

VOLUME 1 ISSUE 1



Public Sector **Sustainability**

A 3D architectural rendering of a city street scene. The buildings are green with various roof designs, including flat roofs with small green cubes and sloped roofs with green panels. The street is paved with grey tiles. The text 'reuse', 'refurbish', 'remanufacture', and 'recycle' is overlaid in white on the buildings.

reuse
refurbish
remanufacture
recycle

The logo for 'amaryllis' features the word in a red, lowercase, serif font. Above the letters 'y' and 'l' are three stylized, white, flame-like or leaf-like shapes that curve upwards and to the right.

amaryllis

Thinking outside the box

Question: What do you do when a lift needs modernising and yet it's the only lift in the building?

Answer: Hire someone to do some creative thinking!

The amount of disruption that can be caused by the removal of lift service in a modern building that only has one lift should not be underestimated. Apart from the obvious issue of discrimination towards disabled people, there are many other facets that can disrupt daily life when stairs are the only option. According to most insurance companies there are more accident claims on stairways than in lifts. The risk therefore shifts to a different area where the potential for accidents increases, especially when stair traffic increases and deliveries via the stairs are introduced.

The problems faced by Canterbury City Council when one of their passenger lifts was troublesome and in need of a full modernisation is a case in point. All aspects of the client's requirements had to be addressed including lift engineering, civil engineering, logistics, cost and the practical and emotional needs of the residents.

The single lift in a nine storey building was due to be modernised and the duration of the works that had been planned would mean that the lift would be out of service for three months. A number of residents would be unable to reach their apartment via the stairs due to their age or disability and it was deemed unreasonable to expect anyone to climb further than five flights (most people will not accept anything over three floors, especially over a three month period). Some lateral thinking was therefore required as the re-housing of residents into temporary accommodation would be costly and not necessarily in the best interests of the residents, both emotionally and practically, bringing as it would significant disruption to their daily lives over the course of three months.

In the past, in similar situations, some building owners have gone to the extreme of adding another lift to the building using a separate lift shaft but the capital cost of that, along with the doubling of future running costs, makes for a costly solution in the long term. The use of a temporary lift such as those used on building sites

was considered but ordinarily they do not comply with BSEN81-70 (Particular applications for passenger and goods passenger lifts. Accessibility to lifts for persons including persons with disability).

Lerch Bates carried out a feasibility study and with the cooperation of the council, a temporary hoist manufacturer, a lift modernisation company and a builder, provided a complete solution where tenants did not have to be disrupted, the existing lift could be modernised and brought up to current standards and the building could keep the same appearance in the long term without doubling its ongoing costs for vertical transport. Simple, I hear you say! Well, not quite.

There were many challenges to overcome to enable a temporary lift structure to be built (which was the solution that was settled on – see photo) power, telephones, drainage, sewerage and structural loading had to be considered along with overcoming newly introduced hazards such as the potential for access to the temporary lift structure by climbing and the need to restrict the aperture of those bathroom windows which faced onto the temporary lift so that the passing lift car could not be reached.

Lerch Bates were invited to manage the entire project and the temporary lift was installed after building enabling works. The temporary lift ran for a fortnight in tandem with the existing lift so that reliability and acceptance was assured. When consensus was achieved the existing lift was removed from service and modernisation commenced. The added benefit of having a temporary lift in the building, apart from the obvious advantages of deliveries and public access without using the stairs, was that the modernisation of the existing lift was made easier with the use of a temporary lift to deliver materials and labour. In addition maintenance of the apartments was easier because access by tradesmen with their tools and materials was always available.

The cost of the entire project was less than the costs of temporarily re-housing



the tenants over a three month period and the tenants continued to enjoy access to their apartments thanks to the reliability of the temporary lift.

This short case study highlights just one of a number of different approaches Lerch Bates can take in ensuring continuity of lift service within a building during lift modernisation works. Other techniques have included "no downtime" modernisation plans that enable all the works to be done outside office hours in the case of a commercial property.

It all depends upon the extent of the works being carried out, the hours of use of the building and what opportunities the building itself might afford in access terms. As Phil Kearney, the Lerch Bates consultant responsible for this project, remarked "Our responsibility is to find the best, most practical and cost-effective solution for our clients and sometimes that means thinking outside the box!"

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