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SANS 10400-A:2016

Edition 3.1

SOUTH AFRICAN NATIONAL STANDARD

The application of the National Building Regulations

Part A: General principles and requirements

WARNING

**This document references other
documents normatively.**

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Table of changes

| Change No. | Date | Scope |
|-------------------|-------------|--|
| Amdt 1 | 2016 | Amended to update referenced standards and the annex on forms that is referenced in the National Building Regulations, to include energy usage in buildings. |

Acknowledgement

The SABS Standards Division wishes to acknowledge the work of the South African Institution of Civil Engineering, and other industry bodies and associations who participated in reinterpreting many of the functional regulations and updating many of the deemed-to-satisfy requirements of this document.

Foreword

This South African standard was approved by National Committee SABS/TC 060, *Standards which address the national building regulations (NBRS)*, in accordance with procedures of the SABS Standards Division, in compliance with annex 3 of the WTO/TBT agreement.

This document was approved for publication in July 2016.

This document supersedes SANS 10400-A:2010 (edition 3).

A vertical line in the margin shows where the text has been technically modified by amendment No 1.

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

The numbering of the tables in annex A is in accordance with the Regulations.

Compliance with this document cannot confer immunity from legal obligations.

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.

Foreword *(concluded)*

Part O: Lighting and ventilation.

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.

Part X: Environmental sustainability – Part XA: Energy usage in buildings.

Annexes A and D form an integral part of this document. Annexes B and C are for information only.

Introduction

Development in the building industry is a continuous process. With the passage of time, new materials become available, design methods are refined, and innovative building systems are introduced. Political change also results in the development of new policies and approaches to various aspects of building and construction that might impact on regulatory requirements. It is therefore obvious that building regulations and the interpretation thereof cannot remain static if they are to accommodate such policy changes and allow for the early use of innovation in construction.

The Bill of Rights contained in the Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996), contains rights relating to the environment. Section 24 reads as follows:

Everyone has the right

- a. to an environment that is not harmful to their health or well-being; and*
- b. to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that*
 - i. prevent pollution and ecological degradation;*
 - ii. promote conservation; and*
 - iii. secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.*

The major non-tariff trade barriers that inhibit building and the construction trade are prescriptive or deemed-to-comply building codes and standards. To address this issue, the World Trade Organization (WTO) has included Clause 2.8 in the Agreement on Technical Barriers to Trade (WTO 1997), which states that "*Wherever appropriate, Members shall specify technical regulations based on product requirements in terms of performance rather than design or descriptive characteristics.*"

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Introduction *(continued)*

Cognizance of the constitutional imperatives and World Trade Organization requirements has been taken into account in the revision of SANS 10400.

The National Building Regulations do not purport, and were never intended, to be a handbook on good building practice. They set out, in the simplest and shortest way possible, requirements to ensure that buildings will be designed and built in such a way that persons can live and work in a healthy and safe environment. There are other aspects of a building that might affect only the comfort or convenience of people, but these are not controlled by the National Building Regulations. Market and economic considerations will obviously also limit the degree to which these matters can be considered in the design of a building. It is important, therefore, that entrepreneurs, designers and building owners should be aware that the mere fact that a building complies with the National Building Regulations does not necessarily indicate that it is a desirable building.

There are many aspects to be considered and the relative economic worth of each should be related to the final cost of the building. Professional designers are trained to take these matters into account, and can be expected to do so without any obstructive and possibly inhibiting and inappropriate control by the Regulations. In the case where the designer of a building is not professionally qualified, there is a wealth of information on good building practice available in textbooks and from organizations such as the CSIR, the South African Bureau of Standards, the National Home Builders Registration Council, the South African Institution of Civil Engineering and various trade associations.

In order to understand and interpret the National Building Regulations correctly, it is important to understand the philosophy and intent behind the Regulations. One aim of the drafters of the Regulations was to keep the number of Regulations to a minimum. It was therefore decided that, as far as possible, the Regulations should be concerned only with the health and safety of persons in a building, that all technical aspects should be covered by functional regulations and that the Regulations should be written in such a way that they assist rather than impede the use of innovative building systems and designs. This philosophy was taken a step further in the current amendment of the interpretation of the regulations by introducing the concept of two different types of buildings to cater for different user needs and expectations.

A new category of buildings (category 1 buildings) has been introduced in certain classes of buildings that have a floor area not exceeding 80 m² to make buildings affordable to poorer communities. The revised SANS 10400 allows choices to be made in the performance requirements of certain attributes for buildings falling within this category. Such buildings have comparable safety standards with buildings not so categorized, but may, depending upon the choices exercised in respect of particular attributes, have different resistances to rain penetration, deflection limits, maintenance requirements, lower levels of natural lighting, etc. It should, however, be stressed that choices exercised in respect of these buildings relate only to the performance of some of the attributes of such buildings. The nature of developments is determined by environmental and town planning processes which are independent of such choices. This should be kept in mind by any local authority when assessing a building in terms of these revised functional regulations.

In applying the National Building Regulations it will be found that, in certain instances, there is an overlap with the requirements of regulations made in terms of other Acts. Some of these anomalies have been overcome by suitable amendments to other regulations, but there are some regulations made in terms of local town planning schemes that it might be desirable to retain. In particular, this refers to requirements for building lines and for materials which are permitted as exterior finishings for buildings. The requirements in the National Building Regulations are there for technical reasons, but what is technically acceptable might not necessarily be acceptable for other reasons.

Introduction *(concluded)*

This part of SANS 10400 sets out the different possible ways of demonstrating compliance with functional regulations, including a range of prescriptive provisions that are "deemed to satisfy" the requirements of the National Building Regulations.

Parts A, E and U of the National Building Regulations, issued in terms of the National Building Regulations and Building Standards Act, 1977 (Act No. 103 of 1977), and for which there are no deemed-to-satisfy requirements, are reproduced in Annex A. All other parts of the National Building Regulations are reproduced in a normative annex in the part of SANS 10400 dealing with the subject matter of such regulation.

Annex B provides commentary on the National Building Regulations.

Annex C discusses the philosophy behind the National Building Regulations.

Annex D provides the forms referenced in the National Building Regulations.