operate between street level and the front door was not an option.

Due to aesthetic considerations, the handrail had to be preserved as far as possible, while maintaining an operational gate which met relevant safety standards.



The solution was to go from street level down into the basement - a travel of around 2 metres. This allowed access into the building and also a route to the passenger lifts to access the building's other floors.

Following initial consultation with the architect, SLG was nominated as the chosen supplier to the main contractor. A full general arrangement (GA) drawing was supplied for approval prior to manufacture.

Due to aesthetic considerations, the handrail had to be preserved as far as possible, while maintaining an operational gate which met relevant safety standards. This entailed removing a section of handrail, bringing it back to the workshop, modifying it and fitting it to the lift gate assembly.

To minimise trapping points, a flush glass panel was also incorporated behind the railing section. The whole gate assembly was painted black, as were the sections on the lift itself.

As the lift was external, a powder coating was applied over a hot zinc spray finish for enhanced corrosion protection. ■

SHREWSBURY CATHEDRAL

Built in 1852, Shrewsbury Cathedral is a prime example of the gothic revival style and has been designated an area of significant historical importance in the region.

We recently oversaw a project to design, build and install a DDA lift at the cathedral. Utilising our previous experience from a similar project completed at York Minster, we worked in close partnership with all stakeholders from the outset. A key consideration of this installation was its historic significance.

The lift, therefore, had to be both functional and complementary with the overall aesthetic of the cathedral.

To achieve this, SLG worked closely alongside Arrol & Snell and a specialist building company to construct the core lift site in a way that would complement the environment it served.

Key features of the installation include a handrail, consisting of 15mm thick flush glass panels, which sits with a stainless steel tubular rail and a central vertical rectangular post. One side of the lift houses the control panel, while the opposite holds the load plate. In keeping with the location it serves, the lift is painted to a standard RAL 7030 stone grey. ■

CONCLUSIONS

The installation of lifts for disabled people in public places creates a unique set of challenges. While there are clear guidelines concerning the design and installation of access equipment, the aesthetic considerations demanded by listed buildings, cathedrals and other historic sites create an additional level of complexity.

Add to this the various building control and EC safety statutes and it is easy to see how, without pre-planning and consultation, the installation of lifts can go badly wrong.

Moreover, the retrospective installation of access lifts for disabled people in places of architectural significance requires extra special consideration. While the various standards and laws are clear in terms of dimension and function – equally important is the aesthetic integrity of the building, which deserves sympathetic planning.

This is where a much more holistic, 360-degree approach is needed – and can only be undertaken by teams with the experience, contacts and skills built up over many years.

While it is tempting to consider the design and installation of lifts as a simple task, which could be undertaken by most suppliers in the market, this is a dangerous assumption to make. Unique buildings – especially those of an historic or architecturally significant nature - require specialist knowledge when it comes to lifts for disabled access or deliveries. We advise architects or building managers to take professional advice early to avoid embarrassment or costly remedial expenditure. ■



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