

THE STANDARD BUILDING REGULATIONS

(Under section 37 of the Act)

Date of commencement: 1st August, 1969.

Arrangement of Regulations

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PART I

PRELIMINARY

Citation.

1. These Regulations may be cited as the Standard Building Regulations, 1969.

Interpretation.

2. (1) In these Regulations, unless the context otherwise requires —

- “applicant” means a person making any application to a local authority and includes his agent;
- “approved” means approved by the local authority or by an employee of the local authority or of the Government to whom the power of approval is lawfully delegated;
- “chief executive officer” means the chief executive officer of the local authority;
- “combined private sewer” means a sewer, exclusive of soil pipes, waste pipes and vent pipes, for the purpose of conveying to a public sewer, conserving tank, or other receptacle the sewage from two or more private sewers and includes all other things necessary in connection therewith;
- “conserving tank” means a covered tank without overflow which is used for the reception and temporary retention of sewage and which requires emptying at intervals;
- “drain” means a conduit for the conveyance of storm, surface, subsoil, spring or rain water;
- “habitable room” means a room used or intended to be used for human occupation, including work places but excluding bathrooms, lavatories, staircases, passageways, garages, lift cars, photographic dark rooms, cold rooms and rooms used exclusively as kitchens;
- “invert” means in respect of any cross-section, the lowest portion of the inner surface of a conduit;
- “kitchen” means a room, balcony or verandah, or any part thereof, used or intended to be used for the purposes of preparing, storing, treating, cooking or manufacturing food or drink intended for human consumption or for the cleansing of utensils or appliances which come into contact with such food or drink;
- “lavatory” means a room used or intended to be used for the installation of one or more soil water fittings;
- “Medical Officer of Health” means Medical Officer of Health as defined in the Building Operations Regulations, No. 34 1968(1);
- “premises” means any building together with the land on which it is situated and adjoining land used in connection therewith and any land without buildings;
- “private drain” means a conduit for the conveyance of storm, surface, subsoil, spring or rain water from one premises to a public drain;
- “private sewer” means a sewer, exclusive of waste pipes, soil pipes or vent pipes, for the purposes of conveying to a combined private sewer, a public sewer, conserving tank or other receptacle, the sewage from one premises and includes all other things necessary in connection therewith;
- “public drain” means a drain vested in, or under the control of, or used by the Government or a local authority, and includes all things necessary in connection therewith;

“public place” means a street, as defined in the Act, and square, park, recreation ground, garden, commonage or open space in the area of a local authority which —

- (a) is vested by deed of title or by any law in the local authority for the use and benefit of the public; or
- (b) the public has the right to use without charge;

“public sewer” means a sewer vested in, or under the control of, or used by Government or the local authority into which is discharged or intended to be discharged the sewage from private sewers or combined private sewers and includes pipes, manholes, chambers, ventilating shafts, ejectors, sluices and all other things necessary in connection therewith;

“sanitary fitting” means water closet, urinal, bidet, slopsink, bath, wash basin, sink, shower or other fitting of like nature for the reception and disposal to a soil pipe or waste pipe of soil water or waste water, as the case may be;

“septic tank” means a covered tank complete with baffles and effluent overflow to receive sewage and designed to retain such sewage for the time and manner necessary to secure adequate decomposition of organic solids by bacterial action;

“sewage” means waste water, soil water or other liquid waste excluding the water mentioned in the definition of “drain”;

“sewer” means an underground pipe used for conveying sewage, and includes all other things necessary in connection therewith;

“small building” means a building of one or two storeys not exceeding 84 square metres total floor area, inclusive of any existing building in the case of additions;

“soakaway” means a pit or trench suitably prepared to receive water for seepage into the surrounding ground;

“soil pipe” means a pipe for conveying soil water from the trap or outlet of a soil water fitting to a private sewer or combined private sewer;

“soil water” means water containing excreted matter;

“soil water fitting” means a fitting directly appurtenant to the discharge of soil water, including water closets, urinals, bidets and similar fittings;

“trap” means any pipe or fitting so bent or formed that it retains a quantity of liquid, part of which forms a seal or barrier to the passage of air or gas;

“vent” means a pipe or portion of a pipe fitted vertically or at an incline and provided solely to ventilate a sewerage system and prevent trap siphonage or back pressure;

“waste pipe” means a pipe connected to a waste water fitting and used for the conveyance of waste water to a gully trap, floor channel, or sewer into which such waste pipe may discharge;

“waste sewer” means the part of a private sewer or combined private sewer which comprises underground piping and is used or intended to be used for the conveyance of waste water only;

“waste water” means used water not being soil water; and

“waste water fitting” means a fitting directly appurtenant to the discharge of waste water and includes a bath, wash basin, gully, sink, and any other fitting which serves a similar purpose.

(2) Where there is a reference to a “storey” —

“basement” means a storey beneath the ground storey;

“ground storey” means that storey of a building to which there is an entrance from the outside on or near the finished ground level adjoining such entrance, and in the case of more than one such storey the storey designated as the ground storey on the building plans, or, if no such designation is made, the lowest such storey;

“first storey” means the storey immediately above the ground storey;

“topmost storey” means the uppermost storey whether constructed wholly or partly in the roof or not and whether adapted for human habitation or not; and

“mezzanine storey” means a storey extending over only part of a building between two other storeys.

(3) In relation to the construction of a building or the work involving the repair or demolition of a building, the “person constructing or intending to construct” such building or carry out such other work means the person upon whom the obligation to pay for the construction of the building or the doing of such work ultimately rests, and the owner of the plot upon which the building is or is to be constructed or such work is or is to be carried out shall be deemed to be such person unless he proves the contrary.

(4) Where reference is made to the “South African Standard Building Regulations” this shall mean the “Standard Building Regulations” approved by the Council of the South African Bureau of Standards on 14th March, 1966, as amended from time to time.

References to specifications.

3. In these Regulations “SABS”, “SASS” or “BS” followed by a number or title or by a number only means the specification, including all amendments to such specification, of the indicated number published in the case of —

- (i) “SABS”, by the Council of the South African Bureau of Standards;
- (ii) “SASS”, by the South African Standards Institution;
- (iii) “BS”, by the British Standards Institution.

Application.

4. (1) Subject to paragraph (2), these Regulations apply to the construction or change of use of every building which —

- (a) is situated in a controlled area as defined in section 4 of the Act;

- (b) is situated outside a controlled area as so defined, and whose use or intended use causes it to be classified under section 3 of the Act in either —
 - (i) Class A(i), if it is to be used for housing an employee of the owner or occupier and the number of such employees is six or more;
 - (ii) Class A(ii), (iii) or (iv);
 - (iii) Class B;
 - (iv) Class C(ii) other than a small building;
 - (v) Class D, other than a small building in Class D(i) or (ii);
 - (vi) Class E; or
 - (vii) Class G(ii); or
- (c) comprises three or more storeys.
- (2) Notwithstanding paragraph (1) these Regulations shall not apply to a building of two storeys or less which is situated —
 - (a) in an area to which the Swaziland Building (Grade II) Regulations No. 34/1968(9) apply and whose use or intended use causes it to be classified under section 3 of the Act in Class A or Class C; or
 - (b) outside a controlled area and whose use or intended use is for the purposes of —
 - (i) a school in Class D(ii), classified by the Director of Education as of Primary VI standard or less; or
 - (ii) such other purpose as the Minister may prescribe by notice in the gazette.

PART II

ADMINISTRATION

Application for permit to build.

5. (1) A person intending to construct or change the use of a building shall make written application to the local authority in the form prescribed by the Minister which shall be completed in every particular and shall, subject to paragraph (2), be accompanied by —
- (a) a complete set of working drawings;
 - (b) a block plan;
 - (c) structural detail drawings of the nature and extent required by the local authority for the purpose of giving effect to these Regulations;
 - (d) all sewerage and drainage plans which may be required;
 - (e) if required by the local authority in the case of structural framework, stress diagrams showing forces and stresses due to dead and superimposed loads, and in addition the calculations employed in the design of the building to be erected;
 - (f) all drawings and sketch plans required to be submitted in the terms of any law relating to town planning; and

(g) any further details which the local authority may require in order to give effect to these Regulations.

(2) If application is made for a permit to change the use of a building the local authority may waive compliance with any requirement of paragraph (1) which it considers unnecessary.

(3) Every application form and the accompanying drawings and plans shall be submitted in triplicate and shall be dated and signed by the applicant or by a person authorized by him in writing to sign on his behalf and by the architect or other person who has prepared the plans; all alterations or corrections to such form or plans shall be similarly dated and signed.

(4) One copy of all such drawings and plans shall be clearly printed on white cloth or some other material approved by the local authority.

(5) On approval under Regulation 12 two copies of the drawings and plans, including the cloth copy, shall become the property of and be retained by the local authority and the third copy shall be returned to the applicant.

(6) If the local authority refuses to approve a drawing or plan under Regulation 13, it may retain one copy, not being the cloth copy, but shall return the other copies to the applicant.

Preparation of plans and drawings.

6. (1) All plans and drawings referred to in Regulation 5 shall be on sheets not less than 200 millimetres by 325 millimetres and not greater than 1 metre in width irrespective of length.

(2) All measurements shall be expressed in metric units.

(3) The following scales shall apply to all such plans and drawings —

(a) working drawings shall be drawn to a scale of one to one hundred (1:100) or to a larger scale which is an exact multiple of one to one hundred (1:100);

(b) block plans shall be drawn to a scale of not less than one to five hundred (1:500);

(c) unless otherwise required by the engineer, sewerage and drainage plans shall be drawn to a scale of not less than one to two hundred and fifty (1:250);

(d) in the case of stress diagrams a scale shall be used which permits of sufficiently accurate determination of stresses and forces by measurement;

(e) detail drawings shall be drawn to a scale of not less than one to twenty five (1:25); and

(f) such scale shall be clearly stated on every document to which it applies.

(4) In working drawings work to be demolished shall be shown in black dotted lines, and all working drawings shall be coloured with fixed colours in accordance with the following table —

New brick and masonry	Red
New concrete	Green
New iron and steel	Blue
New wood	Yellow
New glass	Black
All existing materials	Grey

All other new materials	To be clearly indicated in fixed colours other than those mentioned above or described in words
 (5) Block plans shall be coloured with fixed colours as follows —	
Proposed work	Red
Existing work	Grey
Work to be demolished	Uncoloured and outlined with black dotted lines
Open spaces	Uncoloured
New private sewers	Brown
Existing private sewers	Black
 (6) Sewerage and drainage plans shall be coloured with fixed colours as follows —	
New sewers and new soil pipes	Brown
New waste pipes and new private sewers carrying trade, manufacturing or industrial effluent	Orange
New waste pipes and new waste sewers	Green
New vent pipes	Red
New private drains	Blue
All existing soil pipes, waste pipes, waste sewers, vent pipes, private and public sewers and private drains	Black

Information on block plans.

7. The block plans referred to in Regulation 5(1)(b) shall fully and clearly show the following information —

- (a) the registered designation of the plot on which the building is to be constructed;
- (b) the plot boundaries and dimensions, the size and position of the building and, as far as may be necessary to show compliance with these Regulations, the size and position of the buildings on the plots immediately adjoining;
- (c) the name, position, width and level of any street or passage adjoining the curtilage of the building, as far as may be necessary to show compliance with these Regulations;
- (d) the position of all sewers, drains, surface channels, natural watercourses, ravines, water mains, electric or other cables or wires or other natural or artificial conduits, or any structures or installations supporting or connected with any of the foregoing, which exist upon or traverse the plot;
- (e) the position of any existing buildings on the plot, the position of any building to be demolished and the distances of all buildings on the plot from the plot boundaries and from each other;
- (f) the direction of true north;

- (g) the position of any existing or proposed driveways;
- (h) the existing contours of the ground at vertical intervals of not more than ten feet; and
- (i) if required by the engineer, the reduced levels in relation to a datum level specified by the engineer of the ground at each corner of the site and at any prominent feature, and the position and nature of such feature.

Information on working drawings.

8. The working drawings referred to in Regulation 5(1)(a) shall include the following information —

- (a) as many plans, sections, and elevations as may be necessary to show fully and clearly the position, form, dimensions and materials of every part of the building intended to be constructed, including —
 - (i) the foundations, floors, walls, windows, doors, stairs, roofs and chimneys;
 - (ii) all sanitary fittings, including waterclosets, baths, basins and sinks;
 - (iii) all structural members, including columns, slabs, beams, joists, rafters and trusses;
 - (iv) all projections from a building, whether fixed or movable; and
 - (v) if required by the engineer, information regarding the nature of the subsoil;
- (b) the intended use of every room or compartment and the horizontal dimensions and height of every such room or compartment in figures; and in the case of buildings in Class D containing rooms in which, in terms of these Regulations, one hundred or more persons can be accommodated, the maximum number of persons for which accommodation is provided; and in the case of conversion of a building to a different use, the original and the proposed use of every room;
- (c) if required by the engineer, the maximum superimposed load per square metre of area for which the floor of every such room or compartment or any particular portion thereof is designed, and in the case of a building in which certain floor areas are designed for abnormal loads such as storage, strong rooms, computer rooms or areas to be used by portable lifting and handling equipment, the limits of such areas on the floor plans and, if applicable, the maximum safe wheel load;
- (d) details of intended permanent earth works in connection with the building intended to be erected;
- (e) the levels of the floors relative to one another and in relation to —
 - (i) the existing ground surface;
 - (ii) the proposed finished ground surface; and
 - (iii) any public place upon which the plot abuts;
- (f) all provisions made in the design of the building for possible future additions; and

- (g) any other details or information which the local authority may require to enable it to ascertain whether the building intended to be constructed complies with these Regulations.

Information on sewerage and drainage plans. (First Schedule)

9. (1) The sewerage and drainage plans referred to in Regulations 5(1)(d) and 100 shall include as many plans, sections and elevations as may be necessary clearly to show full particulars of all intended and existing sewers, stormwater drains (if required by the local authority) and sanitary fittings, including —

- (a) the size, depth and position of every private or public sewer within the curtilage of the plot;
- (b) the size and position of every manhole, means of inspection, gully, sewer trap, soil pipe, waste pipe and vent pipe;
- (c) the position of every soil and waste fitting;
- (d) the gradient in figures of every private sewer, soil pipe, waste pipe and vent pipe; and
- (e) the materials of which all such private sewers, pipes and vents are constructed or are to be constructed.

(2) The sections and elevations referred to in paragraph (1) shall show —

- (a) the levels of the ground and the levels of the inverts of all private sewers at every manhole and at every point at which the gradient or direction of a sewer is changed;
- (b) the position and height of all windows and other openings within a horizontal distance of six metres from the open end of a soil or vent pipe; and
- (c) the levels required by sub-paragraph (a) shall give the height of the points concerned above such datum level as the local authority may require.

(3) If a sewer is to convey trade or industrial effluent, or sewage of an abnormal nature, details of such effluent or sewage shall be provided.

(4) The abbreviations listed in the First Schedule may be used on sewerage and drainage plans.

Preliminary sketch plans.

10. The local authority may for the convenience of the applicant permit him, before requiring him to comply with the provisions of Regulation 5, to deposit with the local authority for scrutiny, consideration and comment under these Regulations, preliminary plans of the building intended to be constructed.

Inspection fees.

11. (1) Every person who submits an application in the terms of Regulation 5 shall, at the time of submission, pay to the local authority an inspection fee calculated as follows —

- (a) on the first E20,000 of total value of the building, a fee of E1.50 per E1,000 of value, or part thereof;

(b) over E20,000 of total value of the building a fee of E1.00 per E1,000 of value, or part thereof, over E20,000.

(2) A fee of E20 shall be payable in respect of any preliminary plans which are deposited for scrutiny, consideration and comments in the terms of Regulation 10.

(3) The minimum fee payable in respect of any application is E4 in respect of new construction, or E2 in respect of alterations to existing work.

(4) The fees payable under the preceding paragraphs shall be payable on each submission, but the local authority may remit wholly or in part the fees payable where such re-submission of any plan, section, elevation or drawing is on account of minor alterations only.

(5) No fee is payable where a re-submission is due to failure on the part of the local authority to draw attention to a defect on a previous submission.

(6) The value of the building shall be assessed and certified by the engineer who shall have regard to the cubical content and character of the building and, subject to paragraph (7) his assessment shall be final and binding without appeal on any ground whatsoever.

(7) If at any time after completion of the building the applicant satisfies the local authority that the finished value is less than the value as assessed by the engineer he shall be entitled to a refund, without interest, representing the difference between the fee paid by him and the fee payable on the finished value.

(8) No plans shall be considered by the local authority until the full fees applicable thereto have been paid.

Approval of plans and issue of permit.

12. (1) As soon as the local authority is satisfied that the application and plans referred to in Regulation 5 comply with —

(a) these Regulations;

(b) any town planning scheme or section 23; and

(c) any other law which the local authority is required or empowered to administer;

its approval shall be signified thereon in writing as provided in paragraph (2) and a permit shall be issued in a form prescribed by the Minister.

(2) All plans and drawings furnished by the applicant shall be signed upon each sheet by the chief executive officer as having been approved by the local authority as being in conformity with these Regulations, after examination by the medical officer of health and the engineer, or their authorised representatives.

(3) It shall be a condition of the local authority's approval that —

(a) at least fourteen days before the construction of any structural member, framework, or reinforced concrete work commences, full structural details to supplement or amplify any structural detail drawings submitted in terms of Regulation 5(1)(c) shall be lodged with the engineer by the applicant, and such details shall show the sizes, quantities, mixtures and disposition of the various materials and parts of the structural members, so as to enable the engineer to ascertain whether the requirements of these Regulations for the various materials concerned have been complied with;

- (b) the work referred to in sub-paragraph (a) shall not be commenced until the engineer notifies the applicant that the full structural details referred to therein comply in his opinion with these Regulations;
- (c) upon such notification the said structural details shall be read as one with the forms and plans approved in terms of paragraph (1).

(4) For the purposes of paragraph (3), the local authority may, in its discretion, require in lieu of structural drawings and calculations a certificate signed by a corporate member of the Institution of Civil Engineers (U.K.), the Institution of Civil Engineers of South Africa, or the Institution of Structural Engineers (U.K.), to the effect that he personally has checked the design calculations and the drawings and that they comply in all respects with these Regulations.

Refusal to approve plans.

13. If the application and plans referred to in Regulation 5 do not comply with Regulation 12(1) the local authority shall refuse approval of such plans and shall inform the applicant in which respect they do not comply and list any of these Regulations which would be contravened by the proposed building.

Conformity with street levels.

14. (1) For the purpose of this Regulation "construction", in respect of a street, means levelling, cambering, paving, flagging, gravelling, metalling, kerbing or guttering, all for the first time, or for the first time making steps and landings where they are deemed necessary owing to the inclination of the street, or any one or more of such acts.

(2) If the portion of the street abutting the plot on which a building is to be constructed has not been constructed, the person intending to construct such building shall apply to the engineer for the levels at which such portion of the street will ultimately be constructed.

(3) The engineer shall supply the required levels if in his opinion it is practicable for him to do so and within a reasonable time after the receipt of such application.

(4) The person intending to construct shall ensure that the levels of all portions of the building and all structures and services appurtenant thereto, including the levels of the foundations, floors, walls, drains, sewers, surface channels, gates, paths, driveways, steps and of all other things of a like nature which might be affected by levels supplied by the engineer, shall be easily adaptable to the levels so supplied.

Notice of intention to commence building and notices for inspection.

15. (1) Before commencing to construct a building, the person intending to construct the building or his duly authorised agent shall give notice to the engineer.

(2) Before commencing to construct the foundations or a portion thereof, the person constructing the building or his agent shall give notice to the engineer that the excavations for such foundations or any portion thereof, as the case may be, will be ready for inspection on a date to be specified in such notice.

(3) Before commencing to construct anything upon the foundations or any portion of the building, the person constructing such building or his agent shall give notice to the

engineer that such foundations or any portion thereof, as the case may be, will be ready for inspection on a date specified in the notice.

(4) Before commencing to backfill excavations made for stormwater drainage or sewerage work, and before enclosing any such work, the person constructing the building or his agent shall give notice to the engineer that such drainage or sewerage works or portion thereof, as the case may be, will be ready for inspection and testing on a date specified in the notice.

(5) Every notice referred to in this Regulation shall be submitted in the form prescribed by and obtainable from the local authority so as to reach the engineer at least three clear working days before the date required to be specified in such notice.

Inspections.

16. Subject to section 11(4), no person shall commence —

- (a) the foundations of a building;
- (b) the construction of anything upon such foundations; or
- (c) the backfilling or enclosing referred to in Regulation 15(4);

nor cause or suffer it to be commenced until the excavations, foundations or the work referred to in Regulation 15(4) respectively, have been inspected, or permission to proceed has been given by the engineer.

Completion and occupation of building.

17. (1) The notice of completion and application for permission to occupy a building required by section 15 shall be made to the engineer on a form prescribed by and obtainable from the local authority.

(2) The permit to occupy a building as required by section 15 shall be in the form prescribed by the Minister, and the engineer shall send a copy of every permit issued by him to the chief executive officer of the local authority.

Loading of buildings.

18. (1) Except for the purposes of a full-scale load test carried out in accordance with Regulation 23, no owner or occupier of a building shall subject a building to a superimposed load greater than that stated on the working drawings of the building approved in terms of Regulation 12 or shall suffer a building to be subjected to such load.

(2) If required by the local authority, the owner of a building shall exhibit on every storey of the building in a conspicuous position a notice in the form of an embossed or stamped metal plate clearly stating the superimposed loading for which the floor of such storey has been designed; and in the case of any such storey being subdivided into portions, each designed for a different superimposed loading, such notice shall, where so required, be so exhibited in each portion.

(3) The notice referred to in paragraph (2) shall be in the following terms —

WARNING

The safe uniformly distributed load for which this floor/this portion of the floor has been designed is meganewtons per square

metre. No single weight or load greater than kilogrammes may be placed on the floor without reference to the local authority.

(4) In the case of a garage intended for the accommodation of any type of vehicle, the notice referred to in paragraph (2) shall in addition to the information required by paragraph (3) clearly state the maximum permissible gross weight of the type of vehicle concerned.

(5) Any person who contravenes paragraph (1) or (2) shall be guilty of an offence.

Building materials.

19. (1) The local authority shall have the right itself to test or to have tested any material or thing used or to be used in the construction of any building in order to determine whether such material or thing complies with these Regulations, and an employee of the local authority duly authorised for such purpose may at any time and as often as is reasonably necessary for the purpose of so testing the material or thing, without prior notice to the person constructing the building, remove from the building site concerned as much of such material or thing as is reasonably necessary to serve as a sample.

(2) If any material or thing tested does not comply with these Regulations, the engineer may serve a written notice under his own hand on the person constructing such building stating the respects in which such material or thing does not comply with these Regulations and prohibiting such person from making any further use of such material or thing for the purpose for which it was or is to be used in the construction of the building and unless in such notice the engineer permits the use of such material or thing in the construction of the building for some different purpose permitted under these Regulations, such person shall forthwith on receipt of such notice remove such material or thing from the building site.

(3) Any person who fails to comply with any notice given under paragraph (2) shall be guilty of an offence, and in addition the engineer may himself remove or cause to be removed any material or thing which may be required to be removed in terms of such notice at the expense of such person.

(4) No person constructing a building shall use second-hand material unless it conforms with the requirements of these Regulations.

(5) If any material or thing referred to in paragraph (1) is tested and has failed the test, the cost of testing shall be recoverable from the person constructing the building concerned.

Tests.

20. (1) If under these Regulations a person other than the local authority carries out a test of any work or matter or causes it to be carried out such test shall be made or carried out at the expense of such person, and that shall only be made or carried out by a person qualified by experience and training to do so, and if required by the engineer satisfactory evidence of his experience and training shall be furnished to the engineer.

(2) The result of the test shall be submitted to the engineer in the form of a report signed by the person who carried it out or made it, and the report shall give accurate details of the testing apparatus, methods or materials used in making or carrying out such test, of the conditions under which such test was made or carried out, and a detailed description of all results obtained during the entire course of the making or carrying out thereof.

Building on existing work.

21. No person shall construct a building which is to be supported by an existing building unless the existing supporting building complies with Parts III and VII.

Cutting into, laying open and demolition of certain work.

22. (1) If the engineer, after full investigation, has reasonable grounds to believe that the construction of a building —

- (a) is in contravention of plans and specifications approved by the local authority, or
- (b) does not conform with any of the Regulations applicable to the building at the time of such construction; and if
- (c) the work on such building is so far advanced that he cannot ascertain whether such contravention or non-compliance has actually taken place; and
- (d) he believes that such action is necessary to ensure the stability of the building and the safety or health of the public;

he may at his option serve a written order under his hand on the owner of such building or the person constructing or who has constructed it, requiring him at his expense to cause the portion of work concerned to be cut into, laid open or demolished to such extent as may be necessary to enable the engineer to ascertain whether such contravention or non-compliance has actually taken place, and such extent shall be specified in the order, together with the time within which such cutting into, laying open, or demolishing shall be completed.

(2) Any person upon whom an order has been served under paragraph (1), who fails, neglects or refuses to comply therewith shall be guilty of an offence, and the engineer himself may give effect to such order at the expense of such person.

(3) If it is proved that there has been no contravention or non-compliance the owner or other person concerned, as the case may be, shall be entitled to recover from the local authority the costs incurred in the cutting into, laying open or demolishing actually carried out and the cost of making good the portion of work so demolished, unless the need for the order results from the contravention of Regulation 16.

Full-scale load tests.

23. (1) Notwithstanding Regulation 22 any person upon whom an order has been served in terms thereof may apply to the engineer for permission to carry out a full-scale load test of the work referred to in that Regulation or any portion of such work, in lieu of cutting into, laying open, or demolishing such work or portion.

(2) An application under paragraph (1) shall reach the engineer at least one clear day before the expiry of the time specified in the order and on receipt of the application all action in terms of Regulation 22(2) in respect of the work referred to in the application shall be suspended until the engineer has decided, in terms of paragraph (3), whether or not to grant the application, and until the test, if any, to be carried out as sought in such application, has been carried out.

(3) If the engineer is satisfied that the test referred to in paragraph (1) will render it unnecessary to cut into, lay open, or demolish the work or portion thereof referred to in such paragraph, he shall grant to the person concerned written permission under his hand to carry

out such test and shall therein specify a period within which such test shall be completed, and in so far as the order referred to in Regulation 22(1) affects any work which has successfully passed the test he shall withdraw the order.

(4) Instead of acting in terms of Regulation 22(1) the engineer may in any of the circumstances referred to therein, serve a written order under his hand on the owner or person constructing, requiring him to carry out at the latter's expense a full-scale load test on such work or any portion thereof in lieu of cutting into, laying open, or demolishing such work or portion, within a time and to an extent to be specified in such order.

(5) If a person to whom permission in terms of paragraph (3) has been given fails to avail himself thereof within the period specified therein, the permission and the suspension referred to in paragraph (i) shall lapse.

(6) If a person upon whom an order in terms of paragraph (4) has been served wilfully fails to comply therewith, he shall be guilty of an offence, and the engineer may give effect to the order at such person's expense.

(7) If a load test is carried out in terms of paragraph (3) or (4) on any work and such work passes the test, the owner or person erecting the building shall be entitled to recover the cost of such test from the local authority.

(8) If any work on a building is to be tested, no person shall carry out further work if the further work is to be supported by the work which is to be tested.

(9) If any person contravenes paragraph (8) he shall be guilty of an offence and the local authority may demolish such further work at the expense of the owner of such building.

(10) If any work on a building which has been subjected to test in terms of this Regulation fails to pass such test, the person concerned shall forthwith demolish such work, unless the engineer —

(a) is satisfied that the stability of the building, and the safety and health of the public is ensured; and

(b) gives written permission under his own hand to such person to do the other things in relation to such work specified by him in such permission;

in which case the person concerned shall complete such things in full within the period specified in such permission, otherwise such permission shall lapse.

(11) A person who contravenes paragraph (10) shall be guilty of an offence, and the local authority may demolish the work concerned at his expense.

Encroachments.

24. (1) For the purpose of this Regulation —

“encroachment” means a building or any fixed or movable projection from a building which is constructed so as to encroach on, over or under a public place.

(2) Except as provided in paragraphs (8) and (9) no person shall construct or retain an encroachment unless he has obtained from the local authority a permit therefor.

(3) A local authority shall not grant such permit if the encroachment —

(a) would contravene these Regulations or any other law or any directions made in pursuance of section 21; or

(b) does not fall within one of the categories specified in paragraph (5)(d).

(4) A person applying for a permit to construct an encroachment shall do so in writing, and shall in addition comply with Regulation 5 to 13 inclusive.

(5) If a permit for an encroachment is granted, the applicant or owner of the building shall —

(a) assume full responsibility for the maintenance of the encroachment in a safe condition, and for any liability incurred which may in any way arise out of the construction, presence or demolition of such encroachment;

(b) permit attachments to the encroachment for the purpose of fixing electric lighting or transmission or telephone wires, street lights and similar public services of the Government, the local authority or any other statutory body;

(c) construct the encroachment in accordance with these Regulations;

(d) pay the local authority such rental as it may determine, not exceeding a sum calculated on the following basis —

Encroaching signs, per 300mm of encroaching projection, E1 .00 per annum;

Cantilevers, canopies and covered ways, per square metre of encroaching area, E1.00 per annum;

Foundations, per square metre of encroaching area, E1.00 per annum;

Showcases not complying with paragraph (8), per square metre of encroaching area, E5.00 per annum;

Sunblinds and awnings, per 300 mm of frontage, E1.00 per annum,

Gantries, bridges, tunnels, conduits: as may be individually assessed by the local authority; and

(e) comply with such other conditions as the local authority may attach to such permit.

(6) If a local authority has granted a permit for an encroachment, other than for foundations, it may after giving not less than six months notice in writing revoke such permit at any time.

(7) The engineer may by notice under his hand require the removal of an encroachment within a time stipulated therein, if—

(a) a permit is revoked as provided in paragraph (6);

(b) a permit has not been obtained as required by paragraph (2);

(c) no permit is required in terms of paragraph (8)(c); or

(d) in any case if the construction is not carried out to the satisfaction of the engineer;

and the owner of the encroachment shall then cause it to be removed at his own expense and without compensation within the time stipulated, and if he fails to do so the local authority shall be entitled to do the work itself and to recover the cost from him.

(8) The following encroachments may be constructed without a permit, if they are constructed to the satisfaction of the engineer and subject to paragraph (7) —

- (a) any cornice, moulding, lintel, gutter, fascia, roof overhang or similar feature which does not project into a public street by more than —
 - (i) 375 millimetres if the bottom of such projection is not less than 2,400 metres above the finished ground level; or
 - (ii) 1 metre, if the bottom of such projection is not less than 6 metres above the finished adjacent ground level, and it does not conflict with the provisions of Part IV in regard to lighting;
 - (b) external hose connections for fire-fighting systems which do not project by more than 300 millimetres into a public street or public place and are either
 - (i) at least 600 millimetres above pavement level; or
 - (ii) placed in the angle formed by a projection permitted under paragraph (2) and the wall of a building; and
 - (c) decorations for public celebrations, during such period of time as may be specified by the local authority.
- (9) For the avoidance of doubt —
- (a) any lawfully constructed encroachment in existence at the time these Regulations commence shall be deemed an encroachment which does not require a permit under these Regulations; and
 - (b) this Regulation shall not absolve any person intending to construct an encroachment, from complying with the general requirements of these Regulations in respect of buildings.

Temporary grand stands and similar structures.

25. (1) No person shall erect a temporary platform, seat, grand stand, or other structure for the accommodation of persons attending a meeting, service, procession, or entertainment of any description whatsoever without a permit first had and obtained from the local authority.

(2) The application for such permit shall be in writing, signed by the person making it and shall be accompanied by full details of such structure including working drawings and a certificate from a qualified engineer to the effect that such structure will safely support the loads which it is designed to bear which shall in no case be less than 4800 newtons per square metre.

Materials not elsewhere provided for.

26. If a person constructing a building desires to use for a particular purpose any material or thing which is not permitted or prescribed by these Regulations for such purpose, and satisfies the local authority that such material or thing is at least as suitable for such purpose as the material or thing prescribed, the local authority shall approve the use of such material or thing for the purpose concerned, and in particular, materials which comply with British standard specifications or the specifications of the South African Bureau of Standards and are used in compliance with British or South African standard codes of practice shall be approved by the local authority.

New methods of design and construction.

27. (1) Notwithstanding these Regulations the local authority shall permit a person intending to construct a building to use in connexion therewith a method of structural design or of construction not provided for in these Regulations, if the local authority is satisfied that the building will not, as a result thereof, be or be likely to be, unhealthy or dangerous by reason of its design or construction.

(2) In exercising its discretion under paragraph (1) the local authority shall have regard to the following —

- (a) under designed working loads, abnormal deflections, marked local deformations or cracks, or visible permanent set, should not occur;
- (b) the ratio of the predicted collapse load of the building to the load for which the building is designed should provide a margin of structural safety adequate for the material and type of construction adopted;
- (c) the construction should not be likely to develop characteristics leading to concern as to its structural safety;
- (d) the construction should possess adequate durability;
- (e) the construction should possess and be likely to retain adequate resistance to moisture penetration;
- (f) the construction should comply with such other requirements of these Regulations as are applicable; and
- (g) designs and calculations which comply with British or South African standard codes of practice shall be permitted.

(3) The local authority may, in its discretion, call for suitable tests to be carried out at the expense of the person intending to construct the building, to demonstrate whether or not the method of design or construction should be permitted and if the local authority decides not to permit the method of design or construction, such person shall either —

- (a) demolish the building constructed for test purposes; or
- (b) reconstruct it in accordance with these Regulations;

and whether the method of design or construction is permitted or not, no portion of the cost of construction, testing, demolition or reconstruction shall be borne by the local authority.

PART III
STRUCTURE

Loads.

28. Chapter 3 of the South African Standard Building Regulations shall apply to all buildings to which these Regulations apply.

Foundations.

29. (1) Subject to paragraphs (2) and (3), Chapter 4 of the South African Standard Building Regulations shall apply to all buildings to which these Regulations apply.

(2) In Regulation 5 of such Regulations, Table 1 and footnote (1) shall be omitted, and the table contained in Appendix B to Chapter 4 thereof shall be substituted.

(3) The following shall be substituted for Regulation 23(3)(a)(ii) of such Regulations —

“The vertical thickness of other foundations shall not be less than the projection of the foundation from the base of the wall, and in no case less than 150 millimetres.”

Plain and reinforced concrete.

30. Chapter 5 of the South African Standard Building Regulations shall apply to all buildings to which these Regulations apply, and footnote (3) to Regulation 34(4) thereof shall be deemed to refer to Part VII of these Regulations.

Structural steelwork.

31. Chapter 6 of the South African Standard Building Regulations shall apply to all buildings to which these Regulations apply.

Structural timber.

32. Chapter 7 of the South African Standard Building Regulations, other than Regulation 5 together with the footnote (1) shall apply to all buildings to which these Regulations apply.

Preservation of timber.

33. (1) All timber which directly or indirectly supports a ground floor which is not over a basement shall be impregnated with a preservative, described in Appendix A to Chapter 7 of the South African Building Regulations, so as to attain the penetration and retention of preservative specified in such appendix for the timber concerned.

(2) In addition to the requirements of paragraph (1), if required by the local authority, every building shall have a continuous termite barrier which extends over the full area thereof and projects on each side to such extent as may be required by such local authority.

Masonry and walling.

34. (1) Subject to this Regulation Chapter 8 of the South African Building Regulations shall apply to all buildings to which these Regulations apply.

(2) In paragraph (5) of Regulation 13, of such Regulations, in respect of Class D mortar, the words “panel or curtain” in sub-paragraph (b) and with footnote (2) shall be omitted.

(3) Footnote (4) to Regulation 17, of such Regulations shall be deemed to refer to Part VII of these Regulations.

(4) Footnote (5) to Regulation 26, of such Regulations shall be replaced by the following —

“Attention is drawn to the requirements for balustrades in Parts V and VII of the Standard Building Regulations, No. 34 1968(3).”

(5) Footnotes (6) and (9) to Regulations 27 and 34 respectively of such Regulations shall be omitted.

(6) In Appendix C thereof the following shall be inserted in Table C.1. —

<i>Column 1</i>	<i>Column 2</i>
LOCALITY	MINIMUM TIME DURING WHICH NO WATER SHOULD PENETRATE TO THE INSIDE SURFACE OF A WALL UNDER CONDITIONS OF THE ARTIFICIAL RAIN TEST, MINUTES
Hlatikulu Mbabane Pigg's Peak Havelock	900
Malkerns Manzini Nhlangano Hluti Siteki	750
Lavumisa Tshaneni Big Bend	300

Framed timber walls. (Original Regulation c.8. — Repealed L.N.59/1971.)

Miscellaneous materials and construction.

35. (1) Subject to this Regulation, Chapter 9 of the South African Standard Building Regulations shall apply to all buildings to which these Regulations apply.

(2) If the local authority considers that a certain area is exposed to strong or continuous winds, it may require the minimum roof pitches laid down by this Regulation to be increased by 5 degrees.

(3) Regulation 14(3)(e) of the South African Standard Building Regulations shall be deemed to have been amended as follows —

(a) substitute “17½ degrees” for “25 degrees” and “12½ degrees” for “20 degrees”; and

(b) omit the footnote (1).

(4) The footnotes (1) and (2) to Regulation 15, of such Regulations shall be omitted.

(5) Regulations 16(2)(a) and 17(2)(b) of such Regulations shall not apply to sheets laid in a single continuous length across the entire roof span which are —

(a) fixed without perforation of such sheets; and

(b) laid to a fall of not less than 30 millimetres in 2 metres.

(6) The footnote (4) to Regulation 22 of such Regulations shall be deemed to refer to Part VII of these Regulations.

(7) All footnotes which refer to Regulation 14(3)(e) of such Regulations shall be omitted.

High chimneys.

36. Regulation 4 of Chapter 15 of the South African Standard Building Regulations shall apply in respect of every chimney which has a height greater than six times its least lateral dimension at its base.

Masts, aerial poles and flagpoles.

37. Regulation 6 of Chapter 15 of the South African Standard Building Regulations shall apply and in Regulation 6(b)(iv) thereof reference to Regulation 9(iii) and (iv) shall be read as a reference to Regulation 38(3)(c) and (d) of these Regulations.

Encroachments.

38. (1) In this Regulation —

“encroachment” has the same meaning as in Regulation 24 but shall not include foundations.

(2) An encroachment shall be so constructed that its presence is not essential to the structural stability of the building to which it is attached.

(3) An encroachment shall —

- (a) not be supported by encroaching columns;
- (b) be constructed of non-combustible material or be provided with protection having a fire resistance rating of not less than half an hour;
- (c) subject to Regulation 90 be not less than 3 metres above the level of the footway, measured to the underside of the lowest portion;
- (d) be at every point at least 300 millimetres back from the vertical line through the edge of the kerb; and
- (e) provide for disposal of rain water in accordance with Regulation 119.

PART IV

LIGHTING AND VENTILATION

Interpretation.

39. In this Part, unless the context otherwise requires —

“court” means an unobstructed open space enclosed on three or more sides by walls of one or more buildings on the same plot, and if a wall of a building extends to a plot boundary which forms a party boundary with an adjacent plot, that plot boundary shall also be regarded as a wall of a building on the same plot, but any portion of a plot boundary which lies in front of a building

line to a street frontage, as provided in any Regulation or bye-laws made under any law, may be disregarded;

“floor area” means the plan area of a room measured between internal finished wall surfaces;

“natural ventilation” means ventilation by natural means requiring no machinery;

“ventilation opening” means a part of a window which is capable of being opened, or a hinged panel, adjustable louver or other means of ventilation which opens directly to the external air, but does not include air-bricks or any opening associated with a machine operated systems;

“wall” means a wall containing a window or ventilation opening in respect of which a calculation under this Part is made, and includes, if the window is in —

- (a) two walls at the corner of a room, either one of those walls, or a plane joining the vertical extremities of the window opening; and
- (b) a curved wall, a plane joining the vertical extremities of such window,

“top of the wall” means, if the —

- (a) building has a fiat roof, the underside of such roof; or
- (b) building has a pitched roof, the lowest part of its eaves; or
- (c) roof, whether flat or pitched, has a parapet, the top of such parapet;

“window” includes a glazed opening in an internal wall of a building, but does not include glass blocks;

“lower level of window” means the lowest level of glass in a window or 750 millimetres above the floor of the room containing such window, whichever is the higher;

“upper level of window” means the highest level of glass in a window; and,

“window height” means the height from the lower level of window to the upper level of window.

Lighting of rooms.

40. In all buildings, but subject to Regulation 48 every habitable room, kitchen, bathroom, lavatory or garage used for any purpose other than for parking or storage alone, shall be provided with facilities for the entry of natural light from the open air so as to comply with these Regulations.

Lighting of habitable rooms.

41. (1) Subject to paragraph (2), the facilities for the entry of natural light to a habitable room shall consist of a window or windows of which the glazed area shall be at least 10 per centum of the floor area of the room.

(2) If the entry of natural light is through an enclosed or covered balcony or verandah the area available for the entry of natural light from —

- (a) the open air to such balcony or verandah shall be not less than 10 per centum of the combined areas of the room and such balcony or verandah, and
- (b) such balcony or verandah to the room shall be not less than 10 per centum of the combined areas of the room and such balcony or verandah.

(3) If part of a habitable room in a dwelling is used as a kitchen there shall be a glazed area of not less than 0.372 square metres in addition to the facilities for the entry of natural light to the habitable room stipulated in paragraph (1).

Lighting of kitchens.

42. The facilities for the entry of natural light to a kitchen shall consist of a window or windows of which the glazed area shall be at least 15 per centum of the floor area of such kitchen.

Lighting of bathrooms and lavatories.

43. The facilities for the entry of natural light to a bathroom or lavatory shall consist of a window or windows of which the glazed area shall be at least 10 per centum of the floor area of such bathroom or lavatory.

Lighting of garages.

44. The facilities for the entry of natural light to a garage used, or intended to be used, for any purpose other than parking or storage shall be as for habitable rooms.

Glazed areas and glazing.

45. (1) Only windows or portions of windows which are situated above the level of 750 millimetres above the floor of a room shall be considered in the provision of minimum glazed areas in Regulations 41, 42, 43 and 44.

(2) If any material other than clear white glass is used in the required minimum glazed areas, the day-lighting of the room shall be at least as good as that obtained with clear white glass, and the area of glazing of such material shall be increased where necessary, to achieve that result.

Lighting of alcoves.

46. In a room having windows required under Regulations 41, 42, 43 and 44, the sum of the floor areas which are not directly visible from at least one of the required windows shall not exceed 10 per centum of the total floor area of such room.

Room depth.

47. No part of a habitable room or kitchen shall be further from a window required by these Regulations than the distance, measured perpendicularly to the plane of such window as set out in the table below —

<i>Area of glazing as percentage of floor area</i>	<i>Maximum permitted depth of room from window</i>
10	2.0H
15	2.5H
20	3.0H
25	3.5H

(where "H" is the height of the upper level of the window above the floor level of the room; intermediate values of glazing areas and permitted depths may be found by linear interpolation.)

Artificial lighting. (Second Schedule)

48. (1) The local authority may, on application, permit artificial lighting to be used together with or instead of the required natural lighting in rooms where the provision of windows may in its opinion be reduced or excluded, taking into account the intended use of such rooms.

(2) The local authority may require artificial lighting to be provided to augment the required lighting in any case where in spite of compliance with this Part, the natural lighting of a room is, in the opinion of the Medical Officer of Health inadequate.

(3) All non-habitable rooms, other than kitchens, bathrooms or lavatories and all corridors, stairways and the like shall be provided with artificial lighting or shall otherwise be provided with direct or borrowed natural light to the satisfaction of the local authority.

(4) "Minimum illumination standards" are set out in the Second Schedule for the guidance of administering officers.

Open space outside windows of habitable rooms and kitchens.

49. (1) If a habitable room or kitchen has one window only, there shall be a minimum zone of open space outside such window so as to leave adjacent to such window an upright shaft of space wholly open to the sky, with the exception of any projection permitted by paragraph (4), the base of such shaft being formed by a plane inclined upwards at an angle of 30 degrees to the horizontal from the wall at the lower level of window and its sides coinciding with the following four vertical planes —

- (a) an outer plane which is parallel to such wall and which —
 - (i) is at a distance from such wall of 3 metres or such distance as may be required by paragraph (5), or, subject to a limit of 15,25 metres one half of the distance between the upper level of window and the top of the wall containing the window, whichever is the greatest;
 - (ii) has a width equal to its required distance from the wall; and
 - (iii) is so located that some part of it is directly opposite such window; and
- (b) an inner plane which coincides with the external surface of such wall and which —

- (i) has a width such that the product of that width and the window height equals not less than 10 per centum of the floor area of the room containing such window; and
 - (ii) is located wholly between the sides of such window or, if it is required to be wider than such window, is so located that it extends across the whole width of such window, and overlaps it on either or both sides; and
 - (c) two lateral planes joining the corresponding extremities of the inner and outer planes.
- (2) If such habitable room or kitchen has two or more windows, there shall be either —
 - (a) a zone of open space outside any one window which complies with paragraph (1); or
 - (b) zones of open space outside two or more such windows, in each case complying with paragraph (1), except that the width of the inner planes shall be such that the total of the products of the width of each inner plane and the corresponding window height equals not less than 10 per centum of the floor area of such room.
- (3) Any zone of open space required by these Regulations shall be wholly —
 - (a) unobstructed by rising ground or by a building (with the exception of any projection permitted by paragraph (4)); and
 - (b) over—
 - (i) land exclusively belonging to the building containing the window;
 - (ii) the portion of any street, canal or river adjacent to such building or such land, but only to the centreline thereof;
 - (iii) land which under Regulation 50 may be treated as available for the purposes of this sub-paragraph; or
 - (iv) over any such land and any such portion of such street, canal or river.
- (4) The following projections shall be permitted in front of the inner plane described in paragraph (1)(b) —
 - (a) the structure of the window if it is a bay window or oriel window;
 - (b) a conservatory on the same storey as such window;
 - (c) a verandah or other similar projection which is on the same storey as such window and either has a roof of glass or other translucent material or projects not more than 1,5 metres horizontally in front of the inner plane; or
 - (d) any projection above the upper window level extending not more than 1,5 metres horizontally in front of the inner plane.
- (5) If any projection permitted by paragraph (4)(d) extends more than 600 millimetres in front of the inner plane, the minimum distance between the outer and inner planes specified in paragraph (1)(a)(i) shall be increased by the amount in excess of 600 millimetres by which such projection extends horizontally in front of the inner plane:

Provided that this Regulation shall not affect the calculation of the width of the outer plane specified in paragraph (1)(a)(i).

Shared land on housing estates.

50. For the purpose of Regulation 49(3)(b) (which specifies the land over which the zone of open space shall be located), if —

- (a) there is any land laid out and developed as an estate with defined boundaries;
- (b) buildings containing habitable rooms or kitchens are erected or intended to be erected on such land; and,
- (c) any arrangements by contract or otherwise are made by the developer which will ensure that defined land within such estate will be used in common by the occupants of such building as of right for the purposes of amenity;

part of such land so used in common (other than land over which the minimum of open space relevant to a window in any other building on such estate is located) may be treated as available in respect of a window in any building on such estate.

Preservation of zones of open space.

51. (1) Subject to paragraph (2) no building shall be so altered or extended as to cause the zone of open space outside the windows of a habitable room or kitchen in such building to contravene Regulation 49 or, if it does not already comply with such Regulation, to cause greater non-compliance with it.

(2) Notwithstanding paragraph (i) a dwelling erected under former control may be altered or extended at the rear by the addition of a kitchen, wash-house, lavatory or bathroom, if there is an area of open space of not less than 19 square metres at ground level which is adjacent to the part of the dwelling so altered or extended and exclusively belonging to such dwelling.

(3) No building shall be so constructed as to cause the zone of open space outside a window of a habitable room or kitchen in another building to be diminished so as to contravene Regulation 49 or, if the existing zone of open space already contravenes such Regulation, to cause the zone of open space to contravene it to any greater extent.

Planning limitations.

52. Regulations 49, 50 and 51 shall be subject to the requirements of any scheme or plan in force relating to town planning.

Ventilation of habitable rooms.

53. (1) Subject to paragraph (2), or unless it is adequately ventilated by mechanical means in accordance with these Regulations, every habitable room shall have one or more ventilation openings so constructed that if such openings are provided in —

- (a) one wall only, the total area of such openings shall not be less than 10 per centum of the floor area of such room, and in any event not less than 1,2 square metres
- (b) two or more walls, subject to sub-paragraph (c) —

- (i) the total area of such openings shall not be less than 7½ per centum of the floor area of such room; and
 - (ii) the openings in each wall shall be at least one third of the minimum permitted total area of such openings; and
 - (c) two walls which meet the middle of each opening shall be at least half the length of the wall in which it is located from the corner where the two walls meet.
- (2) Some part of such ventilation openings in each wall shall be not less than 1,75 metres above the floor level.
- (3) If the ventilation to a habitable room is through an enclosed or covered balcony, verandah, conservatory or similar structure the area of ventilation openings —
- (a) from the outside air to such balcony, verandah or conservatory shall be calculated from the combined floor areas of such habitable room and such balcony, verandah or conservatory; and
 - (b) between such balcony, verandah or conservatory and such habitable room shall be calculated from the combined floor areas of such habitable room and such balcony, verandah or conservatory.
- (4) If part of a habitable room in a dwelling is used as a kitchen, that part of the room shall be provided with ventilation openings in compliance with Regulation 54.

Ventilation of kitchens.

54. (1) Unless it is adequately ventilated by mechanical means in accordance with these Regulations, every kitchen shall have one or more ventilation openings so constructed that if such openings are provided in —
- (a) one wall only, the total area of such openings shall not be less than 15 per centum of the floor area of such kitchen;
 - (b) in two or more walls, subject to sub-paragraph (c) —
 - (i) the total area of such openings shall not be less than 10 per centum of the floor area of such kitchen; and
 - (ii) the openings in each wall shall be at least one third of the minimum permitted area; and
 - (c) two walls that meet the middle of each opening shall be at least half the length of the wall in which it is located from the corner where the two walls meet.
- (2) Some part of such ventilation openings in each wall shall not be less than 1,75 metres above the floor level.

Doors as ventilation openings.

55. For the purposes of Regulations 53 and 54 a door which opens directly to the external air is deemed to be a ventilation opening if the room contains one or more ventilation openings having a total area of not less than 9680 square millimetres in addition to such door.

Ventilation of rooms over 46,5 square metres in area.

56. In the case of habitable rooms or kitchens having a floor area exceeding 46,5 square metres the local authority may permit ventilation openings other than skylights, in roofs of the monitor, saw-tooth or similar type, in lieu of part of the required ventilation openings in walls, of an area not exceeding 50 per centum of the required openings.

Ventilation in rooms containing screens and partitions.

57. (1) If a habitable room which complies with Regulation 53 is subdivided by means of screens or partitions which do not exceed 1,75 metres in height, no allowance need be made for such subdivisions in determining the position of ventilation openings for such room.

(2) If subdivisions of a habitable room are formed by screens or partitions which exceed 1,75 metres in height, each such subdivision shall be ventilated as if it were a separate habitable room.

Ventilation of bathrooms and lavatories.

58. (1) Unless adequately ventilated by mechanical means in accordance with these Regulations, a bathroom, lavatory or room containing any form of sanitary convenience shall have one or more ventilation openings so constructed that —

- (a) the total area of such openings is not less than 5 per centum of the floor area of such room, and in any event not less than 0,2 square metres and
- (b) some part of such ventilation opening is not less than 1,75 metres above floor level.

(2) No room containing sanitary accommodation shall open directly into —

- (a) a habitable room unless such room is used solely for sleeping or dressing purposes and alternative sanitary accommodation is available without passing through such sleeping or dressing room;
- (b) a kitchen; or
- (c) a room in which any person is habitually employed in manufacture, trade or business.

Ventilation of food stores.

59. (1) A storage room which is used or intended to be used for storing food, other than food in unopened sealed containers, shall have ventilation to the open air.

(2) Ventilation shall consist of top ventilation, the highest part of which is not more than 450 millimetres below the ceiling level and not less than 16775 square millimetres in area, and other ventilation not less than 16775 square millimetres in area and the lower side of which is not more than 300 millimetres above floor level.

(3) Such ventilation openings shall be covered with fly screens.

Courts.

60. (1) No ventilation opening constructed in compliance with the requirements of this Part shall be so situated as to open onto a court enclosed on every side, unless the distance from such ventilation opening to the opposite wall of such court is either —

- (a) 15,25 metres or more; or
- (b) not less than half the vertical distance between the top of such opening and the top of the wall containing such opening.

(2) No ventilation opening constructed in compliance with the requirements of this Part shall be so situated as to open onto a court which has one side unobstructed by any building or other erection, and of which the length, measured from such unobstructed side, exceeds twice the width, unless such ventilation opening is —

- (a) in the side of the court opposite such unobstructed side;
- (b) (if it is situated in either of the long sides) within a distance from such unobstructed side not exceeding twice the width of such court; or
- (c) (if it is situated in either of the long sides) in such a position that the distance from the opening to the opposite wall of such court is either —
 - (i) 15,25 metres or more; or
 - (ii) not less than half the vertical distance between the top of such opening and the top of the wall containing such opening.

(3) Notwithstanding paragraphs (1) and (2) a ventilation opening onto a room other than a habitable room or kitchen may be so situated as to open onto a court which has a minimum horizontal dimension of 1,5 metres and a maximum vertical dimension of 16,75 metres from the topside of the ventilation opening and has a passage or opening at the level of the bottom of such court communicating directly with the open air outside such court, and such passage or opening shall be not less than 760 millimetres wide and not less than 2 metres high, measured clear of any obstruction, and the required area of opening shall be permanently open and unobstructed.

Ventilation of common stairways and corridors.

61. Any part of a stairway or corridor which is —

- (a) intended for common use within any building constructed for occupation as separate dwellings by more than one family;
- (b) above the ground storey; and
- (c) not open to the external air;

shall be ventilated to the satisfaction of the Medical Officer of Health.

Measurement of area of required ventilation openings.

62. In computing the area of ventilation openings in the walls of a room, the following provisions shall apply —

- (a) the area shall be measured in the plane of the wall;
- (b) if the passage of air through a required ventilation opening is obstructed by movable hinged panels, louvers or openable parts of window which, when fully opened form an angle of less than 30° between the plane of the obstructing surface and the plane of the wall, only half the area of such opening shall be considered as area of ventilation openings for the room concerned;

- (c) if ventilation openings are covered by wire gauze used as mosquito or fly screening, the ventilation area shall be taken as two-fifths of the net area of the openings obstructed by gauze excluding frames.

Contamination of air.

63. (1) If conditions of high temperature may be created, or if steam, gases, vapour, dust, or other impurities in the air may be produced, which may be injurious to health, all rooms or local areas within rooms affected by these conditions shall be provided with ventilation additional to that required under Regulations 53 and 54 to the satisfaction of the Medical Officer of Health in such manner as to prevent harm to any person whether within or outside such room.

(2) If noxious gases, vapours, or dust are produced, provision shall be made to extract them from the rooms or areas concerned.

Heating appliances.

64. Every open fire and heat generating appliance producing smoke or other noxious gases shall be provided with a flue or mechanical exhaust system which complies with Part VII.

Lifts.

65. (1) Each passenger lift car shall be provided with permanent open ventilators with a total area not less than 4 per centum of the area of the car floor, and at least half of this area shall be either in, or not more than 150 millimetres below the car roof.

(2) If, however, air is extracted by mechanical ventilation from such car, the area of permanent ventilation shall not be less than 2 per centum of the area of such car floor.

Requirements for mechanical ventilation.

66. (1) If it is proposed to provide mechanical ventilation to any building or part thereof, details of such ventilation system shall be set out in working drawings and shall be submitted to the local authority for its approval.

(2) Such details shall include the maximum quantity of outside air per minute which such mechanical ventilation system can supply continuously to all the rooms to be supplied with air, together with the number of persons for whose simultaneous use such rooms are intended.

(3) All mechanical parts of ducts and machinery associated with a mechanical ventilation system shall be electrically bonded to earth.

(4) A system providing mechanical ventilation in a building shall be maintained in working order so as to deliver the quantity of air required by paragraph (5).

(5) A mechanical ventilation system shall supply fresh air in a quantity and at a rate of at least 0,45 cubic metre per minute per person for whose accommodation each room so ventilated is intended, or 0,01 cubic metre per minute per square metre of floor area of each such room, whichever is the greater quantity, but in no case shall the quantity of air supplied to each room be less than 2,85 cubic metre per minute.

(6) Quantities of air mechanically supplied or extracted from a room or building shall be measured in or at the openings to the ducts conveying such air.

(7) The size and position of the ventilation openings in walls of rooms ventilated by mechanical ventilation systems shall be such that —

- (a) if air is being supplied by a mechanical ventilation system its velocity, as measured with a silver catheter-thermometer or other approved apparatus at six different points selected at random, being not less than 1,20 metres from the ventilation openings and at heights varying from 750 millimetres to 2,10 metres above the floor, shall be not less than 9,15 metres per minute, and not greater than 36,6 metres per minute;
- (b) no portion of an air-intake opening outside a building shall be at a height less than 1 metre above the outside ground level unless otherwise permitted by the local authority; and
- (c) the position of all air-intake openings and of all discharge points shall be subject to the approval of the local authority, having regard to the possibility of any source of contamination which may be adjacent to air-intake openings or which may be caused by any discharge points.

(8) If air is re-circulated in a mechanical ventilation system, the following provisions shall apply —

- (a) fresh air shall be added to the recirculated air at a rate not less than that required by paragraph (5);
- (b) recirculation of air in a factory, workshop, laboratory or room shall be permitted only if the local authority is satisfied that the recirculated air is so free from bacteria, dust, fumes, vapours, mists or gases as to be harmless to the occupants of such factory, workshop, laboratory or room;
- (c) air shall not be recirculated from passageways, staircases, kitchens, lavatories, bathrooms, rooms containing a sanitary convenience, lobbies or garages, but if passageways are designed as return airways, air from them may be recirculated; and
- (d) no air shall be recirculated which has been extracted from hospital operating theatres or from any room in an infectious diseases hospital.

(9) If a room containing one or more sanitary conveniences is ventilated by a mechanical ventilation system, at least 0,07 cubic metres of air per minute per square metre of floor area of the room shall be extracted by such ventilation system.

Fire protection.

67. In the event of any conflict between this Part and Part VII (relating to the ventilation of certain specified occupancies) the latter shall prevail.

PART V

SITING OF BUILDINGS, ACCESS, AND ACCOMMODATION

Protection against harmful matter and flooding.

68. (1) No building shall be constructed on ground which has been filled up with any matter impregnated with faecal, animal, or other harmful or offensive matter, or upon which such matter has been deposited, unless such matter has been properly removed by excavation

or otherwise, or has been rendered or has become, in the opinion of the engineer, suitable for such building.

(2) No building shall be constructed on ground on which flood water or ground water is lying or is liable to lie so as to cause harmful effects to such building or any of its occupants, unless adequate provision is made to the satisfaction of the engineer for the removal thereof.

(3) The ground area to be covered by a building shall be effectively cleared of turf and any other vegetable matter.

(4) If the dampness or position of any area to be covered by a building renders it necessary, the subsoil of such area shall be effectively drained or other steps shall be taken to the satisfaction of the engineer, to effectively protect the building against damage from moisture.

Damage to drains.

69. If, during the making of an excavation in connection with a building or works and fittings, an existing subsoil drain is severed, adequate precautions shall be taken to secure the continued passage of subsoil water through such drain or otherwise to ensure that no subsoil water entering such drain causes dampness of the site of such building.

Siting of pit latrines, aqua privies, septic tank etc.

70. (1) No lavatory accommodation, pit latrine, aqua privy, septic tank, conserving tank, private sewage treatment plant or soakaway from any of the foregoing shall be constructed within 30,5 metres of any source from which water is, or is likely to be, obtained, unless the engineer in consultation with the Medical Officer of Health approves a lesser distance.

(2) No room containing an earth closet or pail closet, or which contains a sanitary fitting discharging into or over a pit or aqua privy shall be less than —

(a) 4,5 metres from another building or room on the plot; and

(b) 3 metres from any boundary of the plot, other than a rear boundary, or on a side boundary if such room forms part of a semi-detached building comprising a similar building.

Access to buildings.

71. (1) A dwelling which contains more than three habitable rooms shall be provided with at least two entrances.

(2) A building shall not be constructed on any plot which does not have proper and sufficient access to a public highway to the satisfaction of the local authority.

Access to open spaces and courts.

72. (1) Every open space and court abutting a building and belonging exclusively thereto shall be provided with access from such building or from a public place.

(2) Every such access shall be at least 750 millimetres in width and 2 metres in height.

Paving of and gates to passages.

73. The local authority may by written notice call upon the owner of any plot on which there may be a passage between the buildings or between buildings and plot boundaries to surface and pave such passage or part thereof to its satisfaction, and if the entrance to such passage is from a street, to close off such entrance by gates or otherwise to its satisfaction within a period of time specified in such notice.

Paving of yards.

74. Upon the advice of the Medical Officer of Health, the local authority may by written notice require the owner of any plot to pave and drain any open space therein with material impervious to water to the satisfaction of the Medical Officer of Health.

Floor level.

75. Except where Regulation 4(2) of Chapter 9 of the South African Standard Building Regulations is complied with, the level of the floor of the ground storey of a building shall be not less than 150 millimetres above the highest point of the ground on which the building stands.

Accommodation to be provided in certain classes of buildings.

76. (1) A dwelling shall consist of at least one habitable room, and shall also be provided with a kitchen and one or more rooms containing ablutionary and latrine facilities for the exclusive use of the occupants of such dwelling.

(2) A building in Class A or B, other than a dwelling, shall be provided with a kitchen and one or more rooms containing ablutionary and latrine facilities as required by Regulation 98 for the use of the persons accommodated or intended to be accommodated in such building.

(3) A building in Class C, D, E or F shall be provided with one or more rooms containing ablutionary and latrine facilities as required by Regulation 98.

(4) No room used or intended to be used for habitable purposes or as a kitchen shall be used as a lavatory.

(5) A kitchen or room containing ablutionary and latrine facilities referred to in paragraphs (1)(2) and (3) may be in separate buildings on the same plot.

Minimum areas of habitable rooms.

77. (1) If a dwelling contains only one habitable room, the area of such habitable room shall not be less than 11,15 square metres

(2) If a dwelling contains more than one habitable room, the area of at least one such habitable room shall not be less than 11,15 square metres and the area of any other habitable room shall not be less than 7,5 square metres

(3) A habitable room used or intended to be used for sleeping in a building in Class A or Class B shall have an area of not less than 4 square metres for each adult by whom it is intended to be occupied.

(4) For the purpose of paragraph (3) every person over the age of ten years shall be regarded as an adult, and every two persons below such age shall be regarded as an adult.

(5) A habitable room in a building in Class B, C, D, E or F shall have an area of not less than 8 square metres.

(6) The minimum horizontal dimension of a habitable room shall be 2,15 metres except in respect of an alcove, bay window or other recess.

(7) No portion of a habitable room less than 2,15 metres in width shall be included in the calculation of the minimum area:

Provided that built-in storage as defined in paragraph 5 of the Second Schedule to the Act may be disregarded for the purposes of this paragraph.

Minimum areas of kitchens.

78. (1) A room, or part of a room, intended to be used exclusively as a kitchen shall have an area of not less than 4 square metres.

(2) The minimum horizontal dimension of a kitchen shall be 1,55 metres except in respect of an alcove, bay window or other recess.

(3) No portion of a kitchen less than 1,55 metres in width shall be included in the calculation of the minimum area:

Provided that built-in storage as defined in paragraph 5 of the Second Schedule to the Act may be disregarded for the purposes of this paragraph.

(4) If a kitchen forms part of a habitable room the minimum area prescribed by this Regulation shall be additional to the minimum areas prescribed by Regulation 77.

Height of habitable rooms and kitchens.

79. Every habitable room and kitchen shall have an average height of not less than 2,5 metres and no part of such room shall be less than 2,06 metres in height:

Provided that if the area of a room exceeds 28 square metres such average height shall be not less than 2,75 metres.

Other rooms deemed to be habitable rooms.

80. Every room, lobby hall or vestibule in a dwelling which exceeds 7,5 square metres in area, other than a room used or intended to be used as a kitchen, ablution room or lavatory, shall be deemed to be a habitable room and shall conform to any Regulation pertaining to a habitable room.

Area of ablution rooms and lavatories.

81. (1) A room used or intended to be used as an ablution room and in which a soil water fitting is not provided and is not intended to be provided, shall have an area of not less than 1,4 square metres and its minimum horizontal dimension shall be 1 metre.

(2) A room used or intended to be used as an ablution room and in which a soil water fitting is provided or is intended to be provided, shall have an area of not less than 1,85 square metres and its minimum horizontal dimension shall be 1 metre.

(3) Every room used or intended to be used exclusively as a lavatory shall have an area of not less than 1 square metre and its minimum horizontal dimension shall be 750 millimetres.

Height of ablution rooms and lavatories.

82. A room used or intended to be used as an ablution room or as a lavatory shall have an average height of not less than 2,3 metres and no part of such room shall be less than 2,06 metres in height.

Stairways.

83. (1) A building with a floor more than 1 metre above or 1 metre below the adjacent ground paving level shall have a stairway connecting the floor and the ground or paving level at every point of access between the two levels.

(2) A stairway shall be constructed in conformity with Part VII (Fire Protection).

(3) A stairway, other than a stairway forming a component of an exitway required in Part VII shall be so constructed that over the whole width of such stairway there is —

(a) headroom of not less than 2 metres measured vertically from the pitch line; and

(b) a clearance of not less than 1,5 metres measured at right angles to the pitch line.

Passageways and corridors.

84. A passageway or corridor, other than a passageway or corridor forming a component of an exitway required in Part VII, shall have a minimum width of 1 metre and a minimum height of 2,15 metres.

Parapets and balustrades.

85. (1) Any balcony, platform, roof or other external area to which any person habitually has access from a building for any purpose other than maintenance or repair, and which is above the uppermost level of the ground storey of the building, shall have a balustrade, parapet or railing, not less than 1,1 metre in height, and of an extent, construction and material which will afford reasonable safety for a person using such balcony, platform, roof or other external area.

(2) No balustrade, parapet screen or railing referred to in paragraph (1) or elsewhere in these Regulations shall be so constructed as to permit the passage through it of a sphere 90 millimetres in diameter.

Lifts.

86. (1) A building which exceeds three storeys in height above the ground floor level shall be provided with a passenger lift or lifts.

(2) A building which exceeds four storeys in height above the ground floor level, or which exceeds three storeys in height above the ground level in which the area of the fourth storey exceeds 557 square metres shall be provided with a service lift or lifts in addition to a passenger lift or lifts.

(3) A lift and all the machinery and mechanism connected therewith shall be installed and maintained in accordance with the Mines, Works and Machinery Act, No. 61 of 1960.

(4) The provision of a lift shall not excuse failure to provide a stairway or exit way under this Part or Part VII.

(5) The owner of a building in which a lift is installed or has been installed, shall maintain such lift in satisfactory working order and in use at all reasonable times.

(6) A clear space of not less than 1 metre shall be provided between the bottom of the lift shaft and the underside of the lift cage floor or fittings when such lift cage is at the lowest landing, and between the top of the crosshead and the underside or any overhead grating or roof of such lift shaft when such cage is at the top landing, and for a lift of greater speed than 106 metres per minute the clearance space shall be increased in each case to 1,5 metres.

(7) In a building containing lifts or elevators, the openings thereof on any floor shall be protected by sufficient gates or doors which shall be kept closed at all times except when in actual use and such gates or doors shall be so constructed that they can only be opened when the lift cage is stationary at such floor.

Escalators.

87. (1) The provision of an escalator shall not excuse failure to provide any stairway or exit way required under this Part or Part VII.

(2) The installation of an escalator in any building shall be subject to the approval of the local authority.

Ramps.

88. (1) A ramp forming a component of a required exitway to a building shall conform with Part VII.

(2) A ramp may be used in substitution for a stairway passageway or required exitway where it conforms to any Regulation in respect of width, height and guarding of such stairway, passageway or exitway.

(3) A ramp for the use of pedestrians or motor vehicles shall be so constructed that —

(a) the maximum gradient of such ramp does not exceed a rise of 300 millimetres in 2,15 metres;

(b) the surface of such ramp is constructed of non-skid material or finish approved by the local authority;

(c) if such ramp is used in a building for the transfer of motor vehicles from one floor to another, it meets the ground level at a distance of not less than 6 metres from any exit from the building to a street or open space surrounding such building; and

(d) if the ramp is intended to be used by both motor vehicles and pedestrians it shall have —

(i) a width between enclosing walls of not less than 3,53 metres and

(ii) a raised walkway not less than 150 millimetres high and not less than 1 metre wide on at least one side of that portion of the ramp which is to be used by motor vehicles.

Stables.

89. (1) The height from the floor to the lowest part of the roof or ceiling of a stable shall not be less than 2,75 metres for horses, cattle and similar-sized animals to be accommodated, or not less than 1,5 metres for the accommodation of pigs, sheep, goats and similar-sized animals.

(2) A stable shall have an area of not less than 2,8 square metres and a volume of air space of not less than 5,8 cubic metres for each horse, cow or similar-sized animal to be accommodated, or an area not less than 2 square metres and a volume of air space not less than 3 cubic metres for each pig, sheep, goat or similar-sized animals.

(3) The finishes to the floors and internal surface of the walls of every stable shall be smooth and impervious to water, and shall be laid to fall to a stable gully with a slope of not less than 30 millimetres in 1,5 metres.

(4) A stable, the area of which exceeds 42 square metres shall be provided with at least two doors, each of a minimum width of 1,25 metres opening to the external air and situated at or adjacent to the opposite ends of the stable.

(5) Each door shall be easily accessible to an animal in any part of the stable, and any intermediate doors or gates and passages shall be so arranged to facilitate ease of access.

(6) A stable shall be lit and ventilated by means of openings directly to the external air to the satisfaction of the Medical Officer of Health.

(7) A stable shall conform with Regulation 125.

Buildings at corners of streets.

90. If the building line is splayed at a street corner, a building shall not project beyond such splay unless permitted by the local authority, and then not further than the continuation of the unsplayed building lines and not nearer than 450 millimetres to a vertical line through the kerb or edge of the roadway, but in such a case a clear height of not less than 3,2 metres shall be maintained under the projecting portion.

Swimming baths.

91. Any person who constructs a swimming bath, other than a children's paddling pool or other pool designed not to contain water more than 1 metre in depth, shall comply with Regulation 24 of Chapter 15 of the Standard Building Regulations of South Africa.

Proportion of plot which may be built over.

92. In any area where no other provision has been made under any law relating to planning, a building wholly or partly in Class A or Class B may not be constructed or extended unless the total area of open space on the plot is not less than two-thirds of the total area of such plot.

Building lines.

93. In any area where no other provision has been made under any law relating to planning, the following provisions shall apply —

- (a) a building, other than a building in Class C, shall not be constructed so that any part of such building, other than a roof overhang not exceeding 1,2 metres is within —
- (i) 4,5 metres of any boundary fronting on to a street; and
 - (ii) 3 metres of any boundary not fronting on to a street;
- except where the local authority expressly permits the construction of terraced, flatted or semi-detached type of development in Class A in which case such building shall be sited in relation to party boundaries as required by such local authority and all party walls shall be of non-combustible construction and without openings of any description;
- (b) a building in Class C shall be constructed on the street frontage of the plot, except where the local authority in special circumstances expressly agrees otherwise; and,
- (c) a building in Class C shall not be constructed so that any part of such building is within 5 metres of the rear boundary of the plot, or 3 metres of a side boundary thereof, except where —
- (i) the rear or side boundary fronts on to a street in which case paragraph (b) shall apply; or
 - (ii) in the case of side boundaries, the local authority requires the building to be constructed up to such side boundary without any intervening space along the boundary fronting onto a street, in which case the side wall shall be of non-combustible material and without any openings of any description.

Height of building.

94. In any area where no other provision has been made under any law relating to planning, no building shall exceed in height the width of the street onto which it fronts, and if a building fronts on to two or more streets the permitted height of such building shall not exceed the width of the widest of such streets.

Zoning of areas.

95. In any area where no other provision has been made under any law relating to planning, the local authority may, with the prior approval of the Town Planning Board, declare any area to be reserved for a particular purpose whereupon no building shall be constructed or change of use permitted in any such area in contravention of such declaration, except with the approval of such Board.

PART VI

DRAINAGE AND SEWERAGE

Interpretation.

96. In this Part, unless the context otherwise requires —

“anti-siphon pipe” means a pipe provided in a conjunction with a trap in a sanitary fitting to prevent unsealing of such trap by siphonage, or back pressure;

“business building” means a building in Classes C, E and F;

“institutional building” means a building in Class B;

“junction” means a pipe junction for the purpose of receiving a private drain or private sewer or a connection from such drain or sewer;

“one-pipe system” means the system of piping between sanitary fittings and a private sewer, in which both waste and soil water are permitted to flow down a common stack;

“plumbing system” means a system for the conveyance of the water supply within the boundary of premises to the various sanitary fittings on those premises and for the conveyance of waste water, soil water, or other waste liquid to the private sewer or combined private sewer, as the case may be;

“plumbing work” means work in connection with the installation, alteration, repair, or maintenance of a plumbing system;

“public building” means a building in Class D;

“residential building” means a building in Class A;

“sewer connection” means that portion of a pipe which is provided to connect a private sewer or combined private sewer with a public sewer;

“sewerage work” means work in connection with the installation, maintenance, alteration, or repair of private sewers but shall not include work on sanitary fittings, stack pipes, rainwater pipes, or rainwater gutters;

“stack” means a vertical or inclined line of waste or soil piping or a combination of both and the branches connected thereto, which conveys the flow of liquid from waste or soil pipes to any gully trap, channel, or sewer, including any vent in connection therewith;

“trade, manufacturing, or industrial effluent” means waste liquid with or without particles of matter suspended therein, which is wholly or in part produced in the course of trade, manufacturing, or industrial operation;

“trade or industrial premises” means premises used or intended to be used for carrying on any trade, manufacture or industry; and,

“two-pipe system” means the system of piping between sanitary fittings and a private sewer or combined private sewer, in which separate stacks are used for waste and soil water, and in which waste pipes discharge over a trapped gully and are separately vented before entering a private or combined private sewer.

Disposal system.

97. (1) Subject to this Regulation a building shall be provided with an adequate and hygienic system for the disposal of sewage and surface and sub-soil water.

(2) If an adequate public water supply is available, every building shall be connected with such supply and provided with a plumbing system, and such number of sanitary fittings as may be required to comply with paragraph (1) and Regulation 98 discharging into —

- (a) a public sewer if it is available; or
- (b) if a public sewer is not available, a septic tank or other means of sewage disposal approved by the local authority.

(3) If a building is to be constructed, or an existing building is to be added to or altered in an area not served by a public sewer, but the future position and depth of such sewer has been decided, the owner may be required by the local authority to construct such building so that its connection to such sewer when it is laid may be facilitated.

(4) If —

- (a) an adequate public water supply is not available; or
- (b) it is not intended to comply with paragraph (1) by means of a private water supply; or
- (c) in the case of small buildings not required to connect with a public water supply;

any latrine required to be provided to comply with this Part shall consist of either —

- (d) an aqua privy;
- (e) chemical closet;
- (f) bucket latrine;
- (g) pit latrine; or
- (h) borehole latrine;

and the local authority may specify which alternative is permitted.

(5) For the purposes of this Regulation a public water supply or a public sewer shall be deemed to be available if it passes within 60 metres of the building.

Sanitary facilities to be provided.

98. (1) Subject to paragraph (2) every building shall be provided with sanitary facilities in accordance with the scales shown in Table 1 and, in addition, if —

- (a) a room, other than one in a dwelling, in which sanitary facilities are installed is intended for the use of more than one person at any one time, the use of such room shall be restricted to one sex only;
- (b) latrines or bathrooms are provided, other than in a dwelling, and each latrine or bathroom forms part of a room, the entrance to each latrine or bathroom shall be fitted with an opaque door capable of closing the door aperture to a height of not less than 2 metres except that a gap of not more than 100 millimetres may be left between the bottom of each door and the floor, unless the local authority in its discretion permits the omission of a door to the latrine or bathroom;
- (c) a bedroom is provided with its own sanitary facilities they shall not be taken into account when the number of facilities required to be installed by Table 1 is determined.

(2) If there is no adequate water supply available the provisions of paragraph (1) in respect of basins, baths and showers shall not apply, but ablution facilities including the disposal of waste water shall be provided to the satisfaction of the local authority.

(3) Table 1 contained in Regulation 25 of Chapter 12 of the South African Standard Building Regulations shall be deemed to be the "Table 1" referred to in paragraph (1), but "latrines" shall be substituted for "water closets" in such Table.

Application for permit to carry out sewerage or plumbing work.

99. (1) No person shall commence to construct, alter, add to, or reconstruct, a plumbing system or sewerage work without the written permission of the local authority, granted in accordance with Regulation 13.

(2) Permission shall not be required for the clearing of stoppages or the repairing of leaks in pipes and fittings.

Plans for sewerage and drainage work. (First Schedule)

100. (1) Any person intending to carry out sewerage or plumbing work shall make written application to the local authority in the form prescribed by the Minister which form shall be completed in every particular, and submitted together with such plans, particulars and fees as may be required to comply with Part II.

(2) Any person who desires to alter an approved plan shall submit the alterations he proposes to make to the local authority in writing for approval, giving a clear reference to the plans already approved and shall at the same time submit revised plans clearly setting out such alterations.

(3) If a person desires to add to, alter, or reconstruct an existing plumbing system or an existing private sewer and is able to refer to the original plans thereof lodged with the local authority, only that part of the plumbing system or sewer required by the local authority to enable it to check the position or details thereof, relative to the work proposed to be carried out need be shown on the plans in respect of such work.

Commencement of work.

101. No person who has obtained permission to carry out sewerage or plumbing work shall commence work until two clear days have elapsed after the date of receipt by the local authority of written notice in the form prescribed by and obtainable from the local authority of his intention to commence the work.

Disconnection and removal of soil-water fittings.

102. (1) If a soil-water fitting is removed, all pipes no longer needed shall be removed or all openings shall be effectively and durably sealed.

(2) The owner of the premises upon which the work is carried out shall forthwith after its completion notify the local authority thereof in writing.

(3) The local authority shall if it is satisfied that the work has been carried out in accordance with this Part issue a certificate to that effect, whereupon the charges, if any, levied in respect of the soil-water fitting shall cease to be payable as from the date of issue of such certificate.

Maintenance of private sewers and combined private sewers.

103. (1) The owner of premises shall efficiently maintain, repair, cleanse and keep clean the entire plumbing system and all private sewers on his premises up to but not including the sewer connection.

(2) The local authority may execute the work envisaged in paragraph (1) at the cost of the owner by agreement or, failing agreement, at the cost of such owner, but only after written notice to him under hand of the engineer specifying the work to be done and the time within which it should be completed and only if such owner has failed to comply with such notice.

(3) The cost of work done by the local authority in the removal of a stoppage in the sewer connection shall be paid to the local authority by the owner of the premises concerned.

(4) The local authority shall cleanse and keep clean, maintain and repair a combined private sewer, at the joint cost of the owners served thereby, in such proportions as the engineer may determine.

(5) Notwithstanding the preceding paragraphs, where the work referred to therein has been executed by the local authority and it is established by the engineer that such work was necessitated by the conduct of an occupier of premises, the cost thereof shall be borne by the occupier or occupiers in such proportions as the engineer may determine.

(6) If a stoppage or defect occurs in a private sewer or combined private sewer, the occupier of the premises served thereby shall give notice thereof to the local authority within twenty-four hours.

Sewers not to be used without permission.

104. No person shall put anything into, or cause or permit anything to be put into, or cause or permit anything to enter, any newly constructed sewer until the owner of the premises served by such sewer has received the written permission provided for in Regulation 126.

Protection of sewers.

105. Except with the written permission of the local authority under the hand of the engineer and subject to such conditions as it may impose no person shall discharge or put or cause or permit to be discharged or to be put into any sewer —

- (a) gas or steam;
- (b) liquid (other than domestic waste water), of a temperature higher than 45 degrees Celsius;
- (c) liquid which has a pH value of less than 6.5 or greater than 12.0;
- (d) anything which contains calcium carbide or any other substance whatsoever which is likely to emit explosive or offensive gases, fumes, or vapours;
- (e) anything which contains a substance which has an open flash point of less than 95 degrees Celsius;
- (f) anything containing any substance which, whether above or in combination with any other matter is likely to cause a nuisance to the public or injury or danger to the health of persons; or to cause injury or damage to the sewers or to any plant or land used for the treatment or disposal of sewage; or to affect

injuriously the re-use of treated sewage or of any of the processes whereby sewage is treated;

- (g) chemical refuse; or
- (h) any trade, manufacturing or industrial effluent.

Aqua privies.

106. If the local authority permits an aqua privy it shall be constructed to a design and capacity approved by the local authority, taking into account the number of persons it is intended to serve.

Chemical closets.

107. If the local authority permits a chemical closet, it shall —

- (a) be so designed and constructed that, without ventilation, it retains the sewerage, both solid and liquid, in an inoffensive manner;
- (b) be provided with a vent pipe if it is designed to have a vent;
- (c) consist of a sewerage container which is provided with handles or other means of carrying without spilling the contents;
- (d) be provided with an outer case to which shall be fixed a seat and cover; and
- (e) be constructed entirely of materials which are resistant to the corrosive action of sewage and chemicals employed in the closet.

Bucket latrines.

108. (1) A bucket latrine shall only be permitted by a local authority where it already provides a conservancy service, or it is not practicable or reasonable to require any other type of latrine accommodation to be provided.

(2) If a bucket latrine is permitted, the room containing it shall —

- (a) be provided with an aperture for removing such bucket and its contents, such aperture to be provided with a close fitting cover of wood or metal, top hung and painted;
- (b) be sited so that such bucket and its contents can be removed without passing through a building;
- (c) have a concrete floor with a fall of at least 13 millimetres to 300 millimetres towards such aperture;
- (d) be provided with a seat made of hardwood or plastic which is not supported by the bucket and which is hinged or capable of being lifted to facilitate cleaning the space below, and the aperture in the seat being fitted with a hinged cover;
- (e) have the seat, the aperture in such seat and the space beneath such seat of dimensions which will enable the bucket to be so placed and fitted beneath such seat as to prevent the deposit of faecal matter and urine elsewhere than in such bucket;
- (f) be supplied with a bucket by, or approved by the local authority;

- (g) be supplied with a receptacle for containing sand, dry earth or other approved material, and means for placing such material in the bucket; and
- (h) not have a water tap over such bucket.

Pit latrines and borehole latrines.

109. (1) If the local authority permits a pit latrine or borehole latrine —
- (a) each pit or borehole shall be covered with a reinforced concrete slab of a type approved by such local authority;
 - (b) the size of the hole in each slab shall not exceed 125 millimetres in width.
- (2) A pit latrine or borehole latrine shall not be used and the pit or borehole shall be filled with earth when the level of its contents rises to within 1 metre of the surrounding ground level.

Quality and design of sanitary fittings.

110. Regulations 26 to 31 inclusive and 33 of Chapter 12 of the South African Standard Building Regulations shall apply.

Pipes, traps and associated fittings.

111. (1) Regulations 34 to 48 inclusive of Chapter 12 of the South African Standard Building Regulations shall apply.
- (2) Pitch fibre pipes which comply with British or South African Standard Specifications shall be deemed to satisfy the requirements of Regulations 34 and 35 of such Regulations.

Sizes of pipes and sewers.

112. Regulations 49 to 54 inclusive of Chapter 12 of the South African Standard Building Regulations shall apply.

Ventilation of sewerage and sanitary fittings.

113. Regulations 55 to 68 inclusive of Chapter 12 of the South African Standard Building Regulations shall apply.

Construction and laying of private and combined sewers.

114. Regulations 69 to 75 inclusive of Chapter 12 of the South African Standard Building Regulations shall apply.

Location of gullies, grease traps and stable traps.

115. (1) Subject to paragraph (2), the Regulations 76 and 77 of Chapter 12 of the South African Standard Building Regulations shall apply.
- (2) The walls of a manhole which are constructed of sand/cement brickwork complying with SABS 527 shall be deemed to satisfy the requirements of Regulation 77 of such Regulations.

Construction and fixing of pipes.

116. (1) Subject to paragraph (2), the Regulations 78 to 84 inclusive of Chapter 12 of the South African Standard Building Regulations shall apply.

(2) Regulation 80 thereof shall not apply in respect of a dwelling, and Regulation 81 thereof shall apply to all dwellings.

Access to sewers.

117. Regulations 85 to 88 inclusive of Chapter 12 of the South African Standard Building Regulations shall apply.

Miscellaneous requirements.

118. Regulations 89 to 92 inclusive and 94 to 100 inclusive of Chapter 12 of the South African Standard Building Regulations shall apply.

Rainwater gutters and drainpipes.

119. A building shall have gutters and drainpipes installed and maintained by the owner in a manner and extent necessary to prevent discharge of rain water over any footway or sidewalk.

Discharge of stormwater from premises.

120. The owner of premises from which storm water is discharged shall, when called upon in writing by the local authority, construct channels or conduits or lay pipes to conduct storm water to such channel, conduit or pipe vested in or under control of such local authority as it may direct so as to prevent discharge of storm water over a footway or sidewalk and such owner shall maintain such channels, conduits or pipes in good working order.

Private drains.

121. Regulations 101 to 106 inclusive of Chapter 12 of the South African Standard Building Regulations shall apply.

Septic tanks and private disposal plants.

122. (1) Subject to paragraph (2), Regulations 107, 108 and 109 of Chapter 12 of the South African Standard Building Regulations shall apply.

(2) No pit or trench referred to in Regulation 109 of such Regulations shall be situated within 6 metres of the plot boundary of any building, except where the local authority approves a lesser distance.

Conserving tanks.

123. (1) Subject to paragraph (2), Regulation 110 of Chapter 12 of the South African Standard Building Regulations shall apply.

(2) In Regulation 110(1)(a) of such Regulations, Table X shall not apply and “q” shall equal the quantity in litres contributed per day by each contributor, calculated on the

basis of 160 litres in the case of buildings in Classes A and B and 40 litres in all other classes of buildings.

Sewage lifts.

124. Regulation 111 of Chapter 12 of the South African Standard Building Regulations shall apply.

Drainage of stables.

125. Regulation 112 of Chapter 12 of the South African Building Regulations shall apply.

Inspection and testing.

126. (1) Subject to paragraphs (2), (3) and (4), Regulations 113 to 117 inclusive of Chapter 12 of the South African Standard Building Regulations shall apply.

(2) The certificate of approval referred to in Regulation 115 of such Regulations shall be in a form prescribed by the Minister.

(3) If the local authority orders tests of existing sewerage work as provided in Regulation 116 of such Regulations the cost of such tests shall be met by the local authority and shall not be a charge on the owner.

(4) If the local authority carries out an inspection or test of existing sewerage work at the request of an owner or occupier, a charge shall be payable calculated on the basis of E2.50 per hour or part thereof.

PART VII

FIRE PROTECTION

Division 1 — General.

Interpretation.

127. In this Part, unless the context otherwise requires —

“chimney” means a masonry or concrete shaft enclosing one or more flues;

“combustible” as applied to material, has the meaning assigned to it in Chapter 14 of the South African Standard Building Regulations;

“division floor” means a wall which serves to divide a division of a building horizontally from the remainder of such building, and which has a required fire-resisting rating;

“division wall” means a wall which serves to divide a division of a building vertically from the remainder of such building, and which has a required fire-resistance rating;

“fire-resisting material” means —

- (a) properly constructed brickwork not less than 113 millimetres in thickness;

- (b) concrete not less than 75 millimetres in thickness;
- (c) efficiently jointed breeze slabbing not less than 75 millimetres in thickness;
- (d) hard wood not less than 45 millimetres in thickness;
- (e) glass not less than 6 millimetres in thickness; or
- (f) other material approved by the local authority;

“fire wall” means a wall that is built of fire-resisting material;

“flammable” as applied to solid substances, means those which are likely to cause fire through friction, absorption of moisture, or exposure to air or to heat at temperatures below 66°C; and as applied to liquids, means those which give off vapours which are explosive when mixed with air or which burn with extreme rapidity, and those which have a closed cup (Abel-Pensky) flash point below 66°C;

“flue” means a passageway for the purpose of removing products of combustion from solid, liquid or gas fuel;

“garage” means a building or portion of a building used to store, keep, house, or repair one or more motor vehicles powered by internal combustion engines;

“party wall” means —

- (a) a wall forming part of a building and used or constructed to be used in any part of its height or length for —
 - (i) the separation of semi-detached dwellings or terrace dwellings; or
 - (ii) the separation of residential flats, shops and/or offices into separate occupancies or limited groups of such occupancies; or
- (b) a wall forming part of a building and standing in any part of its length to a greater extent than the projection of the footings on land of different owners;

“public building” means a building whose use or intended use causes it to be classified under section 3 in Class D; and

“smokestack” means a shaft of material other than masonry or concrete enclosing one or more flues.

Fire-proofing canopies.

128. A canopy or an arcade constructed in any part of non-fire-resisting materials shall be designed so as to prevent the spread of fire to adjoining buildings.

Balconies and bay windows overhanging streets.

129. (1) All balconies, bays and oriel windows shall be constructed of fire-resisting materials and be supported by reinforced concrete, masonry or steel cantilevers statically secure, and designed to resist the maximum overturning load which may be placed on them.

(2) Such bays or oriel windows having a sill height of less than 765 millimetres from the floor level shall not have an aggregate length at any one floor level of more than one-third of the building frontage.

Division of large multi-purpose buildings.

130. (1) No building containing separate rooms, sets of chambers or offices and tenanted by different persons, shall extend to more than 9290 square metres in area at any level or floor unless separated from all other parts of the same building by fire-resisting floors and walls without openings throughout, except at corridors where such openings shall be protected by self-closing fire-resisting doors.

(2) Subject to section 7 if a building is constructed or adapted to be used in part for trade or manufacture and in part as a dwelling the portion used for trade or manufacture shall be separated from the dwelling vertically by walls or partitions and horizontally by floors and such partitions and floors shall be constructed throughout of fire-resisting materials.

(3) Doorways communicating between the two parts of a building referred to in this Regulation shall be fitted with close-fitting doors and frames of fire-resisting materials.

(4) Such doors shall be fitted with a type of fastening approved by the local authority.

Stairs.

131. (1) Stairs shall be constructed so as to have a constant and uniform rise and tread and shall be to the following minimum and maximum dimensions —

(a) Stairs in dwellings or providing access to a single dwelling —

- (i) minimum width, 765 millimetres;
- (ii) maximum rise of steps, 180 millimetres;
- (iii) minimum tread of steps, 230 millimetres;
- (iv) minimum head room, 2,060 metres;

(b) Stairs in a building, not being a dwelling, in Class A, B or C or in Class E or F where not more than ten people are employed on any storey above the ground storey —

- (i) minimum width, 1,145 metres;
- (ii) maximum rise of steps, 165 millimetres;
- (iii) minimum tread of steps, 255 millimetres;
- (iv) minimum head room, 2,135 metres;

(c) Stairs in a building in Class E or F where more than ten people are employed on any storey above the ground storey —

- (i) minimum width, 1,145 metres;
- (ii) maximum rise of steps, 155 millimetres;
- (iii) minimum tread of steps, 280 millimetres;
- (iv) minimum head room, 2,135 metres

(2) No stairs shall exceed —

(a) fourteen steps in any flight; or

(b) two flights without a turning, and any intervening landing shall have a minimum length of 690 millimetres except for stairs provided for in paragraph (1)(c), in which case the landing shall extend for a length of not less than 1,22 metres

(3) Except for stairs provided for in paragraph (1)(a) and, unless the local authority otherwise directs, winders or similar steps shall not be permitted in any stairs.

(4) Paragraph 17 of the Second Schedule to the Act shall apply to the measurements referred to in this Regulation.

Banisters of balconies and stairs.

132. (1) All stairs shall be provided with at least one hand rail, and stairs provided for in paragraph (1)(b) and (c) of Regulation 131, shall have a hand rail on each side, and the outer hand rail shall be continuous throughout the stair.

(2) Hand rails shall not project more than 75 millimetres, and banisters of stairs and balconies shall be spaced to comply with Regulation 85(2) and if other forms of railings or protection are used for stairs and balconies, the infilling below the hand rails shall provide for the safety of persons using such stairs or balcony to the satisfaction of the local authority.

(3) No balustrade, railing or parapet intended for the protection of human life shall be less than 840 millimetres in vertical height above the nosing at the rake of the stairs nor less than 920 millimetres in height at landings or if constructed on the level and such protection shall be of adequate strength.

(4) In addition to the requirements in the preceding paragraphs, if a stairway exceeds 2,44 metres in width a centre hand rail shall be provided.

(5) All common stairs and passage ways thereto shall be adequately ventilated and sufficient natural and artificial lighting shall be provided to the satisfaction of the medical officer of health.

(6) All stairs constructed in accordance with Regulation 131(1)(b) and (c) and their enclosing walls shall be of fire-resisting materials throughout.

Construction of buildings of more than two storeys.

133. A building consisting of more than one storey above or below the level of the surrounding ground shall be —

(a) constructed of incombustible materials as defined in British Standard Specification No. 476;

(b) provided with a sufficient number of approved fire escapes; and

(c) provided with a secondary stairway additional to the main stairway providing access to each storey and such secondary stairway shall be so sited that in no case shall entrance to any habitable room be more than 27,5 metres from a stairway.

Precautions against fire in non-residential buildings.

134. A building other than a building in Class A(i) or G(i) in which more than ten persons reside or are employed at any one time shall —

- (a) be constructed of fire-resisting materials;
- (b) be provided with a sufficient number of fire escapes;
- (c) be provided with a secondary means of access; and
- (d) have fire-resisting floors, stairs, staircases and passages.

Materials of roof.

135. (1) Subject to paragraph (2), combustible material shall not be used as a roof covering:

Provided that if the roof construction is of concrete or other non-combustible construction, bituminous felt or other approved combustible material may be used to cover such construction.

(2) A building in Class A(i), C, E(i), F or G(i), excluding any building used for the storage of flammable liquids, may have a roof covered with thatch or wood shingles if —

- (a) it does not exceed 1420 cubic metres in capacity;
- (b) in the case of a building in Class C, E(i), F or G(i), it does not exceed one storey in height;
- (c) the external and other load-bearing walls and frames are of non-combustible construction;
- (d) no part of such building is situated less than 16 metres from any boundary, not being a boundary along a street, of the plot on which it is located;
- (e) all metal used in the attachment of the thatch to the roof members is bonded to earth; and
- (f) all electricity and telephone supply lines are brought into the building by means of underground conduits or cables.

Flues, chimneys and smokestacks.

136. (1) Subject to paragraph (2), Regulation 47 of the South African Standard Building Regulations shall apply to the construction of all flues, chimneys and smokestacks.

(2) The following shall be substituted for Regulation 47(3)(a) of such Regulations —

- “(a) a chimney shall extend to such a height that no part of its outlet is less than 1 metre above the highest point of the intersection of the chimney stack with the roof:

Provided that where the chimney is carried up through a ridge no part of the outlet shall be less than 300 millimetres above the top of the ridge;”.

Division 2 — Party and External Walls.

Separation of Buildings.

137. (1) Every building shall be separated by an external wall or by a party wall from any building on an adjoining plot.

(2) If a building may be erected adjacent to the boundary of an adjoining plot the wall of the building at such boundary shall either be a party wall or an external wall built up to the

boundary line or if not so built then at a distance of not less than 1,22 metres therefrom unless under these Regulations a greater distance is otherwise required; and any external wall less than 1,5 metres from a plot boundary shall be a fire wall.

(3) Any external wall or party wall required under this Regulation shall be constructed of stone, concrete, bricks or other blocks of hard and incombustible material not less than 215 millimetres thick, and where the eaves of adjoining buildings would be less than 3 metres apart, finished with a parapet and cope above the roof, except where the roof itself is constructed entirely of incombustible materials.

(4) No opening of any sort shall be made in any party or fire wall including any gable forming part thereof except with the consent of the local authority and subject to the provision of an effective self-closing fire door and to any other condition which may be imposed.

Party walls within plots.

138. (1) In the case of a semi-detached building in Class A, B or C, the party wall within the plot shall be carried up at least as high as the underside of the incombustible covering of such building.

(2) The roof covering shall be properly bedded in mortar and cement at the top of the party wall and no lath, batten timber or woodwork of any description shall extend across or into any part of such wall.

(3) If a building consists of more than two parts in any storey every alternative party wall shall, unless the local authority otherwise permits, be provided with a parapet as hereinafter provided for and every other party wall carried up hard against the underside of the incombustible roof coverings.

(4) Subject to paragraph (5), the end of every parapetless or other party wall shall be built out at least to the face of the eaves by means of a corbel or otherwise so as to break connection by means of incombustible materials between timbers on either side.

(5) A party wall required under this Regulation need not be carried up through the roof if the roof is constructed entirely of reinforced concrete.

Parapet to party walls.

139. (1) Except where under these Regulations a party wall may terminate at the underside of the roof covering, a party wall shall be carried up through the roof or roofs to the heights prescribed in paragraph (3) and measured in each instance at right angles to the external surface of the slope of the roof, flat, or gutter.

(2) If the roofs on either side of the party wall are at different levels the height shall be measured from the highest roof, flat or gutter.

(3) The heights referred to in paragraph (1) shall be for —

- (a) buildings in Class A, B and C, 230 millimetres;
- (b) buildings in Class E and F, 610 millimetres;
- (c) public buildings, 1 metre:

Provided that if the highest roof slopes downwards away from the party wall the prescribed heights for the buildings mentioned in sub-paragraphs (b) and (c) may be reduced to lesser heights at the discretion of the local authority but in no case less than 230 millimetres

(4) If a party wall is carried through or above a roof the portion above the highest roof shall not be less than 230 millimetres thick and shall be properly coped with incombustible material, bonded to and built in continuation of the wall on which it is placed.

Wood in party walls.

140. (1) Subject to paragraph (2) no timber or combustible material shall be built into any party wall nearer than 115 millimetres to the centre line thereof and if so built in shall be separated from similar material in the adjoining building by not less than 230 millimetres of fireproof and solid material.

(2) The distances specified in paragraph (1) may be reduced at the discretion of the local authority if every part of the timber or combustible material which is placed in the party wall is properly encased in an iron beam-box with a solid back.

Recesses and chases in party or fire walls.

141. The back of any recess or chase in a party wall shall not be less than 115 millimetres from the centre line thereof and in a fire wall shall not be less than 215 millimetres from the other face thereof.

Arches and lintels.

142. Except in a wall framed of timber, every opening for doors, windows or other purposes, in any wall, having any part of the wall directly above the opening shall have an arch or lintel of sufficient strength of hard and incombustible or fire-resisting material.

Division 3 — Fire Escapes and Fire Precautions.

Provision of fire escapes and fire extinguishers.

143. (1) Every building which is —

- (a) more than two storeys in height; or
- (b) in Class A(ii), (iii) or (iv) or in Class B, C, D, E or F

shall be provided with at least two exits at ground level and adequate means of escape in the case of fire, and fire extinguishing equipment in accordance with the provisions of Regulations 53 to 58 inclusive of Chapter 14 of the South African Standard Building Regulations shall be provided and maintained so as to be readily accessible.

(2) For the purposes of this Regulation adequate means of escape shall be deemed to be provided where Regulations 27 to 38 inclusive of Chapter 14 of the South African Standard Building Regulations have been complied with.

Floors etc. to be of fire-resistant materials.

144. (1) Subject to paragraph (2) every building which is more than two storeys in height and any building of two storeys in height other than a dwelling for one family only shall have the structural framework of the floor of every lobby, corridor, passage and landing and every flight of stairs constructed of concrete or other incombustible material of adequate strength and in all respects to the satisfaction of the local authority.

(2) Paragraph (1) shall not apply to the floor of any lobby, corridor, passage, landing or any flight of stairs designed to be used otherwise than as a means of access to or escape from, any part of the building.

(3) The walls enclosing any staircase of such building shall be constructed of suitable incombustible material of sufficient thickness.

External fire escape stairs.

145. (1) If external escape staircases are provided, these shall have a minimum clear width of 765 millimetres and shall be fitted with a strong handrail.

(2) The whole structure shall be of incombustible material, and no obstruction shall be permitted at any part of the escape stair which would reduce its width in any way.

Indication of fire escape positions.

146. Notices on suitable incombustible material intimating positions of fire escapes shall be fixed and maintained in positions approved by the local authority.

Inspection of extinguishers.

147. The local authority shall be entitled periodically to inspect all buildings in which fire appliances are installed and may order the owner of any building to test such appliances and to repair or renew any which may have become defective or inefficient through misuse, age or neglect.

Division 4 — Public Buildings and Places of Assembly.

Arrangements.

148. (1) The design and arrangement of a building in Class D shall secure the safety of the public to the fullest extent.

(2) A theatre or cinema shall have the main or lowest floor provided for the accommodation of the public as near as possible to the level of the exit street.

Sites of certain buildings in Class D must be approved.

149. (1) A theatre, cinema, music hall, dance hall, concert hall or other place of amusement shall not be constructed on any site unless the local authority has approved of such site for that purpose.

(2) The grounds upon which the local authority may disapprove of any such site shall include the following —

- (a) it is not suitable for such purpose;
- (b) the erection on such site of any such public building would be contrary to the public interest;
- (c) such site does not amply provide for the safety of persons frequenting such public building or the general public;

- (d) the discharge of audiences or patrons from any such public building on such site is likely to create congestion of traffic, or to interfere with the safe conduct of traffic in the streets; and
- (e) such site is so close to another public building that congestion of traffic in the streets may be possible.

(3) Subject to paragraph (4) a public building which is used, or intended to be used as a theatre, cinema, music hall or concert hall shall, on two sides at least, have a frontage to a public street which shall —

- (a) not be a sanitary lane or passage; and
- (b) be of a width and direction which will enable the persons accommodated in the premises to disperse rapidly in the event of fire or panic and which will afford facilities for the approach and use of fire appliances.

(4) Notwithstanding paragraph (3), should the local authority so decide, a private open and paved passage way for the exclusive use of the audience of such theatre or hall, leading to the street and having a minimum width throughout of 7,33 metres may be regarded as equivalent to a public street.

Protection against fire from adjacent premises.

150. The local authority shall have power to disapprove of the plans of any proposed theatre or cinema which does not provide for sufficient protection against fire from adjacent premises.

Area per person.

151. The area in public buildings to be allotted to each person for sitting accommodation shall not be less than 610 millimetres in horizontal depth by 460 millimetres in width where no back is placed or fixed to any seating space, nor less than 765 millimetres from back to back of seats by 510 millimetres in width where backs and arms are fixed to such seats.

Construction.

152. The walls, floors and ceilings of every public building shall be of approved fireproof construction to the satisfaction of the local authority.

Mixed occupancy.

153. Subject to section 7 where only a portion of a building is used as a theatre or cinema, such portion shall be entirely cut off from the remainder of such building by solid fire-proof walls and floors without any openings whatsoever otherwise than in compliance with Regulation 17(c) of Chapter 14 of the South African Standard Building Regulations.

Building under or over a theatre or cinema.

154. (1) No building shall be constructed over or under the stage of any theatre, except as may be necessary in connection with such stage.

(2) Any building constructed over the auditorium of a theatre or cinema shall not extend more than half the distance between the proscenium wall of the stage and the back of such auditorium or within 15,25 metres from such proscenium wall, whichever is the greater.

(3) In a theatre there shall be no windows or other openings in the wall above the proscenium and any windows or other openings in the other walls of the stage which are within 15,25 metres from any window or other opening in the theatre portion of the building shall be fitted with sprinklers and automatically operated fire shutters or doors to the satisfaction of the local authority.

(4) All such doors and openings shall be sited with due regard to the safety of persons within the building in the event of fire.

(5) Any window or other opening in the walls of the stage of a theatre which is within 7,65 metres from any other building shall be fitted with sprinklers and shutters or doors as prescribed in this Regulation.

Protecting metal work.

155. All steel work or structural metal work used in the construction of a building in Class D shall be protected against the action of fire in such manner as may be required by the local authority and in accordance with any Regulations in regard to fire-proofing of structural metal work.

Floors and slope thereof

156. No theatre or cinema shall have more than two floors or horizontal divisions, including the gallery, above the level of the stalls, and such floor or division shall be constructed at a slope that will permit of steps in the passages or aisles being not more than 150 millimetres risers nor less than 280 millimetres treads measured in the direction of going.

Height of galleries.

157. If the first floor or balcony of a public building extends over any part of the pit, stalls or area, the clear height above the latter shall not be at any part less than 2,75 metres and the height between the floor of the highest part of the gallery and the lowest part of the ceiling over such part shall not be less than 3 metres.

Width of aisles.

158. The aisles or passages within the auditorium shall at no point be less than 1,1 metres in width and if required by the local authority shall be increased in width towards the exit in the ratio of 40 millimetres to every 1,5 metres and if such an aisle or passage is of a width less than an exit door communicating therewith it shall be widened so that opposite the door and for a distance of 1,9 metres therefrom its width shall not be less than the clear opening of the exit door.

Gangway around auditorium.

159. If required by the local authority, a clear passage or gangway not less than 1,1 metres wide shall be reserved around every portion of the auditorium.

Floor level.

160. (1) In every public building the floor of the highest part of the stalls shall be accessible from the street at the principal entrance to such stalls by a gradient not exceeding 1 in 15;

and the lowest part of the floor of such stalls shall not be more than 1,9 metres below the level of the street at the principal entrance to such stalls.

(2) The lowest floor shall not be placed at such a level as will render it liable to flooding and it shall be efficiently and properly drained to the satisfaction of the local authority.

Stairs in public buildings.

161. (1) The treads of each flight of stairs intended for the use of the public shall be of uniform width not less than 280 millimetres wide, and with risers of uniform height not more than 150 millimetres high.

(2) The treads shall be deemed to be of uniform width if, at a constant distance from a side of a stair, they are of equal width between the risers and the steps are of uniform shape from landing to landing, but the subtended angle between such risers shall not in any case exceed six degrees.

(3) No flight of stairs for public use shall consist of more than 15 nor less than 3 risers, and each flight shall have a landing of adequate area.

(4) No winder steps shall be permitted, nor shall there be more than two successive flights without a turn.

(5) A staircase required for public ingress and egress shall be enclosed by walls of brick or other approved fire-resisting construction to the satisfaction of the local authority.

(5) In every such case there shall be a handrail on either side of the stair, the ends of such handrail to be returned to the wall.

(6) In special cases, the staircases, instead of being enclosed by such walls, may, in the discretion of the local authority, have a suitable handrail or balustrade of sufficient strength on either side thereof.

Design of vestibules.

162. (1) If stairs, passages and doorways lead into a vestibule, the width of such vestibule measured at right angles to the lines of egress shall be at least one-third greater than the combined width of all the doorways, passages and stairs leading into such vestibule from the auditorium.

(2) The doorways from such vestibule to a street shall aggregate at least one-quarter more in width than the aggregate of the widths of all doorways, passages and stairs leading from the interior into such vestibule.

(3) If stairs discharge into any such vestibule, they shall discharge towards the street by direct lines of egress which will in no way interfere with lines of egress from the main hall, passages or other exists, and external exit doors shall be provided on all such lines of egress.

Proscenium wall.

163. (1) In a public building which is to be used for the performance of stage plays, or if a proscenium is erected, the proscenium wall shall be of brick or other fire-resisting construction to the satisfaction of the local authority, and shall be carried across the entire width of such building, both above and below the stage to the level of the foundations of the external walls.

(2) No opening other than the proscenium opening shall be made in the proscenium wall, with the exception of a doorway into the orchestra and one doorway on each side of the stage for communication with the auditorium through a lobby or passage.

Proscenium doors.

164. (1) Proscenium doorways shall not be more than 1,05 metres wide and shall be fitted with self-closing, close-fitting fire-proof doors hung in frames of fire-proof materials, all to the satisfaction of the local authority.

(2) The bottom of proscenium doorways shall not be more than 910 millimetres above the stage floor, and such doors shall have an overlap of at least 75 millimetres at each edge.

Proscenium decorations.

165. The decorations and moulding around the proscenium opening shall be constructed of fire-resisting materials, and all woodwork or stage hangings, curtains and draperies shall be rendered non-inflammable by fire-resisting paint or other means.

Stage space.

166. If the local authority so directs, the space above the stage shall be of sufficient height to allow of all scenery and the fire-resisting screen being raised above the top of the proscenium opening in one piece and without rolling.

Stage roof construction.

167. (1) The roof over the stage shall be of fire-resisting material and shall be provided with a lantern light or lights at the back thereof, equal at the base to one-sixth of the area of the stage.

(2) Every lantern light referred to in paragraph (1) shall be —

(a) glazed at the sides with sheet glass not more than 3 millimetres in thickness; and

(b) capable of being opened to an extent equal to the superficial area required at its base.

(3) The sashes shall be —

(a) bottom hung to open outwards;

(b) of a type that cannot be rendered inoperative by warping, settlement or dirt; and

(c) capable of being opened by the cutting of a cord or by the fusing of a link, and such cord shall be brought down to the stage to a position near the safety curtain release and suitably indicated.

Stage ventilation.

168. The stage shall be ventilated to the satisfaction of the local authority.

Scene dock and flies.

169. (1) No scene dock, property room, or store room shall be permitted in a public building unless it is separated from the rest of such building by brick or other fire-resisting construction.

(2) Adequate means of escape shall be provided from the flies and the grid-room to the satisfaction of the local authority.

Dressing rooms.

170. (1) All dressing rooms shall be in a separate block or blocks or else separated by a fire wall from the public building of which they form a part, with not more than one opening in the fire wall.

(2) Such opening shall be fitted with a close-fitting, self-closing fire-proof door hung in a frame of fire-proof materials.

(3) All dressing rooms shall be provided with windows opening directly to the external air and be adequately ventilated.

(4) All dressing rooms, and the stairs and passages affording access thereto, shall be constructed with one or more independent exits leading directly into a thoroughfare.

(5) No dressing room shall be —

(a) situated more than one storey below the street level; and

(b) constructed over or under the auditorium or stage.

Panic bolts and locks on doors.

171. (1) Subject to paragraph (2), external exit doors or gates, including those to open passages outside the building, shall not have any locks or fastenings other than approved panic bolts fixed on the inside in such manner that they are easily and immediately opened by pressure from the inside on a horizontal bar or panel.

(2) Main external entrance doors may be fitted on the inside face with long barrel or tower bolts. If in two leaves, an ordinary lock may be used; if in one leaf and a lock is required, it shall be a draw lock (without any catch pin to keep the door locked) capable of being opened from the inside without a key.

Door fastening prohibited.

172. Internal doors for use by the public shall have no locks, bolts or other fastenings, except such as are necessary to hold them in an open position, but may be fitted with spring hinges.

Outlet doors.

173. In a public building, outlet doorways (hereinafter called "exit doors") and all means of egress shall be so situated and arranged and shall be of a number and capacity for each floor, tier or level or part of such building as in the opinion of the local authority shall enable all the persons whom such floor, tier, level or part can seat or accommodate, to vacate the building in a space of time not exceeding three minutes when proceeding at a walking pace of three miles per hour.

Notice on exit doors.

174. All exit doors, as required by Regulation 173 shall be indicated on the inside by an adequately illuminated notice in block letters at least 150 millimetres in height, to the satisfaction of the local authority, which notice shall consist of the word "EXIT", and such notice shall during the time that such building is open to the public be kept uncovered and unconcealed by any obstruction.

Separate exits for each level.

175. (1) If, in a building in Class D different floors, tiers or levels are provided for the accommodation of the public, each such floor, tier, level or subdivision thereof shall have its own separate and independent staircase, corridors and passages, and at least two exits discharging directly into a street or open passage or lane.

(2) All exits shall be sited to afford the greatest degree of public safety and shall be to the satisfaction of the local authority.

(3) The width of every stair, corridor or passage outside the auditorium provided for the use of the public shall not be less than 1,15 metres for every hundred persons using it, but no such stair corridor or passage shall be less than 1,4 metres wide.

(4) If a greater width is necessary under these Regulations, such width shall be in units of 500 millimetres as hereinafter prescribed.

(5) All public staircases over 1,9 metres in width shall be properly divided down the centre by one or more strong handrails with adequate and substantial supports.

Width of exits.

176. (1) The total aggregate width of exit doors required for a public building or any part thereof shall not be less than 1,15 metres for every hundred persons.

(2) The width of any exit door shall be measured between the leaves when wide open and shall not in any case be less than 1,1 metres.

(3) Passages, stairs and corridors shall be at least 1,22 metres.

Number of exits.

177. (1) The exits required for the ground floor shall not be less in number, according to the number of persons accommodated, than shown in Table 1 namely —

TABLE 1

<i>Number of persons accommodated normally present.</i>	<i>Number of Exits.</i>
Not exceeding 200	2
Over 200 and not exceeding 300	3
Over 300 and not exceeding 400	4
Over 400 and not exceeding 550	5
Over 550 and not exceeding 700	6
Over 700 and not exceeding 850	7
Over 850 and not exceeding 1,000	8
Over 1,000 and not exceeding 1,500	9

Over 1,500 and not exceeding 2,000 10
 For each additional 500 persons over 2,000 At least one additional exit shall be provided.

(2) The exits required for galleries shall not be less in number than shown in Table 2, namely —

TABLE 2

<i>Number of persons accommodated normally present.</i>	<i>Number of Exits.</i>
Not exceeding 200	2
Over 200 and not exceeding 300	3
Over 300 and not exceeding 400	4
Over 400 and not exceeding 500	5
For each additional 100 persons over 500	At least one additional exit shall be provided.

There shall be provided at least two separate staircases in connection with each gallery.

Exits to be spaced apart.

178. (1) At least two of the exits from any floor or level shall be arranged as far apart as practicable on opposite sides or ends of such floor or level.

(2) If any floor or level is divided into two or more distinct parts, each part shall be regarded and treated as a separate floor or level.

Exits in a building of mixed occupancy.

179. If a public building is incorporated in a building, a portion of which is used for other purposes, all exits, courts, alleys, passages, gangways, corridors and staircases required for such public building shall be separate and independent from those required for the use of the building.

Lighting.

180. (1) All entrance halls, passages, staircases, gangways or other means of approach to a public room or rooms in any public building shall be efficiently lighted during the whole time such public building is being used.

(2) If artificial light is used in any public building approved provision shall be made so that the public may not be left in darkness through any breakdown or accident.

(3) Two complete systems of electric lighting from two separate sources of supply shall be provided.

(4) All exit lamps shall be kept lit during the whole of the time the public are in such building.

Footlights.

181. The footlights in front of the stage shall consist only of electric lights.

Fire extinguishers.

182. Approved fire extinguishers in efficient working condition and readily available shall be provided and distributed throughout the building as follows —

- (a) one on each side of the stage level;
- (b) one on each side of the stage at every level of flies;
- (c) one in the scene dock;
- (d) one in each passage to dressing rooms; and
- (e) four in the auditorium at every level.

Fire fighting equipment.

183. (1) Wet blankets or rugs, with buckets or other receptacles filled with water, shall always be kept in the wings, and shall have placards indicating their position legibly printed or painted, and fixed immediately above them.

(2) Hatchets, hooks or other means of removing hanging scenery in case of fire shall always be kept in readiness.

Fire curtain.

184. (1) In every public building used for theatrical purposes and having scenic accessories, a fireproof curtain of asbestos or other incombustible material shall be provided so as to completely cover the proscenium opening.

(2) The fireproof curtain required by paragraph (1) shall —

- (a) be installed on the stage side of the proscenium wall and in such manner that it can be immediately lowered;
- (b) run in grooves, the back of which shall be at least 150 millimetres from the edge of the proscenium opening;
- (c) drop into a prepared groove not less than 50 millimetres deep, formed and surrounded by incombustible material for at least 150 millimetres on the stage side and entirely on the auditorium side; and
- (d) be of sufficient strength and rigidity to resist the impact of falling scenery and timbers;

and the whole of its material, construction and arrangement shall be in all respects to the satisfaction of the local authority.

(3) In addition to the requirements of paragraph (2) such fireproof curtain shall be—

- (a) arranged so as to lower itself on the cutting or loosening of a cord by a person standing on the stage floor;
- (b) kept lowered so as to cover the proscenium opening at all times except when the building is in actual use for performances;
- (c) close-fitting to the incombustible material around all four edges when it is lowered; and
- (d) so arranged as to prevent the passage from the stage to the auditorium of smoke or flame when it is lowered.

Lowering of fire curtain.

185. (1) The safety curtain in every public building used for theatrical purposes shall be lowered to its full extent and raised in the presence of each audience.

(2) The attention of every such audience shall be drawn to the provisions of this Regulation by a notice in the programme or by some other suitable means.

Temporary proscenia etc.

186. In the case of premises in respect of which permission is desired for the occasional performance of stage plays by non-professional performers and where a permanent proscenium, safety curtain, or any other requirement of these Regulations regarding the stage or seating is not in existence, the local authority may grant permission for such occasional performances upon such conditions as it may deem necessary for ensuring the safety of the performers and audience including the treatment of scenery, curtain and temporary proscenium to render them fire resisting.

Projection and rewinding rooms.

187. Regulation 42 of Chapter 14 of the South African Standard Building Regulations shall apply.

Permission required for changes.

188. No alteration, rearrangement or readjustment whatsoever may be made in respect of any of the aforesaid appliances, safeguards or means for the prevention of fire without the written consent of the local authority first being obtained.

Inspection.

189. The local authority shall at all times have the right to inspect and visit any portion of any public building, place of amusement or assembly in order to ascertain that this Part is being observed, and the same right of inspection shall be granted to the engineer to the authority, the Medical Officer of Health, the fire brigade superintendent, and their assistants.

Exemptions.

190. (1) Subject to this Regulation, the Minister may on the application of the owner of an existing public building, grant a certificate exempting such building, or any part thereof, for such period as may be specified in such certificate, from compliance with such of the provisions of this Division as may be so specified.

(2) A certificate shall not be granted by the Minister under this Regulation unless the Building Appeals Tribunal appointed under section 20 advises him that it would not be reasonable to require compliance with the provision of any Regulation specified in the application having regard to the nature of the use of the building and the practicability of carrying out the necessary works.

(3) A certificate of exemption under this Regulation shall not be granted in relation to any public building constructed or substantially altered after the date on which these Regulations come into operation.

Division 5 — Miscellaneous Special Provisions.

General.

191. In terms of section 22 compliance with this Division shall not exempt a person from compliance with any other law which refers to the special classes of building contained herein.

Storage of flammable film.

192. Flammable film in excess of 90 kilogrammes shall be stored or kept in rooms and positions in accordance with Regulation 43 of Chapter 14 of the South African Standard Building Regulations.

Dry cleaning rooms.

193. A room used or intended to be used for gain or reward for the cleaning or treatment of garments, textiles, or other such material with the aid of flammable liquids or substances shall be constructed in accordance with Regulations 82 to 101, inclusive, of the Urban Area Regulations, 1962 No. 8/1969(2-4).

Spray rooms.

194. A room used or intended to be used for spraying cellulose or other flammable paints or lacquers or other volatile flammable liquids shall be constructed in accordance with Regulations 104 and 105 of the Urban Area Regulations, 1962 No. 8/1969(2-4).

Rooms containing heating appliances.

195. Subject to the exceptions contained therein, every room which contains an air-conditioning plant, or a boiler, furnace incinerator or similar appliance in which heat is generated shall be constructed in accordance with Regulation 46 of Chapter 14 of the South African Standard Building Regulations.

Garages.

196. (1) Subject to paragraph (2), every garage shall be constructed to comply with Regulation 48 of Chapter 14 of the South African Standard Building Regulations.

(2) A garage forming part of a building in Class A(i) shall be constructed to comply with Regulation 15(f) of Chapter 14 of the South African Standard Building Regulations.

Storage of flammable liquids and substances.

197. (1) Subject to paragraph (2), every room used for the storage or keeping of flammable liquids and substances shall be constructed as a separate building, and shall comply with Regulations 55 to 65 inclusive of the Urban Area Regulations, 1962 No. 8/1969(2-4).

(2) If the local authority is satisfied that it is impracticable to construct such room as a separate building, it may be constructed as part of a building subject to the conditions contained in paragraphs (a) to (k) inclusive of Regulation 49 of Chapter 14 of the South African Standard Building Regulations.

Windowless buildings.

198. In any occupancy unit in which there are no windows in external walls Regulation 50 of Chapter 14 of the South African Standard Building Regulations shall apply.

Floors in operating theatres, and the like.

199. (1) A room, such as an operating theatre or delivery room, in a hospital, nursing home or the like, in which explosive gas is used or stored shall have non-sparking conductive floors.

(2) The specifications of such floors shall be those contained in South African Bureau of Standards 051 "Prevention of explosive and electrical hazards".

Ventilation requirements.

200. (1) Every mechanical ventilation installation and air conditioning installation in a building shall be so designed and constructed as to eliminate the possibility of fire or smoke being conveyed from one side of an occupancy separation structure to the other side thereto.

(2) No duct shall pass through a division wall or a division floor.

(3) The ducting and any internal linings thereof or external covering thereto in any such installation shall be of non-combustible materials and shall be so designed and constructed that no dust, fluff, or other finely divided solid material or liquid can accumulate or be retained therein.

(4) Every room in a building in which there is an accumulation of dust, fumes, vapours, or other noxious impurities to such an extent as to create a fire hazard shall be provided with an approved system of ventilation.

(5) Such system shall be independent of any other ventilation system in the same building.

PART VIII

WATER

Interpretation.

201. In this Part, unless the context otherwise requires —

"feed cistern" means a storage cistern used for supplying cold water to a hot water apparatus;

"flushing cistern" means a cistern with discharging apparatus for flushing a water closet, slop sink, urinal or sewer;

"service" means all pipes, fittings and apparatus used or intended to be used for or in connection with the supply of water for any building, up to but not including the connection with a public water supply;

"service pipe" means a pipe included in a service; and

"storage cistern" means a cistern for containing water other than a flushing cistern or a hot water cistern.

Water supply.

202. (1) A building used or intended to be used for human occupation shall, to the satisfaction of the local authority, have provision for an adequate supply of potable water for human consumption and an adequate supply of water suitable for other essential purposes, having regard to the intended use of the building, its size and the number of persons it is intended to accommodate.

(2) For the purposes of this Regulation for the supply of water shall be connected to the building or be within the plot boundaries, but a supply shall not be deemed to be provided unless the point of supply is within 90 metres of the building.

(3) Nothing in this Regulation shall effect Regulation 97.

Specifications for service pipes.

203. (1) All service pipes shall be of lead, copper, galvanised steel, asbestos cement or such other material as may be approved by the local authority.

(2) No service pipe shall be less than 13 millimetres (nominal) internal diameter.

(3) Asbestos cement pipes shall not be used in any position which, in the opinion of the engineer, is an exposed one.

(4) A service pipe shall be of sufficient strength to withstand a test pressure of not less than double the pressure to which such pipe will be liable to be subjected under working conditions.

Lead pipes.

204. A service pipe of lead shall comply with the relevant requirements of B.S. 602 "Lead pipes for other than chemical purposes".

Copper pipes.

205. A service pipe of copper shall comply with —

(a) the relevant requirements of S.A.B.S. 461 "Light gauge copper tubes for water, gas and sanitation" or B.S. 61; or

(b) if they are to be buried underground, the requirements of S.A.B.S. 463 "Copper tubes to be buried underground".

Steel pipes

206. A service pipe of galvanised steel shall —

(a) comply with the requirements of B.S. 1387 "Steel tubes and tubulars suitable for screwing to B.S. 21 pipe threads"; and

(b) be not less than the thickness specified in B.S. 1387 for the appropriate working pressure indicated by the engineer for the locality concerned.

Installing service pipes.

207. (1) A service pipe laid in the ground shall be at least 300 millimetres below ground level.

(2) A service pipe, other than one laid in the ground, shall be securely fixed at intervals to a wall, or other rigid structure along which it passes, to the satisfaction of the engineer.

(3) No bend or curve in a pipe shall be made so as to materially diminish the waterway or alter the internal diameter of such pipe in any part.

(4) A pipe shall be adequately supported and be so aligned as to avoid air locks.

Taps and flushing valves.

208. (1) No person shall install a tap or flushing valve or cause or permit it to be installed on a service unless such tap complies with the requirements of S.A.B.S. 226 "Water taps" or such flushing valve has been tested and approved by the engineer.

(2) A flushing valve shall only be fed from a storage cistern fitted with a ball valve.

Cisterns.

209. (1) No person shall upon premises install, fit, or use a cistern for the reception or storage of water or cause or permit it to be installed, fitted, or used upon premises of water unless —

(a) it is constructed of cast iron, galvanised steel, vitreous-enamel ware, concrete, asbestos-cement, copper or other material approved by the local authority;

(b) it is of adequate strength, watertight and properly supported, covered and ventilated;

(c) its inlet is provided with an approved ball valve or check valve;

(d) it is placed in such position that the interior thereof may be readily inspected and cleansed;

(e) a stopcock is provided upon the inlet pipe adjacent to such cistern in a position which is easily accessible at all times; and

(f) such cistern is provided with an overflow or waste-pipe, the situation of which allows the discharge of water to be readily detected, and in the case of an overflow complies with paragraph (2).

(2) An overflow pipe shall —

(a) be laid to a fall of not less than 30 millimetres in 1 metre;

(b) have an internal diameter greater than the internal diameter of the inlet pipe; and

(c) have an internal diameter not less than 20 millimetres.

(3) Paragraphs (1)(c) and (e) shall not apply to cisterns which are installed for the storage of water received solely from a source other than a piped supply.

Storage and feed cisterns.

210. (1) A storage cistern not used as a feed cistern shall have a capacity of not less than 115 litres and if used both as a feed cistern and as a storage cistern for other purposes, shall have a capacity of not less than 225 litres.

(2) A feed cistern supplying cold water to a hot water pressure vessel shall have a capacity of not less than 115 litres.

- (3) If a storage cistern is used as a feed cistern the outlet —
- (a) from such cistern to the hot water apparatus shall be 50 millimetres above the bottom of such cistern, or any greater distance made necessary by the mode of construction of such cistern, and water shall be delivered therefrom to the hot water apparatus only; and
 - (b) for any other purpose shall be connected to such cistern at a point not lower than half the depth of such cistern.

Boilers.

211. (1) No person shall cause or allow a closed boiler to be supplied otherwise than from a cistern.

(2) A steam engine and boiler shall have a cistern holding not less than half a day's supply calculated according to the average daily consumption.

Hot water cylinders.

212. (1) Except in the case of combination cylinders, every hot water cylinder shall be provided with an expansion pipe discharging direct to the open air in a position where any overflow will be readily detected, or alternatively discharging above the surface level of the water in the cistern supplying such hot water cylinder.

(2) The supply pipe from a cistern to a hot water apparatus shall be fitted with an easily accessible stopcock.

Steel cisterns and covers, tanks and cylinders.

213. A steel cistern and cover, tank or cylinder used in a service shall comply with B.S. 417 "Galvanised steel cisterns, tanks, cylinders and cistern covers".

Copper cylinders.

214. A copper cylinder used in a service shall comply with B.S. 699 "Copper cylinders for domestic purposes".

Water for drinking purposes.

215. No tap intended for the supply of cold water for drinking purposes in premises shall be supplied otherwise than from a service pipe before it enters a cistern.

Connection of sundry apparatus.

216. (1) No person shall cause or permit a service pipe to be connected without the interposition of a cistern fitted with a ball valve, to a water closet, bidet, urinal, steam or hot water boiler, container or apparatus in which a containment is mixed with the supply of water.

(2) A water closet, urinal, steam or hot water boiler, container or apparatus shall be fed separately and directly from a cistern installed solely for such purpose.

Disconnection of water fittings.

217. If a water fitting is to be permanently disconnected, so much of any pipe which supplies water to such fitting only, and not required to supply water to any other fitting, shall also be disconnected.

PART IX

OFFENCES AND PENALTIES

Offences and penalties.

218. Any person who

- (a) contravenes any of these Regulations; or
- (b) fails to comply with the requirements of any notice served within the time specified thereon;

shall be guilty of an offence and liable on conviction to a fine not exceeding five hundred emalangeni in the case of a first conviction or in the case of a second or subsequent conviction for the same offence, a fine not exceeding one thousand emalangeni, or in default of payment of fine in either case, imprisonment for a period not exceeding eighteen months and in the case of a continuing offence to a further fine not exceeding fifty emalangeni for each day during which the offence is continued.

FIRST SCHEDULE

(Regulation 9(4))

The following abbreviations may be used on sewerage and drainage plans —

A.C.	Access cover
A.E.	Access eye
B.	Bath
D.U.T.	Dished universal trap
C.I.P.	Cast iron pipe
F.A.I.	Fresh air inlet
F.C.	Flushing cistern
F.V.	Flushing valve
G.	Gully
G.T.	Grease trap
I.C.	Inspection chamber
I.E.	Inspection eye
M.	Water meter
M.H.	Manhole
O.V.P.	Outlet vent pipe
R.W.P.	Rainwater pipe
S.	Sink

S.C.	Stopcock
S.G.	Storm gully
S.H.	Slop hopper
S.P.	Soil pipe
S.V.P.	Soil vent pipe
S.W.P.	Stoneware pipe
U.	Urinal
U.T.	Universal siphon tap
V.	Vent pipe
W.	Waste pipe
W.B.	Wash basin
W.C.	Water closet
W.P.	Water pipe
W.T.	Water tap
W.T.(H)	Watertap (hot)
W.V.P.	Waste vent pipe.

SECOND SCHEDULE

(Regulation 48(4))

TABLE OF MINIMUM ILLUMINATION

(Taken from the Illuminating Engineering Society of London, Great Britain, April, 1961)

1	2	3
A. Locations	Illumination, lux	Remarks
<i>Hospitals:</i>		
Laboratories	325	
Operating theatres		
General	325	
Tables	Special lighting	
Private rooms	110	Bed lighting extra in wards (15)
Receiving rooms, waiting rooms	160	
<i>Hotels</i>		
Bedrooms	110	Bed and mirror lighting extra
Lounges	160	
Dining rooms	110	Reading lights extra
Writing rooms (tables)	325	
<i>Office buildings:</i>		
General offices	325	
Private offices	325	

Drawing offices		
Boards	480	
General	325	
Enquiry offices; waiting rooms; reception rooms	160	
<i>Public buildings, churches:</i>		
Interiors	55 to 110	
Pulpit and lectern areas, chancel, choir	110 to 160	
Altar, communion table	215 to 325	Depending on circumstances
Vestries	110	
<i>Libraries:</i>		
Book rooms, reading rooms		
General	215	
Reading tables	325	
Backs of books	55 to 110	
Book binding	480	
Cataloguing, sorting, and stock rooms	325	
<i>Museums:</i>		
General	160	
Displays	special	
<i>Public halls:</i>		
Interior general	80	
Foyers	160	
<i>Schools:</i>		
Assembly halls		
General	160	
When used for examinations	325	
Platforms	325	
Gymnasias; staff rooms; dressing rooms; wash rooms; toilets	110 – 160	
Class rooms		
Desks	325	
Chalk boards	110 – 325	Normal to the surface of the boards
Laboratories	325	
<i>Shops, Stores, Restaurants:</i>		
Dressing rooms; wash rooms; toilets	110	
Shop interiors	160	Plus display and special lighting (up to 30)
Restaurant; refreshment rooms	110	
Stockrooms	215	
<i>Kitchen:</i>		
With floor area not less than 50 sq. ft. and being in a building which		

serves more than two families but is other than a club or hotel.	215	
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1	2	3
B. Occupations	Illumination, lux	Remarks
<i>Reading:</i>		
Casual	160	
Sustained	325	Increased for sustained work on dark material
Sewing and darning	755	
<i>Machining:</i>		
Rough work	160	Includes typing, book-keeping, and office machine work.
Ordinary bench and machine work	325	
Small work	755	Includes most precision work e.g. watch and instrument making.
Very small work	1600	
Minute work	3200	