

Eurocode 2 — Design of concrete structures —

Part 2: Concrete bridges — Design and detailing rules

ICS 93.040; 91.010.30; 91.080.40

National foreword

This British Standard is the UK implementation of EN 1992-2:2005, incorporating corrigendum July 2008. It supersedes DD ENV 1992-2:2001 which is withdrawn.

The start and finish of text introduced or altered by corrigendum is indicated in the text by tags. Text altered by CEN corrigendum July 2008 is indicated in the text by **AC1** ~~AC1~~.

The structural Eurocodes are divided into packages by grouping Eurocodes for each of the main materials, concrete, steel, composite concrete and steel, timber, masonry and aluminium. This is to enable a common date of withdrawal (DOW) for all the relevant parts that are needed for a particular design. The conflicting national standards will be withdrawn at the end of the coexistence period, after all the EN Eurocodes of a package are available.

Following publication of the EN, there is a period allowed for national calibration during which the National Annex is issued, followed by a coexistence period of a maximum three years. During the coexistence period Member States will be encouraged to adapt their national provisions.

At the end of this coexistence period, the conflicting parts of national standards will be withdrawn.

In the UK, the corresponding national standards are:

- BS 5400-4:1990, *Steel, concrete and composite bridges — Code of practice for design of concrete bridges*
- BS 5400-7:1978, *Steel, concrete and composite bridges — Specification for materials and workmanship, concrete, reinforcement and prestressing tendons*
- BS 5400-8:1978, *Steel, concrete and composite bridges — Recommendations for materials and workmanship, concrete, reinforcement and prestressing tendons*

and based on this transition period, these standards will be withdrawn/revised on a date to be announced but at the latest by March 2010.

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Date	Comments
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The UK participation in its preparation was entrusted by Technical Committee B/525, Building and civil engineering structures, to Subcommittee B/525/2, Structural use of concrete, and Subcommittee B/525/10, Bridges.

A list of organizations represented on these subcommittees can be obtained on request to its secretary.

Where a normative part of this EN allows for a choice to be made at the national level, the range and possible choice will be given in the normative text, and a note will qualify it as a Nationally Determined Parameter (NDP). NDPs can be a specific value for a factor, a specific level or class, a particular method or a particular application rule if several are proposed in the EN.

To enable EN 1992-2 to be used in the UK, the NDPs will be published in a National Annex, which will be made available by BSI in due course, after public consultation has taken place.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

English Version

Eurocode 2 - Design of concrete structures - Concrete bridges - Design and detailing rules

Eurocode 2 - Calcul des structures en béton - Partie 2:
Ponts en béton - Calcul et dispositions constructives

Eurocode 2 - Planung von Stahlbeton- und
Spannbetontragwerken - Teil 2: Betonbrücken - Planungs-
und Ausführungsregeln

This European Standard was approved by CEN on 25 April 2005.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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NOTE This contents list includes sections, clauses and annexes that have been introduced or modified in EN 1992-2.

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Foreword

This European Standard (EN 1992-2:2005) has been prepared by Technical Committee CEN/TC 250 “Structural Eurocodes”, the secretariat of which is held by BSI. CEN/TC 250 is responsible for all Structural Eurocodes.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2006, and conflicting national standards shall be withdrawn at the latest by March 2010.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

This Eurocode supersedes ENV 1992-2.

Background to the Eurocode programme

See EN 1992-1-1.

Status and field of application of Eurocodes

See EN 1992-1-1.

National Standards implementing Eurocodes

See EN 1992-1-1.

Links between Eurocodes and harmonised technical specifications (ENs and ETAs) for products

See EN 1992-1-1.

Additional information specific to EN 1992-2 and link to EN 1992-1-1

EN 1992-2 describes the principles and requirements for safety, serviceability and durability of concrete structures, together with specific provisions for bridges. It is based on the limit state concept used in conjunction with a partial factor method.

- EN 1992-2 gives Principles and Application Rules for the design of bridges in addition to those stated in EN 1992-1-1. All relevant clauses of EN 1992-1-1 are applicable to the design of bridges unless specifically deleted or varied by EN 1992-2. It has been appropriate to introduce in EN 1992-2 some material, in the form of new clauses or amplifications of clauses in EN 1992-1-1, which is not bridge specific and which strictly belongs to EN 1992-1-1. These new clauses and amplifications are deemed valid interpretations of EN 1992-1-1 and designs complying with the requirements of EN 1992-2 are deemed to comply with the Principles of EN 1992-1-1.

- clauses in EN 1992-2 that modify those in EN 1992-1-1 are numbered by adding '100' to the corresponding clause number in EN 1992-1-1.
- when additional clauses or sub-clauses are introduced in EN 1992-2, these are numbered by adding '101' to the last relevant clause or sub-clause in EN 1992-1-1.

For the design of new structures, EN 1992-2 is intended to be used, for direct application, together with other parts of EN 1992, Eurocodes EN 1990, 1991, 1997 and 1998.

EN 1992-2 also serves as a reference document for other CEN/TCs concerning structural matters.

EN 1992-2 is intended for use by:

- committees drafting other standards for structural design and related product, testing and execution standards;
- clients (e.g. for the formulation of their specific requirements on reliability levels and durability);
- designers and constructors;
- relevant authorities.

Numerical values for partial factors and other reliability parameters are recommended as basic values that provide an acceptable level of reliability. They have been selected assuming that an appropriate level of workmanship and of quality management applies. When EN 1992-2 is used as a base document by other CEN/TCs the same values need to be taken.

National Annex for EN 1992-2

This standard gives values with notes indicating where national choices may have to be made. Therefore the National Standard implementing EN 1992-2 should have a National Annex containing all Nationally Determined Parameters to be used for the design of bridges to be constructed in the relevant country.

National choice is allowed in EN 1992-2 through the following clauses:

3.1.2 (102)P	5.3.2.2 (104)	6.8.1 (102)	9.1 (103)
3.1.6 (101)P	5.5 (104)	6.8.7 (101)	9.2.2 (101)
3.1.6 (102)P	5.7 (105)	7.2 (102)	9.5.3 (101)
3.2.4 (101)P	6.1 (109)	7.3.1 (105)	9.7 (102)
4.2 (105)	6.1 (110)	7.3.3 (101)	9.8.1 (103)
4.2 (106)	6.2.2 (101)	7.3.4 (101)	11.9 (101)
4.4.1.2 (109)	6.2.3 (103)	8.9.1 (101)	113.2 (102)
5.1.3 (101)P	6.2.3 (107)	8.10.4 (105)	113.3.2 (103)
5.2 (105)	6.2.3 (109)	8.10.4 (107)	

Where references to National Authorities is made in this standard, the term should be defined in a Country's National Annex.