BS 8004:2015+A1:2020

BSI Standards Publication

Code of Practice for foundations

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Published by BSI Standards Limited 2020

ISBN 978 0 580 06626 5

ICS 13.020

The following BSI references relate to the work on this document:
Committee reference B/526
Drafts for comment 15/30301520 DC; 19/30403578 DC

Amendments/corrigenda issued since publication

Date	Text affected
31 March 2020	A1: see Foreword

Contents

Summary of pages
This document comprises a front cover, and inside front cover, pages i to iv, pages 1 to 101, an inside back cover and a back cover.

Foreword

Publishing information

This British Standard is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 30 June 2015. It was prepared by Technical Committee B/526, Geotechnics. A list of organizations represented on this committee can be obtained on request to its secretary.

Supersession

BS 8004:2015+A1:2020 supersedes BS 8004:2015, which is withdrawn.

Relationship with other publications

BS 8004 gives non-contradictory, complementary information for use with BS EN 1997 and its National Annexes.

Information about this document

This is a full revision of the standard, which introduces the following principal changes:

- the revised text is fully compatible with the current version of Eurocode 7 (BS EN 1997);
- guidance is given on designing foundations according to limit state principles using partial factors;
- guidance is given on the selection of design parameters for soils;
- guidance is given on the calculation of ultimate bearing resistance of shallow foundations;
- guidance is given on the design of pile foundations by calculation and by testing;
- the revised text reflects advances in foundation technology over the past 30 years.

Text introduced by or altered by Amendment No. 1 is indicated in the text by tags 〉A1〈 and 〈A1〉. Minor editorial corrections are not tagged.

Use of this document

As a code of practice, this British Standard takes the form of guidance and recommendations. It should not be quoted as if it were a specification and particular care should be taken to ensure that claims of compliance are not misleading.

Any user claiming compliance with this British Standard is expected to be able to justify any course of action that deviates from its recommendations.

Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its recommendations are expressed in sentences in which the principal auxiliary verb is "should".

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

The word "should" is used to express recommendations of this standard. The word "may" is used in the text to express permissibility, e.g. as an alternative to the primary recommendation of the Clause. The word "can" is used to express possibility, e.g. a consequence of an action or an event.

Notes and commentaries are provided throughout the text of this standard. Notes give references and additional information that are important but do not form part of the recommendations. Commentaries give background information.

Contractual and legal considerations

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.

1 Scope

This British Standard gives recommendations for the design and construction of foundations for the normal range of buildings and engineering structures. It provides non-contradictory, complementary information for use in conjunction with BS EN 1997 and its UK National Annex.

Clause **4** gives general recommendations for the design and construction of all types of foundations; Clause **5** and Clause **6** give specific recommendations for the design and construction of spread foundations and pile foundations (respectively).

Annex A gives specific recommendations for the design and construction of helical steel piles.

Annex B gives specific recommendations for the design and construction of underpinning.

Annex C gives information about specific geological formations encountered in the UK.

Annex D gives information about the UK Government's policy regarding archaeological [illegible]

NOTE 1 This standard does not cover the design and construction of earthworks, for which see BS 6031.

NOTE 2 This standard does not cover the design and construction of earth retaining structures, for which see BS 8002.

NOTE 3 This standard does not cover the design and construction of maritime works, for which see BS 6349.

NOTE 4 For non-industrial structures of not more than four storeys, see BS 8103-1.

NOTE 5 This standard does not cover the design and construction of foundations for reciprocating machinery.

NOTE 6 This standard does not cover the design and construction of offshore foundations, for which see BS EN ISO 19901-4.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS 65, *Specification for vitrified clay pipes, fittings and ducts, also flexible mechanical joints for use solely with surface water pipes and fittings*

BS 437, *Specification for cast iron drain pipes, fittings and their joints for socketed and socketless systems*

BS 1852-1, *Plastics piping systems for non-pressure underground drainage and sewerage – Polypropylene (PP) – Part 1: Specifications for pipes, fittings and the system*

BS 4449, *Steel for the reinforcement of concrete – Weldable reinforcing steel – Bar, coil and decoiled product – Specification*

BS 4660, *Thermoplastics ancillary fittings of nominal sizes 110 and 160 for below ground gravity drainage and sewerage*

BS 4729, *Clay and calcium silicate bricks of special shapes and sizes – Recommendations*

BS 4962, *Specification for plastics pipes and fittings for use as subsoil field drains*

BS 5480, *Specification for glass reinforced plastics (GRP) pipes, joints and fittings for use for water supply or sewerage*

BS 5481, *Specification for unplasticized PVC pipe and fittings for gravity sewers*

BS 5837, *Trees in relation to design, demolition and construction – Recommendations*

