

# Facilities Management from A to Z



Based on The FM Lexicon by Martin Pickard  
published monthly in Facilities by Lexis Nexis between 2008 and 2016

## **B**uilding Services

The management of Building Services is a significant part of the facilities management remit and can account for 50% of variable operating expenditure and a large portion of the capital budget. This varies enormously depending on the age, type, design and function of the building in question. There are four chief areas of concern for the facility manager: Design, Electrical, Water and HVAC (Heating, Ventilation and Air Conditioning)

It is said that over 50% of building defects or failures are due to design errors and 45% of claims for defective building services are attributable to design. The services installed must take into account the kind of building involved. The size, height, shape, orientation and location will all affect the design philosophy. The form of construction, environmental status and technical attributes are key contributors to services design. Infrastructure elements including the risers and vertical transport systems like traction or hydraulic lifts, escalators, scissor lifts and hoists must all be considered

Electrical supply and distribution systems are crucial in the most simple of buildings and can form the most technically complex of all building service elements. The size and design of transformers, electrical intake and switchgear can have a major impact on operating cost and building functionality. Accessibility of risers and distribution boards impact greatly on maintenance. Emergency power supplies affect business continuity and decisions made around lighting and the use of renewable energy are a major feature in an organisations carbon footprint calculations.

The provision of water is one of the critical elements of the building services agenda presenting a whole range of biological health and safety hazards. Cold water from the mains supply needs to be distributed throughout the property. Both hot and cold water must be safely stored and drinking water needs to be made available in key places. Water softening processes must be carried out to protect the infrastructure and adequate pressure needs to be maintained throughout.

Heating, ventilation and air conditioning are the most problematic of all building services for many facility managers. Providing thermal comfort and good quality air to building occupants can be a challenge in buildings of all styles and technological complexity. Boilers, valves, fans, distribution and circulating pumps must be expertly maintained while humidifiers, cooling towers, chilled water and air handling units can all be problematic without an effective service regime with drastic potential impact on performance and health.

There is no need for a facility manager to have the same level of technical expertise as a professional building services engineer but a working knowledge of the basic components and their function is desirable.

*Those interested will find a lot of helpful information from the Chartered Institution of Building Services Engineers (CIBSE) at [www.cibse.org](http://www.cibse.org)*