



infrastructure

productivity

sustainability



technology

water



Publications catalogue 2012

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Top 10

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 - 7 Beach management manual (second edition) (C685B)
 - 8 Planning for SuDS – making it happen (C687)
- 9 Tunnels: inspection, assessment and maintenance (C671)
 - 10 Trenching practice (second edition) (R97)

About CIRIA

Publications are pivotal in meeting the demand for information across the extensive range of topics in the construction industry.

Guides by expert authors, rigorous review by a steering group of knowledgeable practitioners and prospective users, and the subsequent thorough editing and design, contribute to their high standard.

CIRIA's extensive reach across the wider industry makes the production of written guides an effective way of disseminating best practice guidance to practitioners. As well as contributing to the use of best practice, CIRIA publications play an important role in helping and encouraging regulations compliance and form an important catalyst in the promotion of change.

This new catalogue lists all available CIRIA publications with an index list at the back to help the reader find books by title.

Each title has two prices: **members** and **non-members**. By joining the **CIRIA Core Programme** or the **CIRIA Books Club**, customers can take advantage of the discounts offered to members.

CIRIA offers five corporate membership routes. The nature of CIRIA's work means that staff at all levels of an organisation can get involved in CIRIA activities from attending conferences and purchasing books, keeping up-to-date on important issues by networking with industry players, to influencing CIRIA's research programme.

How to get involved

CIRIA manage or actively participate in several topic-specific learning and business networks and clubs.

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Core membership: allows your employees to assist with the development of and access to good practice guidance, formal networks, facilitation, conferences, workshops and training.

Associate membership: allows your employees to access CIRIA's services. Members are able to access exclusive content via the CIRIA website.

CIRIA Books Club: members can buy most CIRIA publications at half price and can attend a range of CIRIA conferences at reduced rates.

Project funding: project funders influence the direction of the research and gain early access to the results.

Networks

The CIRIA Network: a member-based community where clients and professionals meet, develop and share knowledge about specific topics relevant to construction and the built environment.

CEEQUAL: CIRIA co-manages this environmental award scheme, which promotes environmental quality in civil engineering and infrastructure projects.

Local Authority Contaminated Land Network (LACL): helps local authorities address responsibilities under Part IIA of the Environmental Protection Act 1990.

European Marine Sand and Gravel Group (EMSAGG): CIRIA provides secretariat support to EMSAGG, including management of the Group's conferences, workshops and website and producing its newsletter.

SAFEGROUNDS Learning Network: a forum for disseminating good practice guidance on the management of radioactively and chemically contaminated land on UK nuclear and defence sites.

SD:SPUR: the initiative was developed to establish safe, socially, economically and environmentally sustainable practices arising from the decommissioning of nuclear sites.

Local Authority Network on Drainage and Flood Risk Management (LANDF♦RM): a platform for sharing knowledge and expertise in flood risk management and sustainable drainage.

Brownfield Risk Management Forum (BRMF): promoting sustainable and good practice in brownfield projects in the UK.

CIRIA International

CIRIA sells its books internationally through the following agents:

Malaysia

YPJ Publications & Distributions, SDN BHD, 84-86, 2nd Floor, 6 Floor Building, Jalan Raja Bot, Kg. Baru, Kuala Lumpur 53300, Malaysia
Tel: +60 3 2698 3068
Fax: +60 3 2698 3078
Email: ypj@streamyx.com

USA

ASCE publications, American Society of Civil Engineers Book Orders, PO Box 79404, Baltimore, MD 21279-0404
Tel: +1 800 548 2723 (US) or tel: +1 703 295 2723
Fax (international): +1 703 295 6211
email: marketing@asce.org website: www.asce.org

Balogh International, 1911 N. Duncan Road, Champaign, Illinois 61822, USA
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Fax: +1 217 355 9413
email: balogh@balogh.com

CIRIA Books Club

New CIRIA publications play a critical role in helping organisations stay abreast of current trends and practices, and is the reason CIRIA publications remain successful in an increasingly competitive marketplace.

CIRIA Books Club (CBC) gives its subscribers the opportunity to buy all the books they need at the minimum cost and with minimum effort.

Both options are offered to meet the wide range of needs, and each one leads to significant savings compared to one-off purchase prices.

More than 400 companies already benefit from being members.

- special discounts on bulk orders
- online ordering
- regular member enews updates
- free copies of CIRIA's newsletter.

CIRIA Books Club offers two levels of subscription to suit all sizes of organisation: **Bronze** and **Gold**.

The annual savings are significant even for companies who typically would buy only a small number of titles each year.

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Joining is easy

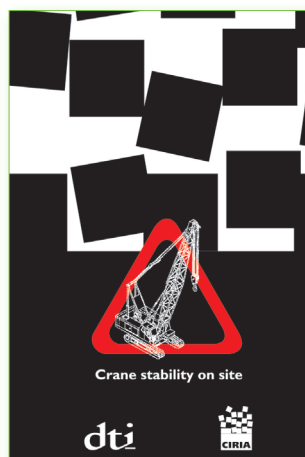
Decide the level of membership that best suits your organisation and then contact CIRIA on tel: **+44 (0)20 7549 3300** for an application form or apply online at: **www.ciria.org**

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Gold	£695 +VAT Non-EU £775	All new titles free Up to 50% off all purchases
Bronze	£245 +VAT	Up to 50% off all titles

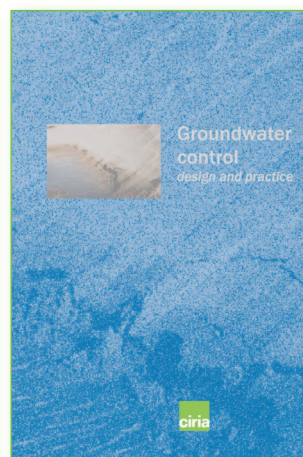
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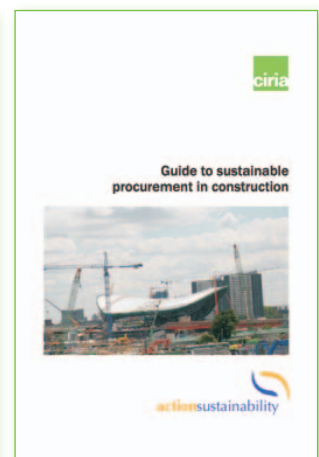
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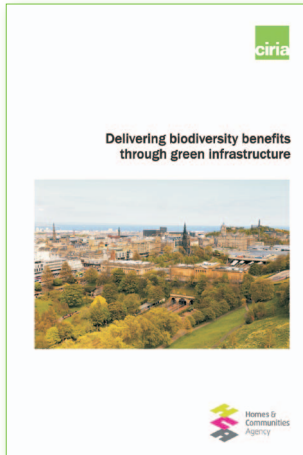
New and forthcoming titles

New

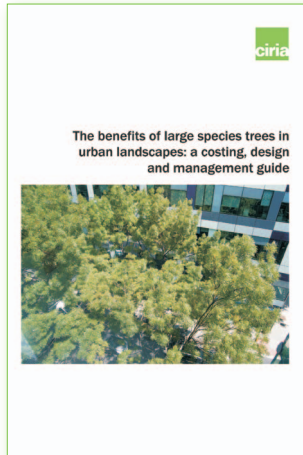
Delivering biodiversity through green infrastructure (C711) November 2011

The benefits of large species trees in urban landscapes: a costing, design and management guide (C712) March 2012

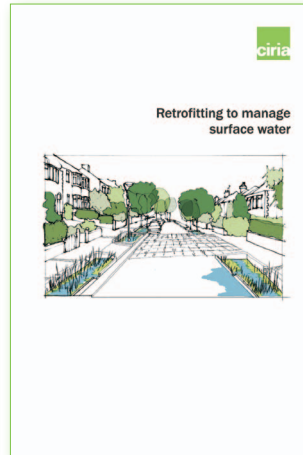
Retrofitting to manage surface water (C713) April 2012



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Forthcoming (2012)

Transport infrastructure drainage: condition appraisal and remedial treatment (C714)

Environmental good practice on site – pocket guide (C715)

Remediation and mitigation of VOCs generated from land (C716)

Supporting key construction markets

Buildings and facilities

CIRIA and its members are actively involved in many aspects of the built environment in the UK and throughout the world. Involvement spans the whole building lifecycle from initial requirements capture, through design and construction, to operations and de-commissioning. Whether your interests are in public buildings, commercial property development, industrial facilities or homes, you will find something of interest in this catalogue.

- Faster construction on site by selection of methods and materials
- A client's guide to greener construction
- Retention of masonry façades
- Facilities management manuals
- Buildings for all to use. Good practice guidance for improving existing public buildings for people with disabilities
- Planning to build? A practical introduction to the construction process
- IT in construction
- Standardisation and pre-assembly – adding value to construction projects
- Rainwater and greywater use in buildings.

Transport

CIRIA and its members are involved in many aspects of transport in the UK and throughout the world. Many of our recent guidance documents cover the built infrastructure elements of road and rail. However, CIRIA has also produced guidance in collaboration with organisations involved in ports, harbours and inland waterways.

- Infrastructure embankments: condition appraisal and remedial treatment
- Infrastructure cuttings: condition appraisal and remedial treatment
- Safety in ports – ship to shore linkspans and walkways
- Inland dredging
- Old waterfront walls – management, maintenance and rehabilitation
- Management of gully pots for optimum runoff quality
- Use of industrial by-products in road construction – water quality effects
- Bridges – design for improved buildability
- Bridge detailing guide
- Manual on scour at bridges and other hydraulic structures.

Water and utilities

CIRIA has a strong commitment to working with the construction, water and environmental industries to develop solutions that provide tangible performance improvement. Many projects are concerned with improving sustainability and achieving change in real, everyday working practices.

CIRIA's work covers: surface water and drainage flooding, coastal and marine engineering, inland waterways and groundwater, and water supply and sewerage. Coverage ranges from traditional infrastructure such as reservoirs, sewers and pipelines to newer techniques including sustainable drainage and greywater reuse.

- SuDS best practice and design manuals
- Manual on the use of rock in coastal and shoreline engineering
- Coastal and marine environmental site guide
- Control of water pollution from construction sites – guide to good practice and training materials
- Guidance leaflets for Environment Agency on flooding
- Guidance leaflet on small package sewage treatment plants.

Buildings for all to use 2

K Bright, S Flanagan, J Embleton, L Selbekk and G Cook

This CD provides guidance for designers and others, particularly building owners and managers, on altering and adapting existing non-residential buildings to provide better access for disabled people. Improving access for disabled people also enhances access for all those who need to use the building. This is a special edition for the blind or partially-sighted to be used in association with special reading software. **C706CD** | 978-0-86017-706-7 | £106 +VAT (£52 +VAT members) | CD | 2004

The offsite project toolkit

A Gibb and M Pendlebury

This toolkit can help you achieve the benefits of offsite. It provides guidance on the concept and how to realise the benefits of off-site production through appropriate application.

This new version, which supersedes C593CD, has been revised to provide improved functionality. It also includes 150 examples to provide a starting point for those new to off-site production for construction.

C631CD | 978-0-86017-631-2 | £60 +VAT (£30 +VAT members) | CD | 2005

Standards for the repair of buildings following flooding

S Garvin, J Reid and M Scott

Flooding is a major problem for many people in the UK, posing a risk to health, safety and well-being, and resulting in widespread damage to property. The repair of buildings has to be appropriate to both the extent of damage and the risk of future flood.

This guide contains illustrations of damage, surveys, drying and decontamination, and repair work to buildings. Appendices include guidance to homeowners, technical information and organisations that can advise on flooding, and information on the provision of insurance.

C623 | 978-0-86017-623-7 | £90 (£45 members) | PB | 2005

Buildings for all to use 2 – improving the accessibility of public buildings and environments

K Bright, S Flanagan, J Embleton, L Selbekk and G Cook

There is a changing attitude to accessibility, and it is important that guidance on altering and adapting existing non-residential buildings to provide improved access for disabled people is up-to-date.

This design guidance is arranged in chapters that relate to a sequential journey into, around and out of a building. It will enable owners, designers and managers of environments to make well-informed, pragmatic decisions about improving the inclusiveness and accessibility of their buildings.

C610 | 978-0-86017-610-7 | £106 (£52 members) | PB | 2004

Design for deconstruction. Principles of design to facilitate reuse and recycling

B Addis

This book addresses the opportunities for maximising the reuse of components and recycling of materials when a building is wholly or partially deconstructed or demolished. Guidance is provided for designers, specifiers and their clients on the principles and strategies of design works, and to help their efficient, safe and economic deconstruction that optimises reuse and recycling.

C607 | 978-0-86017-607-7 | £90 (£45 members) | PB | 2003

Retention of masonry façades – best practice site handbook

D Lazarus, M Bussell and P Ross

This handbook offers best practice guidance for site work in connection with the safe, economic and practical retention of existing façades. More comprehensive guidance for the overall process of façade retention is contained in the companion volume CIRIA C579.

C589 | 978-0-86017-589-6 | £50 (£25 members) | PB | 2003

Retention of masonry façades – best practice guide

D Lazarus, M Bussell and P Ross

This publication provides best practice guidance for the safe, economic and practical retention of existing façades. It covers both load-bearing masonry and masonry façades with embedded steel or reinforced concrete frames, generally constructed in the 18th, 19th and early 20th centuries, and of varying size and complexity. Complemented by CIRIA C589.

C579 | 978-0-86017-579-7 | £120 (£60 members) | 2003

Cladding fixings

P Harrison, J Masat and A Peric-Matthews

This is the how-to-fix-claddings bible. Comprehensive examination of curtain walling, pre-cast concrete, stone, brickwork/blockwork, sheet metal, and rainscreen overcladding, using brackets, anchors, bolts, fasteners and washers. It covers problems, design, installation, testing and maintenance, leaving no stone (or any other cladding) unfixed.

C524 | 978-0-86017-524-7 | £90 (£45 members) | PB | 2000

Sealant joints in the external envelope of buildings: a guide to design, specification and construction

S R Ledbetter, S Hurley and A Sheehan

Today, most new buildings often depend on sealant joints to prevent air and water from getting inside. This comprehensive guide aims to promote good practice and better understanding for the use of sealants in the building envelope.

R178 | 978-0-86017-480-6 | £80 (£40 members) | PB | 1998

Water-resisting basement construction – a guide. Safeguarding new and existing basements against water and dampness. Summary report – guide to the full report (factors which most influence preliminary appraisal)

R A Johnson

This publication gives guidance on the construction and improvement of new and existing water-resisting basements. It covers all viable construction methods, and active and passive precautions available to achieve the most appropriate and economic environmental control system.

R140 | 978-0-86017-427-1 | £50 (£25 members) | PB | 1995

Water resisting basements – a guide. Safeguarding new and existing basements against water and dampness

R A Johnson

This guide examines water and vapour protection of new and existing basements, both deep (commercial) and shallow (residential and non-residential). It covers diaphragm and secant walls, contiguous bored piles for the former and concrete, masonry or steel sheet piling for the latter (see also CIRIA R140).

R139 | 978-0-86017-426-4 | £70 (£35 members) | PB | 1995

A guide to the management of building refurbishment

J G Perry

This guide addresses the problems of the inception and overall management of building refurbishment projects, including construction work to update or change the facilities of an existing building, or in connection with new-build extensions. It is for those who may be responsible for a building refurbishment project on behalf of an owner or lessee and who need to take a strategic view.

R133 | 978-0-86017-394-6 | £70 (£35 members) | **PB** | 1994

Design for inherent security: guidance for non-residential buildings

B Poyner and W Fawcett

Should architects pass on the challenge of security in buildings to specialists or manufacturers? Security depends on site layout and design detail such as location of doors and windows, control of movement and access, and exploitation of natural human surveillance. Consider it early and it costs little or nothing to introduce.

SP115 | 978-0-86017-416-5 | £70 (£35 members) | **PB** | 1995

Dealing with vandalism – a guide to the control of vandalism

D W Cheetham (comp)

This guide provides a set of pragmatic solutions: good management practices, use of appropriate material and design, prevention programmes, and surveillance systems for tackling graffiti.

SP91 | 978-0-86017-375-5 | £50 (£25 members) | **PB** | 1994

Guidelines for checking computer analysis of building structures

I A MacLeod

This guide assists the reader on verifying computer analysis results, as applied to building structures, and on procedures recommended for checking data, equilibrium and symmetry. It covers the computer analysis of simple structural forms such as building frames, slabs and walls.

TN133 | 978-0-86017-294-9 | £50 (£25 members) | **PB** | 1988

Photocopies of out of print titles

The following titles are now out of print but bound photocopies of these can still be purchased.

Full details can be found in the CIRIA bookshop via the website: <www.ciria.org>

Bridge detailing guide

C543 | 978-0-86017-543-8 | £83 +VAT (£78 +VAT members)

A review of testing for moisture in building elements

C538 | 978-0-86017-538-4 | £54 +VAT (£49 +VAT members)

Design and construction of joints in concrete structures

R146 | 978-0-86017-429-5 | £30 +VAT (£25 +VAT members)

The connection of precast concrete structural members 1971

R28 | 978-0-901208-57-6 | £23 +VAT (£18 +VAT members)

Designs for openings in the webs of composite beams

SP51 | 978-0-86017-283-3 | £20 +VAT (£15 +VAT members)

Buildability: an assessment 1983

SP26 | 978-0-86017-202-4 | £16 +VAT (£11 +VAT members)

Design for movement in buildings

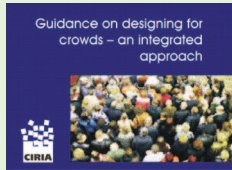
TN107 | 978-0-86017-169-0 | £25 +VAT (£20 +VAT members)

Best seller

Guidance on designing for crowds – an integrated approach

I Rowe and S Ancliffe

This publication contains details of what is considered good practice and has been developed to assist designers in



minimising the risk of crowd accidents within their design. The guidance applies to sports stadia, music venues, arenas, theatres, railway stations, shopping malls, religious venues and any other environment where crowds are expected such as places where crowds gather (Hogmanay) or public events such as a state funeral or a royal wedding.

C675 | 978-0-86017-675-6 | £50 (£25 members) | PB | 2008

Good practice guidance for refurbishing occupied buildings

W Fawcett and J Palmer

This good practice guide has been written for those involved in refurbishing occupied buildings. The good practice principles should help to ensure an efficient refurbishment with minimum disruption to business continuity. Here, business continuity means continuing activities of any organisation occupying a building under refurbishment, including institutions such as schools and hospitals as well as commercial companies.

C621 | 978-0-86017-621-3 | £50 (£25 members) | PB | 2004

Facilities management manuals – a best practice guide

J Armstrong

One of the recurrent themes in facilities management is the failure of the design team to understand the needs of the building users. This guide has been produced to focus on the needs of the building user. The framework presented brings a clear understanding of the capabilities of premises, performance limits, costs, servicing, maintenance and breakdown procedures, and the long-term management strategy.

This guide provides facility managers and other property operators with an improved understanding of the information required to successfully operate and maintain their facilities.

C581 | 978-0-86017-581-0 | £100 (£50 members) | PB | 2002

Operation and maintenance manuals for buildings – a guide to procurement and preparation

CIRIA

Owners, occupiers or maintainers of major new construction – or even small existing buildings – should keep accurate records. These are needed to comply with a growing body of health, safety and environmental legislation and to limit use costs.

This user-friendly guide looks at the benefits of operation and maintenance (O&M) manuals, indicates the likely readership and provides advice on how to specify, procure, use and maintain a manual. It gives guidance on structure, format and content, provides checklists and investigates the options for applying IT to the production, maintenance and use of these manuals.

C507 | 978-0-86017-507-0 | £80 (£40 members) | PB | 1999

Bridges – design for improved buildability

S S Ray, J Barr and L Clark

This book guides bridge designers, working for either the owner or a constructor, on how to improve the buildability of common highway bridge structures. Checklists of actions provide a useful reminder of conceptual and specific issues related to design for buildability and can be extended to suit individual projects.

R155 | 978-0-86017-440-0 | £70 (£35 members) | PB | 1996

Best seller

Structural renovation of traditional buildings

CIRIA

The book examines the structural aspects in renovating traditional buildings of the late 18th, 19th and early 20th centuries. Detailed sections describe the assessment, repair, and upgrading of structures built of masonry, timber, cast and wrought iron, and mild steel. It also covers the design and construction aspects of foundation strengthening and retention of the facades of buildings and includes sources of further information.



R111 | 978-0-86017-257-4 | £50 (£25 members) | PB | 1986

Photocopies of out of print titles

The following titles are now out of print but bound photocopies of these can still be purchased.

Full details can be found in the CIRIA bookshop via the website: <www.ciria.org>.

A client's guide to quality assurance in construction

SP55 | 978-0-86017-287-1 | £15 +VAT (£10 +VAT members)

Graffiti removal and control

SP71 | 978-0-86017-307-6 | £20 +VAT (£15 +VAT members)

Value management in construction: a client's guide

SP129 | 978-0-86017-452-3 | £30 +VAT (£25 +VAT members)

Geotechnical issues in construction: short paper series and 1st conference held on 10 November 2008, at CIRIA, London

T Chapman, J Perry, N O'Riordan, M Preene, C Power, D Patterson, D Cox and A El-Hamalawi

Geotechnical (ground) engineering is an area that is both fundamental to many construction processes and constantly evolving through the incorporation of new technology and ideas. CIRIA has been active in the ground engineering community for the last 50 years and the guidance produced has played an important role in shaping understanding and adopting the advancing techniques developed over this time.

CIRIA's Ground Engineering Advisory Panel (GEAP) is made up of engineers and consultants with a wealth of knowledge and experience in geotechnical issues.

These papers have been developed by the members following presentations that they gave at the panel's mini-conference in November 2008.

X512 | 978-0-86017-922-1 | £10 (£5 members) | PB | 2011

Geotechnical issues in construction: short paper series and 2nd conference held on 2 November 2009, at CIRIA, London

J Perry, F Loveridge, S Jefferis, V Troughton, C Lam, P Bourne-Webb, D Cox, R Coe and E Booth

CIRIA's Ground Engineering Advisory Panel (GEAP) is made up of engineers and consultants with a wealth of knowledge and experience in geotechnical issues.

These papers have been developed by the members following presentations that they gave at the panel's mini-conference in November 2009.

X513 | 978-0-86017-923-8 | £10 (£5 members) | PB | 2011

Drystone retaining walls and their modifications: condition appraisal and remedial treatment

M O'Reilly and J Perry

Drystone retaining walls are commonplace on the UK transport infrastructure in areas where building stone is available. Since 1920 only a handful of such retaining structures have been built on the transport network and the vast majority of these structures now in existence began life over 90 years ago. Over the years many drystone retaining walls have been modified by various measures to increase their lives, and these modified structures are considered within this publication.

There is now the need to promote and develop methods of preserving this valuable stock of retaining structures. The process involved and the basic information needed in achieving this desirable state of affairs is the subject of this guide.

C676 | 978-0-86017-676-3 | £90 (£45 members) | PB | 2008

Reuse of foundations

T Chapman, S Anderson and J Windle

The reuse of foundations for a second superstructure is technically feasible and is increasingly becoming part of standard practice. For refurbishment projects, reuse of old foundations and structures is the norm.

This guide sets out the background and provides guidance on the key issues for foundation reuse. It is aimed at developers, funders and technical professionals who are interested in an overview of the principal issues relating to reuse of existing foundations for new structures.

C653 | 978-0-86017-653-4 | £70 (£35 members) | PB | 2007

EC7 – Implications for UK practice

R Driscoll, P Scott and J Powell

The creation of the Structural Eurocodes has been in progress for many years. These new EU Standards have now advanced to a stage that warrants serious preparation for their implementation and the consequences of withdrawal of corresponding national documents. For a complex engineering discipline such as geotechnics, used to the piecemeal and evolutionary introduction of national codes and testing standards, the introduction of a significantly different design philosophy for dealing with engineering uncertainty and the relatively rapid replacement of national documents represent major changes for the industry.

C641 | 978-0-86017-641-1 | £110 (£55 members) | PB | 2008

Soil nailing – best practice guidance

A Phear, C Dew, B Ozsoy, N J Wharmby, J Judge and A D Barley

Soil nailing is a technique where either natural ground or fill material is reinforced by the insertion of slender tension-carrying elements called soil nails. A soil-nailed slope or wall usually consists of soil nails, a hard, flexible or soft facing to a slope or wall surface, and surface water and subsurface drainage systems.

Based on a detailed review of published literature, consultation with industry experts and practitioners, case studies, and existing codes and standards, this guide sets out best practice for soil nailing. It provides information for routine use of the technique for developers, infrastructure and property-owners, designers, suppliers, contractors and maintenance managers.

C637 | 978-0-86017-637-4 | £110 (£55 members) | PB | 2005

Engineering in the Lambeth Group

D W Hight, R A Ellison and D P Page

The Lambeth Group underlies the London and Hampshire Basins. While of limited outcrop, it is of considerable relevance to infrastructure developments in central London, particularly those of tunnelling and deep foundations. This book draws together new information, coupling it with a review of case histories of construction in the Lambeth Group. It provides guidance about the relation between engineering properties and the group's widely different lithologies, about the hazards they pose for construction, and appropriate ways to overcome them.

C583 | 978-0-86017-583-4 | £110 (£55 members) | PB | 2003

Engineering in chalk

J A Lord, C R I Clayton and R N Mortimore

This book describes the chalk's geological setting, its origins, occurrence, its stratigraphy, weathering and geomorphological situations, the material and mechanical properties. It explains recommended schemes for the engineering description and classification of chalk, building on the work presented in CIRIA PR11.

Based on analysis of the results of pile testing, the book makes recommendations for the design and choice of bored, CFA, driven cast-in-place and pre-formed piles in chalk and for estimating shaft and base resistances.

C574 | 978-0-86017-574-2 | £120 (£60 members) | PB | 2002

Best seller

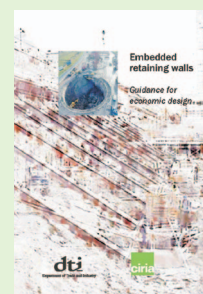
Embedded retaining walls – guidance for economic design

A R Gaba, B Simpson, W Powrie and D R Beadman

This new publication, which replaces CIRIA R104, provides best practice guidance on the selection and design of vertical embedded retaining walls. It covers temporary and permanent cantilever, anchored, single and multi-propped retaining walls that are supported by embedment in stiff clay and other competent soils. It is one of the most important ground engineering publications since the mid 1980s.

The book addresses the technical and construction issues relating to the selection of appropriate wall type and construction sequence to achieve economy. It clarifies areas of design ambiguity and presents a clear, unambiguous method for the design of such walls and provides guidance on best practice in ground investigation.

C580 | 978-0-86017-580-3 | £130 (£65 members) | PB | 2003



A guide to ground treatment*J Mitchell and F M Jardine*

This accessible introduction to ground treatment describes the physical principles, methods, effectiveness and limitations of the various treatment techniques. It provides guidance on the selection of appropriate techniques, using case histories, referring to comparative studies where possible.

Among the techniques studied are vibro-compaction, vibro stone columns, compaction, pre-compression, vertical drains, soil nailing, micro-piles, lime columns, mix-in-place, grouting (permeation, hydrofracture, jet, compaction, squeeze and compensation), ground freezing and geotextile mats. See also CIRIA C572.

C573 | 978-0-86017-573-5 | £110 (£55 members) | PB | 2002

Treated ground – engineering properties and performance*J A Charles and K S Watts*

This guide focuses on the properties of treated ground, where the objective of treatment has been the improvement of the load-carrying characteristics of the ground. The only ground treatment methods included are those that are used, or are suitable for use, in the UK. The book establishes the best assessments and measurements of engineering properties and performance of treated ground. It also explains how to carry out these assessments and measurements.

It will be of direct use to geotechnical specialists and will also be of interest to a wide range of people involved in building and civil engineering projects that require ground treatment. This report is published together with CIRIA C573.

C572 | 978-0-86017-572-8 | £100 (£50 members) | PB | 2002

Engineering in Mercia mudstone*R J Chandler and A Forster*

The Mercia Mudstone Group, part of the Triassic Series formerly known as the Keuper Marl, is a sequence dominated by mudstones that underlies much of central and southern England and parts of Northern Ireland, on which many urban areas and their attendant infrastructure are built. These strata affect the construction industry mainly in operations such as foundations, excavations and earthworks. This guide replaces CIRIA R47, and provides up-to-date information about the engineering properties of the Mercia Mudstone Group.

C570 | 978-0-86017-570-4 | £90 (£45 members) | PB | 2001

Geophysics in engineering investigations*P W McDowell, R D Barker, A P Butcher, M G Culshaw, P D Jackson, D M McCann, B O Skipp, S L Matthews, J C R Arthur*

Ground investigation can often be carried out by geophysical survey where direct methods are impractical or too costly. This guide presents a logical sequence through the process of using geophysical investigation methods in site characterisation. It provides guidance for civil and ground engineers, geotechnical specialists and geophysical contractors, and general contractors, consultants and clients.

C562 | 978-0-86017-562-9 | £90 (£45 members) | PB | 2002

Temporary propping of deep excavations – guidance on design*D Twine and H Roscoe*

The use of different calculation methods for prop loads is leading to significant variation in results. There is a need for an authoritative statement on the practical limits to which ground movements can be restricted. This guide proposes the distributed prop load method for establishing temporary prop loads for design. See also CIRIA PR77.

C517 | 978-0-86017-517-9 | £100 (£50 members) | PB | 1999

Modular gravity retaining walls – design guidance*T Chapman*

This publication sets out good practice in the planning, selection, design, installation and maintenance of low-height modular retaining walls, composed of different modular units. It will be valuable for specifiers, designers, manufacturers, installers and owners. It accords with design to Eurocode 7 Part 1 and to BS 8002:1994, and is also consistent with design to Highway Agency Standards. The guide reviews low-height modular retaining wall systems, provides guidance for their selection, and explains the principles and other considerations of wall design.

C516 | 978-0-86017-516-2 | £100 (£50 members) | PB | 2000

Top 10**Groundwater control – design and practice***M Preene, T O L Roberts, W Powrie and M R Dyer*

Dig below the water table and instability and flooding may occur unless the groundwater is pumped away. This guide explains groundwater control by pumping and gives practical information for its effective and safe design, installation and operation.

C515 | 978-0-86017-515-5 | £100 (£50 members) | PB | 2000

**Grouting for ground engineering***C G Rawlings, E E Hellowell and W M Kilkenny*

The definitive survey of grouting. Six main techniques are discussed: permeation, rock grouting, hydrofracture, ground compaction, jet grouting and compensation grouting.

The guide also includes case studies, contractual relationships, responsibilities, recommendations and is for all involved in the procurement and use of grouting in ground engineering.

C514 | 978-0-86017-514-8 | £90 (£45 members) | PB | 2000

Engineering in glacial tills*N A Trencher*

This book demystifies glacial tills – their origins, land systems and distribution within the UK glacial stratigraphy and classification. Guidance for engineering in tills covers site investigation, earthworks, shallow and piled foundations, dewatering, tunnelling and landslides.

C504 | 978-0-86017-504-9 | £90 (£45 members) | PB | 1999

Shaft friction of CFA piles in chalk*A Lord, T Hayward and C R I Clayton*

CIRIA and member firms of the Federation of Piling Specialists (FPS) collaborated in instituting this research.

This book makes recommendations for the design of shaft resistance of CFA piles in low- and medium-density chalk. It is not appropriate to the design of piles constructed by any other method. It contains the graphical plots and analyses of pile test data and reviews some design aspects of continuous flight augered piles in chalk.

PR86 | 978-0-86017-887-3 | £50 (£25 members) | PB | 2003

Bioengineering – the Longham Wood Cutting field trial*J R Greenwood, A W Vickers, R P C Morgan, N J Coppin and J E Norris*

CIRIA's Research Project 441 *Field trial and demonstration site for bio-engineering*, undertaken over the period 1991–1995 and Research Project 536 *Bioengineering: M20 – medium-term monitoring*, from 1995 to 1998, followed from CIRIA's earlier publication (B10). The project was conceived as a live trial, where the effects of vegetation on the stability of slopes could be demonstrated for the benefit of the engineering community and its clients.

This report supersedes CIRIA SP128,

This guide is supported by numerical data, collected during the monitoring periods. This data is presented in a separate data appendix on CD-Rom.

PR81 | 978-0-86017-881-1 | £50 (£25 members) | PB | 2001

Prop loads in large braced excavations

W Powrie and M Batten

Embedded walls retaining the sides of large excavations are often supported at some stage in the construction process by temporary props at one or more levels. This publication presents the findings of a research project that measured and analysed the loads in the temporary props at the Canada Water and Canary Wharf station excavations and, being a research summary, will be a help to temporary works designers and geotechnical engineers. It accompanies CIRIA C517.

PR77 | 978-0-86017-877-4 | £50 (£25 members) | PB | 2000

Trenchless and minimum excavation techniques – literature review. Annex to Special Publication 147

J F Grimes and P Martin

Trenchless and minimum excavation (TME) technology offers the opportunity to install, replace and renovate underground services with the minimum of disturbance to the surface environment and to other utilities. This book describes the TME techniques available and provides guidance on the planning and investigation for their use.

PR63 | 978-0-86017-863-7 | £50 (£25 members) | PB | 1999

The Observational Method in ground engineering: principles and applications

D Nicholson, C-M Tse and C Penny

The Observational Method is enjoying a spirited revival as a pragmatic, post-Egan approach to the construction process combining cost-effectiveness with safety. Packed with examples of real-world implementation plus clear exposition, this book is a must for design and construction managers, and clients and civil engineers involved in civil and geotechnical works.

R185 | 978-0-86017-497-4 | £100 (£50 members) | PB | 1999

Piled foundations in weak rocks

J A Gannon, G G T Masterton, W A Wallace and D Muir Wood

This book summarises current knowledge and practice. It provides a definition of weak rock, and considers the nature of the material and the best ways of investigating, characterising and classifying weak rock for the purpose of pile design. This is a valuable reference for geotechnical and structural engineers working in investigation, design and construction, and research.

R181 | 978-0-86017-494-3 | £90 (£45 members) | PB | 1999

Ground engineering spoil: good management practice

J C T Kwan, J S Sceal, F E Bryson, J Stanbury, J Bickerdike, F M Jardine

The landfill tax has concentrated minds but there are all sorts of benefits from good spoil management. For planners, construction clients, designers and contractors. Reviews 40 construction projects, six in detail. Spoil management should be included in the project brief from day one.

R179 | 978-0-86017-484-4 | £70 (£35 members) | PB | 1997

Integrity testing in piling practice

M J Turner

This publication is for use by a range of professionals with differing responsibilities and interests in the satisfactory installation of pile and piled foundations. It provides information at all levels, from a generalised overview of the subject to detailed descriptions of the theory and practice of the various techniques that can be employed.

R144 | 978-0-86017-473-8 | £100 (£50 members) | PB | 1997

The standard penetration test (SPT): methods and use

C R I Clayton

This comprehensive manual provides guidance on the use of the standard penetration test (SPT) in geotechnical engineering. Used worldwide in a variety of ground conditions, this simple test is relied upon to provide information about the properties of soils and weak rocks and as a basis for design. The guide brings together the many observations of causes of variability in SPT results, recommends practices to achieve better workmanship and interpretation.

R143 | 978-0-86017-419-6 | £90 (£45 members) | PB | 1995

Top 10

Trenching practice (second edition)

D J Irvine and R J H Smith

Trench collapses cause many deaths and injuries every year in the UK. All clients, designers and contractors concerned with trenching work are urged to study this guide to safe practice and act upon its advice. The recommendations made here apply to the design and use of temporary support for trenches up to 6 m deep. The guide alerts the user to the wide range of problems in the variety of site and soil conditions that are likely to be met in practice. The emphasis is on safe design and methods of work and particular dangers are highlighted.

R97 | 978-0-86017-192-8 | £50 (£25 members) | PB | 1983



Response of buildings to excavation-induced ground movements. Proceedings of the international conference held at Imperial College, London, UK on 17-18 July 2001

CIRIA

This highly acclaimed conference brought together experts on the subject from all parts of the world. The diversity of experience is reflected in the contributions, which range from basement excavation at the British Museum in London and compensation grouting at Antwerp Central Station to the monitoring of structures in Moscow and pipe-jacking below a railway in Hong Kong.

These conference proceedings adds to and complements the seminal work on the subject in CIRIA SP200.

SP201 | 978-0-86017-577-3 | £100 | PB | 2003

Building response to tunnelling – case studies from construction of the Jubilee Line Extension, London. Volume 1: The project. Volume 2: Case studies

J B Burland, J R Standing and F M Jardine (eds)

The ability to predict the potential damage to buildings accurately and to have confidence in the chosen protective measures is of increasing importance for the viability of urban tunnelling. The Jubilee Line Extension Project (JLEP) presented a unique opportunity to capture reliable field measurements of the effects of tunnelling on a wide range of buildings. This book is the result of that work and is a valuable source for tunnelling, geotechnical and structural engineers.

SP200 | 978-0-7277-3017-6 | £145 (£110 members) | PB | 2001

Response of buildings to excavation-induced ground movements. Proceedings of the international conference held at Imperial College, London, UK on 17-18 July 2001

CIRIA

SP199CD | 978-0-86017-810-1 | £50 +VAT | CD-Rom | 2003

A guide to British stratigraphical nomenclature

J H Powell (comp)

Collaboration with the British Geological Survey – one of the world's leading geoscience organisations – has produced this guide to the names of rock units. Its comprehensive stratigraphical tables and colour maps are vital references in today's construction environment, as incorrect identification and classification can lead to poor costly design and construction errors.

SP149 | 978-0-86017-489-9 | £90 (£45 members) | PB | 1998

Trenchless and minimum excavation techniques: planning and selection*J F Grimes and P Martin*

Trenchless and minimum excavation (TME) technology offers the opportunity to install, replace and renovate underground services with the minimum of disturbance to the surface environment and other utilities. Inner city experiences of disruption have revived interest in TME technology. This book describes the TME techniques available and provides guidance on the planning and investigation for their use.

SP147 | 978-0-86017-483-7 | £50 (£25 members) | PB | 1998

Rising groundwater levels in Birmingham and the engineering implications*C V Knipe, J W Lloyd, D N Lerner and R Greswell*

If a big city stops abstracting large amounts of water for its industries, the groundwater rises beneath it. So what are the implications for building fabric, structure foundations, basements, tunnels, underground services?

This well-illustrated guide indicates the areas most likely to be affected by rising groundwater and explains the implications. It assesses wider environmental impacts and considers options for mitigation of groundwater levels. It concludes by recommending control methods, monitoring and further data collection.

SP92 | 978-0-86017-364-9 | £70 (£35 members) | PB | 1993

The performance of tunnel-boring machines in rock*D B Parkes*

An analysis of performance data from 65 rock tunnels in which full-faced tunnel-boring machines were used.

SP62 | 978-0-86017-290-1 | £50 (£25 members) | PB | 1988

Laterite in road pavements*J H Charman*

This publication provides a classification scheme for laterites, gives guidance on effective field prospecting and discusses specifications used in tropical countries.

SP47 | 978-0-86017-275-8 | £50 (£25 members) | PB | 1988

Construction over abandoned mine workings*P R Healy and J M Head*

This publication deals with building on previously undermined areas, providing information and guidance for engineers and geologists who are involved with the co-ordination of a mining investigation, in the design of foundations, or in remedial measures. The information presented will also be of use to others who are unfamiliar with specific techniques of ground consolidation. Note that this guide was first published in 1984 and while technically still relevant, many standards, health and safety obligations and organisations have changed. Readers should refer to current requirements.

SP32 | 978-0-86017-218-5 | £50 (£25 members) | PB | 1984

Construction over abandoned mine workings*P R Healy and J M Head*

C700CD | 978-0-86017-700-5 | £50 +VAT (£25 +VAT members) | CD-Rom | 2003

Photocopies of out of print titles

The following titles are now out of print but bound photocopies of these can still be purchased.

Full details can be found in the CIRIA bookshop via the website: <www.ciria.org>.

Survey of problems associated with the installation of displacement piles

PG8 | 978-0-86017-145-4 | £25 +VAT (£20 +VAT members)

Pile load testing procedures

PG7 | 978-0-86017-136-2 | £25 +VAT (£20 +VAT members)

Piling in chalk

PG6 | 978-0-86017-119-5 | £40 +VAT (£35 +VAT members)

Piling in "boulder clay" and other glacial tills

PG5 | 978-0-86017-103-4 | £30 +VAT (£25 +VAT members)

The use and influence of bentonite in bored pile construction

PG3 | 978-0-86017-031-0 | £30 +VAT (£25 +VAT members)

A review of bearing pile types

PG1 | 978-0-86017-288-8 | £35 +VAT (£30 +VAT members)

Glossary of terms and definitions used in grouting: proposed definitions and preferred usage

PR61 | 978-0-86017-861-3 | £20 +VAT (£15 +VAT members)

Rapid characterisation of contaminated sites using electrical imaging

PR35 | 978-0-86017-835-4 | £27 +VAT (£23 +VAT members)

Prediction and effects of ground movements caused by tunnelling in soft ground beneath urban areas

PR30 | 978-0-86017-830-9 | £40 +VAT (£35 +VAT members)

Design of laterally-loaded piles 1984

R103 | ISBN: 0-86017-216-3 | £33 +VAT (£28 +VAT members)

Material durability in aggressive ground 1983

R98 | 978-0-86017-216-1 | £26 +VAT (£21 +VAT members)

Hydraulic roughness of segmentally lined tunnels

R96 | 978-0-86017-186-7 | £20 +VAT (£15 +VAT members)

Review of behaviour of piled raft foundations

R83 | 978-0-86017-130-0 | £30 +VAT (£27 +VAT members)

Tunnelling - improved contract practices 1978

R79 | 978-0-86017-083-9 | £29 +VAT (£24 +VAT members)

Design and construction of buried thin-wall pipes 1978

R78 | 978-0-86017-112-6 | £36 +VAT (£31 +VAT members)

Design and construction of ground anchors, second edition

R65 | 978-0-86017-152-2 | £30 +VAT (£25 +VAT members)

The hydraulic design of unlined and lined-invert rock tunnels

R29 | 978-0-901208-38-5 | £19 +VAT (£14 +VAT members)

Soil reinforcement with geotextiles

SP123 | 978-0-86017-425-7 | £90 +VAT (£80 +VAT members)

The design and construction of sheet-piled cofferdams

SP95 | 978-0-86017-361-8 | £63 +VAT (£58 +VAT members)

Recommendations for the procurement of ground investigation

SP45 | 978-0-86017-259-8 | £20 +VAT (£15 +VAT members)

Movement and cracking in long masonry walls

SP44 | 978-0-86017-272-7 | £25 +VAT (£15 +VAT members)

Settlement of structures on clay soils 1983

SP27 | 978-0-86017-204-8 | £46 +VAT (£41 +VAT members)

Piling in chalk 1979

SP12 | 978-0-86017-111-9 | £66 +VAT (£61 +VAT members)

Ground-borne vibrations arising from piling

TN142 | 978-0-86017-351-9 | £30 +VAT (£25 +VAT members)

Trenchless construction for underground services

TN127 | 978-0-86017-278-9 | £25 +VAT (£20 +VAT members)

Proprietary trench support systems, third edition

TN95 | 978-0-86017-264-2 | £20 +VAT (£15 +VAT members)

Review of concrete behaviour in acidic soils and ground waters

TN69 | 978-0-86017-068-6 | £30 +VAT (£25 +VAT members)

Top 10

Beach management manual (second edition)

P Brenton, B Hamer, A Brampton, M Glennerster, J Rogers, A Bradbury and S Challinor

Beaches play an important role either as the sole barriers to coastal flooding and erosion, or as part of manmade defences. Beach management in the UK has evolved significantly in design and execution over the last 10 years, motivated by increased expenditure on capital schemes aided by guidance from CIRIA R153.

This second edition includes the latest information on state-of-art methods, guidance on beach monitoring and maintenance, evaluation of the state and performance of a beach, design, procurement, execution and the after-care of beach improvement schemes. It is divided into four parts and makes use of case studies to illustrate popular management techniques and draw from experience of existing management approaches, reflecting the wealth of experience gained since 1996.

C685B | 978-0-86017-682-4 | Book: £300 (£200 members) | HB | 2010

C685CD | 978-0-86017-682-4 | CD-Rom: £150 +VAT (£100 +VAT members) | CD-Rom | 2010



Best seller

A guide to cost standards for dredging equipment 2009

N Bray

Dredging is a capital-intensive industry, often involving only a few high-cost items of marine construction equipment on each project. It is an activity that frequently takes place in an inhospitable environment. Cost information is crucial to the evaluation of these matters.

This guide describes the characteristics of the various common types of dredging equipment. It then examines the philosophy behind the internationally accepted costing conventions that are prevalent in today's industry. On the basis of 40 years of data, it gives information allowing the non-direct costs relating to dredging equipment, the amortisation, maintenance and repair, to be estimated. These can then be incorporated into a detailed estimate of a dredgers running cost.

C684 | 978-0-86017-684-8 | £60 (£30 members) | PB | 2009



Multi-functional artificial reefs scoping study

S Challinor and H Hal

Multi-functional artificial reefs offer an opportunity for coastal defence structures to deliver ecological and/or amenity benefits, and in doing so, can support sustainable development. This scoping study focuses on artificial reef structures used for coastal defence (ie detached nearshore breakwaters) and identifies the opportunities and constraints to adding marine habitat (eg biodiversity, fisheries) and/or amenity (eg sea angling, diving, surfing). This study has identified various knowledge gaps that dedicated guidance about design and materials requirements, economic evaluation and funding, planning and policy drivers, and health and safety issues have missed.

C673 | 978-0-86017-673-2 | Web | 2008

Free download from the CIRIA knowledgebase <www.ciria.org>

Guidelines for the use of metocean data through the life cycle of a marine renewable energy development

W Cooper, A Saulter and P Hodgetts

A good understanding of metocean (meteorological and oceanographic) data is fundamental to the success of all marine renewable projects. This guide has been developed to identify and recommend on the uses of metocean data through the life cycle of a marine renewable energy development and provides a helpful reference to inform those who will benefit from a wider appreciation of metocean issues.

C666 | 978-0-86017-666-4 | £80 (£40 members) | PB | 2008

The use of concrete in maritime engineering – a good practice guide

B Woods Ballard, M Denechere, S Dupray, G Robertshaw, J Knights and D Wimpenny

Over £800m is spent on coastal defences in the UK every year. The recent OST funded FORESIGHT project suggested that annual expenditure on flood and coastal defences will need to be doubled to take account of the effects of climate change. Despite this the Defra review of engineering materials in 2004 identified a gap in available guidance on the use of concrete in maritime structures. This manual builds on this document and combine the new findings for use within the maritime engineering industry.

C674 | 978-0-86017-674-9 | £140 (£70 members) | PB | 2010

Management of accelerated low water corrosion in steel maritime structures

J E Breakell, K Foster, M Siegwart et al

ALWC is a particularly aggressive and localised form of low water corrosion that can occur in tidal and brackish waters on steel maritime structures. It could lead to a loss of 33 per cent to 66 per cent of the asset value.

This publication provides a comprehensive guide to the phenomenon of ALWC and its management, condition appraisal, repair, protection and monitoring. It is aimed at infrastructure owners, operators and their advisors, specialist engineers and asset and maintenance managers in ports, harbours and other marine locations.

C634 | 978-0-86017-634-3 | £100 (£50 member) | PB | 2005

Coastal and estuarine managed realignment – design issues

DJ Leggett, N Cooper and R Harvey

Managed realignment is a deliberate process of altering a flood defence to allow flooding of a previously defended area. The technique offers long-term sustainable management of coasts and estuaries for a variety of stakeholders, demanding fewer resources compared with hard defences and giving scope for creating (or re-creating) habitats for wildlife.

This book's comprehensive guidance on the design and construction of managed realignment schemes will be valuable to coastal and estuarine managers and engineers, consultants, environmental regulators, geomorphologists, modellers, consenting authorities and environmental advisers.

C628 | 978-0-86017-628-2 | £100 (£50 members) | PB | 2004

Best seller

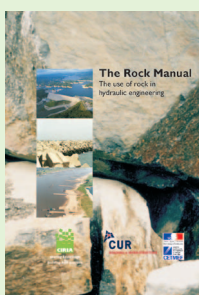
The Rock Manual. The use of rock in hydraulic engineering (second edition)

CIRIA, CUR, CETMEF

In 1991 CIRIA/CUR produced the *Manual on the use of rock in coastal and shoreline engineering*, commonly referred to as *The rock manual* (CIRIA SP83). CUR/RWS updated the book in 1995 to include the use of rock in dams and fluvial engineering. Two French reference books were produced in the late 1980s: *Le dimensionnement des digues à talus* (EDF R&D, 1987) and *Les Enrochements* (LCPC/CETMEF, 1989).

Since publication of these earlier reference texts significant research has been done to improve understanding of rock behaviour and to determine improved practices for hydraulic engineering. Consequently, this manual has been developed to bring the earlier publications up to date and has been given a broader scope that increases the focus on environmental and sustainability concerns. This edition supersedes SP83.

C683 | 978-0-86017-683-1 | £240 (£170 members) | PB | 2007



Coastal and marine environmental pocket book*E Holliday, M Budd, S John, J Simm and M Wilkinson*

This pocket book provides advice on carrying out construction work in coastal and marine environments with the aim of minimising damage to these sensitive areas.

C594 is a companion to CIRIA C584. It is intended for contractors, site workers, site managers, engineers, supervisors, architects, consultants, designers and regulators.

C594 | 978-0-86017-594-0 | Pack of 20: £110 (£55 members) | PB | 2003

Coastal and marine environmental site guide*M Budd, S John, J Simm and M Wilkinson*

The adverse effects of construction on the coastal and marine environment are well publicised and understood by regulators, the industry and the general public. This guide provides practical and accessible information on appreciating, avoiding and mitigating the effects of poor environmental practice on coastal and marine construction projects.

C584 | 978-0-86017-584-1 | £50 (£25 members) | PB | 2003

Scoping the assessment of sediment plumes from dredging*S A John et al*

What do we know about sediment plumes – and how to deal with them? Pooling the knowledge and expertise of an authoritative consortium, this publication is a call to action for the dredging industry, developers, regulators and conservationists concerned with the environmental effects of marine aggregate and capital and maintenance dredging.

C547 | 978-0-86017-547-6 | £100 (£50 members) | PB | 2000

Maximising the use and exchange of coastal data. A guide to best practice*K Millard and P Sayers*

This guide provides all you ever wanted to know about coastal data, which up to now, was hard to find and inconsistent. Part 1 is for the coastal manager or data user, Part 2 is aimed at the data collector/manager. The guide also provides an invaluable list of data providers plus useful internet sites and list-servers.

C541 | 978-0-86017-541-4 | £90 (£45 members) | PB | 2000

Safety in ports – ship-to-shore linkspans and walkways. A guide to procurement, operation and maintenance*R J E Marks*

Ship-to-shore linkspans and walkways are not easy to get right. Use of this guidance will greatly improve safety, operational efficiency, reliability, durability and whole-life economy. This guide is vital reading for all port owners, ship and ferry operators, consultants, maintenance engineers, manufacturers and operators, insurers and safety managers.

C518 | 978-0-86017-518-6 | £100 (£50 members) | PB | 1999

Regional seabed sediment studies and assessment of marine aggregate dredging*A H Brampton and C D R Evans*

What does seabed sediment removal do to the coastline, fisheries, marine biology and archaeology? This publication enables government, local authorities, environmental bodies and others to predict the answers. For anyone needing to understand the forces that shape the seabed and their effect on the coastline. See also CIRIA PR65.

C505 | 978-0-86017-505-6 | £80 (£40 members) | PB | 1998

Marine sand and gravel in north-west Europe – a fact-finding and scoping study*B Humphreys, D Harrison, R Arthurton, C Laban, J Leth and L Galtier*

There is a continuing demand for marine sand and gravel resources on the north-west European continental shelf. This demand is increasing because of sharpening environmental pressures on land aggregate extraction and rising demand for marine materials for coastal defence and reclamation. This book reviews the state of information and practice concerning marine aggregate resources, identifies the principal holdings of information that are in the public domain and indicates their currency and completeness.

PR68 | 978-0-86017-868-2 | £50 (£25 members) | PB | 1999

Beach recharge materials – demand and resources*B Humphreys, T Coates, M Watkiss and D Harrison*

There is increasing pressure on the UK's marine sand and gravel resources. This guide provides quantitative estimates of the national demand for beach recharge material and of the resources suitable to meet demand over the next 20 years. It considers the potential for the use of beach recharge of materials other than marine sand and gravel, such as navigational dredgings. While some of these alternative materials may offer attractive local or opportunistic options, they are unlikely to satisfy the requirements of most major schemes.

R154 | 978-0-86017-439-4 | £70 (£40 members) | PB | 1996

Coasts and seas of the United Kingdom (second edition)*JNCC*

This CD-Rom contains the entire Joint Nature Conservation Committee Coastal Directories series. It is a primary information source for planners, coastal managers, researchers and developers, and all concerned with ensuring the sustainable development of the UK coastal zone.

X103CD | £115 +VAT | CD-Rom | 2001

Photocopies of out of print titles

The following titles are now out of print but bound photocopies of these can still be purchased.

Full details can be found in the CIRIA bookshop via the website: <www.ciria.org>.

Old waterfront walls – management, maintenance and rehabilitation

B13 | ISBN: 978-0-86017-392-2 | £65 +VAT (£60 +VAT members)

Seawall design

B12 | 978-0-86017-391-5 | £90 +VAT (£85 +VAT members)

Sea outfalls – inspection and diver safety

R158 | 978-0-86017-444-8 | £21 +VAT (£16 +VAT members)

Guide on the use of groynes in coastal engineering

R119 | 978-0-86017-313-7 | £35 +VAT (£30 +VAT members)

Control and suppression of pressure surges in pipelines and tunnels

R84 | 978-0-86017-129-4 | £40 +VAT (£35 +VAT members)

Oscillation of piles in marine structures

R41 | 978-0-901208-42-2 | £17 +VAT (£12 +VAT members)

Groynes in coastal engineering: data on performance of existing groyne systems

TN135 | 978-0-86017-314-4 | £40 +VAT (£35 +VAT members)

Sea walls: survey of performance and design practice

TN125 | 978-0-86017-266-6 | £30 +VAT (£25 +VAT members)

Maintenance of coastal revetments

TN124 | 978-0-86017-265-9 | £25 +VAT (£20 +VAT members)

Groynes in coastal engineering: a review

TN111 | 978-0-86017-201-7 | £26 +VAT (£21 +VAT members)

A comparison of quay wall design methods

TN54 | 978-0-86017-113-3 | £40 +VAT (£35 +VAT members)

Bestseller

Early-age thermal crack control in concrete

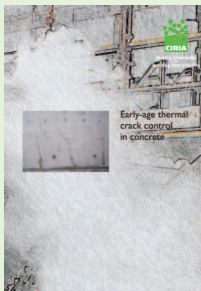
P Bamforth

Early-age thermal cracking occurs when the tensile strain, arising from either restrained thermal contraction or a temperature differential, exceeds the tensile strain capacity of the concrete.

In high strength concretes autogenous shrinkage may also contribute to early contraction. Numerous factors influence the risk of early-age cracking including the temperature rise, the coefficient of thermal expansion of the concrete, the restraint to movement offered either by adjacent elements or by differential strain within an element, and the ability of the concrete to resist tensile strain.

This guide provides a method for estimating the magnitude of crack-inducing strain and the risk of cracking, and where cracking will occur guidance is provided on the design of reinforcement to control crack widths.

C660 | 978-0-86017-660-2 | £90 (£45 members) | PB | 2007



Strengthening metallic structures using externally bonded fibre-reinforced composites

J M C Cadei, T J Stratford, L C Hollaway and W H Duckett

Externally bonded FRP strengthening for metallic structures is a rapidly developing technique. This book fulfils an important need for guidance on best practice in its use. It describes appropriate use of the technique and gives advice on structural design, correctly adopting strengthening schemes, and on the future maintenance of strengthened structures.

C595 | 978-0-86017-595-7 | £110 (£55 members) | PB | 2004

Potential use of alternatives to aggregates in coastal and river engineering

A H Brampton, M J Wallis and E M Holliday

This review seeks to identify the potential for using secondary and recycled aggregates, including inert construction and demolition (C&D) waste, in coastal and river engineering schemes.

The book begins by reviewing the types of river and coastal engineering schemes that exist around the UK and the materials used in them. The various alternatives to primary aggregates available in the UK – such as secondary aggregates and recycled inert C&D waste – are described, along with some of the environmental and practical engineering issues that arise in their use.

C590 | 978-0-86017-590-2 | £90 (£45 members) | PB | 2004

Guide to the construction of reinforced concrete in the Arabian Peninsula

M Walker (ed)

This guide provides those working with reinforced concrete in the Arabian Peninsula with information and guidance on the production of high-quality, durable concrete, able to withstand the region's extremely harsh environment. Much of the guidance is also applicable to concrete construction in other hot-wet and hot-dry environments around the world. The principles set out in the guide are applicable for the whole range of construction activity, from small-scale building works to large civil engineering projects. The book was prepared by a working party as part of a collaborative project between CIRIA and The Concrete Society, working with authorities and organisations based in Arabia.

C577 | 978-0-946691-93-7 | £140 (£70 members) | PB | 2002

Concrete technology for cast in-situ foundations

N A Henderson et al

This publication focuses on the concrete technology issues relating to common buried foundation types including piles, diaphragm walls and pad, strip and raft foundations. It provides guidance on the analysis and construction parameters to be considered in the selection of in-situ concrete for foundation applications. Also discussed are environmental issues and sustainable construction practices.

The guide provides the designer, the contractor, and the concrete producer with current guidance on the application of in-situ concrete technology for foundation applications. It is based on a detailed review of published literature, consultation with experts and practitioners within the field, and case studies demonstrating good practice and highlighting critical issues.

C569 | 978-0-86017-569-8 | £90 (£45 members) | PB | 2001

Fibre-reinforced polymer composites in construction

A Cripps

In the construction industry, fibre-reinforced polymer composites are widely used in applications such as cladding, pipes, for repair and in strengthening work. However there are many situations where they are not used, even though they can offer a solution through their high strength-to-weight ratio, their ability to survive harsh environments, and the fact that they can be formed into complex shapes. This guide addresses the many potential applications of FRP, attempting to balance the wide variety of possibilities with the need to provide more detail in key areas. It explains the differences between the techniques and the potential for each one to produce different products.

C564 | 978-0-86017-564-3 | £140 (£70 members) | PB | 2002

Freeze-thaw resisting concrete – its achievement in the UK

T A Harrison, J D Dewar and B V Brown

While traditional methods of specifying for freeze-thaw resistance have been largely successful, it does not follow that they are necessarily economic or appropriate for today. This guide is the outcome of a joint CIRIA-Concrete Society project. It gives recommendations for the design, specification, production, workmanship and maintenance of concrete to achieve freeze-thaw resistance under environmental conditions in the UK.

The guide examines performance tests and their relevance to design and is aimed at supervising engineers involved in design, specification and construction of reinforced or prestressed concrete and concrete and component materials suppliers.

C559 | 978-0-86017-559-9 | £90 (£45 members) | PB | 2001

10

Crops in construction

A Cripps and R Handyside

Increasing the use of natural and easily renewable resources from farming by-products contribute significantly to increased sustainability. This guidance is jointly funded by DTI and DEFRA to encourage greater use of construction materials and products made from agricultural crops.

This guide identifies a range of relevant raw materials, their characteristics, appropriate uses, performance, advantages, limitations and cost effectiveness, with good-practice guidance for designers, specifiers and clients.

C614 | 978-0-86017-614-5 | £90 (£45 members) | PB | 2004

Use of sewage sludge products in construction

A P Gunn, R E Dewhurst, A Giorgetti, N L Gillott, S J W Wishart and S Pedley

The potential applications of sewage sludge derivatives in structural construction materials is outlined in this book and the health and safety implications are examined alongside the positive and negative impacts on the environment.

Stakeholders will gain information about the recycling of sewage sludge including the sludge producers, structural material manufacturers, retailers and users and the economics, and barriers to the use, of sludge in structural materials.

C608 | 978-0-86017-608-4 | £100 (£50 members) | PB | 2004

Permanent formwork in construction*R G Wrigley*

Are you a supervising engineer involved in building and civil engineering works? Do you want time savings, improved safety and economy of construction, plus long-term durability, appearance and reduced maintenance costs?

The guide outlines some of the reasons why permanent formwork should be considered, when the decision to adopt should be made and how it should be implemented, and gives a summary checklist of benefits. It explores standard solutions, time savings, improved safety and economy of construction, long-term durability, appearance and reduced maintenance costs in bridges, building and other civil engineering applications.

This clear and practical publication explores the design, specification and construction stages and is aimed at supervising engineers involved in building and civil engineering works.

C558 | 978-0-86017-558-2 | £100 (£50 members) | PB | 2001

On-site curing of concrete – microstructure and durability*N R Buenfeld and R Yang*

Curing is widely perceived as being an important factor in achieving durable concrete structures. However, direct evidence that the levels of curing achieved on-site increases durability is scarce. This publication describes the second phase of an investigation into the influence of practical on-site curing on the durability of concrete. The first phase was a literature review (CIRIA PR49).

On-site curing of concrete will be of interest to all design, specification, construction and supervising engineers involved in building and civil engineering works.

C530 | 978-0-86017-530-8 | £90 (£45 members) | PB | 2001

Sealants – microbiological deterioration under wet conditions*C S Dow, D W Aubrey and S Hurley*

Sealants are widely used in the water industry to prevent water leakage through designed joints and repaired cracks. This guide enables sealant end-users to obtain a greater awareness of the influence of micro-organisms and be better informed about the essential test data from sealant manufacturers.

C520 | 978-0-86017-520-9 | £90 (£45 members) | PB | 2001

Action in the case of non-conformity of concrete structures*P R Ainsworth and C J Hopkins*

Increasingly sophisticated construction techniques and demanding contract programmes throw up numerous nonconformities – and along with them, problems and disputes. This book, which is the result of research initiated by CIRIA and The Concrete Society, will help those involved in the construction process to arrive as quickly and collaboratively as possible at pragmatic, cost-effective solutions.

C519 | 978-0-86017-519-3 | £90 (£45 members) | PB | 2000

The reclaimed and recycled construction materials handbook*S Coventry, C Woolveridge and S Hillier*

Things have moved on since crushed concrete was put into access roads. There are now substantial economic as well as environmental benefits in using reclaimed and recycled materials. This definitive reference book lists a wide range, explaining sourcing, specifying and applications, with case studies and guidance on legislation.

C513 | 978-0-86017-513-1 | £100 (£50 members) | PB | 1999

Controlled permeability formwork*W F Price*

Controlled permeability formwork (CPF) systems can be particularly effective in certain situations. This thoroughly practical survey of techniques, problems and opportunities will enhance the skills and options of designers, specifiers, formwork designers and contractors. Another important contribution to the subject from CIRIA and The Concrete Society.

C511 | 978-0-86017-511-7 | £90 (£45 members) | PB | 2000

Transfer of adhesives technology. Feasibility study*A R Hutchinson and S A Hurley*

This guide provides an assessment of the feasibility of transferring adhesives technology from other industries, where adhesives are widely used for structural joints, to the construction industry. It is intended to assist in the improvement of joining techniques in the industry, and so, to reduce construction time and whole-life costs.

The book is aimed at both the more general engineering practitioner and the specialist. Given this broad potential readership, it is likely that interest in the different sections of the book will vary significantly from one reader to another.

PR84 | 978-0-86017-884-2 | £50 (£25 members) | PB | 2001

The use of epoxy, polyester and similar reactive polymers in construction. Volume 2: Specification and use of the materials*S A Hurley*

Volume 2 concentrates on areas closely associated with actual use.

PR79 | 978-0-86017-878-1 | £50 (£25 members) | PB | 2002

The use of epoxy, polyester and similar reactive polymers in construction. Volume 3: Materials technology*S A Hurley*

Volume 3 is aimed at a readers requiring detailed technical information on the materials.

PR78 | 978-0-86017-879-8 | £50 (£25 members) | PB | 2002

Screeds, flooring and finishes – selection, construction and maintenance*M J Gatfield*

It's a fact that flooring often fails, with huge costs as a result – remedial works, loss of usage, lost production, litigation. Put all that behind you. Here in handy tabular form is the last word for clients, designers, specifiers and contractors on internal flooring systems. Covers everything from cold rooms to foundries.

R184 | 978-0-86017-496-7 | £100 (£50 members) | PB | 1998

New paint systems for the protection of construction steelwork*G Gedge and N Whitehouse*

Are you a designer, specifier or client, reluctant to change from proven specifications for paint systems? Would you like to find out more about the new "compliant" paint systems? If the answer is "yes", then this book will give you all the independent, authoritative guidance you need on their performance requirements, use, selection and specification. Topics covered include a review of the relevant environmental and health and safety legislation, the range of available materials, the relevance and use of these in general steel construction, and the advantages and disadvantages of the new materials.

R174 | 978-0-86017-472-1 | £90 (£45 members) | PB | 1997

The planning and design of concrete mixes for transporting, placing and finishing*G G T Masterton and R A Wilson*

From CIRIA's outstanding series of guides on current good practice in concrete construction, this book advises designers, specifiers, planners, concrete suppliers and contractors on how to achieve the required properties in practical conditions through appropriate mix design. Case studies illustrate the principles involved.

R165 | 978-0-86017-470-7 | £80 (£40 members) | PB | 1997

Care and treatment of steel reinforcement and the protection of starter bars

M N Bussell and R Cather

This publication provides guidance for designers, resident engineers and contractors on the proper treatment of reinforcement on site, explaining the basis for such advice. It is directed at reinforcement in new work, rather than the assessment and repair of damaged or corroded steel in existing construction.

Reinforcement considered here includes steel strand, wire and bars for prestressed concrete, and steel starter bars, reinforced temporary and permanent stopends, couplers, and cast-in sockets that provide continuity of reinforcement between two stages of a concrete construction. The effects of rusting, chemicals and other contaminants found on site are reviewed and the guide offers recommendations for good practice.

R147 | 978-0-86017-430-1 | £100 (£50 members) | **PB** | 1995

Formwork striking times – criteria, prediction and methods of assessment

T A Harrison

Since the beginning of concrete construction, the decision to remove formwork and allow the structure to support itself has been a matter for judgement between the needs for speed of construction and to avoid collapse or damage. This publication describes the criteria governing the striking of formwork. It reviews methods for predicting striking times using computer programs and describes the applications of these systems. Users are also guided on techniques for reducing striking times where these are considered excessive. The methods for determining formwork striking times are described, together with their advantages and weaknesses.

R136 | 978-0-86017-431-8 | £50 (£25 members) | **PB** | 1995

Concreting deep lifts and large volume pours

P B Bamforth and W F Price

Guidance for designers, contractors and concrete producers on the particular features of deep lifts and large-volume pours and how to avoid potential problems.

R135 | 978-0-86017-420-2 | £50 (£25 members) | **PB** | 1995

Design of reinforced concrete flat slabs to BS 8110 (revised edition)

R T Whittle

Covers the behaviour of reinforced concrete flat slabs and their method of design to BS 8110, and includes guidelines to enable the user to make a choice of grillage and member properties. First published in 1985.

R110 | 978-0-86017-246-8 | £50 (£25 members) | **PB** | 1994

Concrete pressure on formwork

C A Clear and R A Harrison

The book gives guidance on calculating concrete pressures on formwork extending and improving the method used in CIRIA Report 1 to cover concretes using admixtures and blends or blended cements. Use of the method is demonstrated in six examples: bridge abutment, partition wall, lift shaft, mass concrete retaining wall, bridge column, and V column.

R108 | 978-0-86017-250-5 | £50 (£25 members) | **PB** | 1985

Steel reinforcement: a handbook for young construction professionals

J Tubman

Strength, integrity, durability and serviceability ... any new professional strives for these qualities. Your completed structures need them too, so you'll need this book especially if you are concerned with reinforced concrete structures on site. Another great CIRIA easy-to-read reference guide.

SP118 | 978-0-86017-418-9 | £50 (£25 members) | **PB** | 1995

Environmental impact of building and construction materials: Volume A – summary

CIRIA

Reviews market, regulatory and other factors that influence the production and specification of construction materials, in particular the practicality and implications of labelling and life-cycle assessment.

SP116 | 978-0-86017-424-0 | £60 (£30 members) | **PB** | 1995

Performance of sealant-concrete joints in wet conditions: results of a laboratory testing programme, Volume 1: main results and discussion

D W Aubrey

This guide studies the various factors at the sealant/concrete interface that affect joint performance.

TN144 | 978-0-86017-357-1 | £50 (£25 members) | **PB** | 1992

Standard tests for repair materials and coatings for concrete Part 3: stability, substrate compatibility and shrinkage

E A Kay et al

Deals with the properties that need to be quantified to ensure compatibility of substrate and repair material when exposed to thermal and moisture cycles of exposure. Also includes a special study of the best-known methods of shrinkage testing.

TN141 | 978-0-86017-336-6 | £50 (£25 members) | **PB** | 1993

Standard tests for repair materials and coatings for concrete Part 2: permeability tests

M B Leeming

Covers methods of test suitable for the determination of permeability to gases, water and chloride.

TN140 | 978-0-86017-335-9 | £50 (£25 members) | **PB** | 1993

Standard tests for repair materials and coatings for concrete Part 1: pull-off tests

A McLeish

Recommendations are given for standard equipment and procedures for undertaking pull-off tests to measure the adhesion strength of coatings or mortars to concrete substrates.

TN139 | 978-0-86017-334-2 | £50 (£25 members) | **PB** | 1993

Fixings in cracked concrete: the probability of coincident occurrence and likely crack width

A W Beeby

This guide considers the factors affecting the likelihood of cracks developing in actual structures from various causes and the likely width of cracks if they do occur. Two types of cracking are considered in detail: cracking due to applied loads and cracking resulting from the restraint to shortening of members due to shrinkage and cooling.

TN136 | 978-0-86017-315-1 | £50 (£25 members) | **PB** | 1990

Civil engineering sealants in wet conditions – review of performance and interim guidance on use

CIRIA

Guidance for the civil engineering industry on the selection and use of concrete joint sealants in wet conditions.

TN128 | 978-0-86017-273-4 | £40 (£20 members) | **PB** | 1987

Spalling of concrete in fires

H L I Malhotra

A collation and assessment of available information on the spalling (or breaking-off) of concrete from reinforced concrete sections during fires, comprising a review of fire test data, records of structural performance in real fires, and recommendations for further testing and requirements.

TN118 | 978-0-86017-232-1 | £50 (£25 members) | **PB** | 1984

Residual stresses in a steel box girder bridge

M H Ogle

A summary of an investigation into the build-up of residual stresses during the construction of the Cleddau steel box girder bridge.

TN110 | 978-0-86017-193-5 | £35 (£15 members) | **PB** | 1982

Rolled concrete for dams – a laboratory study of the properties of high flyash content concrete

M R H Dunstan

A report of a laboratory investigation into the different types of concrete that have been considered suitable for dams, concluding that high flyash content concrete is the most suitable.

TN105 | 978-0-86017-159-1 | £50 (£25 members) | PB | 1981

Web buckling of rolled steel beams

M Holmes, A W Astill and L H Martin

A description of a range of tests to determine the web buckling characteristics of rolled steel beams.

TN102 | 978-0-86017-153-9 | £50 (£25 members) | PB | 1980

Guide to good practice for the design and installation of refractory sprayed concrete linings

W D Handley

Good practice guidance dealing with anchored, reinforced or armoured hydraulic setting sprayed concrete employed in steel casings as refractory linings.

TN97 | 978-0-86017-135-5 | £50 (£25 members) | PB | 1980

Photocopies of out of print titles

The following titles are now out of print but bound photocopies of these can still be purchased.

Full details can be found in the CIRIA bookshop via the website: <www.ciria.org>.

Specifying, detailing and achieving cover to reinforcement

C568 | 978-0-86017-568-1 | £35 +VAT (£30 +VAT members)

The use of epoxy, polyester and similar reactive polymers in construction. Volume 1: the materials and their practical applications

C537 | 978-0-86017-537-7 | £69 +VAT (£64 +VAT members)

Replacement ties in cavity walls: a guide to tie spacing and selection

R117 | 978-0-86017-298-7 | £20 +VAT (£15 +VAT members)

GRP sanitary sewer pipes – integral corrosion-resistant linings

R112 | 978-0-86017-260-4 | £20 +VAT (£15 +VAT members)

Fire resistance of ribbed concrete floors, Part 1: waffle and trough slabs, Part 2: composite deck slabs

R107 | 978-0-86017-249-9 | £20 +VAT (£15 +VAT members)

Post-tensioning systems for concrete in the UK: 1940-1985

R106 | 978-0-86017-237-6 | £20 +VAT (£15 +VAT members)

Composite beams and slabs with profiled steel sheeting

R99 | 978-0-86017-210-9 | £20 +VAT (£15 +VAT members)

Health and safety aspects of ground treatment materials

R95 | 978-0-86017-187-4 | £20 +VAT (£15 +VAT members)

Painting steelwork

R93 | 978-0-86017-183-6 | £35 +VAT (£30 +VAT members)

A review of instruments for gas and dust monitoring underground

R80 | 978-0-86017-105-8 | £25 +VAT (£20 +VAT members)

Design and construction of buried thin-wall pipes

R78 | 978-0-86017-112-6 | £30 +VAT (£25 +VAT members)

Prestressed concrete – friction losses during stressing

R74 | 978-0-86017-066-2 | £25 +VAT (£20 +VAT members)

Formwork striking times – methods of assessment, second edition

R73 | 978-0-86017-271-0 | £20 +VAT (£15 +VAT members)

The effect of initial rusting on the bond performance of reinforcement 1977

R71 | 978-0-86017-055-6 | £20 +VAT (£15 +VAT members)

Building sands: availability, usage and compliance with specification requirements

R59 | 978-0-86017-076-1 | £20 +VAT (£15 +VAT members)

Managing materials and components on site

SP146 | 978-0-86017-481-3 | £40 +VAT (£35 +VAT members)

Manual of good practice in sealant application

SP80 | 978-0-86017-324-3 | £25 +VAT (£20 +VAT members)

Selection and use of fixings in concrete and masonry: interim update to CIRIA Guide 4

TN137 | 978-0-86017-319-9 | £20 +VAT (£15 +VAT members)

Protection of reinforced concrete by surface treatments

TN130 | 978-0-86017-280-2 | £30 +VAT (£25 +VAT members)

Design of profiled steel sheeting as permanent formwork

TN116 | 978-0-86017-227-7 | £20 +VAT (£15 +VAT members)

Precast concrete tunnel linings – review of current test procedures

TN104 | 978-0-86017-165-2 | £27 +VAT (£22 +VAT members)

Design guidance notes for friction grip bolted connections

TN98 | 978-0-86017-140-9 | £43 +VAT (£38 +VAT members)

Combined loading tests on model prestressed concrete box beams reinforced with steel mesh 1973

TN52 | £22 +VAT (£17 +VAT members)

Shear in reinforced concrete – an analytical study 1972

TN46 | £64 +VAT (£59 +VAT members)

Shear in reinforced concrete – an experimental study 1972

TN45 | £65 +VAT (£60 +VAT members)

Top 10

Setting-out procedures for the modern built environment

B M Sadgrove

This practical pocket book provides concise guidance on the procedures for setting out most forms of building and civil engineering works. The guide aims to reduce the risk of errors in setting out by giving easy-to-follow hints and tips.

The second edition is up-to-date with current practice, particularly in the use of electronic instruments and aspects of quality control and safety. No site engineer should be without a copy.

C709 | 978-0-86017-709-8 | £50 (£25 members) | PB | 2007



Guidance on catastrophic events in construction

A Gilbertson, J Kappia, L Boshier and A Gibb

Health and safety has always been important in the construction industry. Harm to people is no longer considered an inevitable by-product of constructing. In 2009 the HSE commissioned CIRIA, working in partnership with Loughborough University, to carry out a wide-ranging study of the subject of catastrophic events in construction, with particular focus on the issues that the industry needs to address. The research report (RR834) was published by the HSE in January 2011. This report is reproduced here and forms the core of this publication.

C699 | 978-0-86017-699-2 | £70 (£35 members) | PB | 2011

Top 10

Build Lean. Transforming construction using Lean Thinking

A Terry and S Smith

We meet Steve, a senior leader in a construction business as he receives news of yet another failed tender bid. Licking his wounds, and pondering what he can do differently next time, he comes across a comparative review of two projects recently completed by his company. The two schemes were similar. However the second project, significantly outperformed the first.

The review reported that the team had achieved this performance through adopting what they described as a Lean Thinking approach. It was worth a look.

What did he have to lose?

C696 | 978-0-86017-696-1 | £40 (£25 members) | PB | 2011



Business case for knowledge management

J Palmer and S Platt

The construction directorate of the DTI supports the programme of innovation and research to improve the construction industry's performance and to promote more sustainable construction. The role of knowledge management, or KM, is to identify what information and knowledge is important to the organisation, finding out where it is held, and mobilising it so that staff can apply it in their work.

Anyone in construction who understands the importance of improving their organisation's management of knowledge needs this guide. It provides a description of how to develop a structured argument for persuading senior decision makers that it is worth putting effort into developing KM. An accompanying CD-Rom containing a PowerPoint presentation will help the user to make a convincing business case for knowledge management.

C642 | 978-0-86017-642-8 | £90 (£45 members) | PB | 2005

Integrating value and risk in construction

M Weatherhead, K Owen, C Hall and S Green

This versatile toolkit helps clients and construction professionals integrate existing value management, value engineering and risk management methodologies from initial concept to successful delivery. It provides a structured approach to identifying and agreeing the client's project objectives after taking into account the full range of opportunities and uncertainty. Integration toolboxes are provided for each stage of project development and these are supported by guidance on workshops, guided discussion and development of a communications plan. The toolkit includes a CD-Rom containing electronic copies of working documents, a comprehensive literature review and PowerPoint presentation.

C639 | 978-0-86017-639-8 | £90 (£45 members) | PB | 2004

Benchmarking knowledge management practice in construction

R J Dent and K N Montague

This book is designed for those managing knowledge management in construction services, providers of all types and those interested in promoting the concept of knowledge management within their organisations. This study discovered that knowledge management systems have been developed very much on contingent, bespoke platforms.

C620 | 978-0-86017-620-6 | £90 (£45 members) | PB | 2004

Benchmarking the performance of design activities in construction

R J Dent and D A Storey

This publication summarises the findings of a confidential funders report circulated to benchmarking club members in March 2003. It is aimed at those managing design teams in construction companies of all types who are interested in promoting the concept of performance management within their organisations. The book concentrates on the conclusions drawn by the report and recommendations for good practice, along with further background information for the reader.

C618 | 978-0-86017-618-3 | £170 (£85 members) | PB | 2004

PPPCom – the integrated risk and value management toolkit for public private partnerships

I Cruickshank et al

The toolkit offers a common platform and a common language for the communication of risk issues. It helps users to improve the quality of risk and value management on their projects by providing an on-the-job educational tool for risk management. PPPCom is an easily transferable process, as 80 per cent of the information is generic and so may be exported to other industries, with 20 per cent aimed specifically at construction projects.

C617CD | 978-0-86017-617-6 | £200 +VAT (£100 +VAT members) | CD-Rom | 2003

It's a people thing – practical ideas for accelerating change

J Payne and K Montague

A focus on people and good human resources practices can help accelerate change within the construction industry.

CIRIA brought together 16 organisations in an executive steering group (ESG) to review the industry problems identified by the Latham and Egan reports. The ESG has devised a process to identify the nature of problems affecting organisations, their causes and possible solutions. A survey was undertaken among senior executives to identify the most useful solutions, and this questionnaire is included so that readers may benchmark their organisation's responses against the industry average approach.

C586 | 978-0-86017-586-5 | £90 (£45 members) | PB | 2003

The collaborative working training pack – supply chain good practice

N Jarrett et al

This training pack has been designed and produced by Collaborating for the Built Environment's (be), Collaborative Working Centre (CWC), the University of Salford and CIRIA. It adopts a collaborative approach to learning, refined using feedback from extensive piloting during the development process. The modules present the principles of best practice and are supplemented by syndicate sessions designed to help delegates adapt and apply the principles in their own particular environment.

It comprises six modules each containing facilitator's notes, delegates' notes and PowerPoint slide presentation. The trainers can use and reuse the six A4 booklets as often as necessary. The CD-Rom also contains the six separate PowerPoint presentations, to accompany the modules and the delegate's notes.

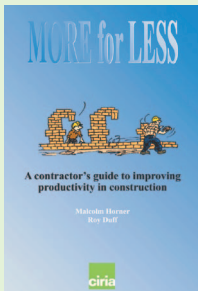
C576TP | 978-0-86017-576-6 | £295 +VAT (£195 +VAT members) | TP | 2003

Best seller

More for less. A contractor's guide to improving productivity in construction

M Horner and R Duff

Few contractors have decided to improve their productivity, despite the evidence that construction is one of the least profitable sectors. Many UK clients consider the industry to be unresponsive and inefficient.



This guide offers some practical advice expressed in simple terms from three major contractors who have shown that productivity can be significantly improved by following some simple techniques. This guide is aimed at contractors, project managers, site supervisors, quantity surveyors, clients, and materials and component suppliers.

C566 | 978-0-86017-566-7 | £20 | PB | 2001

RiskCom. Software tool for managing and communicating risks

HR Wallingford et al

There is no standard method to determine how risks can be examined by all members of a supply chain to enable collective management. Developing risk management systems on an organisation-by-organisation basis or even a project-by-project basis results in inefficient repetition and provides no guarantee that good practice has been adopted. RiskCom is a spreadsheet-based tool to help manage the risks to businesses or on project and to communicate these to other organisations and individuals concerned.

C561CD | 978-0-86017-561-2 | £195 +VAT (£95 +VAT members) | CD-Rom | 2001

Faster construction on site by selection of methods and materials

A Delves, R Drayton and T Sheehan

Faster construction on site can contribute significantly to the speed of project delivery. This is achieved through a process of collective decision making by the project team on the selection of construction methods and materials throughout the project process. This book shows how the selection of appropriate methods and materials can be used to help reduce construction times on site.

C560 | 978-0-86017-560-5 | £90 (£45 members) | PB | 2001

Managing project change. A best practice guide

D Lazarus and R Clifton

"This project is not only late, it's way over budget." Does this sound familiar? One of the recurring problems for the construction industry is that of project change and, in particular, the disruptive affects of late and numerous changes to project information. Change is a major contributor to the problems encountered when projects run behind programme and are completed over budget. The consequences amount to dissatisfaction from clients, the design team, contractors and suppliers.

This guide presents good practice recommendations for the effective management of change on projects. It describes the establishment and operation of change management systems, the reasons for, and sources of, change and the procedures that should be adopted to control and manage its effect.

C556 | 978-0-86017-556-8 | £90 (£45 members) | PB | 2001

Construction contract incentive schemes – lessons from experience

D Richmond-Coggan

There is little published material available in the UK on the incentivisation of contracts. This factor coincided with CIRIA's response to the increasing concern within the construction industry of the pressure on pricing using traditional tendering processes, with the consequent effect on the time and quality aspects of projects. The rise of the "claims culture" has led to conflict between clients and contractors, with "winners" and "losers" emerging.

This publication summarises the findings from a survey of 20 construction projects that used incentivised contracts. The studies covered utilities, transportation, civils infrastructure, building, and heavy and light process manufacturing.

C554 | 978-0-86017-554-4 | £90 (£45 members) | PB | 2001

Innovation at the cutting edge: the experience of three major infrastructure projects

G Thomas and R Bone

Sir John Egan's 1998 report, *Rethinking construction*, set challenging targets for the construction industry. This publication examines three major infrastructure projects to demonstrate how innovation contributes to achieving those targets. The three areas of innovation considered are supply chain management and partnering, risk and value management, and technical innovation.

The guide concludes that innovation contributes decisively to the Egan targets, and can help deliver better products more quickly, safely and for less money. This guide will be of value to senior managers, project managers, clients, contractors, consultants, researchers and policy makers.

C548 | 978-0-86017-548-3 | £90 (£45 members) | PB | 2000

The handbook of supply chain management

R Holti, D Nicolini and M Smalley

In 1997 Defence Estates (DE) combined with the Department of the Environment, Transport and the Regions (DETR) to set up and sponsor an initiative called Building Down Barriers (BDB). It was intended as a learning mechanism for establishing the working principles of supply chain integration in construction. This guide gives an overview of the approach and an introduction to the tool set. It is for client organisations, established contracting, design and project management organisations, and materials and component manufacturers, all needing to understand supply chain integration. It is particularly relevant in determining how to act on recent OCG guidance for the public sector.

C546 | 978-0-86017-546-9 | £60 (£40 members) | PB | 2000

Civil engineering design and construct – a guide to integrating design into the construction process

G Lafford et al

This book discusses the issues to be addressed when managing design and explains the attitudes and practices that are recommended to enable projects to succeed. Considerable emphasis is placed on imparting awareness of the importance of the designer-constructor interface as, in a D&C project, the most critical lines of communication are at this interface. As well as describing contractual frameworks, this guide also contains management toolboxes for reference.

C534 | 978-0-86017-534-6 | £90 (£45 members) | PB | 2001

The management of technical excellence in design organisations

G Alwani-Starr

Technical excellence in design is both an important short-term competitive issue and a vital ingredient for the survival and growth of an organisation in an increasingly competitive worldwide environment. How do 12 of the UK's leading design consultants and contractors – and leaders in other comparable industries – manage it? This book shows you how.

C531 | 978-0-86017-531-5 | £50 (£25 members) | PB | 2000

Benefit trading tutorial

M Potter, J Connaughton and J Wilkinson

If you think a good deal for anyone in the construction supply chain is hard to find, you need this pack. Teach your team the simple but importance of benefit trading and you won't look back. Comprises an instruction booklet, notes for six training modules, video, PowerPoint presentation and a copy of CIRIA C526.

C527TP | 978-0-86017-527-8 | £150 +VAT (£90 +VAT members) | TP | 2000

Benefit trading – a practical guide for construction

M Potter and J Connaughton

Recent initiatives have sought to improve the performance and reliability of construction, resulting in a radically improved method of business called "benefit trading". This is where main construction participants trade the benefits it can offer for fair reward. This guide offers clear good practice guidance. See also C527.

C526 | 978-0-86017-526-1 | £90 (£45 members) | PB | 2000

Guide to developing effective learning networks in construction

R Holti and S Whittle

Learning networks are a powerful mechanism for spreading good practice and encouraging effective innovation. However, there is confusion over what constitutes a learning network and how it may best be employed to benefit a company, individuals or the industry. This book aims to address these issues and is a practical, accessible guide for anyone planning, setting up or already running a learning network.

C508 | 978-0-86017-608-4 | £90 (£45 members) | PB | 1999

Performance measurement of design activities. A summary report and key performance indicators

R Dent and G Alwani-Starr

This guide is aimed at those managing design teams in construction companies of all types and who are interested in promoting the concept of performance management within their organisations. Background information is included to help the reader put the guidance presented in context.

PR85 | 978-0-86017-885-9 | £200 (£100 members) | PB | 2001

Construction management education and practical application – the gap

D Mootanah

This feasibility study looks at the size and significance of the gap that many in the construction industry believe exists between management education and its practical application. The book explores the aims and methodology used in the research and the views of the various stakeholders in this issue. It is of relevance to management practitioners in construction, academics, policy advisers, researchers and training managers.

PR76 | 978-0-86017-876-7 | £50 (£25 members) | PB | 1999

Final report on action research with the Construction Productivity Network

Tavistock Institute

This guide gives further background to the CIRIA research into the effectiveness of learning networks. It is linked to CIRIA PR66 and is designed to improve learning by involving researchers and network managers in planning and adopting improvements to an existing network.

PR71 | 978-0-86017-871-2 | £50 (£25 members) | PB | 1999

Benchmarking for construction – a strategic review

P S Jones and G Thomas

Benchmarking is a powerful tool for continuous improvement in many industries, including construction. Company directors, industry bodies and senior construction managers need this book if they are to be better informed about the applicability of benchmarking (and its limitations) in addressing both technical and business objectives and organisational goals.

PR69 | 978-0-86017-869-9 | £50 (£25 members) | PB | 1998

Networks, learning and innovation in the UK construction industry

A H Brampton, C D R Evans and A F Velegrakis

This guide offers conclusions on the kinds of learning being supported by existing networks in UK construction, the main challenges faced and much more. It is linked to CIRIA PR71.

PR66 | 978-0-86017-866-8 | £50 (£25 members) | PB | 1999

Quality management in construction – survey of experiences with BS 5750. Case study information

D Hugill, A Grice and M Ward

This publication complements CIRIA SP132. It contains case studies, covering the experiences of installing QMS to BS 5750 of 35 firms across the industry and those of 30 of their clients. It also contains information from seven firms operating an alternative QMS.

PR32 | 978-0-86017-832-3 | £30 (£15 members) | PB | 1996

Securing the contractor's contribution to buildability in design

A Atkinson, J Cavilla and J Wells

This book identifies the benefits and beneficiaries of improved buildability and considers the advantages of including construction expertise at the design stage.

PR27 | 978-0-86017-827-9 | £30 (£15 members) | PB | 1997

Risk from construction: preparation of a client's guide

S I Withycombe

This supplement to CIRIA SP125 discusses the background to the development of the research project, including methodology, consultation processes and findings. Analyses 10 interviews held with construction clients, covering such topics as adverse effects of risk, in-house risk management and appointment of professional advisers.

PR19 | 978-0-86017-819-4 | £30 (£15 members) | PB | 1996

IT in construction – quantifying the benefits

D W Churcher et al

This guides considers how organisations within the construction industry quantify the benefits they expect to obtain from any particular investment in IT. Using case studies, the book identifies several approaches that others might consider or develop to improve the way in which decisions regarding IT are taken, and that may promote a more objective investment in IT.

R160 | 978-0-86017-447-9 | £50 (£25 members) | PB | 1996

Target and cost-reimbursable construction contracts

J G Perry, P A Thompson and M Wright

Provides guidance on management and financial procedures when considering the use of target or cost-reimbursable contracts.

R85 | 978-0-86017-245-1 | £50 (£25 members) | PB | 1985

Whole-life costing. An information pack

Hywel Davies Consultancy

This guide is intended for use by all construction clients. It explains the benefits to their businesses of adopting whole-life performance and costing as the basis for their construction procurement. It outlines a step-by-step approach to project appraisal from the decision on whether or not to build, through to the assessment of the end result. Suppliers of construction will also find this guide valuable, as they need to understand the kinds of technical and economic data that clients will ask them to provide to predict full cost of ownership.

SP157 | 978-0-86017-903-0 | £25 +VAT | PB | 2002

A simple guide to controlling risk

CIRIA

All construction projects contain risks and these may be commercial, safety, environmental or procedural. Each risk could affect your project or business and only a few of them will be directly attributable to things you have or have not done. The easiest way to make sure you are not caught by surprise is to manage the risks. This book gives you an introduction to how to do this and is aimed specifically at smaller construction companies. See also CIRIA SP153.

SP154 | 978-0-86017-804-0 | £15 | PB | 2002

A simple guide to building

CIRIA

When planning to build an extension to an office or factory, or a new facility, it is important to get the best out of advisers and builders. This guide is aimed specifically at the occasional client and one not too familiar with the modern construction industry. This book provides guidance through the role of client on how to select a designer and builder and gives practical advice. It also gives further sources of information and guidance. See also CIRIA SP113.

SP153 | 978-0-86017-803-3 | £15 | PB | 2002

Selecting contractors by value

A Jackson-Robbins

Construction clients can't hand the end product back if it's wrong or poorly built. This guide helps them get maximum value rather than the lowest price. Required reading for all in client organisations responsible for construction projects, plus the consultants and others who advise them.

SP150 | 978-0-86017-491-2 | £90 (£45 members) | PB | 1998

The control of quality on construction sites

D W Churcher and S T Johnson

This publication presents the results of a project that examined how contractors control site operations and identified common procedures that had beneficial effects on the control of end product quality.

SP140 | 978-0-86017-462-2 | £50 (£25 members) | PB | 1996

Specialist trade contracting – a review

W Hughes, C Gray and J Murdoch

This book is designed to promote a positive approach to the good management in the relationships between clients, designers, contractors and specialist trade contractors. It includes the integration of specialist contractor design into the overall design, the influences of production processes on design, and management.

SP138 | 978-0-86017-465-3 | £50 (£25 members) | PB | 1997

Quality management in construction – survey of experiences with BS 5750. Report of key findings

D Hugill, A Grice and M Ward

This publication presents the findings from a survey of experiences of BS 5750 within construction and suggests that this can be an effective way of managing quality within the industry. See also PR32.

SP132 | 978-0-86017-453-0 | £50 (£25 members) | PB | 1996

Control of risk: a guide to the systematic management of risk from construction

P S Godfrey

Take no risks without this simple, practical introduction to identifying, assessing, monitoring and managing risk from construction. Easy-to-use format with tool boxes to guide you through basic techniques and more advanced analytical methods. Maps of the guide and tool boxes are provided for ease of reference.

SP125 | 978-0-86017-441-7 | £50 (£25 members) | PB | 1996

Value by competition: a guide to the competitive procurement of consultancy services for construction

J N Connaughton

This step-by-step guide is designed to assist all those who procure consultancy services, including clients, their advisers or contractors. It will help to identify when competition is appropriate, understand the implications of competition and manage the competitive process.

The guide concentrates on the better-known construction consultancy services. However, the principles discussed apply to the procurement of all consultancy services for both building and civil engineering work. First-time clients should also purchase CIRIA SP113.

SP117 | 978-0-86017-414-1 | £80 (£40 members) | PB | 1996

Planning to build? A practical introduction to the construction process

M Potter

This book is vital reading for those who are about to commission some building work and it is the first experience of the construction industry. It introduces potential clients to the many difference ways of obtaining a new building. It describes the processes involved and offers the newcomer, or those with limited experience, practical advice on how to get started and make the best of the numerous services on offer. It will help clients to understand and play a part in what can be a complex and demanding operation. It also gives information on asking the right questions and where to get expert advice.

SP113 | 978-0-86017-433-2 | £50 (£25 members) | PB | 1995

The impact of European Communities' policy on quality management in construction

R Grover and A Lavers

This publication was produced because, with the aim of completing the single internal market by the end of 1992, UK membership of the EC has begun to affect UK quality management policies. The single market removes some legal and administrative barriers to trade, and several measures have implications for quality management. Principal among the measures are the directives, adopted under the new approach to technical harmonisation and standards. This has implications for post-construction liability.

SP89 | 978-0-86017-355-7 | £70 (£35 members) | PB | 1993

Quality management in construction – implementation in design services organisations

G M B Oliver (ed)

Detailed guidance for quality system managers wishing to adopt a quality system that meets the requirements of BS 5750-1.

SP88 | 978-0-86017-354-0 | £80 (£40 members) | PB | 1992

Setting-out on site: an introduction

CIRIA

Designed for use with CIRIA's best-selling pocket book C707 this DVD is based on practical experience, proven over several years and applicable to the majority of construction contracts.

SP86V | £100 +VAT (£50 +VAT members) | DVD (27 mins) | 1991

Quality management in construction: interpretations of BS 5750 (1987) – "quality systems" for the construction industry

G M B Oliver

This title interprets the clauses of BS 5750 and covers design, construction/installation work and monitoring.

SP74 | 978-0-86017-311-3 | £30 (£15 members) | PB | 1990

Photocopies of out of print titles

The following titles are now out of print but bound photocopies of these can still be purchased.

Full details can be found in the CIRIA bookshop via the website: <www.ciria.org>.

A suggested design procedure for accuracy in building

TN113 | 978-0-86017-209-3 | £30 +VAT (£25 +VAT members)

Recommendations on the use of grillage analysis for slab and pseudo-slab bridge decks

TN18 | £15 +VAT (£10 +VAT members)

Quality management in construction – contractual aspects

SP84 | 978-0-86017-353-3 | £45 +VAT (£40 +VAT members)

Roles, responsibilities and risks in management contracting

SP81 | 978-0-86017-325-0 | £30 +VAT (£25 +VAT members)

Role and responsibility in site investigation

SP73 | 978-0-86017-321-2 | £20 +VAT (£15 +VAT members)

Practical advice for the client intending to build

SP48 | 978-0-86017-281-9 | £15 +VAT (£10 +VAT members)

Design of shear wall buildings

R102 | 978-0-86017-215-4 | £30 +VAT (£25 +VAT members)

Reinforcement connector and anchorage methods

R92 | 978-0-86017-168-3 | £25 +VAT (£20 +VAT members)

18

Lack of fit in steel structures

R87 | 978-0-86017-144-7 | £25 +VAT (£20 +VAT members)

Lateral movement of heavy loads

R68 | 978-0-86017-091-4 | £20 +VAT (£15 +VAT members)

Tables of minimum striking times for soffit and vertical formwork

R67 | 978-0-86017-033-4 | £20 +VAT (£15 +VAT members)

Design of riprap slope protection against wind waves

R61 | 978-0-86017-042-6 | £28 +VAT (£23 +VAT members)

Design and construction of circular biological filter walls

R58 | 978-0-86017-058-7 | £19 +VAT (£14 +VAT members)

Waste minimisation in construction – training pack

B Shorter

This comprehensive pack has been developed to assist those involved in training construction staff. It was originally designed and produced by CIRIA, Scott Wilson and Television Education Network in 1998 and has been revised and updated to widen its scope.

The contents will be relevant to all levels of staff, from the board to site operatives. It is flexible and can be adapted for use in training sessions that last different lengths of time, as well as for audiences of different types.

The training pack includes users' instructions, trainer's notes, opening and closing quiz, a CD-Rom containing a PowerPoint presentation that can be printed for trainees (with or without notes), group exercises, a copy of C536, which includes 10 separate full-colour case studies, a 15 minute video (*Waste minimisation in construction*) and a copy of SP133.

C555TP | 978-0-86017-555-1 | £295 + VAT (£195 + VAT members) | **TP** | 2001

Demonstrating waste minimisation benefits in construction

S Coventry, B Shorter and R M Kingsley

The construction industry generates roughly four times the waste produced by households in the UK. Any reduction of this large figure should give both environmental and economic benefits.

This guide aims to demonstrate the practical principles of waste reduction, reuse and recycling in the construction industry and how waste can cost the developer and contractor in many different, often indirect, ways. It is intended that the guidance is used by all organisations involved in construction, primarily clients, developers, planners, designers and contractors.

C536 | 978-0-86017-536-0 | £110 (£55 members) | **PB** | 2001

Tools for measuring and forecasting waste generated on site. Scoping study

J Kwan, H Mallett, S Mason and D Spence

Reducing waste requires simple and effective means of measuring and forecasting the production of waste on construction sites. This study was based on consultation with industry members, a workshop and a review of published data from across Europe. It establishes a need for a waste minimisation tool to help construction practitioners to identify priority waste minimisation plans. It recommends that the tool should include an electronic element for forecasting waste, a database for industry waste benchmarks, guidelines for developing a waste management plan, and an electronic method for monitoring waste generation.

PR83 | 978-0-86017-883-5 | £50 (£25 members) | **PB** | 2001

Guidance on the disposal of dredged material to land

J Brooke et al

This book guides the user on the safe, economic and effective disposal and management of dredged material in line with the aims of the Environmental Protection Act 1990 and associated Waste Management Regulations.

R157 | 978-0-86017-450-9 | £70 (£35 members) | **PB** | 1996

Waste minimisation and recycling in construction – boardroom handbook

S Coventry, A C Woolveridge and V S Patel

Policy-makers in the boardrooms of our industry – clients, designers, contractors and suppliers – have a heavy responsibility. The construction industry wastes more than almost anybody, and yet it is both simple and cost-effective to reduce, reuse and recycle construction waste, especially with leadership from the top.

SP135 | 978-0-86017-320-5 | £60 (£30 members) | **PB** | 1999

Waste minimisation and recycling in construction – design manual

S Coventry and P Guthrie

The construction industry can no longer afford to produce the huge quantities of waste it has in the past. What's more, the economic and environmental benefits to be gained from waste minimisation and recycling are enormous. Here are guidelines on three key aspects: reducing the resources needed for construction, reducing the quantity of waste from sites, and improving the reclamation of waste materials. Speedy reading for the busy professional.

SP134 | 978-0-86017-500-1 | £60 (£30 members) | **PB** | 1998

Waste minimisation in construction – site guide

P M Guthrie, A C Woolveridge and V S Patel

Full of practical tips on how to reduce, reuse and recycle construction and demolition wastes, this handbook is for everyone on site. Site managers can use it as a basis for talks, and it is a useful guide for site workers. This site guide highlights why and how waste should be managed properly. It is an entertaining read with a vital message!

SP133 | 978-0-86017-482-0 | £60 (£30 members) | **PB** | 1997

Waste minimisation and recycling in construction – a review

P Guthrie and H Mallett

This book describes the outcome of the first stage of CIRIA's major research project on waste minimisation and recycling in construction. It takes the reader through a detailed review of resources, waste, and recycling issues and then explains the roles and responsibilities of the parties involved.

SP122 | 978-0-86017-428-8 | £50 (£25 members) | **PB** | 1995

Photocopies of out of print titles

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Waste minimisation and recycling in construction – technical review

PR28 | 978-0-86017-828-6 | £45 +VAT (£40 +VAT members)

Supervision of sewers for adoption

R118 | 978-0-86017-308-3 | £30 +VAT (£25 +VAT members)

Prestressed concrete beams: controlled demolition and prestress loss assessment

TN129 | 978-0-86017-277-2 | £22 +VAT (£17 +VAT members)

The benefits of large species trees in urban landscapes: a costing, design and management guide

Armour, T, Job, M, Canavan, R

The UK's urban trees are special and have played an important role in combating the effects of growing urbanisation for many years. While all trees are beneficial to an urban environment, larger species are particularly significant as the most important single elements of urban green infrastructure (GI). Large species trees convey the greatest financial, social and environmental benefits, and make a fundamental contribution to the well-being of almost 80 per cent of the UK population.

This guide aims to highlight the vital importance of large species trees, including the retention and improvement of existing trees and carrying out new planting in streets, squares and parks for new and existing developments.

C712 | 978-0-86017-714-2 | £100 (£50 members) | PB | 2012

Delivering biodiversity benefits through green infrastructure

Dale, K, Thomson, C, Kelly, J, Hay, D, MacDougall, K

The term "green infrastructure" can be used to describe the integrated aspects of the design and construction of a civil engineering project that deliver a strategically planned network of natural and man-made green (land) and blue (water) spaces that sustain biodiversity and natural processes.

This guide aims to give clear messages about the goals and objectives of GI for the construction industry. It also seeks to serve as a tool to enable construction professionals to work together with other disciplines to maximise the opportunities presented by civil engineering and building projects, to enhance biodiversity and ecosystem services through GI, while minimising any negative effects on the environment.

C711 | 978-0-86017-713-5 | £90 (£45 members) | PB | 2011

Use of vegetation in civil engineering

N J Coppin and I G Richards (eds)

This guide gives the background to bioengineering and practical information on the design and implementation of vegetative methods for slope stabilisation, water erosion control, watercourse and shoreline protection, wind erosion control, shelter, noise reduction, surface protection and trafficability.

C708 | 978-0-86017-711-1 | £70 (£35 members) | PB | 2007

Noise and vibration from road and rail

T G Lawrence, J M Dakin, P Norris and M S Forni

With increasing transport requirements, the promotion of urban regeneration and higher housing quality expectations, noise and vibration issues have to be carefully addressed when building new infrastructure or undertaking developments next to existing transportation infrastructure. This guide gathers information from a wide range of sources and aims to assist informed communication, discussion and decision making for those with no or little knowledge or experience of noise and vibration from road and rail.

C693 | 978-0-86017-693-0 | £60 (£30 member) | PB | 2011

Working with wildlife: guidance for the construction industry

J Newton, B Nicholson and R Saunders

The UK has a long history of wildlife conservation. However, the 20th century saw increasing concern regarding the loss of wildlife on a national scale. This guide is intended to be used to allow those working on construction projects to stay within the law, and to understand and adopt good practice in relation to wildlife.

The guidance provides background on the fundamentals of ecology, considers the relationship between ecology and construction, provides an overview of the legislation governing action that can be taken with protected species and habitats, practical guidance on managing these and signposts further guidance. It is accompanied by a CD-Rom containing a series of toolbox talks, and habitat and species briefings.

C691 | 978-0-86017-691-6 | £120 (£60 members) | PB | 2011

Environmental good practice – training resource

I Audus

The construction industry is coming under increasing pressure to ensure its activities have a minimal affect on the environment. This training resource has been designed and produced to help all concerned with construction activities to follow environmental good practice. The comprehensive programme of resources provided supports training sessions ranging from 90 minutes to a full day. Training sessions will generally be eligible for registration as Continuing Professional Development (CPD).

C678TP | 978-0-86017-678-7 | £250 +VAT (£125 +VAT members) | TP | 2008

Top 10

Environmental good practice on site (third edition)

I Audus, P Charles and S Evans

Construction activities have the potential to affect the surrounding environment including neighbours as well as the wider environment. Good environmental practice enables these effects to be managed positively.

This guide provides practical advice about managing construction on site to minimise environmental effects, and is relevant to all concerned within the construction process. It is accompanied by a CD-Rom containing a series of toolbox talks and other important guidance. This third edition is an update of C650 (2005).

C692 | 978-0-86017-692-3 | £60 (£30 members) | PB | 2011



Easy access environmental management Phases 1–6 (revised)

G Hall and P Burr

The package has been developed to help construction companies understand and implement an effective environmental management system. It includes detailed guidance notes, template documents, and a set of top tips, outlining the easiest and most effective ways of achieving the requirements of each stage in the guidance notes.

This update to C640CD covers Phases 1–6 of BS 8555 including integration of the environmental management system with other systems, such as quality, and health and safety. The package is complemented by a series of CIRIA training workshops (at an extra charge) to help companies put the Easy Access approach into practice.

C667CD | 978-0-86017-667-1 | £90 +VAT (£45 +VAT members) | CD-Rom | 2007

Water key performance indicators and benchmarks for offices and hotels

R Waggett and C Arotzky

Increasingly, there is a requirement to safeguard water supplies in the UK and implement sustainable water use. Practitioners working to advise the office and hotel sectors on reductions in water consumption had identified a lack of suitable benchmarking information that would allow a simple method of comparing the water consumption of a particular property with national trends.

This guide describes how suitable benchmarks have been found for water use in offices and hotels across England and Wales that will enable managers of offices and hotels to understand whether their property is performing well or poorly in comparison with other similar buildings in the UK.

C657 | 978-0-86017-657-2 | £70 (£35 members) | PB | 2006

Control of water pollution from linear construction projects. Site guide

E Murnane, A Heap and A Swain

Efforts are being made at all levels within the construction industry to improve environmental performance. This guide provides good practice advice in identifying appropriate methods of protecting the water environment and for carrying out most activities you will encounter on-site.

This guide accompanies CIRIA C648 and is aimed at clients, designers, regulators, environmental consultants, construction managers and site environmental managers in both the design and construction phases of a project.

C649 | 978-0-86017-649-7 | £50 (£25 members) | PB | 2006

Control of water pollution from linear construction projects. Technical guidance

E Murnane, A Heap and A Swain

This guidance addresses the control of water pollution throughout the whole project cycle, from the design of a scheme, through to construction and commissioning. It also highlights issues encountered on upgrades and on-line replacement, and sets out generic best practice and procedures for controlling water pollution from construction sites in England, Wales, Scotland and Northern Ireland.

Included are regional legislative and regulatory variations and anyone intending to implement the practices and procedures set out in this guidance should ensure the work complies with these relevant regional variations. This guidance provides best practice advice and is intended to supplement any contractual requirements, consultation with regulators or company procedures rather than replace them.

C648 | 978-0-86017-648-0 | £100 (£50 members) | PB | 2006

Building greener. Guidance on the use of green roofs, green walls and complementary features on buildings

P Early, D Gedge, J Newton and S Wilson

Green roofs and walls are widely used to provide a range of benefits for the built environment. Numerous studies have been carried out to monitor and assess the effectiveness of green roofs and green walls in the areas of biodiversity, stormwater management and climate change mitigation and adaptation. This guide results from a detailed assessment of published information on green roof and walls and provides guidance on their design, construction and operation.

C644 | 978-0-86017-644-2 | £100 (£50 members) | PB | 2007

Wildlife fencing design guide

H W Pepper, M Holland and R Trout

A wildlife fence is a barrier that prevents or guides the movement of animals from one area to another. This guide covers all types of fencing that may be used to control wildlife in farming, forestry, landscape management and along linear corridors, in particular along roadsides, but also others, such as, railways and canals. It provides theoretical guidance for designers and planners and practical guidance for managers and fence constructors, and for those who are involved in fencing roadsides.

C646 | 978-0-86017-646-6 | £90 (£45 members) | PB | 2006

A guide to rabbit management

S Wray

This publication is a summary of existing knowledge about the European Rabbit *Oryctolagus cuniculus*, and offers guidance on the management of rabbit populations. The results of consultations and literature reviews are set out and the principles of an integrated management system for all types of land managers are outlined. It includes detailed chapters on rabbit damage and control methods as well as information on the history of the rabbit in Europe, rabbit ecology and biology, myxomatosis and Rabbit Haemorrhagic Disease (RHD).

C645 | 978-0-86017-645-9 | £90 (£45 members) | PB | 2006

Climate change risks in building – an introduction

S Vivian, N Williams and W Rogers

It is widely agreed that the world's climate is changing, and these conditions will need the UK construction industry to respond accordingly. A method for assessing the risks is described within this guide that should help designers and constructors to make rational decisions about whether to incorporate climate change consequences in their projects. Construction professionals need to be aware that the likelihood and magnitude of climate change events may change over the coming decades and that up-to-date figures should be used.

C638 | 978-0-86017-638-1 | £100 (£50 members) | PB | 2005

Sustainable construction – implementing targets and indicators. Experiences from CIRIA's Pioneers' Club

J Kersey

Despite intensive development of industry Key Performance Indicators (KPIs), practical understanding of their implementation is in its infancy. This book describes the trialling of a set of KPIs for sustainable construction and distils the lessons learned to enable their dissemination to the wider industry.

C633 | 978-0-86017-633-6 | £100 (£50 members) | PB | 2004

Habitat translocation – a best practice guide

P Anderson and P Groutage

Habitat translocation is the process of moving soils with their vegetation and any animals that remain associated with them, to rescue habitats that would otherwise be lost through a development or extraction scheme. This best practice guide sets out minimum standards for habitat translocations. While researched originally for the Highways Agency, this guide has been broadened to apply to any construction project. This guide does not promote translocations but seeks to set high standards to help avoid some of the failures found in past translocation projects.

C600 | 978-0-86017-600-8 | £100 (£50 members) | PB | 2003

Environmental performance improvement clubs

G Hall

The Environmental Performance Improvement Club (EPIC) was a supply-chain network project established by CIRIA with construction clients and main contractors and was piloted in three areas, Yorkshire, the Midlands and South Wales as part of an eco-clusters project. This CD-Rom outlines the methodology for each pilot, the lessons learned and recommendations for further work.

C585CD | 978-0-86017-585-8 | £90 +VAT (£45 +VAT members) | CD-Rom | 2002

Guidance on the costing of environmental pollution from construction

M Postle and J Vernon

Construction companies are responsible for more pollution incidents than any other industry sector and they have increased considerably since 1996. One reason for the lack of progress is because it is thought to have little business impact.

This guidance sets out simple methods for evaluating pollution potential and costs during pre-contract risk assessment.

C565 | 978-0-86017-565-0 | £90 (£45 members) | PB | 2001

Integrating safety, quality and environmental management

CIRIA

Aimed at strategists and senior managers within construction organisations, this report provides best practice guidance on integrated management of quality, environment and health and safety to suit both their customers' needs and their own site procedures. A few companies have done this well – high time the rest caught up.

C509 | 978-0-86017-509-4 | £90 (£45 members) | PB | 2000

Environmental assessment: good practice. Proceedings of the Construction Industry Environmental Forum Conference on Good Practice in Environmental Assessment (London, 7 September 1995)

J Petts (ed)

The views of a developer, a consultant, a statutory consultee and a contractor together cover all stages of the formal environmental assessment process and includes two useful case studies – a brownfield regeneration development near to waste disposal sites and a motorway-widening scheme.

SP126 | 978-0-86017-442-4 | £50 (£25 members) | PB | 1995

Photocopies of out of print titles

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Full details can be found in the CIRIA bookshop via the website: <www.ciria.org>.

Grassmoor Lagoons – organic sludge bioremediation field trials

PR40 | 978-0-86017-840-8 | £42 +VAT (£37 +VAT members)

Site handbook for the construction of SuDS

B Woods-Ballard, R Kellagher et al

Sustainable drainage systems (SuDS) are designed to contribute to the achievement of sustainable development. This handbook provides guidance on the construction of SuDS to help their effective adoption within developments and is aimed at site engineers and SuDS practitioners. It can also be used in conjunction with CIRIA C697, which provides comprehensive guidance on the planning, design, construction and operation of SuDS.

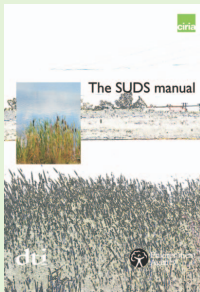
C698 | 978-0-86017-698-5 | £30 (£20 members) | **PB** | 2007

Best seller

The SuDS Manual

B Woods Ballard, R Kellagher et al

Best practice guidance is given on the planning, design, construction, operation and maintenance of sustainable drainage systems (SuDS) to facilitate their effective adoption within developments. The guidance supersedes previous general guidance on SuDS (CIRIA C521, C522, C523 and C609) and addresses landscaping, biodiversity issues, public perception and community integration as well as water quality treatment and sustainable flood risk management. A separate handbook (CIRIA C698) has also been produced.



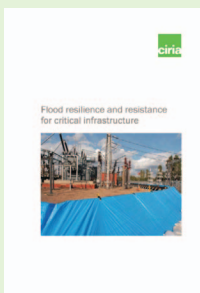
C697 | 978-0-86017-697-8 | £190 (£120 members) | **PB** | 2007

Best seller

Flood resilience and resistance for critical infrastructure

W McBain, D Wilkes and M Retter

This publication provides an overview of the regulatory framework and outlines the main issues now faced by the industry in this area. Flood risk management for CI (critical infrastructure) across the UK is considered with respect to flood risk assessment, adopting resilience and resistance measures and investment prioritisation.



CI owners need to develop long-term strategic investment approaches that allow for optimised investment decision making. The economic regulators should aim to provide a framework to achieve this objective.

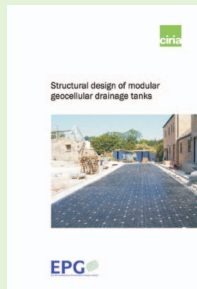
C688 | 978-0-86017-688-6 | £70 (£35 to members) | **PB** | 2010

Best seller

Structural design of modular geocellular drainage tanks

S Wilson

Stormwater attenuation tanks constructed using modular plastic geocellular units are commonly used as part of sustainable drainage and rainwater reuse systems.



This guidance discusses the different type of unit that are available and the differences in their structural performance. It provides information on many full scale trials that have been carried out on various systems and gives a detailed assessment of the factors that affect their structural performance. It also includes guidance on appropriate testing and structural design together with a discussion of the practical issues that should be considered during construction.

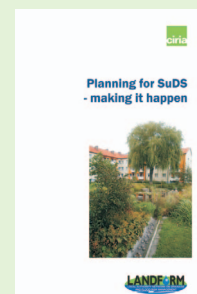
C680 | 978-0-86017-680-0 | £90 (£45 members) | **PB** | 2008

Top 10

Planning for SuDS – making it happen

S Dickie, L Ions, G McKay, P Shaffer

Sustainable drainage is becoming the preferred approach to managing rainfall and surface water in developments. Delivering sustainable drainage systems (SuDS) can provide several benefits for those that live, work and play in or around a development. They can help manage flood risk and water quality as well as provide better places to live by providing habitat for wildlife and improved amenity.



This guidance has been put together to help realise the many benefits of delivering sustainable drainage in developments and overcome challenges you might face. This publication is a step-by-step guide on planning, specifying and delivering SuDS, dispel myths and support you in the implementation of sustainable drainage.

C687 | 978-0-86017-687-9 | £80 (£40 members) | **PB** | 2010

The potential for water pollution from railways

M Osborne and K Montague

The operation of a railway has the potential to give rise to pollution as water drains from the railway into watercourses. The pollutants carried by water may arise from a wide variety of sources. The rail industry as a whole already has obligations to minimise actual pollution and the risk of pollution from its activities. The introduction of the EU Water Framework Directive will increase those obligations.

This short guide summarises a study that has looked at the legislative framework, the overall structure of the railway industry in the UK, the potential sources of pollution, the responsibilities for pollution, the availability of guidance on good practice, and actions that may need to be taken. It is essential reading for anyone who has responsibilities for operational management or environmental management of railway activities.

C643 | 978-0-86017-643-5 | £50 +VAT (£25 +VAT members) | **PB** | 2005

Designing for exceedance in urban drainage – good practice

C Digman, D Balmforth, R Kellagher and D Butler

This guidance aims to provide best practice advice for the design and management of urban sewerage and drainage systems to reduce the impacts that arise when flows occur that exceed their capacity. It includes information on the effective design of both underground systems and overland flood conveyance. It also provides advice on risk assessment procedures and planning to reduce the impacts that extreme events may have on people and property within the surrounding area. The guidance will be relevant to areas drained by piped systems or SuDS.

C635 | 978-0-86017-635-0 | £110 (£55 members) | **PB** | 2006

Sustainable water management in land use planning

P Samuels, B Woods, C Hutchings, J Felgate and P Mobs

This book provides guidance on how water-related issues may be considered within the land use planning process. It details the wide range of stakeholders, policies, processes and guidance that exist to foster sustainable water management.

The guide aims to help this process by providing information on sustainable water management and identifying the linkages to planning policy. It also suggests how the stakeholders can work to further sustainable water management within the land use planning process both appropriately and efficiently.

C630 | 978-0-86017-630-5 | £130 (£65 members) | **PB** | 2005

Model agreements for sustainable water management systems. Model agreements for SuDS

P Shaffer, C Elliott, J Reed, J Holmes and M Ward

This guide provides basic advice on the use and development of model operation and maintenance agreements for sustainable drainage systems together with simple guidance on their incorporation into developments.

The book identifies maintenance considerations and provides an outline of ways in which the long-term responsibilities for the maintenance of the SuDS can be allocated. It comes with three model agreement booklets and a CD-Rom containing electronic files of the model agreements.

C625 | 978-0-86017-625-1 | £70 (£35 members) | PB | 2004

Development and flood risk – guidance for the construction industry

JW Lancaster, M Preene and CT Marshall

The effects of climate change, population growth and demographic changes mean that major flooding events are likely to become more frequent in the UK. The impacts of flooding can be devastating in terms of the cost of repairs, damage to property, loss of business and considerable personal trauma.

This book sets out practical guidance in assessing flood risk as part of the development process. It describes the mechanisms and impacts of flooding, whether caused by rivers, the sea, estuaries, groundwater, overland flow, artificial drainage systems or infrastructure failure. It covers UK planning policy guidance for development and flood risk and is aimed at achieving a consistent approach when adopting that guidance, which should allow developments to be planned and designed more efficiently.

C624 | 978-0-86017-624-4 | £140 (£70 members) | PB | 2004

Sustainable drainage systems. Hydraulic, structural and water quality advice

S Wilson, R Bray and P Cooper

A sustainable drainage system aims to mimic as closely as possible the natural drainage of a site to minimise the impact of urban development on the flooding and pollution of waterways.

This guide summarises current knowledge on the best approaches to design and construction of sustainable drainage systems. Readers of this book will improve their understanding of the hydrological, hydraulic, structural, water quality and ecological aspects of the various SuDS features available in the UK and overseas.

C609B | 978-0-86017-609-1 | £130 (£65 members) | PB | 2004

SuDS compilation

CIRIA

This CD-Rom brings together the three best selling publications on SuDS: C523, C521 and C522. This fully-searchable CD-Rom is an easy-to-use tool helping you to quickly find references to any aspect of SuDS.

C599CD | 978-0-86017-599-5 | £70 +VAT (£35 +VAT members) | CD-Rom | 2003

Source control using constructed pervious surfaces

C Pratt, S Wilson and P Cooper

Presenting the critical issues that should be considered when designing and constructing pervious pavements that are to be used as a technique for stormwater source control. This book details the types of surfaces available and provides examples of developments that have used these techniques.

This book is intended for use by developers, landscape architects, consulting engineers, local authorities, architects, highway authorities, environmental regulators, planners, sewerage undertakers, contractors and other organisations involved in the provision or maintenance of surface water drainage to new and existing developments.

C582 | 978-0-86017-582-7 | £100 (£50 members) | PB | 2002

Above-ground proprietary prefabricated oil storage tank systems

A Teekaram, S Sterne, B Abel and C Elliott

In 2000 substantiated pollution incidents involving oil rose by 15 per cent increase on the number of incidents in 1999. Environment Agency data indicate that a large number of these could have been prevented if the oil had been stored in adequately bundled tank systems.

This guide provides detailed guidance on the design, construction and use of proprietary prefabricated above-ground bundled oil storage tank systems for use in domestic, agricultural and industrial applications. Oil storage tank systems of steel or plastic construction up to 140 000 litres are reviewed and the use of mobile oil storage bowlers is also included. This report assesses the level of environmental protection offered by these types of systems against common causes of oil pollution and the preventative measures that can be taken to avoid them.

C535 | 978-0-86017-535-3 | £90 (£45 members) | PB | 2001

Control of water pollution from construction sites. Guidance for consultants and contractors

H Masters-Williams et al

How can water pollution be prevented on site? This guide and training aid provides help on environmental good practice for the control of water pollution arising from construction activities. It focuses on the potential sources of water pollution from within construction sites and the effective methods of preventing its occurrence.

This publication has three functions: a user-friendly guide, a reference book and a training aid. It is aimed at project promoters, site managers, foremen and supervisors, site engineers, project managers and contract supervisors/resident engineers.

C532 | 978-0-86017-532-2 | £110 (£55 members) | PB | 2001

Sustainable urban drainage systems – best practice manual for England, Scotland, Wales and Northern Ireland

P Martin et al

The demand for new, sustainable housing and industrial development means that conventional surface water drainage techniques are no longer good enough. Sustainable drainage systems (SuDS) are the answer. See also C521 (Scotland and Northern Ireland) and C522 (England and Wales) for technical and planning issues.

C523 | 978-0-86017-523-0 | £100 (£50 members) | PB | 2001

Sustainable urban drainage systems – design manual for England and Wales

P Martin et al

Drainage methods inspired by natural processes are introduced, and guidance is given on how the design team should plan, select and design a suitable system. Detailed appendices include an information checklist and worked design examples.

The companion volume (C521) discusses similar technical issues surrounding SuDS in Scotland and Northern Ireland, while C523 covers the wider aspects of SuDS best practice, addressing the legislative issues surrounding SuDS and how organisations may work together in employing SuDS.

C522 | 978-0-86017-522-3 | £100 (£50 members) | PB | 2000

Sustainable urban drainage systems – design manual for Scotland and Northern Ireland

P Martin et al

Switch to SuDS now. Conventional surface water drainage techniques can cause flooding, pollution and disruption of the water cycle, and sterilise development land. This guide provides the technical and planning considerations for designing sustainable urban drainage systems for surface water, using methods inspired by natural processes. See also C522, C523.

C521 | 978-0-86017-521-6 | £100 (£50 members) | PB | 2000

Design of flood storage reservoirs

M J Hall, D L Hockin and J B Ellis

For the engineer providing flood storage reservoirs particularly in partly urbanised catchment areas. This guide deals with the causes and prevention of flooding, design flood estimation, flood routing, water quality, engineering design and operation and maintenance. It also contains a methodology for a hydrological design procedure and two flood estimation methods.

B14 | 978-0-86017-393-9 | £70 (£35 members) | PB | 1993

Inland dredging – guidance on good practice

A D Bates and A G Hooper

A big part of the cost of inland dredging operations – millions of pounds every year in the UK – could be saved by improving operational effectiveness and efficiency. This book provides guidelines on dredging and sediment treatment techniques, and covers management of dredging operations, contractual relationships and relevant health and safety issues. See also CIRIA R157.

R169 | 978-0-86017-477-6 | £80 (£40 members) | PB | 1997

Use of industrial by-products in road construction – water quality effects

G Baldwin, R Addis, J Clark and A Rosevear

More aggregates are needed in the UK but there is a struggle to meet the demand. Can by-products and secondary materials be recycled and reused without causing groundwater and surface water pollution? This guide is vital for policy makers, minerals planners, highway engineers, materials producers and environmental regulators.

R167 | 978-0-86017-475-2 | £90 (£45 members) | PB | 1997

Construction of bunds for oil storage tanks

P A Mason et al

Oil storage tanks with inadequate or non-existent bunding pose both a pollution and prosecution risk. Oil spillages cause a quarter of the UK's inland water pollution incidents, with devastating effects. Property owners, environmental regulators, local authorities, site operators, tank and bund designers, equipment suppliers and insurers, can put things right with this comprehensive guide.

R163 | 978-0-86017-468-4 | £50 (£25 members) | PB | 1997

Infiltration drainage – manual of good practice

R Bettess

This manual provides in depth information about infiltration drainage as a method to control and dispose of stormwater. It covers design, construction and maintenance of infiltration systems for on-site control and disposal of runoff from small-scale residential or commercial development upstream of an area with existing sewers. See also CIRIA PR21–25.

R156 | 978-0-86017-457-8 | £70 (£35 members) | PB | 1996

Control of pollution from highway drainage discharges

M Luker and K Montague

This publication offers practical guidelines for highway drainage designers and water quality regulators. Part of CIRIA's series of publications on highway drainage, this book reviews the pollutants that are likely to be present in highway drainage discharges, and assesses the effect that these can have on the receiving water. It also reviews the legal framework within which the discharges are made, and the controls that can be imposed on these discharges. It describes current drainage practice and the operation of different types of drainage structure.

R142 | 978-0-86017-415-8 | £70 (£35 members) | PB | 1994

Sediment management in urban drainage catchments

D Butler and P Clark

Sediment can be found in urban drainage catchments on the surface, in gully pots, in drains and sewers, and at sewage treatment works. Responsibility for cleaning is fragmented between different authorities in the UK and is rarely considered on a catchment scale, although sediment movement follows catchment drainage patterns. This publication reviews the problems, sources, characteristics and quantities of sediment in each part of the drainage system and includes information on sediment build-up rates on the surface and in gully pots. It should be of practical help to cleaning managers and drainage/sewerage engineers.

R134 | 978-0-86017-409-7 | £70 (£35 members) | PB | 1995

Design of reinforced grass waterways

H W M Hewlett, L A Boorman and M E Bramley

In an unlined waterway, the earth surface is liable to erosion by high velocity flow. Where flow is intermittent, a grass cover will provide protection against. By reinforcing the grass cover the resulting composite armour layer will enhance erosion resistance and reduce the risk of failure of grass protection due to localised poor cover.

This guide sets out the procedure and principles for the planning and design of reinforced grass waterways. Hydraulic, geotechnical and botanical aspects are covered, worked examples are given. Considerations relating to specification, construction and on-going management are discussed. Various proprietary reinforcement systems available in the UK are described. Data from full-scale trials on prototype reinforced grass channels are provided.

R116 | 978-0-86017-285-7 | £50 (£25 members) | PB | 1987

Control of groundwater for temporary works

S H Sommerville

This is a guide to the selection and design methods for the control of groundwater during construction works. It is intended for the use of designers, estimators and planning engineers for both temporary and permanent works, and for the use of field engineers during the construction stages.

The guide covers the various methods of dewatering control available, identification of the ground, methods of assessing permeability, design of well systems and approximate costs, etc and draws attention to the various legal aspects and statutory regulations in force. Safety aspects and particular dangers are highlighted.

R113 | 978-0-86017-261-1 | £50 (£25 members) | PB | 1986

Control of water pollution from construction sites – guide to good practice

E Murnane et al

Good water management is an important factor in ensuring the sustainability of any construction site. This training pack aims to inform construction site staff about protecting the water environment and help to reduce the number of pollution incidents. This will provide cost benefits for the construction industry, improved environmental awareness and sustainability at construction sites. The pack can be used by any size of company and provides everything needed to run brief or detailed training sessions. There is no need for an external trainer – any delegated person such as a site supervisor, foreman or environmental manager can hold the training session using these training materials.

SP156 | 978-0-86017-807-1 | £180 + VAT (£90 + VAT members) | TP | 2002

Drainage of development sites – a guide

R Kellagher

This guide is intended to assist all those involved with foul and surface water drainage of development sites. It is aimed specifically at developments in the UK based on national requirements and international best practice.

It is intended that general engineering practitioners, developers and architects will use this book as a first point of reference for guidance and information on all aspects related to the hydraulics of site drainage. Sites range from small suburban developments to large industrial estates, each having specific features that require particular attention.

X108 | 978-0-86017-900-9 | £80 (£40 members) | PB | 2004

Photocopies of out of print titles

The following titles are now out of print but bound photocopies of these can still be purchased.

Full details can be found in the CIRIA bookshop via the website: <www.ciria.org>.

Sustainable urban runoff management: scoping study and proposal for further work

PR20 | 978-0-86017-820-0 | £20 +VAT (£15 +VAT members)

Review of the design and management of constructed wetlands

R180 | 978-0-86017-485-1 | £65 +VAT (£60 +VAT members)

A study of the impact of urbanisation on the Thames Gravels Aquifer

R129 | 978-0-86017-370-0 | £59 +VAT (£54 +VAT members)

Design of low-lift pumping stations – with particular application to pumping wastewater

R121 | 978-0-86017-312-0 | £35 +VAT (£30 +VAT members)

The hydraulic design of stepped spillways (second edition)

R33 | 978-0-86017-061-7 | £23 +VAT (£18 +VAT members)

The engineering implications of rising groundwater levels in the deep aquifer beneath London

SP69 | 978-0-86017-303-8 | £25 +VAT (£15 +VAT members)

Addressing crime and disorder through planning and design

Consortium led by CIRIA

This guide aims to provide advice about the issues that arise from the area of "crime and disorder". It explores how planners and designers can respond to the issues arising from threats to social and physical well-being and infrastructure, taking account of operational issues including day-to-day management and maintenance.

The guidance focuses on public places such as major transport hubs and shopping centres. The Government's "crowded places" strategy mentions bars, pubs, nightclubs, restaurants, hotels, shopping centres, sport and entertainment stadia, cinemas, theatres, visitor attractions, major events, commercial centres, health sector, education sector, religious sites and places of worship, and the information provided in this guide may be useful in all these situations.

C710 | 978-0-86017-712-8 | £70 (£35 members) | PB | 2011

Not just an accident

CIRIA

Prevent accidents. Be aware of the dangers! Construction sites are extremely dangerous places, but it is estimated that up to 70 per cent of fatalities could be prevented with appropriate management action. This DVD alerts young professionals and new site workers to the most common hazards they face on construction sites. Designed to be used in conjunction with CIRIA SP151, but available separately.

C705DVD | 978-0-86017-705-0 | £60 + VAT (£30 + VAT members) | DVD | 1993

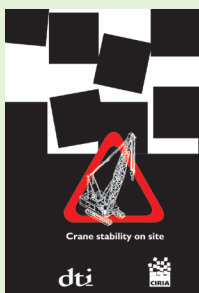
Top 10

Crane stability on site (second edition)

D Lloyd (ed)

Cranes are some of the most widely operated items of plant on construction sites and if misused, they are lethal. This updated, best-selling book tells you all you need to know – type and choice of crane, loading cases, ground conditions, foundation details. It contains diagrams, symbols, tables and checklists, plus accident case studies with dramatic photographs. Contains up-to-date information of the 1998 LOLER Regulations.

C703 | 978-0-86017-703-6 | £50 (£25 members) | PB | 2003



Best seller

Safe access for maintenance and repair. Guidance for designers second edition 2009

J Iddon and J Carpenter

The introduction of the Construction (Design and Management) Regulations (CDM) in 1995 provided the regulatory impetus for designers to give due attention to the whole-life aspects of facilities. This book provides best practice guidance aimed specifically at designing for safe access for maintenance and repair.

The guide gives an overview of the commercial and regulatory backdrop, statutory obligations and alternative procurement processes. This is followed by targeted design guidance for a variety of building elements and work situations. It is primarily aimed at building designers, but will also be of interest to clients, planning supervisors and facilities managers.

C686 | 978-0-86017-686-2 | £100 (£50 members) | PB | 2009



Best seller

Site safety handbook (fourth edition)

S C Bielby and A L Gilbertson

Building and civil engineering construction sites contain many hazards. The risks to engineers, architects and surveyors – and especially to professionals going to work on them for the first time – are considerable. This fourth edition has been prepared to alert construction professionals to the hazards often present on site. It has been revised to reflect the recent changes in health and safety regulations.

The guide has been written in the context of the legal framework provided by the Health and Safety at Work etc Act of 1974, but is not a legal document nor is it a comprehensive manual on site safety. It is designed to be an easy-to-read, ready reference guide for use outside, which will slip easily into a pocket.

C669 | 978-0-86017-669-5 | £50 (£25 members) | PB | 2008



Site health handbook (second edition)

M Pendlebury, C Brace, A Gibb and D Gyi and A L Gilbertson

This companion to CIRIA C669 provides practical advice on recognising the health risks that may be met within the construction industry and how to minimise them. The book considers the need for effective management of health on site and the importance of improving the industry's health culture. It highlights the biological, chemical, physical and psychological hazards that may face those working on site and emphasises that it is everyone's duty to reduce those dangers as much as possible. Advice is given on site inductions, personal protective equipment, first-aiders, accident reporting and health screening.

C670 | 978-0-86017-670-1 | £50 (£25 members) | PB | 2008

CDM2007 – workplace "in-use" guidance for designers

A L Gilbertson

The Construction (Design and Management) Regulations 2007 (CDM2007) affect all construction work of any significance. The Regulations place duties upon all designers and this guide is designed to assist in fulfilling those duties with respect to construction work. CDM2007 builds upon earlier health and safety legislation by imposing a framework of duties so that all the parties to a construction project must consider health and safety. This guide addresses workplace "in-use" hazards. There is a companion CIRIA guide C662, which addresses construction hazards.

C663 | 978-0-86017-663-3 | £50 (£25 members) | PB | 2007

Best seller

CDM2007 – construction work sector guidance for designers

Ove Arup and Partners

This guide helps any person or organisation acting as a designer to meet their obligations with respect to construction hazards in an effective manner. Advice on considering “in-use” hazards (a duty introduced into the 2007 Regulations, which was not included in the 1994 Regulations) is provided in CIRIA C663. The guide gives advice on a designer’s duties, and explains how the work may be carried out in an effectively, and guidance is given on the difficult issues that arise in practice.



C662 | 978-0-86017-662-6 | £70 (£35 members) | PB | 2007

Tower crane stability

H Skinner, T Watson, B Dunkley and P Blackmore

The guide is intended to promote the safe design of foundations for, and use of, tower cranes through an improved understanding of temporary works design and health and safety issues. It highlights some key situations in which a specialist should be consulted and covers specific guidance for designers of temporary works involving tower cranes. Readers of this document may wish to refer to BS 7121-5 and CIRIA C703 for detailed guidance.

C654 | 978-1-86017-654-1 | £90 (£45 members) | PB | 2006

Safer surfaces to walk on – reducing the risk of slipping

D Lazarus, C Perkins and J Carpenter

Slipping accidents cause many thousands of occupational major injuries each year, over 90 per cent of which involve broken bones, and much pain, suffering and financial loss for society. Yet the perception by the public, the workforce and those who design or manage floors in buildings, is that these accidents are inevitable.

This good practice guide has been produced as part of the Health and Safety Commission’s programme to reduce the number of slips and trips accidents in the UK. The guide is based upon research by the HCL and in particular the slip potential model, and is designed to provide designers, procurers and managers of floors with good practice guidance. This research will be used to update and extend the guide to become the authoritative guide to slips and trips.

C652 | 978-0-86017-652-7 | £110 (£55 members) | PB | 2006

Guidance on glazing at height

A Keiller, A Walker, S Ledbetter and W Wolmuth

This book provides information on the glazing used within both new and existing buildings, which has a potential to fall on breakage. Particular emphasis is given to the safety and attendant issues concerning glass façades, glass roofs and canopies, and glass barriers that protect a drop.

The guide will be of value to the broadest spectrum of “designers” – clients, architects, engineers, specifiers, main contractors and specialist sub-contractors – involved in the use of glass in buildings. Others concerned with the design, construction, maintenance, demolition and operation of buildings over time will also find this book a useful reference.

C632 | 978-0-86017-632-9 | £110 (£55 members) | PB | 2005

Chemical storage tank systems – good practice. Guidance on design, manufacture, installation, operation, inspection and maintenance

S Cassie and L Seale

This guidance is useful reading for all organisations represented on a site where chemicals are stored, whether as promoter, owner, user, designer, main contractor or sub-contractor. The advice in the guide is based on both long adopted common practice from chemical storage sites, and more recent practices. It is applicable to all levels of experience – not just those new to chemical storage systems.

The guide is also provided on a fully searchable CD-Rom with the book. This book is complemented by W2 and W3, which are available online at: <www.ciria.org>.

C598 | 978-0-86017-598-8 | £110 (£55 members) | PB | 2003

How much noise do you make? A guide to assessing and managing noise on construction sites

A J Wills and D W Churcher

This pocket guide tackles an aspect of construction that can cause the greatest damage to good relations with the general public ... excessive noise. As well as creating difficulties with the public, excessive noise is a significant hazard for site workers, and attracts increasingly stringent legislative action. This guide has the answers to noise measurement and management.

PR70 | 978-0-86017-870-5 | Pack of 10: £80 (£40 members) | PB | 1999

Site safety for the water industry

CIRIA

Don’t let anyone start work in the water industry without this guide. The first part covers on-site preparation and behaviour, the second deals with 23 common activities and related hazards. There are also sections on accident reporting and investigation.

SP137 | 978-0-86017-460-8 | £50 (£25 members) | PB | 2007

Temporary access to the workplace: a handbook for young professionals

D Lloyd and T Kay

Another indispensable CIRIA site aid to young, and not so young, designers and client representatives. Providing safe access for workers and supervisors is vital.

SP121 | 978-0-86017-422-6 | £50 (£25 members) | PB | 1995

Photocopies of out of print titles

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Full details can be found in the CIRIA bookshop via the website: <www.ciria.org>.

Sound control for homes

R127 | 978-0-86017-362-5 | £40 +VAT (£35 +VAT members)

A guide to reducing the exposure of construction workers to noise

R120 | 978-0-86017-310-6 | £15 +VAT (£10 +VAT members)

Rationalisation of safety and serviceability factors in structural codes

R63 | 978-0-86017-017-4 | £60 +VAT (£55 +VAT members)

Medical code of practice for work in compressed air, third edition

R44 | 978-0-86017-175-1 | £25 +VAT (£20 +VAT members)

Planning to reduce noise exposure in construction

TN138 | 978-0-86017-317-5 | £28 +VAT (£23 +VAT members)

Exposure of construction workers to noise

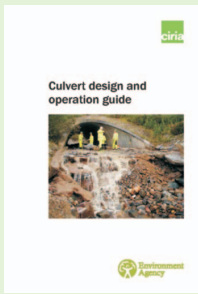
TN115 | 978-0-86017-225-3 | £20 +VAT (£15 +VAT members)

Best seller

Culvert design and operation guide

M Balkham, C Fosbeary, A Kitchen and C Rickard

A culvert provides the means of allowing infrastructure to cross a watercourse. Culverts are superficially simple structures, but they have the potential to restrict flow (causing flooding), and to adversely affect the aquatic environment.



This guide replaces CIRIA R168 published in 1997. It adopts a whole-life approach to the design and operation of culverts, with a focus on asset management, reflecting the significant changes that have occurred in the business of asset management over the past 10 to 15 years. The publication also addresses the management of culverts in the context of both the drainage basin in which they sit, and the infrastructure that they form part of.

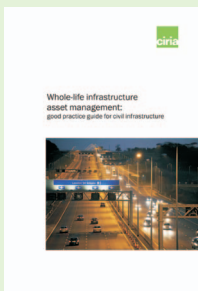
C689 | 978-0-86017-689-3 | £130 (£65 members) | PB | 2010

Best seller

Whole-life infrastructure asset management across industries (Phase 2)

R Hooper, R, Armitage, A, Gallagher and T Osorio

This guide provides a focus on the strategic and tactical aspects of asset management, including setting asset management policy and strategy, and developing and adopting asset management plans. It highlights the importance of information management for long life civil engineering infrastructure assets, and briefly describes systems to manage this information. This guide complements the International Infrastructure Management Manual (INGENIUM, 2006), which is a widely known guidance document primarily focused on experience in Australia and New Zealand, but also drawing relevant practice from the UK, South Africa and the USA.



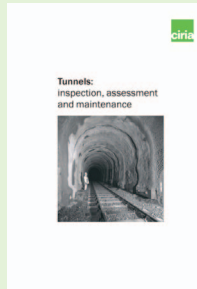
C677 | 978-0-86017-677-0 | £90 (£45 members) | PB | 2009

Top 10

Tunnels: inspection, assessment and maintenance

L McKibbins, R Elmers and K Roberts

This guide provides guidance on the management, condition appraisal, maintenance and repair of the structural elements of existing infrastructure tunnels, focusing primarily on older infrastructure and certain tunnel types.



It is based on a detailed review of published literature and infrastructure owners' procedures, consultation with experts and practitioners within the field, and case studies demonstrating good practice.

C671 | 978-0-86017-671-8 | £130 (£65 members) | PB | 2010

Iron and steel bridges: condition appraisal and remedial treatment

G P Tilly, J De Voy et al

This guidance is aimed to meet the requirements of those with a general knowledge of bridge engineering and asset management and who need further information about the performances and specific requirements of iron and steel bridges. The book provides and explains good practice, offers guidance for general application and gives information relevant to iron and steel bridges. Examples of successful schemes are cited and described. Case studies are also provided of both successful and unsuccessful examples of repair and strengthening projects.

C664 | 978-0-86017-664-0 | £130 (£65 members) | PB | 2007

Intelligent monitoring of concrete structures

N R Buenfeld, R Davies, A Karimi and A Gilbertson

Most of the developed world's infrastructure is built in concrete. The majority of this is required to remain in service for at least 50 years and some structures are expected to have lives of well over 100 years.

Management of concrete structures requires an understanding of the deterioration processes involved. Intelligent monitoring is automated monitoring that provides explicit information on current condition and deterioration rates to assist in predicting the remaining life of a component or structure.

C661 | 978-0-86017-661-9 | £70 (£35 members) | PB | 2008

Masonry arch bridges: condition appraisal and remedial treatment

L McKibbins, C Melbourne et al

Masonry arch bridges have proved to be reliable, enduring structures and remain a vital part of the road, rail and waterway infrastructure in the UK and other countries, but they are facing several challenges.

To ensure the continued efficient use of these assets in the future it is necessary to manage and maintain them carefully, with due regard to, and an adequate understanding of, their special characteristics and needs. This book provides information and guidance that will assist those responsible for this task in achieving their aims.

C656 | 978-0-86017-656-5 | £130 (£65 members) | PB | 2006

Infrastructure embankments – condition appraisal and remedial treatment (second edition)

J Perry (updater), M Pedley and M Reid

Embankments perform an important function in the efficient operation of an infrastructure network, whether it is railway, highway or waterway, and it is essential that they are recognised accordingly within the asset management policy. This updated second edition presents vital information for infrastructure owners, designers, contractors and maintenance managers. This publication supersedes CIRIA C550.

C592 | 978-0-86017-592-6 | £100 (£50 members) | PB | 2003

Infrastructure cuttings – condition appraisal and remedial treatment

J Perry, M Pedley and K Brady

Cuttings perform an important function in the efficient operation of an infrastructure network, whether in railway, highway or waterway. This guide is based on a detailed review of published literature and infrastructure owner's procedures, consultation with experts and practitioners within the field, and includes case studies demonstrating good practice. It addresses technical issues in design, repair and maintenance, and is published as an enabling document to promote the managerial and engineering requirements of infrastructure cuttings.

C591 | 978-0-86017-591-9 | £100 (£50 members) | PB | 2003

Manual on scour at bridges and other hydraulic structures

R May, J Ackers and A Kirby

Structures built in or near rivers and other channels can be vulnerable to scour around their foundations. This manual considers scour processes, estimating and assessing scour, protective measures, monitoring, environmental factors, risk assessments, and cost and benefit analyses. It is relevant to UK and worldwide scour problems, and to new as well as existing structures.

C551 | 978-0-86017-551-3 | £110 (£55 members) | PB | 2002

Open space opportunities for previously developed land

K Wray, R Jackson, J Healey Brown and P Jarvis

Creating open space on previously developed land can provide genuine opportunities. Well conceived projects can help to make the most out of sites that otherwise may be subject to blight and high management costs, and can generate significant social, environmental and economic benefits. Open spaces are multifunctional, offering not just a single land-use solution, but the opportunity to achieve social, environmental and economic added value.

This guide informs the reader of the opportunities associated with creating open space on previously developed land and advice on how to deliver projects. The guide has been developed to be relevant to stakeholders working across the UK, including information on policy and legislation, and on organisations active in dealing with previously developed land and open space projects.

C694 | 978-0-86017-694-7 | £60 (£30 members) | **PB** | 2011

Best seller

The VOCs Handbook. Investigating, assessing and managing risks from inhalation of VOCs at land affected by contamination

K Baker, H Hayward, L Potter, D Bradley and C MacLeod

Considerable advances have been made in the assessment of risks associated with land contamination over the past decade, which are incorporated in recent regulatory guidance.

This guide aims to provide clear and flexible guidance on the investigation, assessment and management of risks associated with Volatile Organic Compounds (VOCs) at land affected by contamination in the UK. This handbook is intended to complement the guidance released by CIRIA in 2007 (CIRIA C665).

C682 | 978-0-86017-685-5 | £110 (£55 members) | **PB** | 2009



Best seller

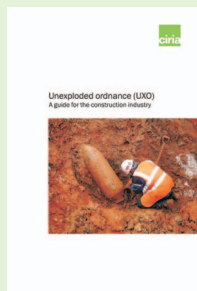
Unexploded ordnance (UXO) – a construction industry guide

K Stone, A Murray, S Cooke and J Foran

The legacy of unexploded explosive ordnance (UXO) has caused many problems for construction projects throughout the UK. These problems have led to delays and an increase in costs, especially during the site investigation and groundwork phases of construction.

This guide provides the UK construction industry with a defined process for managing the risks associated with UXO including WWI and WWII aerial bombardment and other UXO that might be encountered.

C681 | 978-0-86017-681-7 | £90 (£45 members) | **PB** | 2009



Best seller

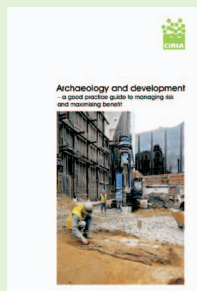
Archaeology and development – a good practice guide to managing risk and maximising benefit

B Barber, J Carver, P Hinton and T Nixon

Archaeology is a major factor in construction and development and an estimated £150m is spent by developers on archaeology in the UK each year. As most clients and developers are aware, archaeological remains are treated as a material consideration in the planning process. However, archaeology is often underestimated as a business risk. So it is often not considered early enough in the feasibility and design stages of projects, leading to unexpected and unplanned consequences.

This guide provides the development sector with a unified accessible source of independent and practical advice and information regarding archaeology, drawing on the array of existing guidance.

C672 | 978-0-86017-672-5 | £90 (£45 members) | **PB** | 2008



Best seller

Assessing risks posed by hazardous ground gases to buildings (revised)

S Wilson, S Oliver, H Mallett, H Hutchings and G Card

Following the high profile gas explosions at Loscoe and Abbeystead during the 1980s, several reports were published in the 1990s on the measurement of ground gases, the assessment of risk such gases may

present along with the measures that can be employed to mitigate such risks.

This book gives up-to-date advice on all these aspects. The guidance it contains consolidates good practice in investigation, the collection of relevant data and monitoring programmes in a risk-based approach to gas contaminated land.

C665 | 978-0-86017-665-7 | £140 (£70 members) | **PB** | 2007



Selection of remedial treatments for contaminated land. A guide to good practice

D J Rudland and S D Jackson

The guide presents best practice methodology for the selection of remedial treatments. It is aimed at a broad spectrum of practitioners. While most users of the guide are likely to have a reasonable understanding of contaminated land and its implications, the book has been written assuming only a basic knowledge.

The user is taken through the various stages by which remedial techniques for treating contaminated land are identified, screened and selected, highlighting the key stages and providing pointers towards best practice. The treatment technologies screening matrix is a useful decision-making tool and guidance is provided on UK legislative regimes and sources of further information on technical and scientific aspects of remediation.

C622 | 978-0-86017-622-0 | £60 (£30 members) | **PB** | 2004

Implementation of remedial options for contaminated land – training pack

L Potter

Part IIA of the Environmental Protection Act, 1990 has defined contaminated land and relegated its management to local authorities through the planning process. This training pack is designed to help those involved in the management of contaminated sites to understand the procedures in the implementation of the remedial options. The pack will demonstrate the process of implementing a remedial strategy. Attendance can contribute towards credits for qualification in continuing professional development. The training is designed to be run as six-sessions in a one-day course, with variation to suit the circumstances of the training course. The pack may also be used by individuals for self-study.

C612TP | 978-0-86017-612-1 | £295 + VAT (£195 + VAT members) | TP | 2004

Non-biological methods for assessment and remediation of contaminated land – case studies

D Barr, R P Bardos and C P Nathanail

An increasing number of “innovative” techniques for the assessment and remediation of contamination are available within the UK, many of which have an established track record overseas. This guide provides a review of such techniques and includes a series of case studies that illustrate their application to both radionuclide and non-radionuclide contamination issues in the UK.

C588 | 978-0-86017-588-9 | £110 (£55 members) | PB | 2003

Brownfields – managing the development of previously developed land. A client’s guide

D W Laidler, AJ Bryce and P Willbourn

The UK Government’s expressed policy of utilising previously developed land provides a golden opportunity for developers to profit by developing such land. This guide provides a framework for managing these issues logically and methodically. The guide can help clients identify their own technical limitations, and equip them with the tools they need when appointing and managing a specialist team of advisers.

The guide will instil confidence in those presently lacking the knowledge to handle such projects and assist clients in acquiring the skills necessary to handle what will become the mainstream of property development in the UK.

C578 | 978-0-86017-578-0 | £120 (£60 members) | PB | 2002

Biological methods for assessment and remediation of contaminated land: Case studies

D Barr et al

Biological processes to treat contaminated land (bioremediation) have had widespread use in North America, several countries in mainland Europe, and in the UK. The general technical consensus is that remediation (biological or otherwise) should usually take place in a risk management context to break pollutant linkages.

This guide includes a series of case studies showing that bioremediation can cost-effectively treat a range of contaminants under redevelopment, transaction or proactive risk management scenario. The case studies selected are representative of many of the technologies in commercial use in the UK.

C575 | 978-0-86017-575-9 | £100 (£50 members) | PB | 2002

Remedial engineering for closed landfill sites

D L Barry, I M Summersgill, R G Gregory et al

Closed landfill sites invariably have physical conditions that are not immediately compatible with redevelopment options, even if they are not contaminated. Such sites represent a considerable proportion of potentially contaminated sites, and they can be brought back into beneficial use by judicious engineering and environmental control measures.

This book provides guidance to designers and regulators on the principal statutory, technical and environmental factors that can influence the redevelopment of sites for particular uses. It is aimed at developers, professional advisers, designers, planning and environmental regulators and students.

C557 | 978-0-86017-557-5 | £110 (£55 members) | PB | 2001

Contaminated land risk assessment. A guide to good practice

D J Rudland, R M Lancefield and P N Mayell

Contaminated land has been one of the last major environmental concerns to be taken seriously in the UK. It lags far behind air and water quality in terms of statutory and technical approach to control. However, the increasing focus on environmental safety by both government and the public means that land contamination is no longer an issue only considered during redevelopment of abandoned or derelict sites.

This book and the associated training pack CIRIA C553TP examines the risk assessment of contaminated land and explain the key elements of risk assessment practices and procedures. The book is intended to assist all practitioners to align their abilities at a common level promoting industry-wide consistency. It will be of particular benefit to geotechnical and environmental engineers, developers, regulators and lawyers.

C552 | 978-0-86017-552-0 | £90 (£45 members) | PB | 2001

Remedial processes for contaminated land – principles and practice

D Evans, S A Jefferis, A O Thomas and S Cui

This book provides guidance for good practice in the selection, design, commissioning, operation, monitoring and validation of process technologies for the remedial treatment of contaminated land. It stems from a CIRIA research project that examined the use of these technologies in the UK and, through an international review of experience and consultation with practitioners, established guidelines for good practice in these relatively new methods.

The book will be of interest to geotechnical engineers, environmental professionals, reclamation specialists, developers, regulators, planners and civil engineers.

C549 | 978-0-86017-549-0 | £100 (£50 members) | PB | 2001

Land contamination – management of financial risk

J R Fynamore, B Denton and C P Nathanail

When carrying out any investigation, assessment or remedial treatment of contaminated land, one can never be 100 per cent certain that all environmental risks have been identified and removed. New and historic land contamination can seriously affect the value of property, even to the extent of turning an apparently valuable asset into an expensive liability.

It is important that construction professionals involved in contaminated land projects understand their financial risk exposure and know how to manage the risk efficiently. This publication reviews how different parties involved in such projects currently manage financial risk and provides specific guidance to help professionals improve their practice.

C545 | 978-0-86017-545-2 | £195 (£95 members) | PB | 2000

Remedial treatment for contaminated land – training pack

CIRIA

Excavation and disposal is currently the most commonly applied remedial option for land contamination. Experience regarding the remediation of land contamination is constantly being gained, however, and there are now numerous case studies of different remedial techniques being successfully applied in the UK and elsewhere. This training pack aims to increase the ability of all those involved in remediating contaminated land to better assess the whole range of options with the potential to remediate at the best balance of economic costs, engineering feasibility and environmental impact.

The pack contains material to support six hours of training sessions, which can contribute towards credits for Continuing Professional Development.

C540TP | 978-0-86017-540-7 | £295 + VAT (£195 + VAT members) | TP | 2001

Demonstration of the Geodur solidification/stabilisation system

F M Jardine and S T Johnson

This book describes field trials and testing of the commercially available Geodur solidification/stabilisation system for processing contaminated soils and other industrial residues. It is one of a series of guides resulting from CIRIA's programme of case study demonstrations of remediation of contaminated land. The treatment system, which uses proprietary additives to enhance performance, is based on cement stabilisation. The main trials involved two contaminated materials, and further trials were made on four different types of material imported from other sites.

The guide describes the field and laboratory work and presents the results of observations and tests on samples of the original and processed materials. It includes some of the findings of a subsequent project which examined the performance of the cast slabs over four years later.

PR41 | 978-0-86017-841-5 | £50 (£25 members) | **PB** | 2000

Chromium contamination – field and laboratory remediation trials

R W F Bewley, R Jeffries and K Bradley

This book describes a series of field and laboratory-scale trials for the remediation of chromium contamination. These relate to several sites in south-east Glasgow. The trials include chemical, physico-chemical and microbiological techniques. The guide outlines the objectives and methodologies for each of these trials, discusses the results obtained, and evaluates their overall effectiveness in the treatment of soil, surface water and groundwater contamination by chromium.

PR39 | 978-0-86017-839-2 | £50 (£25 members) | **PB** | 2000

Low-temperature thermal desorption – hydrocarbon and PCB remediation case studies

J Birnstingl

The potential of treatment technologies for the cost-effective remediation of contaminated land is becoming more widely recognised. These case studies describe the state of development of a mobile low-temperature thermal desorption soil remediation unit (SRU) operated in the UK by British Aerospace Royal Ordnance. The guide includes information on two remediation trials: hydrocarbon-contaminated sand and PCB-contaminated clay. Part of CIRIA's contaminated land programme.

PR38 | 978-0-86017-838-5 | £50 (£25 members) | **PB** | 2000

In-situ stabilisation of chemical waste

M R Sansom

This book is a case study of the application of deep in situ soil mixing, using a cementitious slurry, to encapsulate and neutralise contaminated waste within a landfill from which contaminated groundwater is leaching into an adjacent estuary. The technology described is the patented Colmix process. Part of CIRIA's contaminated land programme.

PR37 | 978-0-86017-837-8 | £50 (£25 members) | **PB** | 2000

Risk assessment for methane and other gases from the ground

N J O'Riordan and C J Milloy

Good practice in gas hazard evaluation. Assessing risk is an important step in the feasibility appraisal of new developments and of remedial works for existing ones. Enables the user to make a rational comparison of risks for a wide range of construction situations and ground gases, particularly for methane and carbon dioxide.

R152 | 978-0-86017-434-9 | £50 (£25 members) | **PB** | 1995

Interpreting measurements of gas in the ground

C R Harries, P J Witherington and J M McEntee

Understanding how hazards like methane, landfill gas and carbon dioxide could present themselves means postulating a conceptual model of the gas regime. But valid interpretation depends upon valid measurements. This book explains how to develop and refine a model of the relationship between the site and gases in the ground.

R151 | 978-0-86017-446-2 | £70 (£35 members) | **PB** | 1995

Methane investigation strategies

J G Raybould, S P Rowan and D L Barr

Thorough, methodical good practice guidance distilled by CIRIA from practitioners for practitioners. Addresses the requirements and duties of different stakeholders in the development process and provides a general framework for site-specific gas investigations. Tables, flowcharts and examples are used to illustrate the text throughout.

R150 | 978-0-86017-435-6 | £70 (£35 members) | **PB** | 1995

Protecting development from methane

G B Card

Based on a review of UK practice, this authoritative volume explains where protection from methane is needed and how to provide it. This guidance covers selection and construction of protective measures, from integral floor slabs and membranes to in-ground barriers, venting and active gas abstraction as well as long-term management of gas control systems.

R149 | 978-0-86017-410-3 | £90 (£45 members) | **PB** | 1996

A guide for safe working on contaminated sites

J E Steeds, E Shepherd and D L Barry

Construction can be a dangerous industry. Some dangers are hidden, like those from apparently clean, safe sites which were contaminated in the past, leaving a legacy of pollution to affect the health of site workers, occupiers, neighbours, and adjacent land and groundwater resources. Safe working practices are essential. Buy this book, complete with the posters (SP119), and put them in place.

R132 | 978-0-86017-451-6 | £90 (£45 members) | **PB** | 1996

The measurement of methane and other gases from the ground

D Crowhurst and S J Manchester

An essential reference for finding out what methods and techniques are available for the detection of methane and other gases from the ground. This book also describes how to sample these gases and take measurements relevant to mitigating the problems they pose. While centred on methane and landfill gas, the book covers carbon dioxide and other hazardous gases too. Published by CIRIA in conjunction with the Fire Research Station of BRE.

R131 | 978-0-86017-372-4 | £90 (£45 members) | **PB** | 1993

Methane: Its occurrence and hazards in construction

P J Hooker and M P Bannon

It is vital that construction professionals take methane and other gases into account and assess the risks they pose. This book arms you with information to recognise potential methane problems and find solutions. Case studies and scenarios of typical situations. Published in conjunction with the British Geological Survey.

R130 | 978-0-86017-373-1 | £90 (£45 members) | **PB** | 1993

Don't expose yourself on contaminated sites

CIRIA

Safe working practices on projects is paramount as even clean, safe sites may have been contaminated at some stage in the past. Produced as part of CIRIA's renowned research programme on the remedial treatment of contaminated land, this set of five posters accompanies CIRIA R132 and is intended for wide use – from the general engineer to the contaminated land specialist. It provides guidance to safe working practices for contaminated sites by informing all those involved about their statutory responsibilities for health, safety and environmental protection.

SP119 | £40 (£20 members) | **Poster set** | 1995

Building on derelict land*B A Leach and H K Goodger*

A precursor to SP101–112, but still an invaluable overview of the redevelopment of brownfield sites. Gives detailed guidance on the investigation, appraisal and remedial treatment needed before building on derelict sites.

SP78 | 978-0-86017-323-6 | £90 (£45 members) | PB | 1991

Remedial treatment for contaminated land, volumes I–XII (SP164)

£260 (£130 members) for the set

Volume I: Introduction and guide*CIRIA*

This introductory volume serves as a guide to the other 11 books in this set. It provides a brief summary, a consolidated list of references and an index.

SP101 | 978-0-86017-396-0 | PB | 1998

Volume II: Decommissioning, decontamination and demolition*M R Harris, S M Herbert and M A Smith*

This volume deals with the design and adoption of post-closure operations for industrial facilities. It covers planning, monitoring, health and safety, environmental protection and other post-closure tasks with a focus on the importance of site surveys before and after decommissioning.

SP102 | 978-0-86017-397-7 | PB | 1995

Volume III: Site investigation and assessment*M R Harris, S M Herbert and M A Smith*

Describes the various phases of investigating and assessing a site, and the issues to be addressed throughout. It highlights the necessity for investigation and assessment to be set within a risk management framework.

SP103 | 978-0-86017-398-4 | PB | 1995

Volume IV: Classification and selection of remedial methods*M R Harris, S M Herbert and M A Smith*

Provides a classification of the techniques available for the treatment of contaminated sites. The book gives a step-by-step approach to the selection of appropriate techniques, including setting objectives, identifying constraints, evaluating site information and testing of various treatment options against the selection criteria.

SP104 | 978-0-86017-399-1 | PB | 1995

Volume V: Excavation and disposal*M R Harris, S M Herbert and M A Smith*

Deals with the excavation of contaminated material before disposal (on or off site) or as a precursor to other forms of treatment. Issues considered include the applicability, limitations, effectiveness and practical requirements of excavation, and the technical, administrative and legal implications of on- and off-site disposal.

SP105 | 978-0-86017-400-4 | PB | 1995

Volume VI: Containment and hydraulic measures*M R Harris, S M Herbert and M A Smith*

Provides information and guidance on engineering-based remedial methods, specifically physical containment and hydraulic control measures. These include cover layers, vertical and horizontal barriers, liner systems, control or isolation of contaminated groundwater, maintenance of favourable hydraulic gradients across physical barriers, and removal of contaminated groundwater from a site.

SP106 | 978-0-86017-401-1 | PB | 1996

Volume VII: Ex situ remedial methods for soils, sludges and sediments*M R Harris, S M Herbert and M A Smith*

Deals with physical, chemical and biological methods of removing or rendering harmless the contaminants in solid materials after excavation from the ground. The volume gives guidance on the requirements for equipment, process controls and ongoing monitoring, and on material handling procedures. Also discusses the effectiveness, limitations and practical use of various techniques.

SP107 | 978-0-86017-402-8 | PB | 1995

Volume VIII: Ex situ remedial methods for contaminated groundwater and other liquids*M R Harris, S M Herbert and M A Smith*

Examines the design and operation of various treatment techniques for contaminated liquids, such as surface and groundwater effluent and leachates, which are produced during remediation of a contaminated site. The book discusses the advantages and disadvantages of the various methods from both the technical and legal angles. Includes several case studies that demonstrate the effectiveness of such methods.

SP108 | 978-0-86017-403-5 | PB | 1995

Volume IX: In situ methods of remediation*M R Harris, S M Herbert and M A Smith*

Describes the techniques available for removing, destroying or rendering harmless contaminants while they are in place in the ground. The volume considers the applications to which they are suited, their operational characteristics and requirements, and compares them with ex situ remedial treatments.

SP109 | 978-0-86017-404-2 | PB | 1995

Volume X: Special situations*M R Harris, S M Herbert and M A Smith*

Gives guidance on the specific technical and management requirements of contaminated sites that call for special attention. These include sites that may in the short term give rise to unacceptable health risks or environmental impacts, operational sites, and those for infrastructure projects or other sensitive uses. The book also discusses building on contaminated land, stressing the need to ensure that remedial works do not create problems.

SP110 | 978-0-86017-405-9 | PB | 1995

Volume XI: Planning and management*M R Harris, S M Herbert and M A Smith*

Describes planning and management procedures for the various stages of remedial treatment for contaminated land. The volume covers setting of objectives, drawing up specifications, organisation of resources, procedures for selection of specialists, forms of contract and procurement, and issues in the adoption of projects. Also discusses quality management systems.

SP111 | 978-0-86017-406-6 | PB | 1995

Volume XII: Policy and legislation*M R Harris, S M Herbert, M A Smith and K Mylrea*

This volume summarises the key elements and main developments in environmental legislation and policy as they affect the remedial treatment of contaminated land. It is not intended to be a comprehensive statement of the law or a substitute for legal advice on specific problems. As well as UK policy and legislation, this title also considers legislation in the USA, Canada, Denmark, Germany, the Netherlands, Australia and New Zealand.

SP112 | 978-0-86017-407-3 | PB | 1998

Photocopies of out of print titles

The following titles are now out of print but bound photocopies of these can still be purchased.

Full details can be found in the CIRIA bookshop via the website: <www.ciria.org>.

Hydraulic measures for the control and treatment of groundwater pollution

R186 | 978-0-86017-499-8 | £166 +VAT (£161 +VAT members)

Methane and associated hazards to construction: a bibliography

SP79 | 978-0-86017-327-4 | £75 +VAT (£70 +VAT members)

New

Retrofitting to manage surface water

Digman, C, Ashley, R, Balmforth, D, Balmforth, D, Stovin, V, Glerum, J

As urban areas develop, natural drainage processes are changed. Paved areas are constructed and piped drainage systems built. Yet they deprive communities of the many benefits of natural drainage processes. A different approach is needed to managing surface water run-off to sustain communities that are pleasant and vibrant places to live in. This guidance sets out a process to achieve this. It challenges many of the current conventions employed to manage surface water run-off. To do this it integrates the principles of urban design with surface water management.

As well as dealing with the engineering aspects, the guidance covers the organisational and statutory aspects of drainage, the need for adequate funding, appraisal approaches, how different agencies can work better together, how public expectations can be better managed and why incentives and disincentives are important.

C713 | 978-0-86017-715-9 | £180 (£90 members) | PB | 2012

WaND Guidance on water cycle management for new developments

D Butler, F A Memon, C Makropoulos, A Southall and L Clarke

This publication provides guidance on how to achieve improved sustainable water cycle management in new developments. It outlines the policy context and the processes involved focusing on why it is required and what approaches are needed for its successful planning and delivery.

This document provides practitioners with an improved understanding of the tools and techniques necessary for achieving, delivering and adopting sustainable water cycle management in new developments.

C690 | 978-0-86017-690-9 | £70 (£35 members) | PB | 2010

Top 10

Guide to sustainable procurement in construction

C Berry and S McCarthy

In the next 40 years, the world's population is likely to double. In theory this is good news for the construction industry because all those extra people will need homes, schools, workplaces and infrastructure. But the world is of finite resources and within 40 years, many of the natural resources that are taken for granted such as oil, water, some base metals and minerals, will be in very short supply.

This guide explains how to realise clients' ambitions and mitigate reputation risks through more effective management of the supply chain. It aims to illustrate the breadth of procurement requirements, and as such this guide will help industry professionals to make their contribution to the sustainability agenda. Finally it is important to recognise that it is not possible for them to do this alone – the principles and practice described in this publication apply equally to numerous professions involved in delivering an effective project.

C695 | 978-0-86017-695-4 | £60 (£30 members) | PB | 2011

Model agreements for sustainable water management systems. Model agreements for rainwater and greywater use systems

P Shaffer, C Elliott, J Reed, J Holmes and M Ward

This guide provides basic advice on the use and development of model operation and maintenance agreements for rainwater and greywater use systems together with simple guidance on their incorporation into developments.

The book identifies maintenance considerations and provides an outline of ways in which the long-term responsibilities for the maintenance of the rainwater and greywater use systems can be allocated. Provided with the book is a model agreement booklet and a CD-Rom containing an electronic file of the model agreement.

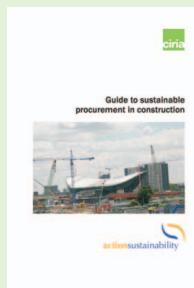
C626 | 978-0-86017-626-8 | £70 (£35 members) | PB | 2004

Risk management for UK reservoirs

A Hughes et al

Britain has a large stock of embankment dams, many built more than 100 years ago. Prepared after extensive consultation within the UK reservoir community, this book is essential reading for owners, managers, engineers, regulators, insurers and safety personnel concerned with reservoirs in the UK.

C542 | 978-0-86017-542-1 | £90 (£45 members) | PB | 2000



Rainwater and greywater use in buildings. Best practice guidance

D Leggett, R Brown, D Brewer, G Stanfield and E Holliday

Practical guidance on the specification and adoption of rainwater and greywater systems. The book provides further detail and specific recommendations for rainwater and greywater use. The guidance is aimed at developers, building owners, equipment manufacturers and their consultants and contractors. It will also be of interest to water utilities, local authorities, environmental regulators and house builders.

C539 | 978-0-86017-539-1 | £100 (£50 members) | PB | 2001

Low-cost options for prevention of flooding from sewers

R W P May, P Martin and N J Price

An essential reference for all engineers, planners and designers involved in constructing or maintaining drainage works. Some 32 000 properties in the UK alone could be at risk of flooding from sewers in the next 10 years – with important implications for sewerage undertakers and the water industry regulator, Ofwat.

C506 | 978-0-86017-506-3 | £80 (£40 members) | PB | 1998

Rainwater and greywater in buildings: project report and case studies

D Brewer, R Brown and G Stanfield

This guide demonstrates the monitoring of demonstration sites in the UK, and provides a background to the systems monitored, their operational and maintenance requirements, system reliability and user perception. Experience gained from this part of the project was used to develop CIRIA C539. This guide (produced by BSRIA as TN7/2001), can be purchased as part of a set with C539 and PR80.

X104 | 978-0-86022-577-5 | £90 (£45 members) | PB | 2004

Rainwater and greywater use in buildings. Decision-making for water conservation

D Leggett, R Brown, G Stanfield, D Brewer and E Holliday

There has been relatively little guidance on how separate or combined rainwater and greywater systems may provide safe water to buildings. Together with CIRIA C539, this book aims to address these problems and provide information and authoritative best practice for rainwater and greywater systems, either separate or combined.

Decision-making for water conservation provides a background to the use of rainwater and greywater and identifies the barriers and benefits of this type of water use and recycling. In addition, the book is aimed at private individuals and house builders with an interest in conserving water resources.

PR80 | 978-0-86017-880-4 | £50 (£25 members) | PB | 2001

Selecting package wastewater treatment plants*T Dee and D Sivil*

Given that thousands of small package wastewater treatment systems are installed in the UK alone each year, it was high time someone reviewed UK and international practice and devised a framework for their design, assessment and operation. This is it.

PR72 | 978-0-86017-872-9 | £50 (£25 members) | **PB** | 2001

Sewerage system management: Scoping study*M Osborne and M Bottomley*

Sewerage undertakers, managers, consultants and regulators need to know what issues must be addressed to achieve the efficient and effective management of sewerage systems. Problems, current practice, recommendations, bibliography.

PR67 | 978-0-86017-867-5 | £50 (£25 members) | **PB** | 1998

Management of gully pots for optimum runoff quality*M Osborne, D Butler, P Clarke and F Memon*

The good news is that gully pots intercept solid material, reducing blockages in the sewerage system, and act as water seals to prevent odour leakage. The bad news is they create contaminated sediment and polluted liquor that can be flushed into sewers and watercourses. Improved design offers significant benefits, this indispensable guide reveals.

R183 | 978-0-86017-490-5 | £70 (£35 members) | **PB** | 1998

Pumping stations – design for improved buildability and maintenance*S T Wharton, P Martin and T J Watson*

Sewage pumping stations require the integration of civil design and construction with the design, installation, operation and maintenance of major mechanical and electrical plant and equipment. How to balance the competing demands of buildability and maintainability – and CDM? Follow this guidance, designers, and reduce whole-life costs. Checklists and case studies. See also CIRIA TN132.

R182 | 978-0-86017-495-0 | £70 (£35 members) | **PB** | 1998

Dry weather flow in sewers*C M Ainger, R J Armstrong and D Butler*

For sewerage undertakers, wastewater treatment plant undertakers and water quality planners, there are three problems with dry weather flow: seasonal differences in infiltration, attenuation of flows within the sewer system, and difficulties in measuring pollution loads that are influenced by sediment deposition and erosion. This book helps solve them.

R177 | 978-0-86017-493-6 | £90 (£45 members) | **PB** | 1998

Control of infiltration to sewers*M White, H Johnson, G Anderson and B Misstear*

Sewerage undertakers, asset managers and capital works engineers, cut your costs – both operational and capital – with the tools this guide provides. When is it possible, or cost-effective, to reduce or eliminate groundwater infiltration? Covers the scale and causes, the techniques available for locating the source of the problem, and renovation techniques and costs.

R175 | 978-0-86017-474-5 | £80 (£40 members) | **PB** | 1997

Valves, pipework and associated equipment in dams – guide to condition assessment*R A Reader, M F Kennard and J Hay*

The guide sets out a logical step-by-step process for condition assessment, involving location, inspection, monitoring, evaluation of results and remedial measures. It describes how the hazard and risk posed by each element of a dam's pipework system are influenced by its structural and service condition.

R170 | 978-0-86017-469-1 | £90 (£45 members) | **PB** | 1997

Water mains: guidance on assessment and inspection techniques*R Dorn, P Howsam, R A Hyde and M G Jarvis*

This guide will assist users in evaluating the condition of a pipeline system. It demonstrates the merits and limitations of currently available assessment and inspection techniques for pipelines, valves and associated operating equipment in terms of their reliability, practicality, cost, level of disruption to the pipeline and ease of result interpretation.

R162 | 978-0-86017-449-3 | £70 (£35 members) | **PB** | 1996

Small embankment reservoirs*M F Kennard, C G Hoskins and M Fletcher*

This guide is aimed at those with limited experience of design and construction of small reservoirs, ie those under 25 000 square metres. It explains the procedures and principles that form good practice through all the phases of the work from planning to design and construction and subsequently maintenance, monitoring and remedial works.

R161 | 978-0-86017-461-5 | £100 (£50 members) | **PB** | 1996

Sea outfalls – construction, inspection and repair. An engineering guide*P J D Neville-Jones and A D Chitty*

This book gives practical guidance on the construction, modification, inspection and repair of sea outfalls, considers construction materials and methods, and also covers construction procedures required to deal with adverse sea conditions and safe practice for underwater inspections.

R159 | 978-0-86017-445-5 | £70 (£35 members) | **PB** | 1996

Engineering guide to the safety of concrete and masonry dam structures in the UK*M R Kennard, L L Owens and R A Reader*

Comprehensive advice on matters related to the safety of concrete and masonry dams and associated dam structures, old and new, in the UK. Describes how dams deteriorate, how they can be investigated, instrumented, monitored, subjected to planned surveillance and rectified. Appendices, references, tables of parameters, figures and photographs.

R148 | 978-0-86017-432-5 | £70 (£35 members) | **PB** | 1996

Design of sewers to control sediment problems*J C Ackers, D Butler and R W P May*

This guide sets out a standard methodology for the hydraulic design of sewers to control sediment problems, and provides appropriate guidance for design engineers.

R141 | 978-0-86017-443-1 | £60 (£30 members) | **PB** | 1996

Underground service reservoirs: waterproofing and repair manual*R A Johnson, D S Leek, E S King and H B Dunne*

This manual helps to identify the construction group, the defect category, the method of repair and material category and select materials. All the information and guidance you need on legal requirements re-water quality and avoidance of contamination. Includes investigation and testing procedures, contract documentation for repair and waterproofing works and quality management procedures.

R138 | 978-0-86017-436-3 | £50 (£25 members) | **PB** | 1996

Monitoring, maintenance and rehabilitation of water supply boreholes*P Howsam, B Misstear and C Jones*

The search is constantly on for ways to optimise water supply from groundwater sources. Key message here is adopt a co-ordinated approach by relating borehole performance to the condition of the abstraction system and to physical, chemical and microbial processes. Includes a substantial bibliography and detailed technical information.

R137 | 978-0-86017-417-2 | £50 (£25 members) | **PB** | 1995

Reducing the impacts of flooding – extemporary measures

C R Elliot and D J Leggett

This title identifies the measures that may be taken to provide some protection against flooding using readily available materials. It reviews how floodwater can get into a building and the damage it can cause to it and its contents. It also provides information on how to reduce water entry, minimise damage and the actions to take after a flood.

SP155 | 978-0-86017-882-8 | Web | 2004

This publications is only available as a web download. Go to: <<http://www.ciria.com/flooding/>> and select "Further info/links"

Septic tank systems: A regulator's guide

CIRIA

Do you have a septic tank system? Are you considering what options are open to you for the disposal of domestic sewage on site? Do you design and install septic tank systems? If the answer to any of these questions is yes, then this publication is for you. This booklet, which accompanies a series of lively, informative leaflets, aims to reduce pollution and nuisance by improving understanding and practice of the maintenance and use of septic tank systems, and is for those with responsibility for regulating the use of septic tank systems in England and Wales.

SP144BT | £10 | BT | 1998

(SP144L2) Leaflet for anyone considering options for the disposal of domestic sewage on site

Packs of 10: £5

Septic tanks and small sewage treatment works: a guide to current practice and common problems

J A Payne and D Butler

Septic tanks, cesspools and small sewage treatment works can cause odour, nuisance, health and pollution problems. There are some 800 000 such installations in England and Wales and several thousand of them are thought to cause problems every year. So how effective are existing control measures and why do problems occur? This book aims to find the answers. It begins with an overview of the septic tanks and small sewage treatment plants available, how they work and the problems they cause. It then describes the regulatory and administrative framework for control of their design, installation and use, and contains the results of a survey of practice and problems. The final section makes recommendations for improving the effectiveness of control measures. Essential reading for all professionals concerned with septic tanks, and owners.

TN146 | 978-0-86017-374-8 | £50 (£25 members) | PB | 1993

Screenings and grit in sewage – removal, treatment and disposal, phase 3: stormwater overflows and pumping stations

J M Sidwick

Deals with problems associated with screenings and grit in sewage arising upstream of treatment works, particularly those occurring at storm sewage overflows and in-sewer pumping stations.

TN132 | 978-0-86017-293-2 | £50 (£25 members) | PB | 1998

Screenings and grit in sewage – removal, treatment and disposal, phase 2: further cost aspects of screening practice

J M Sidwick

This technical note highlights the findings from the second phase of a CIRIA research project that investigated problems posed by grit and screenings in sewage, and on the methods of removing, treating and disposing of them.

TN122 | 978-0-86017-256-7 | £50 (£25 members) | PB | 1985

Flow through partly-lined conduits

CIRIA

A guide on the investigation to determine the effective resistance coefficient of a pipe flowing full with a perimeter consisting of two portions with different internal roughness.

TN114 | 978-0-86017-195-9 | £50 (£25 members) | PB | 1983

Photocopies of out of print titles

The following titles are now out of print but bound photocopies of these can still be purchased.

Full details can be found in the CIRIA bookshop via the website: <www.ciria.org>.

Design of stepped-block spillways

SP142 | 978-0-86017-471-4 | £30 +VAT (£25 +VAT members)

The hydraulic design of pump sumps and intakes

SP8 | 978-0-86017-027-3 | £30 +VAT (£25 +VAT members)

Waterproofing and repairing underground reservoir roofs

TN145 | 978-0-86017-328-1 | £38 +VAT (£33 +VAT members)

Invasive species management for infrastructure managers and the construction industry

O Booy, M Wade and V White

Business and industry need to respond to the challenge of invasive plants and animals, which has increased economical and environmental costs in recent years.

This guide is divided into three parts: Part A describes the affect invasive species have, and the legislation and policy that regulates their management. Parts B and C give examples of invasive plant and animal species, and species that could become tomorrow's invaders.

C679 | 978-0-86017-679-4 | £130 (£65 members) | PB | 2008

Business data for recycling: Business planning guidance for aggregate recycling companies

M Gaterell

This business planning guidance is intended to help companies start up an aggregates recycling facility or improve an existing recycling operation. The information will also be relevant to construction contractors intending to recycle materials on their construction sites. The guide includes background information on the growing market for recycled aggregate products, indicative data on the costs of running a recycling operation (including a CD-Rom forecasting tool) and supporting information covering waste management licensing, environmental management, health and safety and quality management.

C647 | 978-0-86017-647-3 | £50 (£25 members) | PB | 2005

Investing in tomorrow's company

J Hirigoyen, G Chant-Hall and S Reid

The construction directorate of the DTI supports the programme of innovation and research to improve the construction industry's performance and to promote more sustainable construction. Its main aims are to improve quality and value for money from construction, for both commercial and domestic customers, and to improve construction methods and procedures.

This publication guides companies through the key steps of this process. It aims to help them understand how providing sustainability information can influence investors' decision-making.

C636 | 978-0-86017-636-7 | £70 (£35 members) | PB | 2005

ENGAGE. How to deliver socially responsible construction – a client's guide

F Sommer, J Bootland, M Hunt et al

Social responsibility is a key facet of sustainable development. It is concerned with recognising and addressing the needs not only of customers or shareholders, but of all groups affected by an organisation's activities. This book provides guidance on how to build in a socially responsible way – putting principles such as inclusiveness, transparency and responsiveness at the heart of a construction project – while retaining a focus on business benefits.

C627 | 978-0-86017-627-5 | £60 (£30 members) | PB | 2004

Sustainable construction award schemes – guidance for supply chain leaders

G Chant-Hall

An award scheme can be very effective in stimulating better practice and innovation, in encouraging people and organisations to perform better, and in bringing those involved in the provision of high-quality products and services to the attention of a wider public. This guide is for use by construction clients and main contractors as a framework to help them develop and run an award scheme based on sustainability criteria for their own suppliers, contractors and designers. The guide will also be of interest to those competing for an award.

C619 | 978-0-86017-619-0 | £110 (£55 members) | PB | 2004

Sustainable construction procurement. A guide to delivering environmentally responsible projects

B Addis and R Talbot

This guide is intended to help all those engaged in construction projects to improve their environmental and sustainability performance, for both the product and the process of construction. It provides an overview of environmental responsibility and sustainability in construction projects, and offers a wide range of advice for all those concerned with construction at every stage of a project's life cycle. The guide contains background information, advice on key actions to take and routes to further, more specialised, sources of information and guidance.

C571 | 978-0-86017-571-1 | £110 (£55 members) | PB | 2001

Sustainable construction procurement. A guide to delivering environmentally responsible projects

CD-Rom version of C571

C702CD | 978-0-86017-702-9 | £70 (£35 members) + VAT | CD-Rom | 2001

Sustainable construction: company indicators

G Archer

The UK Government's Building a better quality of life set out a strategy for the construction industry to move towards building more sustainable assets and working in a more efficient and socially and environmentally responsible manner. This emphasised the need for a culture change within the industry. This book is designed to provide overall information, and specific, practical guidance. It identifies a series of quantitative measures (indicators) against which companies can measure the sustainability of their businesses (strategic indicators) and the activities they perform (operational indicators). Also available as a CD-Rom (see C702).

C563 | 978-0-86017-563-6 | £100 (£50 members) | PB | 2001

Sustainable construction: company indicators

CD-Rom version of C563

C701CD | 978-0-86017-701-2 | £100 (£50 members) + VAT | CD-Rom | 2001

Environmental handbook for building and civil engineering projects. Part 1: Design and specification

R Venables et al

This set of three handbooks contain information and practical guidance on the environmental issues likely to be encountered during the key stages of a building or civil engineering project. They aim to inform all those involved of their various obligations and make them aware of the opportunities that are open to them to improve both the industry's and their projects' environmental performance.

Part 1: design and specification, is structured by the stages in the design and specification process, from agreeing the brief to tender action and letting the construction contract(s). The handbook provides best practice guidance and further sources of information.

C512 | 978-0-86017-512-4 | £90 (£45 members) | PB | 2000

Part 2: Construction phase

R Venables et al

The second of this set of handbooks deals with 13 stages in the construction phase, from tendering through to handover and guidance on maintenance and records.

C528 | 978-0-86017-528-5 | £90 (£45 members) | PB | 2000

Part 3: Demolition and site clearance

R Venables et al

The last in this set focuses on the main areas of concern in the demolition and site clearance process, notably legislation and policy, project planning and environmental management.

C529 | 978-0-86017-529-2 | £90 (£45 members) | PB | 2000

Environmental issues in construction – a strategic review

CIRIA

UK and European legislation, the rising cost of landfill, financial and social drivers to minimise waste, and the increasing sensitivity of society to environmental issues all affect the construction industry. CIRIA conducted a survey into the state of environmental initiatives within the industry and this guide summarises the findings. This guide suggests appropriate sustainability indicators and discusses how these can help industry to improve its performance. See also PR73, PR74 and PR75.

C510 | 978-0-86017-510-0 | £90 (£45 members) | PB | 1999

Sustainability accounting in the construction industry

Casella Stanger, *Forum for the Future*, Carillion

Accounting for the financial aspects of an organisation's performance is a statutory requirement. Accounting for sustainability is currently voluntary. However, companies are increasingly reporting aspects of their social and environmental performance. This guide provides a useful tool to identify, evaluate and manage social and environmental risks, by identifying resource efficiency and cost savings.

X105 | 978-0-86017-808-8 | £50 | PB | 2003

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Environmental issues in construction – sustainability indicators for the civil engineering industry

CIRIA

Much work has been done by governments and international organisations to provide the tools to push the civil engineering sector towards sustainability. As part of its extensive research on environmental issues CIRIA undertook to provide top-level indicators. See also, C563, C510, PR73, PR74.

PR75 | 978-0-86017-875-0 | £50 (£25 members) | PB | 1999

Environmental issues in construction – research campaign. Executive summary

CIRIA

Fascinating summary of responses to a questionnaire survey of the state of environmental initiatives within the construction industry and of sustainability indicators for the civil engineering industry – including attitudes towards costs, risks, guidelines, and regulatory pressures.

PR74 | 978-0-86017-874-3 | £50 (£25 members) | PB | 1999

Environmental issues in construction – a desk study

P Guthrie *et al*

Complementing the related publications C510, PR74 and PR75, this study discusses the progress made by the industry on environmental issues and identifies the gaps in knowledge and action needs. Informative, up-to-date and thought-provoking for clients, developers, planners, contractors, government, local authorities and regulatory bodies.

PR73 | 978-0-86017-873-6 | £50 (£25 members) | PB | 1999

A client's guide to greener construction

CIRIA

You too can be green, profitable – and solvent. Case studies illustrate the key issues, from legal requirements, transport and the local environment to conserving energy and water, dealing with waste and selecting appropriate materials. This guide sets out a framework for implementing an environmental action plan for your project.

SP120 | 978-0-86017-423-3 | £50 (£25 members) | PB | 1995

Environmental assessment

M Renger *et al*

Sets out a basis for the environmental assessment of different types of development schemes, describing the stages involved in identifying and evaluating the potential impacts of projects, together with appropriate mitigation measures or enhancement opportunities

SP96 | 978-0-86017-379-3 | £70 (£35 members) | PB | 1994

Environmental issues in construction – a review of issues and initiatives relevant to the building, construction and related industries. Volume 2: Technical review

CIRIA

Considers the interaction of mankind and the environment from the perspective of the UK construction industry, by defining its activities in terms of their environmental consequences.

SP94 | 978-0-86017-366-3 | £70 (£35 members) | PB | 1993

Environmental issues in construction – a review of issues and initiatives relevant to the building, construction and related industries. Volume 1 – Overview including executive and technical summaries

L Shorrock *et al*

The two publications SP93, and SP94 form a review of environmental issues and initiatives relevant to the building, construction and related industries. SP93 is an overview that outlines the roles and responsibilities within the industry, while SP94 deals with specific areas including energy use, waste and recycling, and pollution and hazardous substances.

SP93 | 978-0-86017-365-6 | £70 (£35 members) | PB | 1993

Photocopies of out of print titles

The following titles are now out of print but bound photocopies of these can still be purchased.

Full details can be found in the CIRIA bookshop via the website: <www.ciria.org>.

Farm waste storage – guidelines for construction
R126 | 978-0-86017-352-6 | £65 +VAT (£60 +VAT members)

Innovation in Japanese prefabricated house-building industries: Department of Trade and Industry Overseas Science and Technology Expert Mission visit report
SP139 | 978-0-86017-463-9 | £28 +VAT (£23 +VAT members)

Engineering works and wetlands in lowland areas generally drained by gravity
TN123 | 978-0-86017-262-8 | £25 +VAT (£20 +VAT members)

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