

Building Economics Appraisal And Control Of Building Design Cost And Efficiency Building And Surveying Series

A long established text that aims to meet the needs of students studying building measurement in the early years of quantity surveying and building degree courses. It contains a careful selection of 28 worked examples embracing all the principal building elements and including alternative constructional methods to illustrate a range of approaches.

This book is an extension to the worked examples contained in Building Quantities Explained. It aims to produce a selection of worked examples, supported by comprehensive explanatory notes, and covering a reasonable range of constitutional components that the candidate may face in examination.

The drive towards environmentally friendly buildings and infrastructure has led to a growing interest in providing design solutions underpinned by the core principles of sustainability to balance economic, social and environmental factors. Design Economics for the Built Environment: Impact of sustainability on project evaluation presents new directions, reflecting the need to recognise the impact of climate change and the importance of sustainability in project evaluation. The aim is to provide a new approach to understanding design economics in the context of the changing policy environment, legislative and regulatory framework, and increasing economic, environmental and social pressure as result of the sustainability agenda. The book follows a structured approach from theories and principles in the earlier chapters, to the practical applications and emerging techniques focusing on value and social, economic and environmental considerations in making design decisions. It starts with the policy context, building on various theories and principles such as, capital cost, value of design and resource – based theories, the new rules of measurement (NRM) to explore cost planning, the relationship between height and costs, key socio – economic and environmental variables for design appraisal, eco – cost/value ratio (EVR), whole life theory and the treatment of carbon emission as external costs, productivity and efficiency, fiscal drivers and legal framework for carbon reduction, procurement and allocation of risks in contracts. Case studies, practical examples and frameworks throughout reinforce theories and principles and relate them to current practice. The book is essential reading for postgraduate students in architecture, building and quantity surveying and is also a valuable resource for academics, consultants and policy – makers in the built environment.

Oxford Textbook of Global Public Health

Appraisal and control of building design cost and efficiency

Cost Studies of Buildings

Advanced Building Measurement

Building Economics

Traditional building economics has primarily been concerned with issues around project appraisal and cost management techniques. On the other hand, modern construction economics has a wider focus with stronger links to mainstream economics, reflecting an increased interest in a range of theoretical issues in construction economics, both at the macro and micro level. In Modern Construction Economics: Theory and Application, a variety of approaches are used to present a coherent vision of synthesis between industry economics and project economics. Topics covered include: developing construction economics as industry economics competition and barriers to entry in construction innovation in construction theory testing in construction management research collusion and corruption in the construction sector. Including contributions from academics in the UK, Sweden, Hong Kong, and Australia, this is a truly global review of a core issue for the construction industry worldwide. The result is a unique book that will push toward the development of a comprehensive theoretical framework of construction economics. This is a must-read for all serious students of construction economics, and all practitioners looking for a deeper understanding of their industry.

This book discusses the relationship between construction quality and the state of the Singapore national economy, and describes how construction quality is affected as contracting firms strategically manage issues relating to profitability and survivability during economic boom and bust cycles. Adopting a three-pronged approach to explain the key issues, the book first explains the effect of the state of the Singapore national economy (boom or bust) on the construction quality delivered by contracting firms. Secondly, it explains how contracting firms respond to the performance of the national economy through their dynamic bidding strategies, leading to significant quality trade-offs in some instances, especially when there is imprecise market information. Thirdly, it recommends various strategic measures that key stakeholders and government policy-makers can take to circumvent the quality trade-off in the construction industry when faced with dynamic fluctuations in the performance of the national economy. Although the book focuses on Singapore, it appeals to a global audience since countries worldwide (and their respective building-related stakeholders) face the same issues in terms of the time-cost-quality trade-off decision-making process involving the entire supply chain.

This book deals with the economics of construction at three levels: the industry, the firm and the project. It is intended for a broad range of undergraduate students of the built environment - architect, surveyor, engineer. It is divided into three parts: the first deals with the construction

industry, its economic development, structure and role in the economy. Construction is seen as a production process. Part 2 covers the practical management of firms and examines costs, revenues and markets from the point of view of economists and managers. Part 3 deals with strategic decision making involved in property development and project appraisal and looks at feasibility studies. It links the economics of the production process of construction to the economics of its output, namely the buildings and structures of the built environment.

Impact of Sustainability on Project Evaluation

Construction Project Management

Building Technology

The Green Book

Quantity Surveying Practice

This innovative Research Companion considers the history, nature and status of construction economics, and its need for development as a field in order to be recognised as a distinct discipline. It presents a state-of-the-art review of construction economics, identifying areas for further research. Construction Economics provides students with the principles and concepts underlying the relationship between economic theory and the construction industry. The New Approach adopts an argument that economics is central to government initiatives concerning sustainable construction. This edition has been revised to explain the effects of the current economic crisis on the construction industry. In addition, sections relating to less developed countries, the economics of sustainable development and theories relating to a firm's bid strategy have all been rewritten. With new data, examples, initiatives, readings, glossary items and references, the third edition of this established core text builds on the strengths of the previous edition: a clear and user-friendly style use of a second colour to highlight important definitions and formulae regular summaries of key points a glossary of key terms extensive use of tables and figures extracts from the academic journal Construction Management and Economics to consolidate and prompt discussion reviews of useful websites This invaluable textbook is essential reading across a wide range of disciplines from construction management and civil engineering to architecture, property and surveying.

Objective of conference is to define knowledge and technologies needed to design and develop project processes and to produce high-quality, competitive, environment- and consumer-friendly structures and constructed facilities. This goal is clearly related to the development and (re)-use of quality materials, to excellence in construction management and to reliable measurement and testing methods.

Concepts, Methodologies, Tools and Applications

Appraisal and Control of Building Design Cost and Efficiency

Project Life Cycle Economics

Structural & Construction Conf

Modern Construction Economics

Green Technologies: Concepts, Methodologies, Tools and Applications assembles the most up-to-date collection of research results and recent discoveries in environmental and green technology. This comprehensive anthology covers a wide range of topics, i

Building Economics Appraisal and control of building design cost and efficiency Bloomsbury Publishing

We no longer build buildings like we used to nor do we pay for them in the same way. Buildings today are no longer only shelter but are also life support systems, communication terminals, data manufacturing centers, and much more. Buildings are incredibly expensive tools that must be constantly adjusted to function efficiently. The economics of building has become as complex as its design. When buildings were shelter they lasted longer than their builders. The average gothic master mason lived 35 or 40 years. Cathedrals took 3 or 4 hundred years to build. Cost estimates were verified by great great grandchildren of the original designer. Today, creative economics has become as important as creative design and creative building. The client brings builder, contractor, architect, and facilities manager to account in their life time. The cost of building can therefore no longer be left to chance or act of god. Solutions are no longer as ingeniously simple as those proposed by a Florentine builder early in the 15th century. He proposed to center the dome of S. Maria del Fiore on a great mound of earth mixed with pennies. When the job was done street urchins would carry away the dirt in their search for the pennies. This was a serious suggestion offered by an early construction manager before Brunelleschi solved the problem more sensibly.

Building Economics: Appraisal and Control of Building Design Cost and Efficiency

Analysis of Value and Cost

Decision Support for Construction Cost Control in Developing Countries

A Study at the Firm Level

Building Economics: Theory and Practice

This comprehensively rewritten, updated and extended new edition of this established text focuses on what has become the most important single facet of the quantity surveyor's role - cost management. The scope of the book has been broadened to take account of the widening and more sophisticated cost management and control service that clients now require. The book examines the factors influencing building costs and how the precontract costs can be estimated, analysed and controlled, to ensure that buildings can be completed within the agreed budget and timescale, and be of acceptable quality, function effectively and provide value for money. A new chapter on value management has been added, together with an introductory chapter on cost modelling; the chapter on life

cycling costing is extended, while the sections on energy conservation and occupancy costs are expanded. Throughout the text many new case studies, with supporting tables and diagrams, are included in order to enhance the value of this book to the student and the practitioner.

Using a combination of worked examples and case studies, this book examines how projects go over-cost, what lessons can be learned from past examples and what approaches have successfully been employed. Example case studies include: The Scottish Parliament Wembley Stadium Heathrow Terminal 5. If you're studying Surveying or Construction Management, or starting out as a Construction Cost Manager and need to plan or assess construction projects then this is the book for you.

A comprehensive, up-to-date and illustrated exposition of building maintenance in all its aspects, to serve the needs of building surveyors and other professionals involved in this activity and building, surveying and architectural students. It shows the great importance of properly maintaining buildings and the advisability of providing adequate feedback to the design team. All the main building defects are described and illustrated and the appropriate remedial measures examined. Alterations and improvements to buildings and the specifying, measurement, pricing, tendering and contractual procedures are all examined, described and illustrated. In addition, the planning and financing, execution and supervision of maintenance work receive full consideration.

Construction Cost Management

Fundamental Concepts for Owners, Engineers, Architects, and Builders

Implementing IT Business Strategy in the Construction Industry

Design Economics for the Built Environment

An Introduction

The continued growth of emerging nations depends largely on the development of their built infrastructures and communities. Roads, dams, bridges, hospitals, schools, and housing are all examples of the built environment that impacts economic improvements in the developing world. Decision Support for Construction Cost Control in Developing Countries explores how the construction industry contributes to a nation's GDP and the related cost issues and proposed cost reduction solutions for construction projects and initiatives in developing regions. Emphasizing the role of decision support systems for reducing and managing the costs associated with construction projects, this title is an essential reference source for civil engineers, business and engineering managers, project managers, researchers, and professionals in the construction industry.

The role of the project manager continues to evolve, presenting new challenges to established practitioners and those entering the field for the first time. This second edition of Peter Fewings' groundbreaking textbook has been thoroughly revised to recognise the increasing importance of sustainability and lean construction in the construction industry. It also tackles the significance of design management, changing health and safety regulation, leadership and quality for continuous improvement of the service and the product. Using an integrated project management approach, emphasis is placed on the importance of effectively handling external factors in order to best achieve an on-schedule, on-budget result, as well as good negotiation with clients and skilled team leadership. Its holistic approach provides readers with a thorough guide in how to increase efficiency and communication at all stages while reducing costs, time and risk. Short case studies are used throughout the book to illustrate different tools and techniques. Combining the theories underpinning best practice in construction project management, with a wealth of practical examples, this book is uniquely valuable for practitioners and clients as well as undergraduate and graduate students for construction project management.

This book is designed to be an inclusive for the best practice approach to building maintenance management, where the processes, procedures and operational systems meet a high standard of professional and academic competence. It offers a different perspective on building maintenance management by presenting the schematic building maintenance value chain model and its implementation in Malaysian university buildings. The findings show an improvement to building performance, lower maintenance cost, building sustainability and increased maintenance service user satisfaction. The learning outcomes and summaries provided for each chapter and the extensive use of tables and figures add to the readability of the text. Though the book is based on data from Malaysia, it is useful for a much wider audience, and the informal writing style makes it an interesting reference source. This book is valuable for readers who are practitioners, professionals and for academic institutions that offer courses in the building field, including architecture, quantity surveying, civil engineering, building and facility management, property management, real estate. It will also be of interest to governments and others involved in the construction industry.

Green Technologies: Concepts, Methodologies, Tools and Applications

Building Maintenance Processes and Practices

Theory and Application

An Integrated Approach

Ferry and Brandon's Cost Planning of Buildings

This book provides a single-source reference for whole life embodied impacts of buildings. The comprehensive and persuasive text, written by over 50 invited experts from across the world, offers an indispensable resource both to newcomers and to established practitioners in the field. Ultimately it provides a persuasive argument

as to why embodied impacts are an essential aspect of sustainable built environments. The book is divided into four sections: measurement, including a strong emphasis on uncertainty analysis, as well as offering practical case studies of individual buildings and a comparison of materials; management, focusing in particular on the perspective of designers and contractors; mitigation, which identifies some specific design strategies as well as challenges; and finally global approaches, six chapters which describe in authoritative detail the ways in which the different regions of the world are tackling the issue.

This practical guide to cost studies of buildings has been updated and revised throughout for the 5th edition. New chapters have been added on the RICS New Rules of Measurement (NRM) for order of cost estimating and elemental cost planning, and on the procurement of construction projects.

Sixth edition of the hugely successful, internationally recognised textbook on global public health and epidemiology comprehensively covering the scope, methods, and practice of the discipline.

Building Quantities Explained

A New Approach

Appraisal and Evaluation in Central Government : Treasury Guidance

Construction Quality and the Economy

Cost Estimation of Structures in Commercial Buildings

Life-cost approach to building evaluation comprehensively addresses in a reader-friendly, accessible way the fundamentals of life-cost studies in the built environment. It includes the time-value of money, discounted cash-flow analysis, differential price-level movement and affordability fluctuations. Contemporary issues such as occupancy costs, sustainability implications and value adding are also addressed. Replete with illustrations and examples, this innovative book provides a holistic approach to evaluation that integrates life-costing to broader social and environmental criteria. Important features include: - presentation materials to facilitate face-to-face and online learning - review questions - worked tutorial exercises, and - example examination papers.

The effective management of facilities can significantly improve business productivity. In this textbook the authors provide an overview of facility economics and outline the way in which businesses and facility managers can get better value from their physical assets. Students on facilities management and property related degrees will find this an invaluable introduction.

Technology development has provided fundamental benefits of speed, precision, and convenience to common business strategies; providing not only a means for functional integration, but also an opportunity to enhance competitive capability of a business firm. Implementing IT Business Strategy in the Construction Industry brings together topics on understanding business strategy and competitive advantage, as well as essential benefits of concepts and technologies for improving efficiency of the construction industry. This reference source is directed toward researchers, policy-makers, practitioners, undergraduate, and postgraduate students, in order to gain insights into the complex workings of the traditional construction industry and the concepts and tools used to facilitate a strategically IT enabled industry.

Construction Economics

Building Project Appraisal

Life-Cost Approach to Building Evaluation

Civil Engineering Quantities

Project Management for Construction

This new edition of the classic quantity surveying textbook retains its basic structure but has been thoroughly updated to reflect recent changes in the industry, especially in procurement. Although over the last 20 years a number of new procurement methods have evolved and become adopted, the recession has seen many clients revert to established traditional methods of procurement so the fundamentals of cost planning still apply - and should not be ignored. The first edition of this leading textbook was published in 1964 and it continues to provide a comprehensive introduction to the practice and procedures of cost planning in the procurement of buildings. This 9th edition has been thoroughly updated to reflect changes that have occurred in the UK construction industry in the past six years. Whilst retaining its core structure of the three-phase cost planning process originally developed by Ferry and Brandon, the text provides a thorough grounding in contemporary issues including procurement innovation, whole life cycle costing and modelling techniques. Designed to support the core cost planning studies covered by students reading for degrees in quantity surveying and construction management, it provides a platform for understanding the fundamental importance of effective cost planning practice. The principals of elemental cost planning are covered from both pre- and post- contract perspectives; the role of effective briefing and client/stakeholder engagement as best practice is also reinforced in this text. This new edition:

Addresses The Soft Landings Framework (a new govt. initiative, especially for schools) to make buildings perform radically better and much more sustainably. Puts focus on actual performance in use at brief stage, during design and construction, and especially before and after handover. Covers recent changes in procurement, especially under the NEC and PFI Provides more on PPP and long-term maintenance issues Offers an improved companion website with tutorial worksheets for lecturers and Interactive spreadsheets for students, e.g. development appraisal models; lifecycle costing models

This new edition incorporates revised guidance from H.M Treasury which is designed to promote efficient policy development and resource allocation across government through

the use of a thorough, long-term and analytically robust approach to the appraisal and evaluation of public service projects before significant funds are committed. It is the first edition to have been aided by a consultation process in order to ensure the guidance is clearer and more closely tailored to suit the needs of users.

The financing of modern construction projects reflects the need to address the costs and benefits of the whole life of the project. This means that end of life economics can now have a far greater impact on the planning and feasibility phases. During the project itself, decisions on construction materials and processes all influence the schedule as well as both immediate and down-the-line costs. Massimo Pica and his co-authors explain in detail the fundamentals of project life cycle economics and how they apply in the context of complex modern construction. This is an essential guide for those involved in construction project design, tendering and contracting; to help ensure the sustainability of the project or their contribution to it, from the start. It is also important for those involved in the delivery of the project to help them make the choices to keep the project on a financial even keel. Government, corporations and other organizations are looking for new models of collaborative working to fund their large construction and infrastructure projects in the face of changing attitudes to risk; a better educated and more demanding base of end-user clients and the increasing requirements for projects that are environmentally responsible and sustainable. Project Life Cycle Economics is a fundamental primer for those commissioning and those delivering construction.

Strategic Management of Built Facilities

Learning from Case Studies

Building Maintenance

Cost Estimation, Management and Effectiveness in Construction Projects

Embodied Carbon in Buildings

Students across a wide range of disciplines, ranging from construction management and construction engineering through to architecture, property and surveying should find this an invaluable textbook.

Measurement, Management, and Mitigation

Research Companion to Construction Economics

The Case of a Fast Developing Country