

BRIEFING: INFORMATION TECHNOLOGY

New UK code sets out how to link design, construction and operation through BIM

BSI has recently published an updated code of practice on how to reinforce the links between design, construction and operation through building information modelling (BIM). Stephanie Kosandiak of BSI and lead technical author Brian Atkin introduce BS 8536-1:2015.

The UK government's April 2016 deadline for level 2 building information modelling (BIM) on all public sector construction projects is approaching fast. All project team members will soon need to be able to exchange information using three-dimensional computer models.

However, whether BIM is used or not, facilities are often delivered by project teams that have not taken sufficient account of operational requirements, especially those relating to environmental management, functionality, effectiveness, security and cost.

Furthermore, responsibility is not solely with the project team. Owners and operators need to express their requirements unambiguously. They then need to watch over the emerging design and construction processes and the extent to which both measure up to the definition of an efficient, safe and cost-effective facility.

BSI's new code of practice – BS 8536-1:2015 *Briefing for design and construction. Code of practice for facilities management (Buildings infrastructure)* (BSI, 2015a) – is designed to help

Background to the new code

Previously, little guidance existed in the UK on briefing for design and construction to assure operability after completion. The 2010 code of practice on facility management, BS 8536 (BSI, 2010), helped in part by covering the briefing of designers on the performance requirements for a new or refurbished facility.

Its aim was to introduce a more structured and rigorous approach to design that, by definition, had to take account of the needs of owners, operators and their facility managers in the operation and use phase.

However, since publication of the 2010 code, it became clear more could

be done to improve the processes that result in a successful facility.

Incorporating soft landings

Significant changes in the 2015 code include the concept of 'soft landings', an approach leading to a smoother transition between construction and operation. It also sets out the associated information requirements for level 2 BIM. These are based on publicly available specifications PAS 1192-2 (BSI, 2013) for construction, PAS 1192-3 (BSI, 2014) for operation and PAS 1192-5 (BSI, 2015b) for cyber security.

The new code also includes requirements for post-occupancy evaluation, including measuring actual operational performance against design targets. The aim is to strengthen the link between owners, operators, facility managers and design and construction teams, ensuring both design and construction deliver the required outcomes.

In addition, the new code intends to play a key role in coordinating the various

aspects of the project delivery process. It aims to improve the focus of the supply chain on performance in use; to extend supply chain involvement through to operations and defined periods of aftercare; and to involve the operator and facility manager from the outset.

Broader approach to delivery

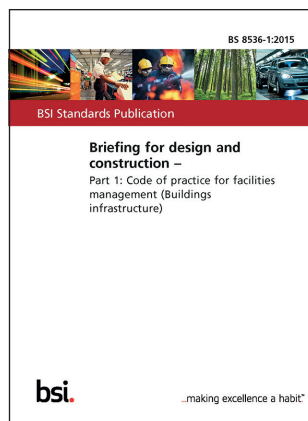
All of the changes in the new code should be seen in the context of a new, broader approach to delivery. This means considering operational requirements throughout design, construction, testing, commissioning, handover, start-up operations and during defined periods of aftercare.

The code does not, however, provide detailed guidance on design or construction – there are other standards that do. It is concerned primarily with ensuring that the BIM process includes information and data about the operability and performance requirements for new or refurbished facilities.

A companion standard (part 2) covering asset management of linear and geographical infrastructure is currently under development.

References

- BSI (2010) BS 8536:2010: Facility management briefing. Code of practice. BSI, London, UK.
- BSI (2013) PAS 1192-2:2013: Specification for information management for the capital/delivery phase of construction projects using building information modelling. BSI, London, UK.
- BSI (2014) PAS 1192-3:2014: Specification for information management for the operational phase of assets using building information modelling. BSI, London, UK.
- BSI (2015a) BS 8536-1:2015: Briefing for design and construction. Code of practice for facilities management (Buildings infrastructure). BSI, London, UK.
- BSI (2015b) PAS 1192-5:2015: Specification for security-minded building information modelling, digital built environments and smart asset management. BSI, London, UK.



The new BS 8536-1 sets out how to include operational requirements with the BIM design and construction process