

Pavements constructed with clay, natural stone or concrete pavers

Part 4. Code of practice for the construction of pavements of precast concrete flags or natural stone slabs

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Committees responsible for this British Standard

The preparation of this British Standard was entrusted to Technical Committee B/507, Paving units and kerbs, upon which the following bodies were represented:

- Brick Development Association
- British Cement Association
- British Ceramic Research Ltd.
- British Precast Concrete Federation Ltd.
- Cementitious Slag Makers' Association
- County Surveyors' Society
- Department of Transport (Highways Agency)
- Institution of Civil Engineers
- Institution of Highways and Transportation
- Interlay, the Association of Block Paving Contractors
- Interpave the Concrete Block Paving Association
- Landscape Institute
- Society of Chemical Industry
- Stone Federation

The following bodies were also represented in the drafting of the standard, through subcommittees and panels:

- British Civil Engineering Test Equipment Manufacturers' Association
- Institution of Structural Engineers
- National Federation of Clay Industries Ltd.
- National Paving and Kerb Association

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Foreword

This Part of BS 7533 has been prepared by Technical Committee B/507, Paving units and kerbs. It supersedes BS 7263 : Part 2 : 1990 which is withdrawn.

BS 7533 will be published in the following Parts:

- Part 1¹⁾ *Guide for the structural design of heavy duty pavements constructed of clay pavers or precast concrete paving blocks*
- Part 2¹⁾ *Guide for the structural design of lightly trafficked pavements constructed of clay pavers or precast concrete paving blocks*
- Part 3 *Code of practice for laying precast concrete paving blocks and clay pavers for flexible pavements*
- Part 4 *Code of practice for the construction of pavements of precast concrete flags or natural stone slabs*
- Part 5¹⁾ *Guide for the design of pavements (other than structural aspects)*
- Part 6¹⁾ *Code of practice for construction of pavements — kerbs, channels and edgings*
- Part 7¹⁾ *Code of practice for the construction of pavements of natural stone setts*
- Part 8¹⁾ *Guide for the structural design of lightly trafficked pavements of precast concrete flags and natural stone slabs*

BS 7533 : 1992 will be withdrawn on the publication of Parts 1 and 2.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 10, an inside back cover and a back cover.

¹⁾ In preparation.

Code of practice

1 Scope

This Part of BS 7533 gives recommendations for laying precast concrete flags conforming to BS 7263 : Part 1 : 1994 *Precast concrete flags, kerbs, channels, edgings and quadrants : Part 1 : Specification* and natural stone slabs, intended for use in the construction of carriageways, footways, pedestrian areas and pavements.

2 References

2.1 Normative references

This Part of BS 7533 incorporates, by reference, provisions from specific editions of other publications. These normative references are cited at the appropriate points in the text and the publications are listed on the inside back cover. Subsequent amendments to, or revisions of, any of these publications apply to this Part of BS 7533 only when incorporated in it by updating or revision.

2.2 Informative references

This Part of BS 7533 refers to other publications that provide information or guidance. Editions of these publications current at the time of issue of this standard are listed on the inside back cover but reference should be made to the latest editions.

3 Definitions

For the purposes of this Part of BS 7533, the definitions given in BS 7263 : Part 1 and BS 6100 : Part 2 apply together with the following.

3.1 edge restraint

Device which serves to prevent lateral movement of the products and to prevent loss of material from the bedding layer.

3.2 joint width

The distance between two adjacent units or units and restraint.

3.3 laying face

Working edge of the surface course at which laying of products takes place.

3.4 laying course

Layer of material on which the units are laid.

3.5 roadbase

One or more layers of material above the sub-base that is a structural element of a composite pavement.

3.6 sub-base

One or more layers of material between the roadbase and/or laying course and subgrade.

3.7 subgrade

The part of the soil, natural or constructed, that supports the loads transmitted from the overlying pavement.

3.8 surface course

Layer of precast concrete or natural stone flags which acts as the wearing surface and forms part of

the structure of the paving.

3.9 sub-layer

Layer below the laying course which may include either or both sub-base and roadbase layers above the subgrade.

4 Preparation of the sub-layer

4.1 Excavation

All topsoil and unsuitable material should be excavated from the area to be paved and the ground should be reduced to the specified level. Any soft spots or loose spots should be replaced with sound, properly compacted and inert material, or with foamed concrete.

NOTE. Replacement material should have properties similar to the ground adjacent to the soft spot.

4.2 Subsoil drainage

Any subsoil drainage required beneath the pavement should be completed before commencing backfilling.

4.3 Backfilling

All trenches within the pavement area should be backfilled in layers, fully compacting each layer before placing the next, so that the resulting reinstated ground has a similar load bearing capacity to that of the undisturbed ground (see also annex A.) Guidance on the choice of compaction plant and the minimum number of passes for a particular compacted layer thickness is given in table 1.

NOTE. Further information is given in the requirements of the Highway Authorities and Utilities Committee (HAUC) *Specification for the reinstatement of openings in highways*. [1]

4.4 Drainage of laying course using natural ground as the sub-layer

4.4.1 Any drainage required to protect the laying course from saturation should be completed before placing the laying course. Drainage inlets should be protected from ingress of laying course material, e.g. by using filter fabric.

4.4.2 The ground should be levelled so that the required surface level and laying course thickness, including tolerances, are achieved.

4.5 Construction of the sub-layer using imported material

4.5.1 The sub-layer material should be placed in layers not exceeding 150 mm in thickness or twice the nominal maximum aggregate size, whichever is the greater, until the specified thickness is reached. Each layer should be fully compacted before the next layer is placed.

Suitable imported materials for sub-layer construction are given in table 2.

Guidance on the choice of compaction plant and the minimum number of passes for a particular compacted layer type and thickness is given in table 1.

The sub-layer should have a close-textured surface after compaction.

