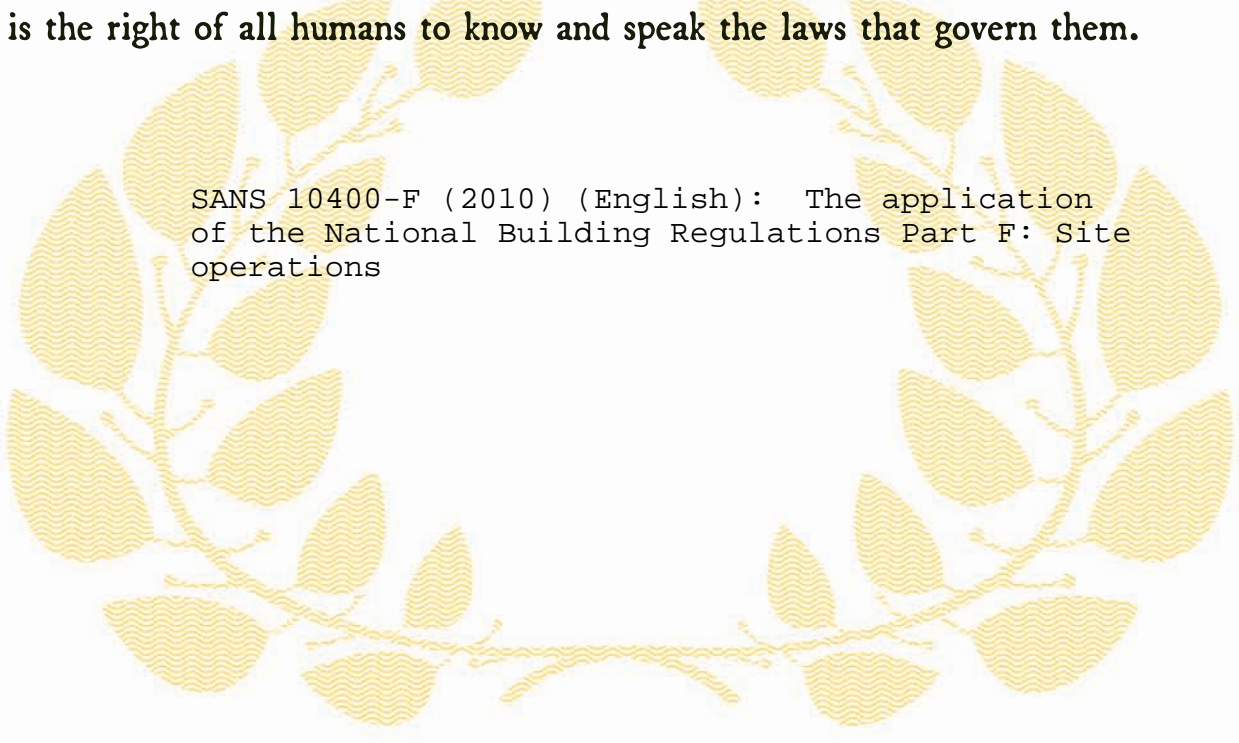




Republic of South Africa

EDICT OF GOVERNMENT

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SANS 10400-F (2010) (English): The application
of the National Building Regulations Part F: Site
operations



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SOUTH AFRICAN NATIONAL STANDARD

The application of the National Building Regulations

Part F: Site operations

SANS 10400-F:2010
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 May 2010.

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 F 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.

Part P: Drainage.

Foreword *(concluded)*

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	
1 Scope	3
2 Normative references.....	3
3 Definitions	3
4 Requirements.....	4
4.1 General	4
4.2 Sanitary facilities	4
4.3 Protection against subterranean termite activity.....	4
4.4 Stormwater disposal.....	4
Annex A (normative) National Building Regulations – Part F: Site Operations.....	5

The application of the National Building Regulations

Part F: Site operations

1 Scope

This part of SANS 10400 provides deemed-to-satisfy requirements for compliance with part F (Site Operations) of the National Building Regulations.

NOTE Part F 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 10124, *The application of soil insecticides for the protection of buildings*.

SANS 10400-A (SABS 0400-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-H (SABS 0400-H), *The application of the National Building Regulations – Part H: Foundations*.

SANS 10400-R (SABS 0400-R), *The application of the National Building Regulations – Part R: Stormwater disposal*.

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

Agrément certificate

certificate that confirms fitness-for-purpose of a non-standardized product, material or component or the acceptability of the related non-standardized design and the conditions pertaining thereto (or both) issued by the Board of Agrément South Africa

SANS 10400-F:2010

Edition 3

3.2

Board of Agrément South Africa

body that operates under the delegation of authority of the Minister of Public Works

3.3

deemed-to-satisfy requirement

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

3.4

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

3.5

suitable

capable of fulfilling or having fulfilled the intended function, or fit for its intended purpose

4 Requirements

4.1 General

The requirements of the functional regulation **F11** contained in part F of the National Building Regulations (see annex A) shall be deemed to be satisfied where the provision of sanitary facilities complies with the requirements of 4.2 and the means of protection against subterranean termite activity, where required, complies with the requirements of 4.3.

4.2 Sanitary facilities

4.2.1 Sanitary facilities shall

- a) be so sited as not to be offensive,
- b) at all times be maintained in a clean and hygienic condition, and
- c) unless they are of a permanent nature, be removed immediately once such building work has been completed.

4.2.2 Sanitary facilities shall be provided at the rate of not less than one sanitary facility for every thirty (or part of that number) of the personnel concerned.

4.3 Protection against subterranean termite activity

Where so required, a building shall be protected against subterranean termite activity by

- a) the effective application of soil insecticides to the site in accordance with the requirements of SANS 10124; or
- b) the installation of a suitable termite barrier and the implementation of suitable termite management measures in accordance with the provisions of an Agrément certificate.

4.4 Stormwater disposal

All stormwater disposal arrangements during construction shall comply with the requirements of SANS 10400-R.

Annex A

(normative)

**National Building Regulations
Part F: Site Operations**

Definitions

applicant

any person who makes an application

approval

approval by

(a) any local authority, including approval contemplated in section 7(7)(b) of the Act, or

(b) the review board on appeal to the review board in terms of the Act

approved

approved by

(a) any local authority, or

(b) the review board on appeal to the review board in terms of the Act

combustible

opposite of non-combustible

competent person

person who is qualified by virtue of his education, training, experience and contextual knowledge to make a determination regarding the performance of a building or part thereof in relation to a functional regulation or to undertake such duties as may be assigned to him in terms of these regulations

drain

that part of any drainage installation outside a building and which is below ground level, but shall not include the following:

(a) any discharge pipe;

(b) that portion of a discharge stack which is below ground level;

(c) the bend at the foot of a discharge stack

foundation

that part of a building which is in direct contact with and is intended to transmit loads to the ground

public place

any square, park, recreation ground or open space which –

(a) is vested in the local authority; or

(b) the public has the right to use; or

(c) is shown on a general plan of a township filed in a deeds registry or a Surveyor-General's office and has been provided for or reserved for the use of the public or the owners of erven in such township

SANS 10400-F:2010

Edition 3

satisfactory

satisfactory

(a) in the opinion of any local authority, or

(b) in relation to any document issued by the council, in the opinion of the council

site

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

stormwater

water resulting from natural precipitation or accumulation and includes rainwater, surface water, subsoil water or spring water

stormwater drain

pipe, conduit or surface channel situated on a site, which is used to convey stormwater to a suitable point of discharge;

street

any street, road, thoroughfare, lane, footpath, sidewalk, subway or bridge which –

(a) is vested in the local authority; or

(b) the public has the right to use; or

(c) is shown on a general plan of a township filed in a deeds registry or a Surveyor-General's office and has been provided or reserved for use by the public or the owners of erven in such township

Regulations

F1 Protection of the Public

- (1) In cases where danger or serious inconvenience to the public may ensue from the demolition or erection of a building on any site, the local authority may require that the owner of such site, before such work is commenced, shall erect a fence, hoarding or barricade to prevent the public from entering such site and to protect them from the activities on such site.
- (2) Such fence, hoarding or barricade shall for as long as is necessary be retained and maintained by such owner in a safe condition, and any access to such site, and the means thereof, shall be subject to approval.
- (3) No part of such fence, hoarding or barricade shall be removed without the permission, in writing, of the local authority until the work has been completed.
- (4) Any person undertaking any work of erection or demolition on any site shall confine all operations in connection with such work within the boundaries of such site and shall not encroach upon or over any street or public place abutting such site, except with the prior written approval of the local authority, and subject to the conditions contained in such approval with regard to the safety and convenience of persons using such street or public place.
- (5) The local authority may, before or during the erection or demolition of any building, impose any reasonable conditions in addition to the conditions and requirements contemplated in this regulation, for the purpose of safeguarding the interests of the general public, and every condition so imposed shall be observed by the owner.

- (6) Any owner who contravenes or causes or permits any other person to contravene a requirement of this regulation or fails to comply with any notice served on him by the local authority ordering compliance with this regulation, or contravenes any condition contained in any approval, shall be guilty of an offence.

F2 Damage to Local Authority's Property

- (1) Where any work connected with the demolition or erection of any building may, in the opinion of the local authority, cause or have any detrimental effect on the strength, standard, safety, quality or position of any property belonging to or vested in such local authority, the local authority may require the owner of such building to pay to the local authority such deposit or give such security, as it may require to cover the costs of the repair of any damage which may be caused by such work.
- (2) In the event of damage to the local authority's property being so caused the local authority may appropriate the amount of the deposit or security contemplated in subregulation (1) towards the costs of repairing such damage: Provided that if the amount of the deposit or security exceeds such costs, the balance shall be refunded to the owner: Provided further that if such costs exceed the amount of the deposit or security, such owner shall be liable to the local authority for the deficit.
- (3) Where any deposit contemplated in subregulation (1) has not been lodged with the local authority, the owner of such building shall pay the cost of such repair to the local authority on demand, failing which the local authority may recover such cost from the owner in a court of competent jurisdiction.

F3 Geotechnical Site and Environmental Conditions

- (1) Where the local authority has reason to believe that a site upon which a building is to be erected –
- (a) is situated on contaminated land;
 - (b) is situated on potentially unstable land to the extent, insofar as risk can reasonably be foreseen, that ground movements caused by land-slip, slope stability or subsidence may impair the stability of the building or part thereof or pose a threat to the safety of occupants; or
 - (c) is underlain by subsoils which have the potential to cause foundation movements caused by swelling, consolidation, shrinkage or settlements and as a result may impair the stability of the building or part thereof;

it shall on receipt of an application for the erection of the building inform the applicant accordingly.

- (2) On receipt of any such notification or where the applicant is aware of such conditions or they are evident, such applicant shall appoint an approved competent person to undertake an appropriate geotechnical site investigation.
- (3) Such approved competent person shall, as appropriate, determine in accordance with accepted principles, methods and technical considerations, as relevant:
- (a) whether or not the erection of a building on the site under (1)(a) or (1)(b) above should be permitted, and if so under what conditions, providing full details of the measures which need to be effected to fulfil such conditions and

- (b) the magnitude of any potential total and differential movements to which the building or part thereof may be subjected to,

and shall report to the owner and the local authority such findings.

- (4) Geotechnical investigations conducted in accordance with the requirements of SANS 10400-B in the case of dolomite lands and SANS 10400-H in the case of foundations for buildings shall in terms of **F3(2)** be deemed to be appropriate investigations.
- (5) The measures contemplated in subregulations **(3)(a)** and **(b)** shall be applied in the erection of the building and the site works.

F4 Preparation of Site

- (1) Before any foundation is laid the area to be covered by any building shall be properly cleared of vegetable matter, tree stumps, timber and other cellulose material, debris or refuse and any material contaminated with faecal matter.
- (2) Where any site upon which any building is to be erected is waterlogged, seasonally waterlogged or saturated, or where any building is to be so situated that water will drain naturally towards it, drainage shall be provided to direct such water away from such site or building to a stormwater drain or to dispose of it in some other safe approved manner.

F5 Soil Poisoning

- (1) Buildings shall, where so required by the local authority or in areas of high termite infestation, be protected from subterranean termite activity.
- (2) The requirements of subregulation **(1)** shall be deemed to be satisfied where the means of termite protection complies with SANS 10400-F.

F6 Control of Unreasonable Levels of Dust and Noise

- (1) The owner of any land on which excavation work is in progress or on which any building is being erected or demolished shall take precautions in the working area and on surrounding roads and footways to limit to a reasonable level the amount of dust arising from the work or surroundings thereof.
- (2) (a) No person shall during the course of any building, demolition or excavation work use any machine, machinery, engine, apparatus, tool or contrivance, which in the opinion of the local authority may unreasonably disturb or interfere with the amenity of the neighbourhood:
 - (i) on a public holiday or Sunday
 - (ii) before 06:00 or after 17:00 on any Saturday; and
 - (iii) before 06:00 or after 18:00 on any day other than those days contemplated in subparagraphs (i) and (ii).
- (b) The prohibition in paragraph (a) shall not apply in any circumstances in which the use of such machine, machinery, engine, apparatus, tool or contrivance –
 - (i) is urgently necessary in order to preserve the life, safety or health of any person;
 - (ii) is urgently necessary to preserve property;

- (iii) has been authorized by the local authority; or
 - (iv) is necessary for the execution of work being carried out on behalf of any public authority.
- (3) Any owner or person who contravenes a provision of this regulation shall be guilty of an offence.

F7 Cutting into, Laying Open and Demolishing Certain Work

- (1) Where the local authority, on reasonable grounds, believes that any work carried out in connection with the erection of any building is not in accordance with the provisions of these regulations or any approval or authority granted thereunder, such local authority may, in order to establish whether such work is in accordance with such provision, approval or authority, by notice in writing, order the owner of such building –
- (a) to supply satisfactory proof that such work is in accordance with such provision, approval or authority; or
 - (b) to cause such work to be cut into, laid open or demolished to the extent required by the local authority; or
 - (c) to cause a test of such work to be carried out within such time and to such extent and by such person as it specified in such notice.
- (2) (a) Where such local authority orders the owner to cause a test to be carried out as contemplated in subregulation (1)(c), a written report in regard to such test shall be submitted by the owner to the local authority, which report shall be signed by the person who carried out the test and which shall contain details in regard to the testing apparatus, methods and materials used in the test, the conditions under which such test was carried out and the results obtained during the test and at the conclusion thereof.
- (b) Where as a result of a report contemplated in paragraph (a) the local authority is not satisfied that the work concerned is in compliance with the requirements referred to in subregulation (1), the local authority may, by notice served on the owner, order the owner to take such steps as it deems necessary, and within such period as is stated in such notice, to ensure that there is such compliance, or the local authority may in such notice order the owner to cause such work to be cut into, laid open or demolished as contemplated in subregulation (1)(b).
- (3) (a) Any owner having been ordered to cause any work to be cut into, laid open, demolished or tested in terms of this regulation shall not continue with such work or with any other work affected thereby unless the local authority has authorized him, in writing, to continue.
- (b) Where the local authority is satisfied that work on the affected part of the building may proceed, it shall forthwith give authorization to so proceed.
- (4) Where such cutting into, laying open, demolishing or testing reveals that a contravention of the requirements of these regulations, or of any approval or authority granted by the local authority, has taken place, or if the necessity for such cutting into, laying open, demolishing or testing is attributable wholly or partly to any contravention of the proviso to subregulation A4(1)(b) or the requirements of regulation A22 or A25, the cost of such work and any making good subsequent thereto shall be borne by the owner, and in any other case by such local authority.

- (5) Any owner who contravenes any provision of this regulation or who fails to comply with any notice served on him in terms thereof, shall be guilty of an offence.

F8 Waste Material on Site

- (1) Where in the opinion of the local authority, excessive rubble, rubbish, other debris or combustible waste material is allowed to accumulate on a site before or during building operations, it may, by written notice, order the owner of such site to have such rubble, rubbish, other debris or combustible waste material removed within the period specified in such notice.
- (2) Any owner who fails to comply with such notice shall be guilty of an offence and the local authority may remove the said rubble, rubbish, other debris or combustible waste material from such site and may recover the costs of such removal from the owner.

F9 Cleaning of Site

- (1) Any owner or person erecting or demolishing any building shall remove any surplus material and matter arising from such erection or demolition from the site and from any other land or public street or public place affected by such material or matter during or after the completion of such erection or demolition, failing which the local authority may, by written notice, order the owner of such building to have such surplus material and matter removed within a period specified in such notice.
- (2) Any owner or person who fails to comply with a provision of subregulation (1) or a notice served on him in terms thereof, shall be guilty of an offence.

F10 Builder's Sheds

- (1) Any owner or person carrying out or performing work in connection with the erection or the demolition of any building, may erect on the site of such work such temporary builder's sheds as may be necessary.
- (2) The construction and location of such sheds shall be to the satisfaction of the local authority and such sheds shall be maintained in good order.
- (3) Subject to the provisions of subregulation (6) such sheds shall only be used for a purpose connected with the carrying out or the performance of the work referred to in subregulation (1).
- (4) Where such sheds are not constructed, located or maintained in terms of this regulation, the local authority may serve a notice on such owner or person to move, reconstruct or repair or improve the condition of such sheds within a time specified in such notice, or if use thereof is being made other than that permitted in terms of this regulation, to cease such unpermitted use.
- (5) On completion or cessation of the work referred to in subregulation (1) or where such sheds are no longer necessary for the purpose for which they were erected, they shall be removed from the site by the owner.
- (6) Security personnel employed in connection with a building which is being or which is to be erected or demolished may be accommodated in builder's sheds, subject to such requirements and conditions as may be necessary for the safeguarding of public health and the health of such personnel and for avoiding nuisance or inconvenience to persons in the vicinity of such building.
- (7) Any owner or person who fails to comply with any provision of this regulation or any notice served on him in terms thereof, shall be guilty of an offence.

F11 Sanitary Facilities

- (1)** No owner or person shall commence or continue the erection or demolition of any building unless approved sanitary facilities for all personnel employed on or in connection with such work have been provided or are available on the site or, with the permission of the local authority, at some other place: Provided that where such facilities have not been so provided the local authority may order the cessation of such work until the required facilities have been provided, and, should such order not be complied with, the local authority may install such facilities and recover the costs of such installation from the owner of the site.
- (2)** Any owner or person who contravenes any provision of this regulation, or fails to comply with an order served on him in terms thereof, shall be guilty of an offence.
- (3)** The requirements of subregulation **(1)** shall be deemed to be satisfied where the provision of sanitary facilities complies with SANS 10400-F.

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