Introducing BS 8544 – Guide for life cycle costing of building maintenance

Since 1922 the UK construction industry has used the RICS Standard Method of Measurement for the cost management of capital building works. However, until now the maintenance industry has never had any accepted standard methodology for the life cycle costing of annualized maintenance and renewal programmes.

This is now set to change with the launch of BS 8544 Guide for life cycle costing of maintenance during the in use phases of buildings – aligned with the RICS New Rules of Measurement (NRM); order of cost estimating & cost planning for capital building works and B&ES SFG20 maintenance standards.

The new BS 8544 provides a standardized methodology for the life cycle costing of maintenance that fully integrates the cyclical process of creating and implementing two plans ‘Maintain and Renewal’

BS 8544 is the 2nd supplementary guide to the BS ISO 15686 Part 5: 2008 – buildings and constructed assets; Service life planning Part 5 Life cycle costing’ and the first supplement for practitioners PB 156865 ‘Standardized Methodology of Life Cycle Costing for construction procurement (SMLCC)’.

BS 8544 provides practical guidance on:

- How to define the brief in terms of scoping the specific requirements for LCC of maintenance
- How to capture the appropriate asset information for specific LCC outcomes
- How to evaluate and prioritise the maintenance works, when budgeting and undertaking funding scenarios
- How to implement the LCC programmes of works - and unlock robust benchmark data for future maintenance planning

BS 8544 specifically focuses on how to make better inform decisions, relating to:

- Set and defend the maintenance budgets
- Mitigating risks and liabilities
- Driving maintenance prioritization
- Targeting investment in asset renewals
- Informing wider estate planning studies
- Inputting into environmental / sustainability
- Capturing feedback for future construction projects

...making excellence a habit."
The British Standard BS 8544 and the RICS New Rules of Measurement provides the first accepted cost data structure and classification standards for maintenance industry in the UK. This was made possible as a result of extensive cross industry collaboration and the agreement to align the NRM construction cost structure with the B&ES (formerly the HVCA) SFG20 maintenance task schedules and the BCIS and CIBSE life expectancy data – i.e. integrating construct with maintain and renewal.

Having an accepted cost management methodology will provide the basis to overcome the capital and revenue divide, along with having a big impact on how buildings can be handed over to be operated, maintained and renewed throughout their required life cycle.

**Key benefits of having new maintenance standards** are:

1. **Provides a consistent basis** for cost estimating & detailed cost planning of maintenance and the comparison of costs on a like-for like basis
2. **Target precisely what is being spent** on maintenance, against defendable base standards (i.e minimum legal compliance/fit for function regimes)
3. **Inform option appraisals** during the project development and the in use stages – i.e. minimise lifecycle costs
4. Standardize **cost data structure** for asset surveys and other assessments
5. Improve **budgetary controls** and the accuracy of cost analysis & reporting
6. Enabler to achieve more **sustainable** construction and asset management
7. **Interoperable cost data** to enable robust life cycle information for BIM
8. Basis for **fairer procurement** during tender evaluation/ contract award
9. Basis for **continual improvements**

**The UK Government’s Efficiency and BIM agenda**

The UK Government’s Construction Strategy focuses on procurement based on greater cost certainty and on minimising life cycle costs. Its Building Information Modelling (BIM) strategy calls for whole life cycle information to be supplied from the BIM model at various stages during the project life cycle.

BS 8544 provides guidance on how data should be made interoperable, for example through COBie data exchange formats, in order to ensure that existing building data is accessible to LCC of maintenance models – and ensure that output data form LCC of maintenance models is accessible to other interoperable models. Clause 8 of the BS 8544 provides guidance on BIM maintenance data and includes a figure showing the alignment of the COBie data structure with the NRM and SFG20 maintenance codes and CIBSE lifting data.

Annex A provides examples a portfolio level data structure linked to elemental, sub elemental and component level – aligned to a maintainable asset data structure and reference service life data.

So ninety years on from the creation of a standardised method of measurement for the cost management of capital building works the first standard for life cycle costing of building maintenance (BS 8544) will help to transform the construction and maintenance industry and provide the fundamental link to enable BIM and more robust life cycle cost management to become the norm.

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To order a copy of BS 8544 please go to: shop.bsigroup.com/bs8544