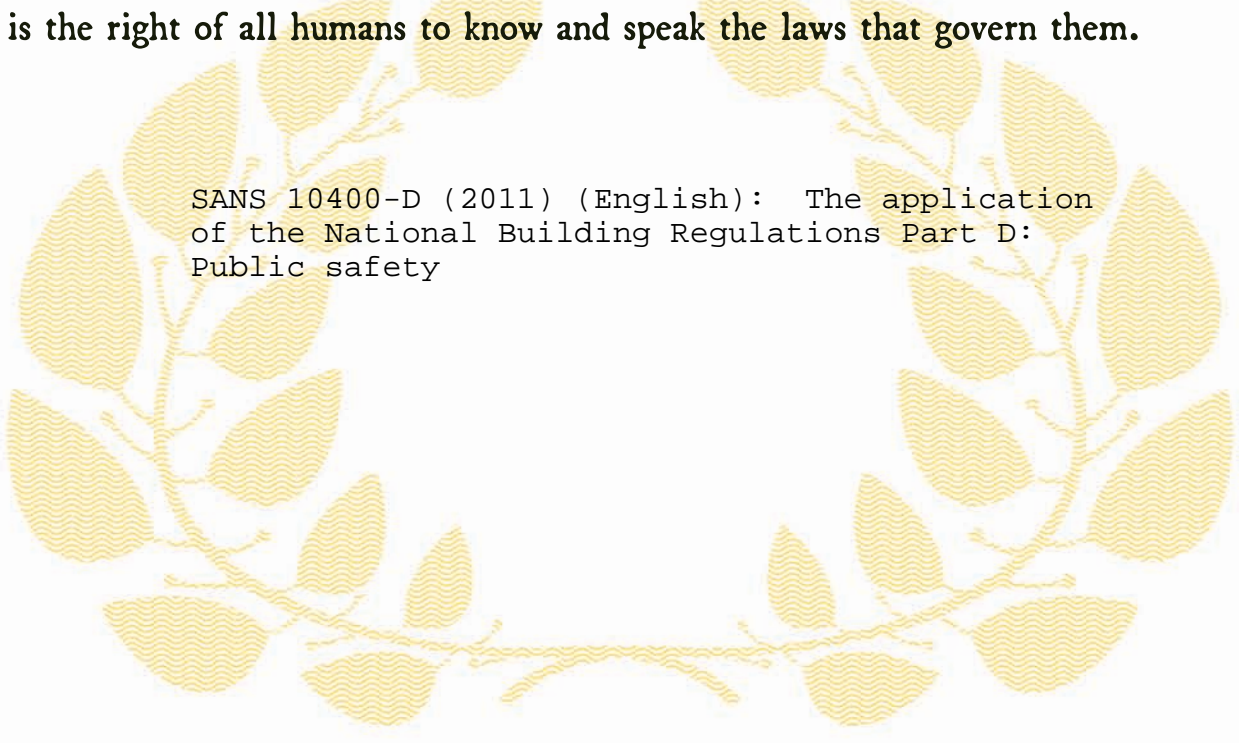




# *Republic of South Africa*

## EDICT OF GOVERNMENT

In order to promote public education and public safety, equal justice for all, a better informed citizenry, the rule of law, world trade and world peace, this legal document is hereby made available on a noncommercial basis, as it is the right of all humans to know and speak the laws that govern them.



SANS 10400-D (2011) (English): The application  
of the National Building Regulations Part D:  
Public safety



BLANK PAGE



ISBN 978-0-626-23572-7

**SANS 10400-D:2011**

Edition 3

# **SOUTH AFRICAN NATIONAL STANDARD**

## **The application of the National Building Regulations**

### **Part D: Public safety**

---

Published by SABS Standards Division  
1 Dr Lategan Road Groenkloof ☒ Private Bag X191 Pretoria 0001  
Tel: +27 12 428 7911 Fax: +27 12 344 1568  
[www.sabs.co.za](http://www.sabs.co.za)  
© SABS

**SABS**



**SANS 10400-D:2011**  
Edition 3

**Table of changes**

| Change No. | Date | Scope |
|------------|------|-------|
|            |      |       |

**Acknowledgement**

The SABS Standards Division wishes to acknowledge the work of the South African Institution of Civil Engineering in updating this document.

**Foreword**

This South African standard was approved by National Committee SABS TC 59, *Construction standards*, in accordance with procedures of the SABS Standards Division, in compliance with annex 3 of the WTO/TBT agreement.

This document was published in January 2011.

This document supersedes the corresponding parts of SABS 0400:1990 (first revision).

Compliance with the requirements of this document will be deemed to be compliance with the requirements of part D of the National Building Regulations, issued in terms of the National Building Regulations and Building Standards Act, 1977 (Act No. 103 of 1977).

SANS 10400 consists of the following parts, under the general title *The application of the National Building Regulations*:

*Part A: General principles and requirements.*

*Part B: Structural design.*

*Part C: Dimensions.*

*Part D: Public safety.*

*Part F: Site operations.*

*Part G: Excavations.*

*Part H: Foundations.*

*Part J: Floors.*

*Part K: Walls.*

*Part L: Roofs.*

*Part M: Stairways.*

*Part N: Glazing.*

*Part O: Lighting and ventilation.*

**Foreword** *(concluded)*

*Part P: Drainage.*

*Part Q: Non-water-borne means of sanitary disposal.*

*Part R: Stormwater disposal.*

*Part S: Facilities for persons with disabilities.*

*Part T: Fire protection.*

*Part V: Space heating.*

*Part W: Fire installation.*

This document should be read in conjunction with SANS 10400-A.

Annex A forms an integral part of this document.

## **Contents**

|  | Page |
|--|------|
| Acknowledgement  |      |
| Foreword   |      |
| <b>1</b> Scope .....   | 3    |
| <b>2</b> Normative references.....   | 3    |
| <b>3</b> Definitions .....   | 3    |
| <b>4</b> Requirements.....   | 4    |
| <b>4.1</b> General .....   | 4    |
| <b>4.2</b> Change in level .....   | 4    |
| <b>4.3</b> Ramps and driveways .....   | 4    |
| <b>4.4</b> Swimming pools and swimming baths .....                                     | 5    |
| <b>Annex A</b> (normative) National Building Regulations – Part D: Public Safety ..... | 7    |
| <b>Bibliography</b> .....  | 7    |

## **The application of the National Building Regulations**

### **Part D:** Public safety

## **1 Scope**

This part of SANS 10400 provides deemed-to-satisfy requirements for compliance with part D (Public Safety) of the National Building Regulations.

NOTE Part D of the National Building Regulations, issued in terms of the National Building Regulations and Building Standards Act, 1977 (Act No. 103 of 1977), is reproduced in annex A.

## **2 Normative references**

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies. Information on currently valid national and international standards can be obtained from the SABS Standards Division.

SANS 1390, *Steel fencing for private swimming pools*.

SANS 10400-A, *The application of the National Building Regulations – Part A: General principles and requirements*.

SANS 10400-B (SABS 0400-B), *The application of the National Building Regulations – Part B: Structural design*.

SANS 10400-S (SABS 0400-S), *The application of the National Building Regulations – Part S: Facilities for persons with disabilities*.

## **3 Definitions**

For the purposes of this document, the definitions given in SANS 10400-A (some of which are repeated for convenience) and the following apply.

### **3.1**

#### **deemed-to-satisfy requirement**

non-mandatory requirement, the compliance with which ensures compliance with a functional regulation

### **3.2**

#### **functional regulation**

regulation that sets out in qualitative terms what is required of a building or building element or building component in respect of a particular characteristic, without specifying the method of construction, dimensions or materials to be used

**3.3**

**interconnected complex**

complex of multiple dwelling units, such as terraced or multi-storey complexes, or cluster or retirement-village-type developments (or both), where management of common property usually resides with (but is not limited to) a management body

**3.4**

**site**

erf, lot, plot, stand or other piece of land on which a building has been, is being or is to be erected

**3.5**

**street boundary**

boundary of a site which abuts any street

## **4 Requirements**

### **4.1 General**

The functional regulations contained in part D of the National Building Regulations (see annex A) shall be deemed to be satisfied where a change in level, the design of ramps and driveways, or access to swimming pools and swimming baths comply with the requirements of 4.2, 4.3 and 4.4, respectively.

### **4.2 Change in level**

**4.2.1** Any balustrade or wall provided to protect a change in level shall comply with the requirements of SANS 10400-B.

**4.2.2** The edge of any balcony, bridge, flat roof or similar place more than 1 m above the adjacent ground or floor level shall be provided with a balustrade or parapet wall not less than 1 m in height, unless unauthorized access of persons thereto has been excluded by a physical barrier properly erected and maintained.

**4.2.3** In the case of an interior balcony or a mezzanine floor, such balcony or floor shall be provided with a balustrade or wall not less than 1 m in height, provided that where such balcony or floor is used for public seating in rows such height may be reduced to not less than 800 mm opposite the seating in the front row.

**4.2.4** A balustrade or wall provided as protection at a change in level in any occupancy classified as E2, E3, E4, H1, H2, H3, H4 or H5 shall not have any opening that permits the passage of a 100 mm diameter ball, provided that such protection in any occupancy that is not an occupancy classified as E2, E3, E4, H1, H2, H3, H4 or H5, shall consist of at least a handrail and one other rail midway between such handrail and the floor.

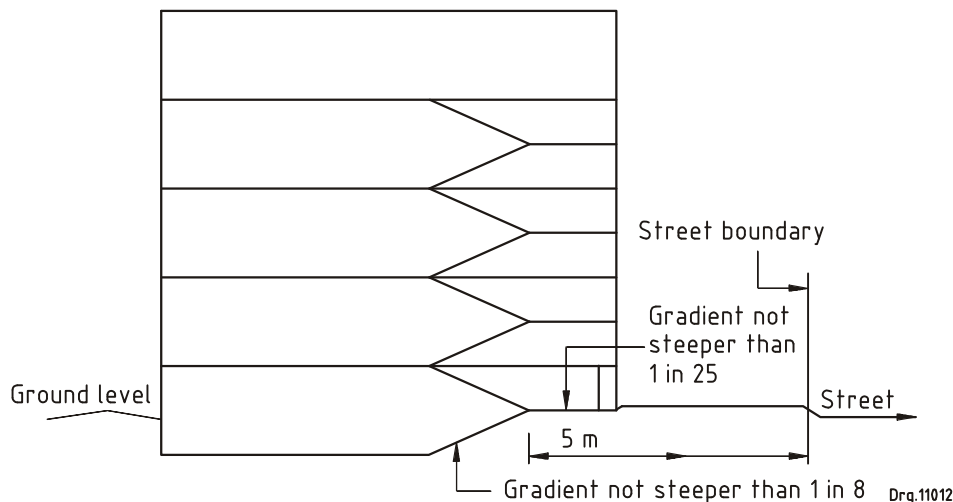
### **4.3 Ramps and driveways**

In any building that is not a building classified as H4, or on any site on which such building is situated, any

- a) ramp or driveway used by motor vehicles shall have a gradient of not more than 1 in 25 within a distance of 5 m from any street boundary crossed by such ramp or driveway (see figure 1);
- b) ramp or driveway used by pedestrians other than those ramps or driveways provided for the use of persons in wheelchairs, shall have a gradient of not more than 1 in 8 (see figure 1);



- c) ramp provided for the use of persons in wheelchairs shall be in accordance with the requirements of SANS 10400-S; and
- d) ramp designed for use by both vehicles and pedestrians shall have a walkway not less than 1,2 m wide which shall be provided with a kerb not less than 150 mm high.



**Figure 1 — Motor vehicle ramp or driveway**

## 4.4 Swimming pools and swimming baths

**4.4.1** A wall or fence shall be provided by the owner of a site which contains a swimming pool or a swimming bath to ensure that no person can have access to such pool or bath from any street or public place or any adjoining site other than through (see figure 2)

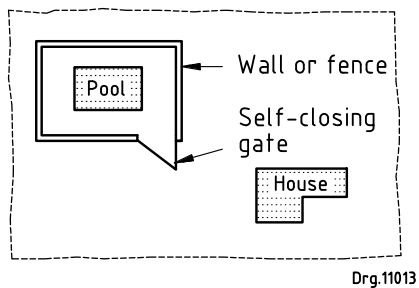
- a) a self-closing and self-latching gate with provision for locking in such wall or fence, or
- b) a building where such building forms part of such wall or fence.

**4.4.2** A wall or fence shall be provided in any interconnected complex which contains a swimming pool or swimming bath to ensure that no person can have access to such pool or bath from any street or public place or anywhere within the complex other than through a self-closing and self-latching gate with provision for locking in such wall or fence.

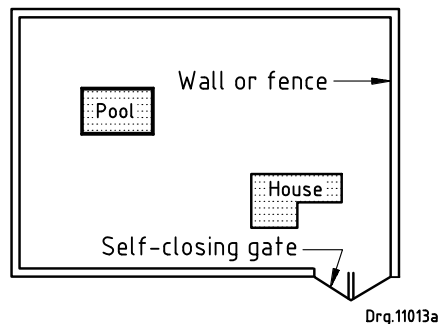
**4.4.3** Such wall or fence and any such gate therein shall be not less than 1,2 m high measured from the ground level, and shall not contain any opening that will permit the passage of a 100 mm diameter ball.

**4.4.4** The constructional requirements of any steel fence or gate shall comply with the requirements in SANS 1390.

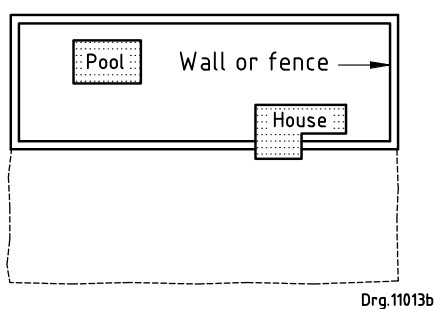
**NOTE** Additional methods, including pool covers and warning devices, for the protection of children from the hazards of swimming pools are provided in SANS 10134.



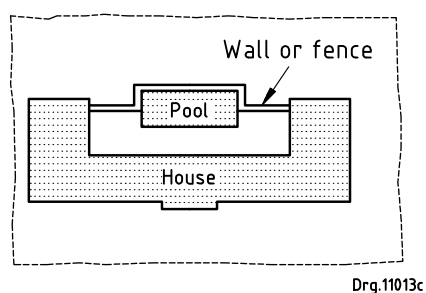
**a) Enclosure around pool**



**b) Enclosure around boundary of property**



**c) Enclosure formed on part of property**



**d) Enclosure linked to house**

**Figure 2 — Examples of safe swimming pool enclosures**

## **Annex A**

(normative)

### **National Building Regulations Part D: Public Safety**

#### **D1 Change in Level**

The protection of the edge of any balcony, bridge, flat roof or similar place shall be designed to prevent any person from falling from such balcony, bridge, flat roof or similar place.

#### **D2 Pedestrian Entrances to Parking Areas in Buildings**

Where any pedestrian entrance is provided to a vehicle parking area in any building, such entrance shall be so positioned, marked or protected that no pedestrian can unintentionally walk into the path of any moving vehicle: Provided that this requirement shall not apply in respect of any building classified as H4 in terms of regulation **A20**.

#### **D3 Ramps**

Any ramp or driveway shall be so designed that it is safe when used and is fit for the purpose for which it is intended.

#### **D4 Swimming Pools and Swimming Baths**

- (1) The owner of any site which contains a swimming pool shall ensure that access to such swimming pool is controlled.
- (2) Any owner who fails to comply with the requirement of subregulation (1) shall be guilty of an offence.

#### **D5 Deemed-to-Satisfy Requirements**

The requirements of regulations **D1**, **D3** and **D4** shall be deemed to be satisfied where change in level, the design of ramps and driveways, or access to swimming pools, as the case may be, complies with SANS 10400-D.

## **Bibliography**

SANS 10134, *The safeness of private swimming pools*.

---

This page has been left blank intentionally

---

## **SABS – Standards Division**

The objective of the SABS Standards Division is to develop, promote and maintain South African National Standards. This objective is incorporated in the Standards Act, 2008 (Act No. 8 of 2008).

### **Amendments and Revisions**

South African National Standards are updated by amendment or revision. Users of South African National Standards should ensure that they possess the latest amendments or editions.

The SABS continuously strives to improve the quality of its products and services and would therefore be grateful if anyone finding an inaccuracy or ambiguity while using this standard would inform the secretary of the technical committee responsible, the identity of which can be found in the foreword.

Tel: +27 (0) 12 428 6666 Fax: +27 (0) 12 428 6928

The SABS offers an individual notification service, which ensures that subscribers automatically receive notification regarding amendments and revisions to South African National Standards.

Tel: +27 (0) 12 428 6883 Fax: +27 (0) 12 428 6928 E-mail: [sales@sabs.co.za](mailto:sales@sabs.co.za)

### **Buying Standards**

Contact the Sales Office for South African and international standards, which are available in both electronic and hardcopy format.

Tel: +27 (0) 12 428 6883 Fax: +27 (0) 12 428 6928 E-mail: [sales@sabs.co.za](mailto:sales@sabs.co.za)

South African National Standards are also available online from the SABS website <http://www.sabs.co.za>

### **Information on Standards**

The Standards Information Centre provides a wide range of standards-related information on both national and international standards, and is the official WTO/TBT enquiry point for South Africa. The Centre also offers an individual updating service called INFOPLUS, which ensures that subscribers automatically receive notification regarding amendments to, and revisions of, international standards.

Tel: +27 (0) 12 428 6666 Fax: +27 (0) 12 428 6928 E-mail: [info@sabs.co.za](mailto:info@sabs.co.za)

### **Copyright**

The copyright in a South African National Standard or any other publication published by the SABS Standards Division vests in the SABS. Unless exemption has been granted, no extract may be reproduced, stored in a retrieval system or transmitted in any form or by any means without prior written permission from the SABS Standards Division. This does not preclude the free use, in the course of implementing the standard, of necessary details such as symbols, and size, type or grade designations. If these details are to be used for any purpose other than implementation, prior written permission must be obtained.

Details and advice can be obtained from the Senior Manager.

Tel: +27 (0) 12 428 6666 Fax: +27 (0) 12 428 6928 E-mail: [info@sabs.co.za](mailto:info@sabs.co.za)