

Review



This extensively revised guidance with worked examples will be of use to both students and engineers looking to use precast concrete for design to the Eurocodes, concludes **Jenny Burridge**.

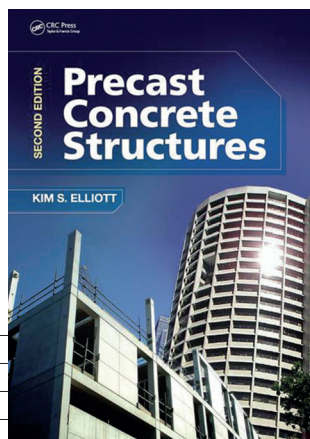
Precast Concrete Structures (2nd ed.)

Author: Kim S. Elliott

Publisher: CRC Press

Price: £63.99

ISBN: 978-1-49872-399-2



This is the second edition of Dr Elliott's comprehensive guidance on the design of precast concrete structures and it has been extensively revised to include design to Eurocodes. Like the first edition, it makes use of worked examples so that the design can be followed simply.

It starts with a discussion about what makes precast concrete different, then covers the materials used, with a short section on the fabrication methods.

Eurocode 2 allows the use of strut-and-tie analysis methods and this is very useful in the

analysis of precast structures, possibly more so than for *in situ* structures. Dr Elliott provides both an explanation of the method and a worked example of a precast wall acting as a deep beam.

Another useful part of the book is devoted to joints and connections, both the typical types available to the designer and how the design is carried out.

The book finishes with a worked example for the design of a 10-storey frame using precast elements of beams, columns, walls, slabs and the external facade. This includes a number

of span-to-load graphs which will be of use to anyone wanting to size precast elements.

The book is well illustrated with photographs to show typical details for precast concrete structures and also clear diagrams to increase the reader's understanding of the design and construction of precast concrete structures.

The book is intended to be used by lecturers and students of civil engineering, but it is a very useful reference for all engineers looking to use precast concrete and needing to know how the design differs from *in situ* concrete. Indeed, many of the worked examples would help with the design of *in situ*, precast or hybrid concrete elements.



Jenny Burridge
MA, CEng, MICE, MStructE

Jenny Burridge is Head of Structural Engineering at the Concrete Centre, where she provides advice on the efficient and effective use of concrete. She has more than 30 years' experience in the construction industry, and has previously worked for Arup and AECOM designing award-winning buildings. She is past chairman of the Institution's Thames Valley Regional Group.

The Structural Engineer

The flagship publication of The Institution of Structural Engineers

Article series

Get quick access to series of articles published in *The Structural Engineer* since 2012.

Available series include:

- Technical Guidance Notes (Level 1 and 2)
- Composite and Steel Construction compendium
- Timber Engineering Notebook
- Conservation compendium
- Concrete Design Guide

To view the contents of any particular series, visit: www.istructe.org/tsemaster/article-series

