



LERCH BATES

Building Insight

Update

Issue 8
Autumn 2010

Consulting Engineers for Moving People and Materials

- Vertical Transportation
- Façade Access
- Maintenance Management
- Materials Management
- Materials Handling
- Horizontal Transportation

In This Issue

- VTME Conference
- Modernisation Challenges
- Impending Code Change
- Read our Maintenance Audit Analysis



Ground Breaking Invention Launched at

Vertical
Transportation
Middle East



Four representatives of Lerch Bates attended the four day IQPC conference entitled "Vertical Transportation Middle East" (VTME) in Abu Dhabi held between the 26 and 29 September 2010. They led a one day workshop as well as giving a summary presentation on new ideas and recent inventions that could bring a quantum increase in handling capacity to vertical transportation within commercial buildings.



Adrian Godwin presented the history of the "paternoster" lift, research work by various industry participants over the years and the business case for "Skytrak" which is a novel form of "circular" or continuous loop vertical transportation utilising multiple cars travelling upwards in one shaft and then down in an adjacent shaft. Taking a typical City of London high rise tower as a case study it was shown that if the invention were applied to the building the developer would achieve an additional £36m in value for the additional space released by adopting the "Skytrak" solution.

Chris Manning expounded upon all the performance, user and essential health and safety requirements needed to be met by any new lift system in order to gain EC-type certification to put such a system into public operation. In addition he outlined the process of carrying out design risk assessments, building a prototype for approval and working with safety experts and a notified body.

Mike Godwin, presented the technical details of the new drive system, the weight considerations for the cars, the emergency "up stopping" and automatic return to landing safety features of the proposed system. He went on to explain how a novel transfer switch would move the cars from the "up" to the "down" shafts and vice versa as well as an innovative type of drive which is an "on car" gearless lantern pinion arrangement using steel and composite materials to achieve speeds of up to 2.5 m/s with low noise levels.

The presentation generated much debate about the need for the industry to move forward with new technology and the successes and failures of the past. Adrian Godwin commented that he felt there "needed to be more failures in the industry if new concepts were going to come to fruition sooner."

The workshop and presentation given by Lerch Bates stood out as the most forward thinking ideas presented at the conference. These ideas are now being tested with the architect and developer community as to how to bring them to the market for the benefit of our clients.

[Read more about "Skytrak"](#)

Rising to the Challenge

Complex projects require extensive planning and working within existing operational buildings presents additional challenges. The starting point for any such project is to gain an understanding of what is most important to the client and what is technically achievable and acceptable.

A perfect example of such a challenge is at the Hilton Glasgow Hotel. Reinforcing our long term relationship with Hilton Worldwide, Lerch Bates has been appointed to manage the modernisation of the seven lifts at the Glasgow hotel and the project is due to commence in early 2011.

[Continued on page 2...](#)

Changes to Façade Access Equipment Code

Code EN1808:1999 specifies the requirements for Suspended Access Equipment (SAE). It also defines rules for safeguarding persons against the risk of accidents associated with the operation of SAE. At the end of this year changes to the code will have implications for new and existing equipment, which in turn has implications for building owners. [Read more...](#)



LERCH BATES

Building Insight

6 0 Y E A R S O F E X C E L L E N C E

(Rising to the Challenge...continued from page 1)

The 20 floor, 70m tall building was originally completed in 1992 and was designed by architects Crerar + Partners.

Our challenge was to modernise the existing lifts without disruption to an extremely busy hotel. Allan Jarvis of Lerch Bates explains "following a detailed survey of the lifts we were initially appointed by Hilton Worldwide to produce a specification for the new lift equipment and to advise on a suitable strategy for replacing the existing lifts. Close consultation with the project management team and hotel staff helped us gain a clear understanding of both the operational and technical challenges associated with the project and led us to develop a strategy which includes both modernisation and full replacement of certain lifts to reduce the overall out of service time without sacrificing performance or compliance with safety standards for the new equipment".



passenger traffic conditions and intelligently adapt to ensure the most efficient traffic management service. The lift lighting will also be energy efficient and will switch off automatically when the lifts are not in use. Critically the new lifts will undoubtedly improve the guests' overall experience of the lifts at the hotel in the future.

We always strive to introduce energy efficiency features where possible and Hilton Worldwide's own organisational goals strongly promote this practice. This project offered a perfect opportunity to take advantage of energy reduction technologies and in this case the new lifts will feature energy efficient drive systems which have the capability to regenerate power under certain load conditions reducing the overall power consumption. The control system will have the ability to learn the hotel

European Headquarters

Woking Eight
Forsyth Road
Woking, Surrey
GU21 5SB, United Kingdom
Phone: +44 (0) 1483 215215
Fax: +44 (0) 1483 215216

Bristol Office

Eagle Tower,
Montpellier Drive,
Cheltenham, Gloucestershire
GL50 1TA, United Kingdom
Phone: +44 (0) 1242 221000
Fax: +44 (0) 1242 221010

Leeds Office

Dean Clough, Halifax,
West Yorkshire
HX3 5AX, United Kingdom
Phone: +44 (0) 1422 330655
Fax: +44 (0) 1422 330677

Glasgow Office

McGregor House,
Southbank Business Park,
Kirkintilloch, Glasgow,
G66 1XF, United Kingdom
Phone: +44 (0) 141 776 2090
Fax: +44 (0) 141 776 3944

Paris Office

177 avenue Achille Peretti
92 200 Neuilly sur Seine
Paris
France
Phone: +33 (0)147 475139
Fax: +33 (0)147 471756

Moscow Office

4th Floor
Regus Business Centre
Zemlyanoy Val 9
Moscow
Russian Federation 105064
Phone: +7 495 287 13 10
Fax: +7 495 967 97 00



Email: info@lerchbates.eu

Web: www.lerchbates.eu

Analysis of Maintenance Audits makes for some interesting reading...

The routine maintenance of lift equipment has three main functions:

- To ensure safety and reliability
- To comply with regulations and codes
- To prolong the lifecycle of the equipment

It is important therefore that a proper and appropriate maintenance plan is in place to ensure that the equipment is maintained in line with the manufacturer's instructions and that the environment and usage of the lift is taken into account.

For many years lifts and escalators have been maintained within contracts, but also within relationships based on trust between the owner or duty holder, and the service provider. Assuming that a proper and appropriate maintenance plan is in place, the quality of the work must be checked to make sure that it not only meets the contractual requirements of the agreement, but also that it delivers value for money to the client and does not leave him exposed in terms of compliance or operational risk within his organisation.

At Lerch Bates we audit many lifts and escalators each year, both as part of our maintenance management service and for clients who choose to bring us in on an ad hoc basis. **This makes us well placed to carry out an analysis of maintenance audits.**

Maintenance Audit Analysis

To ensure that the sample analysis is representative, it includes a variety of client sectors with lifts maintained by a variety of lift contractors. The client sectors are:

Government: Buildings that are either owned by or are occupied by Government or Local Government Departments.

Housing Associations: Either Sheltered or Social Housing.

Retail: Individual Retailers or Shopping Centres.

Education: Higher or Further Education Establishments.

Commercial: Office Buildings either solely occupied by the owner or managed by an Agent.

[Read more...](#)