Government Gazette
Staatskoerant

REPUBLIC OF SOUTH AFRICA
REPUBLIEK VAN SUID AFRIKA

Vol. 669 26 March Maart 2021 No. 44333

PART 1 OF 4

Contents

BOARD NOTICES • RAADSKENNISGEWINGS

GENERAL NOTICES • ALGEMENE KENNISGEWINGS

DEPARTMENT OF AGRICULTURE, LAND REFORM AND RURAL DEVELOPMENT

NOTICE 135 OF 2021

GENERAL NOTICE IN TERMS OF THE RESTITUTION OF LAND RIGHTS ACT, 1994 (ACT No. 22 OF 1994)

Notice is hereby given in terms of Section 11(1) of the Restitution of Land Rights Act, 1994 (Act No. 22 of 1994), as amended. These claims for the restitution of land rights have been submitted to the Regional Land Claims Commissioner for the Western Cape. The particulars regarding these claims are as follows:

Project Name : Alexander Family (A521)

Areas : Stellenbosch

Property : As listed below

The claimant : Freda Alexander

Date submitted : 17th March 1998

Current Owner : Stellenbosch Municipality

Option : Financial compensation

No.	Ref No.	Surname & Initial	Property Description	Area	Extent	Capacity	Dispossessed Person
1.	A521	Freda Alexander	Erf 2576 Stellenbosch Consolidated to Erf 5138 Stellenbosch	Stellenbosch	501m²	Ownership	J.D Alexander

The Regional Land Claims Commission will investigate these claims in terms of provisions of the Act in due course. Any party who has an interest in the above-mentioned land is hereby invited to submit, within 60 days from the publication of this notice, any comments / information to:

The Regional Land Claims Commission: Western Cape
Private Bag X9163
Cape Town
8000

Tel: 021*409-0300
Fax: 021*424-5146

Mr. L. Maphutha
Regional Land Claims Commissioner

APPROVED.....

DATE.....20/16/02/15.....

CHECKED.....

DATE.....01/02/2016.....

DEPARTMENT OF AGRICULTURE, LAND REFORM AND RURAL DEVELOPMENT

NOTICE 136 OF 2021

GENERAL NOTICE IN TERMS OF THE RESTITUTION OF LAND RIGHTS ACT 1994, (ACT No. 22 OF 1994) AS AMENDED.

Notice is hereby given in terms of Section 11(1) of the Restitution of Land Rights Act, 1994 (Act No. 22 of 1994), as amended. These claims for the restitution of land rights have been submitted to the Regional Land Claims Commissioner for the Western Cape. The particulars regarding this claim are as follow:

Number of Claims : **6**
Area : **District Six**
Claimant : **Owners and Tenants**
Property/ies : **As listed below**
Date Submitted : **27 October 2020**

REF NO	CLAIMANT	PROPERTY DISCRIPTION	CURRENT OWNER
KRK6/2/3/A/1/0/331/1196 **(D716)**	Zainap Davids	Erf 6101, District Six	City of Cape Town
KRK6/2/3/A/1/0/331/844 **(G216)**	Roshan Jackobs	Rem of Erf 7596, District Six	Community Development Board
KRK6/2/3/A/1/0/331/1363 **(H473)**	Nadima Anthony	19 Plymouth Street, (Erf 8988) District Six	Community Development Board
KRK6/2/3/A/1/0/331/170 **(J146)**	Rukeya Jones	Erf 7327 District Six	City of Cape Town
KRK6/2/3/A/1/0/331/2133 **(M195)**	Zulfa Arendse	94 Hanover Street (Erf 6681) District Six	City of Cape Town
KRK6/2/3/A/1/0/331/891 **(R217)**	Osman Rossier	Rem of Erf 7376	Community Development Board

The Regional Land Claims Commission will investigate this claim in terms of provisions of the Act in due course. Any party who has an interest in the above-mentioned land is hereby invited to submit, within 30 days from the publication of this notice, any comments / information to:

The Regional Land Claims Commission: Western Cape
Private Bag X9163
Cape Town
8000

Tel: (021)409-0300
Fax: (021)418 0205

CHECKED.....

DATE:.....19/11/2020

APPROVED:.....

DATE:.....2021/01/20
Mr. L. H. Maphutha
Regional Land Claims Commissioner

DEPARTMENT OF EMPLOYMENT AND LABOUR

NOTICE 137 OF 2021

LABOUR RELATIONS ACT, 1995

BARGAINING CONCIL FOR THE FURNITURE MANUFACTURING INDUSTRY OF THE WESTERN CAPE: EXTENSION OF PERIOD OF OPERATION OF THE MAIN COLLECTIVE AGREEMENT

I, **STEPHEN RATHAI**, Director: Collective Bargaining, duly authorised thereto by the Minister of Labour, hereby, in terms of section 32(6)(a)(i) of the Labour Relations Act, 1995, extend the period fixed in Government Notice No R.112 of 12 March 2021 by a further period ending **31 March 2023**.

.....

DIRECTOR: COLLECTIVE BARGAINING

UMNYANGO WEZEMISEBENZI NEZABASEBENZI

R. ..... **USUKU: .....**

UMTHETHO WOBUDLELWANO KWEZABASEBENZI KA-1995

BARGAINING CONCIL FOR THE FURNITURE MANUFACTURING INDUSTRY OF THE WESTERN CAPE: UKUVUSELELWA KWESIKHATHI SOKUSEBENZA KWESIVUMELWANO ESIYINGQIKITHI

Mina, **STEPHEN RATHAI**, uMqondisi Wezokuxoxisana phakathi kwabaQashi naBasebenzi, ngegunya likaNgqongqoshe Wezemisebenzi Nezabasebenzi, lapha ngokwesigaba 32(6)(a)(i) soMthetho Wobudlelwano Kwezabasebenzi, ka-1995, ngimemezela ukuthi isikhathi sokusebenza kwesivumelwano esinqunywe kwiSaziso sikaHulumeni esingunombolo R.112 womhlaka 12 kuNdasa 2021, sengeziwe ngesikhathi esiphela ngomhlaka **31 kuNdasa 2023.**

.....

UMQONDISI WEZOKUXOXISANA PHAKATHI KWABAQASHI NABASEBENZI

USUKU: 17/03/2021

DEPARTMENT OF EMPLOYMENT AND LABOUR

NOTICE 138 OF 2021

Notice published by the Essential Services Committee ('the Committee') in terms of section 71, read with section 70(2)(a) of the Labour Relations Act, 1995 (Act No 66 of 1995 as amended)

A. Notice is hereby given in terms of Section 71(9) for an investigation on the possible variation of the following designations rendered by the Committee on:

1. **11 May 2018, under GN 41621:**
   The designation made, rendering certain nuclear services as essential; and

2. **The designation made, rendering certain services in private health as essential (only in so far as Optometry is concerned).**

B. Notice is hereby given that the Committee will hear oral representations as follows:

(i) Date: 22 March 2021 in Johannesburg
Venue: CCMA Offices, 28 Harrison Street, 10th floor
Sector: Nuclear Services @ 11:00
Private Health Services @ 13:00

(ii) Date: 23 March 2021 in Durban
Venue: CCMA Offices, 275 Anton Lembede Street, Embassy House
Sector: Nuclear Services @ 11:00
Private Health Services @ 13:00

(iii) Date: 25 March 2021 in Cape Town
Venue: CCMA Offices, 78 Darling Street
Sector: Nuclear Services @ 11:00
Private Health Services @ 13:00

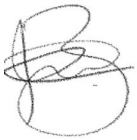
(iv) Date: 29 March 2021 in Bloemfontein
Venue: CCMA House, Cnr Elizabeth & West Burger Streets
Sector: Nuclear Services @ 11:00
Private Health Services @ 13:00

(v) Date: 31 March 2021 in Port Elizabeth
Venue: CCMA Offices, 97 Govan Mbeki Avenue
Sector: Nuclear Services @ 11:00
Private Health Services @ 13:00

D. Any interested party requiring an opportunity to make oral representations must:

(i) Indicate its intention to do so, in writing, to the ESC on or before 22 March 2021 (to either SibusisoL@CCMA.org.za or to fax: 086 660 6132);
(ii) State the nature of the interest in the investigation;
(iii) State whether it relies or intends to rely on any expert evidence, and if so, provide a brief summary of that expert evidence; and
(iv) Specify its address, telephone and telefax numbers and e-mail contact address.

For all Inquiries, please contact Sibusiso Lukhele on SibusisoL@CCMA.org.za



DEPARTMENT OF HEALTH

NOTICE 139 OF 2021

MEDICINES AND RELATED SUBSTANCES ACT, (ACT NO. 101 OF 1965)

REGULATIONS RELATING TO A TRANSPARENT PRICING SYSTEM FOR MEDICINES AND SCHEDULED SUBSTANCES

(DISPENSING FEE TO BE CHARGED BY PERSONS LICENSED IN TERMS OF SECTION 22C (1) (a))

The Minister of Health has, on the recommendation of the Pricing Committee, in terms of Section 22G of the Medicine and Related Substances Act, 1965 (Act No. 101 of 1965) as amended, made the regulations in the schedule.

SCHEDULE

Definitions

1. In these regulations any word or expression to which a meaning has been assigned in the Act shall have such meaning and, unless the context indicates otherwise-

   "**the Regulations**" means the Regulations Relating to the Transparent Pricing System for Medicines and Scheduled Substances published under government Notice No. R1102 of November 2005 as amended.

Substitution of Regulation 12

2. The following regulation is hereby substituted for regulation 12 of the regulations:

"12. The appropriate dispensing fee as contemplated in section 22G of the Act to be charged by persons licensed in terms of section 22C (1) (a) of the Act must be calculated, exclusive of VAT, as follows:

(a) Where the single exit price of a medicine or scheduled substance is less than one hundred and thirty rand (R130.00), the dispensing fee must not exceed 30% of the single exit price in respect of that medicine or scheduled substance;

(b) Where the single exit price of a medicine or scheduled substance is equal to or greater than one hundred and thirty rand (R130.00), the dispensing fee must not exceed thirty nine rand (R39.00) in respect of that medicine or scheduled substance;

3. The provisions of sub-regulation 2 must be reviewed annually by the Minister after taking into account-

(a) the need to ensure the availability and affordability of quality medicines and scheduled substances in the Republic;

(b) annual inflation rates published periodically by Statistics South Africa;

(c) information supplied by persons licensed to dispense in terms of section 22C (1)(a) in accordance with guidelines determined by the Minister from time to time by Notice in the Gazette; and

(d) any other information the Minister may deem necessary to consider.

4. Persons Licensed to dispense in terms of section 22C (1) (a) must-

(a) by means of a clearly displayed notice in the dispensing practice, inform members of the public using the dispensing practice of the maximum fee structure used by such dispensing practice to determine the dispensing fee; and

(b) provide an invoice that in respect of each medicine clearly indicates the-

(i) dispensing fee charged; and

(ii) the single exit price;

DR ZL MKHIZE, MP
MINISTER OF HEALTH
DATE: 26/01/2021

DEPARTMENT OF JUSTICE AND CONSTITUTIONAL DEVELOPMENT

NOTICE 140 OF 2021

A. INVITATION FOR PUBLIC COMMENTS ON AMENDMENTS TO THE PROMOTION OF EQUALITY AND PREVENTION OF UNFAIR DISCRIMINATION ACT, 2000

1. INVITATION

1.1 The Department of Justice and Constitutional Development (the Department) invites interested parties to submit written comments on the proposed amendments to the Promotion of Equality and the Prevention of Unfair Discrimination Act, 2000 (Act No. 4 of 2000) (the Act). The proposed amendments to the Act, the invitation and a note explaining the background of the proposed amendments, are available on the website of the Department at the following address: https://www.justice.gov.za/legislation/invitations/invites.htm

1.2 The comments on the proposed amendments to the Act must be submitted not later than **30 working days after the date of publication of this invitation**, marked for the attention of **Ms F Bhayat**, and –

(a) if they are forwarded by post, be addressed to -
The Director-General: Justice and Constitutional Development
Private Bag X81
Pretoria
0001

(b) if they are delivered by hand, be delivered at –
SALU Building, Room 23.23
316 Thabo Sehume Street
Pretoria

(c) if they are delivered by email, be emailed to: fbhayat@justice.gov.za

(d) if they are faxed, be faxed to **086 754 8493**.

1.3 For further information, please do not hesitate to contact **Dr I Botha** on **012 406 4756**.

B. BACKGROUND NOTE

2.1 The purpose of the Promotion of Equality and Prevention of Unfair Discrimination Amendment Bill, 2021 ("the Bill") is to address certain problems that have been identified with the Promotion of Equality and Prevention of Unfair Discrimination Act, 2000 (Act No. 4 of 2000) (the Act), following a review process of the Act.

2.2 The first part of the Act, which deals with, among others, **the prevention of equality** through the equality courts in which complaints about discrimination are adjudicated. These sections are in operation and a few amendments are proposed in the Bill to improve the protection of complainants.

2.3 The second part of the Act, which deals with **the promotion of equality** by Organs of State and public and private bodies, is not yet in operation. This is due, in part, to the regulatory burden on placed on all sectors of society, both public and private. This was identified in a Regulatory Impact Assessment conducted by the National Treasury. The Bill intends to address these challenges.

2.4. The aims of the Bill are the following:

2.4.1 PREVENTION OF UNFAIR DISCRIMINATION

The first part of the Bill (**clauses 1 to 3**) aims to improve the protection of complainants against discrimination. This is done as follows:

(a) Broadening and amending the scope of the definitions of:

(i) "equality" by indicating that it includes equal rights and access to resources, opportunities, benefits and advantages; and

(ii) "discrimination" by indicating that intention to discriminate is not required. It is the effect that matters and this makes it easier for complainants to make out a case of discrimination.

(b) Amending section 6 of the Act, (which contains the general prohibition of unfair discrimination), by adding two new subsections as follows:

(i) The scope of the prohibition of unfair discrimination is extended to any person who causes, encourages or requests another person to discriminate against others. This enables legal proceedings against such a person. .

(ii) Provision is made in the Bill for joint and several liability which entails that both the employer and the employee can be held liable for discrimination.

(c) Inserting section 9A in the Act to prohibit retaliation against a person who exercised his or her remedies in terms of the Act.

2.4.2 PROMOTION OF EQUALITY

The second part of the Bill (**clauses 4 to 9**) seeks to do the following:

(a) Clarify and reduce certain duties relating to the promotion of equality of the State and public bodies to some extent, for example by not requiring municipalities to provide assistance, advice and training on issues of equality so that they can focus on their main mandate namely municipal service delivery to the people.

(b) An integrated approach is followed by making use of existing financial reporting and monitoring mechanisms provided for in the PFMA and the Local Government Municipal Systems Act, 2000 (Act) 32 of 2000) to ensure proper planning, budgeting and reporting on measures implemented to promote equality by Organs of State and public bodies falling under the ambit of these Acts. State departments (national and provincial), municipalities and certain public bodies will in terms of the Bill have to provide certain information in their strategic, corporate and business plans instead of having to prepare and develop additional and separate equality plans and action plans as required by the Act.

(c) Strengthen accountability for the implementation of measures aimed at promoting equality by ensuring that Annual Reports of Organs of State contain information on what they have done in this regard.

(d) To enhance co-ordination and prevent overlapping actions and duties, a Minister must, before issuing regulations and codes of practice or charters, have regard to other measures aimed at promoting equality which are already in place before

additional duties are conferred upon bodies. For this purpose, the Department of Justice and Constitutional Development must make available on its website a list of all the Codes issued by the Ministers.

(e) To strengthen enforcement of the provisions of the Act, the Bill now criminalises the wilful submission of false information by any person.

DEPARTMENT OF JUSTICE AND CONSTITUTIONAL DEVELOPMENT

NOTICE 141 OF 2021

A. INVITATION FOR PUBLIC COMMENTS ON AMENDMENTS TO THE PROMOTION OF EQUALITY AND PREVENTION OF UNFAIR DISCRIMINATION ACT, 2000

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(ii) Provision is made in the Bill for joint and several liability which entails that both the employer and the employee can be held liable for discrimination.

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(a) Clarify and reduce certain duties relating to the promotion of equality of the State and public bodies to some extent, for example by not requiring municipalities to provide assistance, advice and training on issues of equality so that they can focus on their main mandate namely municipal service delivery to the people.

(b) An integrated approach is followed by making use of existing financial reporting and monitoring mechanisms provided for in the PFMA and the Local Government Municipal Systems Act, 2000 (Act) 32 of 2000) to ensure proper planning, budgeting and reporting on measures implemented to promote equality by Organs of State and public bodies falling under the ambit of these Acts. State departments (national and provincial), municipalities and certain public bodies will in terms of the Bill have to provide certain information in their strategic, corporate and business plans instead of having to prepare and develop additional and separate equality plans and action plans as required by the Act.

(c) Strengthen accountability for the implementation of measures aimed at promoting equality by ensuring that Annual Reports of Organs of State contain information on what they have done in this regard.

(d) To enhance co-ordination and prevent overlapping actions and duties, a Minister must, before issuing regulations and codes of practice or charters, have regard to other measures aimed at promoting equality which are already in place before

additional duties are conferred upon bodies. For this purpose, the Department of Justice and Constitutional Development must make available on its website a list of all the Codes issued by the Ministers.

(e) To strengthen enforcement of the provisions of the Act, the Bill now criminalises the wilful submission of false information by any person.

GOVERNMENT NOTICES • GOEWERMENTSKENNISGEWINGS

DEPARTMENT OF AGRICULTURE, LAND REFORM AND RURAL DEVELOPMENT

NO. 258 **26 March 2021**

PAYMENT PROCEDURES FOR IMPORT AND EXPORT PERMITS UNDER THE ECONOMIC PARTNERSHIP AGREEMENT (EPA), WORLD TRADE ORGANIZATION AGREEMENT (WTO) AND AFRICAN GROWTH OPPORTUNITY ACT AGREEMENT (AGOA) FOR THE YEAR 2021

FEES FOR THE DALRRD QUOTA ALLOCATION OF IMPORT AND EXPORT PERMITS

A fee of R1 480.00 per permit will be payable for permit and replacement permits issued from the 01 April 2021.

All application forms should be accompanied by proof of payment (bank deposit slip or cashier receipt).

Payment is to be made as follows:

Payment to Department of Agriculture, Land Reform and Rural Development bank account
Bank: Standard Bank
Branch: Arcadia
Branch No: 01-08-45
Account No.: 013024175
Account Name: NDA: Marketing Administration-Trade Incentives

OR

Payment in cash: Department of Agriculture, Land Reform and Rural Development bank, Pretoria
Agricultural Place, 20 Steve Biko Drive,
Arcadia,
Block S: Room GF 14

Payment must be made per application period and no payments should be made in advance for another period.

There will be no refunds to applicants who pay more than the stipulated permit fee and those who submit incomplete application.

MR M. RAMASODI
ACTING DIRECTOR-GENERAL

DEPARTMENT OF AGRICULTURE, LAND REFORM AND RURAL DEVELOPMENT

NO. 259 **26 March 2021**

ANIMAL IDENTIFICATION ACT, 2002
(ACT No. 6 OF 2002)

REGULATIONS: AMENDMENT

The Minister of Agriculture, Forestry and Fisheries, acting under section 18(1)(f) of the Animal Identification Act, 2002 (Act No. 6 of 2002), made the regulations in the Schedule.

SCHEDULE

Definitions

1. In this Schedule "the Regulations" means the Regulations published by Government Notice No. R 209 of 10 March 2006.

Substitution of Table 1 of the Regulations

2. The table in the Annexure is hereby substituted for Table 1 of the Regulations.

TABLE 1

FEES PAYABLE

Purpose	Amount payable per application
1. Registration of an animal identification mark (Reg. 3(2))	R170 per application
2. Transfer of the registration of an animal identification mark (Reg.6(2))	R170 per application
3. Copy of animal identification certificate	R170 per application
4. Application for duties of pound master in terms of section 14 of the Act (Reg. 8(1))	R170 per application
5. Application for registration as marking operator (Reg. 7(2))	R170 per application
6. Registered post (optional)	Determined by service provider

DEPARTMENT OF SPORTS, ARTS AND CULTURE

NO. 260 **26 March 2021**

NOTICE IN TERMS OF THE PUBLICATION OF ENGLISH-ISIZULU ENGINEERING AND CONSTRUCTION TERM LIST FOR PUBLIC COMMENTS

I, Nkosinathi Emmanuel Mthethwa, Minister of Sport, Arts and Culture hereby publish the English-isiZulu Engineering and Construction Term List for public comments.

NE Mthethwa, MP
Minister of Sport, Arts and Culture
Date: 2021-03-12

sport, arts & culture
Department:
Sport, Arts and Culture
REPUBLIC OF SOUTH AFRICA

A

absorption field *{plumbing}*

A system of trenches containing coarse *aggregate and distribution pipes through which septic-tank effluent may seep into the surrounding soil.*

Source definition: www.thefreedictionary.com

isiZulu **indawo yokumunca inkucunkucu**

abutment *{retaining wall}*

A concrete support wall constructed at both ends of a bridge or an arch, in order to resist the horizontal force from the bridge or the arch, support the ends of the bridge span and to prevent the bank from sliding under.

Source definition: Definitions of Civil Engineering Terms (1992)

isiZulu **i-abhutimenti**

isiZulu **udonga oluyinsika yebhuloho**

access chamber

An underground chamber enabling access *to drains or underground services.*

Source definition: Aleckassociates.co.uk amended

isiZulu **intuba yokungena**

acrow prop *{temporary support}*

A *telescopic prop much used as a temporary support in construction.*

Source definition: Aleck associates Ltd.

isiZulu **insika yokusekela isikhashana**

actuator

A component of machines that is responsible for moving or controlling a *mechanism or system.*

Source definition: https://enwekipedia.org

isiZulu **i-actuator**

aerospace engineering

The primary field of engineering concerned with the development of aircraft and spacecraft.

Source definition: Wikipedia.com

isiZulu **ubunjiniyela bezindizamshini**

aggregate *{concrete}*

A broad category of coarse particulate material used in construction, including sand, gravel, crushed stone, slag, recycled concrete and geosynthetic aggregates.

Source definition: www.wikipedia

isiZulu **inhlanganisela eqinisa ezokwakha**
isiZulu **umumo ophelele**

agricultural engineering

The area of engineering concerned with the design, construction and improvement of farming equipment and machinery.

Source definition: Environmentalscience.org adapted

isiZulu **ubunjiniyela bemisebenzi yezolimo**

isiZulu **ubunjiniyela ngezolimo**

airbrick

A special type of brick that has small holes in it that allow air to go through a wall.

Source definition: Cambridge English Dictionary.org

isiZulu **isitini esingenisa umoya**

air-conditioner condenser

A device or unit used to condense a substance from its gaseous to its liquid state, by cooling it.

Source definition: Wikipedia.org adapted

isiZulu **isijiyisi sokuguqulwa komoya endlini**
isiZulu **isijiyisi sokulinganiswakomoya endlini**

air conditioning

A system for controlling the humidity, ventilation, and temperature in a building or a vehicle.

Source definition: Concise Oxford English Dictionary

isiZulu **ukuhlelwa komoya**
isiZulu **ukulawulwa komoya**
isiZulu **ukulinganisa ubunjalo bomoya endlini**
isiZulu **ukulinganiswa komoya endlini**

aircrete

A lightweight aerated cement-based material from which easily handled high insulating building blocks are made.

Source definition: Aleck associates Ltd

isiZulu **ukhonkolo**

air duct

A pipe or channel permitting air to travel through a system, building, or other structure, such as a mine.

Source definition: Collinsdictionary.com

isiZulu **ipayipi yomoya**

air-entrained concrete (complex compound noun)

A concrete used for constructing roads which has about 5% air and is therefore less dense than ordinary good concrete, but it has excellent freeze-thaw resistance.

Source definition: Definitions of Definitions of Civil Engineering Terms (1992)

isiZulu **ukhonkolo lokwakha umgwaqo**

alcove

A small area in a room that is created by building part of one wall further back than the rest of the wall.

Source definition: Macmillan English Dictionary

isiZulu **ikhosela ekamelweni**
isiZulu **ikhosela endlini**
isiZulu **igosi elakhiwe odongeni**

anchor *{for stability}*

Any fastener (usually metal) used to attach parts, such as joists, trusses, posts, etc., to masonry or masonry materials.

Source definition: Beaufortonline.com

isiZulu **isankora**
isiZulu **ihange**

ant cap

A *termite barrier (shield), usually of galvanised iron, placed over piers and dwarf walls to control the entry of termites.*

Source definition: Construction Dictionary of Building Terms

isiZulu **isivimbeli ntuthwane**

applied engineering

The field concerned with the application of management, design, and technical skills for the design and integration of systems, the execution of new product designs, the improvement of manufacturing processes, and the management and direction of physical and/or technical functions of a firm or organisation.

Source definition: Wikipedia.org

isiZulu **ubunjiniyela bokuqondisa**
isiZulu **ubunjiniyela bokusentshenziswa**

arcade

A covered passage at the side of a building.

Source definition: Macmillan English Dictionary

isiZulu **imbubhe**
isiZulu **isakhiwo esinegobela**
isiZulu **i-akheyidi**

architect umdwebizakhiwo

Someone who plans, designs, and reviews the construction of buildings. Source definition: Wikipedia

isiZulu	**umdwebizakhiwo**
isiZulu	**isazi sokwakha**
isiZulu	**umqambi wemumo wendlu**
isiZulu	**umklami wokwakhiwa kwezindlu**

architectural engineering

The branch of engineering that deals with the construction of *buildings (as distinguished from architecture as* a *design art).*

Source definition: Thefreedictionary.com

isiZulu	**ubunjiniyela bokwakhiwa kwezlndu**
isiZulu	**ubunjiniyela bokumiswa kwezakhiwo zezlndlu**
isiZulu	**ubunjiniyela boklama**

architecture

The art of *planning, designing, and constructing buildings.*

Source definition: Collinsdictionary.com adapted

isiZulu	**indlela yokhwakha**
isiZulu	**ukwakhiwa kwezindlu**
isiZulu	**ukumiswa kwezakhiwo**

architrave

A *frame around a doorway or window.*

Source definition: Concise Oxford English Dictionary

isiZulu	**umhlobisonsika**
isiZulu	**ukuhlobisa ngamapulwangwe okuzungeza umyango**
isiZulu	**ukuhlobisa ngamapulangwe okuzungeza ifasitela**

areaway

A sunken space affording access, air, and light to a basement.

Source definition: Mariam-Webster.com

isiZulu	**indawo embelekile**
isiZulu	**indawo eyisigobe**

area well

The space created by a corrugated metal or concrete barrier walls installed around a basement window to back the earth.

Source definition: Homewyse.com adapted

isiZulu **i-eriyaweli**

arris
A sharp edge formed when two planes or surfaces meet.
Synonym **arris edge**

Source definition: Beaufortline.com

isiZulu **i-arisi**

arris edge → arris

as-built drawing

A construction drawing revised to show significant changes made during the construction process, usually based on marked-up prints, drawings and other data furnished by the contractor or the engineer.

Source definition: Definitions of Definitions of Civil Engineering Terms (1992)

isiZulu **ukubuyekezwa komdwebosakhiwo**
isiZulu **ukubuyekezwa kweplani yesakhiwo**

ashpit
A receptacle in the bottom of a fireplace, or the like, for the accumulation of ashes.

Source definition: Dictionary.com

isiZulu **isifoco somlotha**
isiZulu **umgodi womlotha**
isiZulu **isikhoxe somlotha**

astragal
An applied moulding attached most commonly to the meeting edge of doors.

Source definition: Allegion

isiZulu **isihlanganisimagilasi esivundlile**
isiZulu **isihlanganisimagilasi esiqumile**
isiZulu **i-astragali**

atrium
A large open hall that goes up through all the levels of a building to the roof, which is usually made of glass.

Source definition: Macmillan English Dictionary

isiZulu **i-athriyamu**

attic

A space found directly below the pitched roof of a house or other building.

Source definition: Wikipedia adapted

isiZulu **i-athiki**
isiZulu **igumbimkhathi**
isiZulu **igumbi eliphezulu endlini**

autonomous vehicle *{electrical engineering}*

A motor vehicle that uses artificial intelligence, sensors and global positioning system coordinates to drive itself without the active intervention of a human operator.

Source definition: Wikipedia.org.adapted

isiZulu **imoto ezihambelayo**

awning window

A window consisting of several top-hinged sections arranged in a vertical series, operated by one or more control devices that swing the bottom edges of the sections outward, and designed especially to admit air while excluding rain.

Source definition: Meriam-Webster.com

isiZulu **ifasitela lokusitha ilanga**
isiZulu **iwindi lokusitha ilanga**

axed arch

An arch made of bricks that have been roughly cut into a wedge shape.

Source definition: Thesciencedictionary.org

isiZulu **igobela**

B

back siphonage

The backward flow of used, contaminated, or polluted water from a plumbing fixture or vessel into the potable water supply, often due to negative pressure in a pipe.

Source definition: www.dictionaryof construction.com

isiZulu **umbhobho wukomunca amanzi emuva**
isiZulu **umbhobho wokuthelelela emuva kwamanzi**

back vent *{plumbing}*

A ventilating pipe attached to a waste pipe on the sewer side of its trap to prevent siphonage.

Source definition: Meriam-Webster.com

isiZulu **ipayipi yokungenisa umoya**

balcony
A deck projecting from the wall of a building above ground level.

Source definition: Beaufortline.com

isiZulu **uvulande ophezulu**
Synonym **uvulande osesitezi**

balloon framed wall complex
The structure of the building holding up the walls, floors, and roof.

Source definition: Study.com

isiZulu **udonga oluyibhaluni**
isiZulu **ubonda oluyibhaluni**

baluster

A short pillar forming part of a series supporting a rail or coping.

Source definition: Concise Oxford English Dictionary

isiZulu **ibhalusta**

isiZulu **belusithe**
isiZulu **belusitha**

balustrade
A rail and the row of balusters or posts that support it, as along the front of a gallery.

isiZulu **ibhalustredi**
isiZulu **isibambelelo sokuzivikela nokuzisiza esitezi**
Synonym **isibambelelo esakhiwe esitezi sokuzivikela ukuwa**

banister *{stairway}*
A handrail with supporting posts used alongside a stairway.

Synonym **bannister**

isiZulu **isibambelelo sokuvimbela abantu bangawi esitezi**
isiZulu **ibhanista**

banister → banister

barge *{support}*
One of the sloping pieces of wood that supports a roof.

Source definition: Collins English Dictionary.com

isiZulu **isikhoco sendlu**

isiZulu **ibhaji**

barge board

A board which hangs from the projecting end of a roof, covering the gables; often elaborately carved and ornamented in the Middle Ages.

Source definition: ThoughtCo.com

isiZulu **uqwembe lwesikhoco sendlu**

baseboard

A trim board placed against *the wall around the room next to the floor.*
Synonym **skirting**

Source definition: Homebuildingmanual.com

isiZulu **isikeyiti**

base course
The bottom layer of material laid down in the construction of a pavement.

Source definition: Definitions of Civil Engineering Terms (1992)

isiZulu **isandlalelo sesisekelo**

base shoe *{flooring}*

A narrow moulding often of quarter round joining the bottom of a baseboard and the floor.

Source definition: Meriam-Webster.com

isiZulu **umhlobiso wendawo yaphansi**
isiZulu **isisekelo sendawu yaphansi**

bat *{brick}*

A brick cut transversely so as *to leave one end whole.*

Source definition: Dictionary.com

isiZulu **ibhathi**

batt *{fibreglass}*
A piece of fibreglass used to insulate buildings.

Source definition: Google.com

isiZulu **ibheti**

batten *{wood}*
A long strip of wood that is fixed to something to strengthen it or to hold it firm.

Source definition: Collins Cobuild English Dictionary adapted

isiZulu **ithandela**
isiZulu **ibhathini**
isiZulu **isikhonkhwane sokukhonkhotela**

batter *{wall}*
An inward slope from bottom to top of a wall face.

Source definition: Definitions of Civil Engineering Terms (1992)

isiZulu **ibhatha**
isiZulu **utsheku**
isiZulu **ukwehlela kophahla**
isiZulu **ukutshekela kophahla**
isiZulu **udonga lokutsheka**
isiZulu **ubonda lokutsheka**

bay window
A window built to project outwards from an outside wall.

Source definition: Google.com

isiZulu **iwindi eliphumela ngaphandle**
isiZulu **ifasitela eliphumela ngaphandle**
isiZulu **iwindiqhunsu**
isiZulu **ifasitelaqhunsu**

beam *{support}*

A long thick bar of wood, metal, or concrete, especially one used to support the roof of a *building.*

Source definition: www.wikipedia.com

isiZulu **umshayo**
isiZulu **umjanjatho**
isiZulu **ibhumu**

bearing wall

A wall that bears the weight of the house above said wall, resting upon it by conducting its weight to a foundation structure.

Source definition: Wikipedia

isiZulu **udonga oluyisisekelo**
isiZulu **ubonda oluyisisekelo**

berm .

An artificially placed continuous ridge or bank of earth, usually along a roadside.

Source definition: www.Dictionary of Construction Terminology

isiZulu **udonga**

isiZulu **unqenqema**
isiZulu **ukhalo**

bevel *{instrument}*

An instrument consisting of two rules or arms jointed together and opening to any angle for drawing angles or adjusting surfaces to be cut at an angle.

Source definition: Meriam-Webster.com

isiZulu **ibheveli**
isiZulu **isikwele ibheveli**

bifold door

A door that slides open, made from a series of panels that fold up against the wall like a concertina.

Source definition: vibrantdoors.co.uk

isiZulu **umyango osongayo**

billet

Each of a series of short cylindrical pieces inserted at intervals in Norman decorative mouldings.

Source definition: Concise Oxford English Dictionary

isiZulu **itiyela**
isiZulu **ibhilethi**

bitumen

A black, sticky substance such as tar or asphalt, used for making roads and roofs.

Source definition: Dictionary.cambridge.org

isiZulu **itiyela**
isiZulu **isitafutafu esimnyama esakha umgqwaqo**

bleeding *{concrete}*

A form of segregation where some *of the water in the concrete tends to rise to the surface of the freshly placed material.*

Source definition: www.concrete.org.uk

isiZulu **ukucwenga kwe khonkolo**
isiZulu **ukwahlukaniswa kwe khonkolo**

blinding *{layer of concrete}*

A layer of lean concrete usually 2 to 4 inches thick, put down on soil such as *clay to seal it and provide a clean bed for reinforcement to be laid on.*

Source definition: Definitions of Civil Engineering Terms (1992)

isiZulu **ikhebakheba**

blind nailing

A *type of nailing performed* so *that the nailhead cannot be seen on the face of the work.*

Source definition: Dictionary of Construction Terminology

isiZulu **umfutho ovaliwe**
isiZulu **ukushayela okuvaliwe**

block

A small wooden piece to brace framing members or to provide a nailing base for gypsum board or paneling.

Source definition: Homebuildingmanual.com

isiZulu **ibhloko**
isiZulu **ibhlokwe**

block out <n.>

A space where concrete is not to be placed, in a *concrete structure which is under construction.*

Source definition: Thefreedictionary.com adapted

isiZulu **indawo engafuni ikhonkolo**
isiZulu **indawu engathelwa ikhonkolo**

blotter

A drilling into earth to bring up samples of the soil.

Source definition: Definitions of Civil Engineering Terms (1992)

isiZulu **ibhulota**
isiZulu **i-blotter**

blueprint <n.>

A reproduction of a technical drawing, documenting an architecture or an engineering design, using a contact print process on light-sensitive sheets.

Source definition: Wikipedia

isiZulu **isifanekiso sento ezokwakhiwa**
isiZulu **isifanekiso somshini**

blue staking <n.>

The act of marking underground facilities such as electric, gas, water, telephone, cable or other underground facilities so that these networks are not damaged during excavation, trenching or digging activities.

Source definition: Arizona Corporation Commission

isiZulu **isigxobo**
isiZulu **isikhonkwane**

bonnet roof

A roof having a double slope on all four sides, the lower slope being less steep than the upper slope; often extends over an open-sided raised porch to provide excellent shade for the house and protection against rain.

Source definition: Thefreedictionary.com

isiZulu **uphahla lobhonethi**

boom *{mounted on e.g. a truck, vehicle}*
A truck used to hoist heavy material up and into place.

Source definition: Homebuildingmanual.com

isiZulu **ugongolo olwakhelwe ukuvala indlela**

boom *{access control}*

A bar, or pole pivoted to allow the boom to block vehicular access through a controlled point.

Source definition: Wikipedia

isiZulu **ugongolo olwakhelwe ukuvalaindela**

bottom plate
The horizontal beam on which the studs of a partition rest.

Source definition: Meriam-Webster.com

isiZulu **ibhimu evundlayo**
isiZulu **ibhimu enqamulayo**

bowstring truss
A structural truss consisting of a curved top chord meeting a bottom chord at each end.

Source definition: Dictionary.com

isiZulu **uphahla lemichilo**

breaker panel

A steel box that holds multiple circuit breakers wired to circuits that distribute power throughout one's home.

Source definition: HomeDepot.com

isiZulu **bhokisi lukagesi**

brick guard

A steel mesh panel used on scaffolding to make sure that loose bricks cannot fall off the scaffold.

Source definition: Aleck Associates Ltd. amended

isiZulu **isivimbeli sesitini**

brick ledge

The portion of a foundation wall where brick (veneer) rests.

Source definition: Dictionary of Construction Terminology

isiZulu **ishalafu lwesitini**

isiZulu **ileji lwesitini**

brick lintel

The angle that brick rests on, especially above a window, door, or other opening.

Source definition: Honmebuildingmanual.com

isiZulu **ilenteli**

brick mould
A *strip of material used to close the small gap between a brick wall and the frame of a door or window set into the wall.*

Source definition: www.wisegeek.com

isiZulu **i-brickmould**

brick mould
A *templet (used by a bricklayer, plasterer, in masonry, etc.) into which a liquid substance is cast or pressed and allowed to cool or harden so as to take a particular shape or pattern.*

Source definition: Shorter Oxford English Dictionary

isiZulu **ifolomo yezitini**

brick tie

A small architectural element that is used to connect two brick walls across a narrow cavity or to bind a brick wall to a wood or steel frame.

Source definition: www.wisegeek.com

isiZulu **isiqinisa ubonda**
isiZulu **isiqinisa udonga**

bridge
A *structure that is built over a river, road, or railway to allow people and vehicles to cross from one side to the other.*

Source definition: Dictionary.cambridge.org

isiZulu **ibhuluho**

bridge deck

The load-bearing floor of a bridge that carries and spreads the loads to the main beams.

Source definition: Definitions of Civil Engineering Terms (1992)

isiZulu **itafula lebhuloho**

bridging *{stability and load distribution}*

A method of lateral bracing between joists for stiffness, stability, and load distribution.

Source definition: Dictionary of Construction Terminology

isiZulu **ukuqinisa**

buck *{subframe}*

The wood or metal subframe of a door, installed in a wall to accommodate the finished frame.

Source definition: Dictionary of Construction Terminology

isiZulu **uphahla oluncane**
isiZulu **ifulemu elincane**

building code

Municipal regulations that set forth standards and requirements for construction, maintenance, and occupancy of buildings in the interest of health, safety, and welfare of the public.

Source definition: BusinessDictionary.com

isiZulu **imithetho yezokwakha**

building paper

A heavy paper used especially in the construction of frame buildings to block draughts, for insulation, etc.

Source definition: www.dictionary.com

isiZulu **iphepha lokwakha**

built-up roof

A usually flat or slightly sloped roof that is covered with a special material applied in sealed, waterproof layers.

Source definition: www.dictionary.com

isiZulu **uphahla oluphakameyo**

butterfly roof

A roof having more than one slope, each descending inward from the eaves.

Source definition: www.dictionary.com

isiZulu **uphahla i-butterfly**

buttjoint

A joint formed by two pieces of wood or metal united end to end without overlapping.

Source definition: www.dictionary.com

isiZulu **ukuhlangana okuthingquphu**

buttress *{reinforcement}*

An architectural structure built against or projecting from a wall which serves to support or reinforce the wall.

Source definition: www.wikipedia.com

isiZulu **umthangala**
isiZulu **insika eqinisayo**

buttress → counterfort

bypass *{road}*

A road or highway that avoids or "bypasses" a *built-up area, town, or village, to let through traffic flow without interference from local traffic, to reduce congestion in the built-up area, and to improve road safety.*

Source definition: en.wikipedia.org

isiZulu **indlela edlula eceleni**
isiZulu **indlela enqamulayo eceleni**

bypass doors

Doors that slide by each other and commonly used as *closet doors.*

Source definition: Homebuildingmanual.com

isiZulu **imnyango eshelelezayo**

C

CAD → computer-aided design

caisson *{a watertight retaining structure}*

A watertight boxlike structure or chamber, made of wood, steel, or concrete usually sunk excavating within it, for the purpose of gaining access to bed of a stream and placing the foundations at prescribed depth and which subsequently forms part of the foundation itself.

Source definition: Theconstructioncivil.org

isiZulu **ibhokisi umuntu asebenzela kulo phansi kwamanzi**

camber *{arched surface}*

A slightly arched surface of a road to compensate for anticipated deflection or to allow for drainage.

Source definition: Definitions of Civil Engineering Terms (1992)

isiZulu **ukuphakama komgwaqo**

cantilever *{beam}*

A beam which is securely supported at one end, and hangs freely at the other.

Source definition: Definitions of Civil Engineering Terms (1992)

isiZulu **insika elengayo**
isiZulu **ibhimu elengayo**

cased window → sash window

casement

A window sash opening on hinges that are generally attached to the upright side of its frame.
Synonym **casement window**

Source definition: www.dictionary.com

isiZulu **iwindi elivukele eceleni**
isiZulu **ifasitela elivulekele eceleni**
isiZulu **iwindi lekheyisimente**
isiZulu **ifasitela lekheyisimente**

casement window → casement

cast-in-place <adj.>

That is to be assembled or cast on site rather than prefabricated in a factory, e.g. a beam, a *pile or other construction material.*
Synonym **cast-in-situ**

Source definition: Quora.com amended

isiZulu **ehlanganiswa endaweni yokwakha**

cast-in-situ → cast-in-place

caulking *{sealing}*

The processes and material (also called sealant) to seal joints or seams *in various structures and* some *types of piping.*

Source definition: Wikipedia.org

isiZulu **ukunamathelisa**
isiZulu **ukugcwalisa imiveve ngetiyela**

cavity wall

A wall that consists of two separate walls with a space between them.

Source definition: Collins English Dictionary

isiZulu **ubonda elinombhobho**
isiZulu **undonga elinombhobho**

ceiling

An overhead interior surface that covers the upper limits of a room.

Source definition: Wikipedia adapted

isiZulu **isilingi**

celotex *{fibrous board}*

A black fibrous board that is used as exterior sheathing.

Source definition: Dictionary of Construction Terminology

isiZulu **iselotheksi**

cement mortar

A workable paste used to bind building blocks such as stones, bricks, and concrete masonry units together, fill and seal the irregular gaps between them, and sometimes add decorative colours or patterns in masonry walls.

Source definition: Wikipedia.org

isiZulu **udaka**

ceramic tile

A tile made from clay that has been permanently hardened by heat, often having a decorative glaze.

Source definition: Google.com

isiZulu **ithayela iseramikhi**

cesspipe → soil pipe

chase

A groove or space in walls or through floors of a building for piping or ducts.

Source definition: Wikipedia

isiZulu **umsele wombhobho**

chemical engineering

The branch of engineering concerned with the design and operation of industrial chemical plants.

Source definition: Concise Oxford English Dictionary

isiZulu **ubunjiniyela bekhemikhali**

chipboard

A building material made from wood chips compressed and bound with synthetic resin. Source

definition: www.yourdictionary.com

isiZulu **ibhodi**
isiZulu **ipulangwe yezwibela**

civil engineering

A professional engineering discipline that deals with the design, construction, and maintenance of the physical and naturally built environment, including works like roads, bridges, canals, dams, airports, sewerage systems, pipelines and railways.

Source definition: Wikipedia.org

isiZulu **ubunjiniyela bezokhwaka**

cladding

The separately applied exterior finish of a framed building.

Source definition: Aleck Associates Ltd

isiZulu **ukugqokisa**
isiZulu **ukwembesa**

clamp → cramp

clerestory

A large window or series of small windows along the top of a structure's wall, usually at or near the roof line.

Source definition: Thoughtco.com adapted

isiZulu **iklerestori**

clerestory roof

A roof with a vertical wall which sits between the two sloping sides, which features a row of windows.

Source definition: www.build.com adapted

isiZulu **uphahla loklerestori**

coastal engineering

The study of the processes ongoing at the shoreline and construction within the coastal zone.

Source definition: Coastal.udel.edu adapted

isiZulu **ubunjiniyela bogu**
isiZulu **ubunjiniyela basegwini**

collapsible door

A door which can be opened or closed by slight pull orpush.

Source defintion: https://gharpedia.com adapted

isiZulu **umyango obocozekayo**
isiZulu **umyango osongekayo**

collar *{roof}*

A preformed flange placed over a vent pipe to seal the roofing above the vent pipe

opening.

Source definition: Homebuildingmanual.com amended

isiZulu **isivimbela ukuvuza**

compaction *{construction material}*

The elimination of voids in construction materials, as in concrete, plaster, or soil, by vibration, tamping, rolling, or some other method or combination of methods.

Source definition: Dictionary of Construction Terminology

isiZulu **ukugingqika ukugoqeka**
isiZulu

computer-aided design

A computer technology that designs a product and documents the design's process.
Acronym **CAD**

Source definition: www.techopedia.com

isiZulu **ukuklama ngekhompyutha**

computer engineering

A *discipline that integrates several fields of electrical engineering and computer science required to develop computer hardware and software.*

Source definition: Wikipedia.org adapted

isiZulu **ubunjiniyela bezekhompyutha**

concrete

A heavy, rough building material made from a mixture of broken stone or gravel, sand, cement, and water.

Source definition: Google.com

isiZulu **ukhonkolo**
isiZulu **usemende**

concrete pump

A piece of construction equipment designed to pump concrete through a hose, originating from a pump mounted on a truck or trailer.

Source definition: Construction & Home Renovation Glossary.com

isiZulu **isifutho sekhonkolo**
isiZulu **iphampu**

conduit

A *pipe used to protect wiring or another venerable construction product or component.*

Source definition: Construction & Home Renovation Glossary.com

isiZulu **umbhobhowecingolukagesi**
Synonym **ikhonduyithi**

construction

The building of things such as houses, factories, roads and bridges.

Source definition: Collins Cobuild

isiZulu **ukwakha**

construction engineering

A *specialised branch of civil engineering concerned with the planning, execution, and of construction operations for projects such as highways, dams, utility lines, and buildings.*

Source definition: Thefreedictionary.com

isiZulu **ubunjiniyela bezokwakha**

control engineering

The study and design of systems, typically of a mechanical or electrical nature, which control the operation of machinery.

Source definition: Oxforddictionaries.com

isiZulu **ubunjiniyela bokuqondisa**
isiZulu **ubunjiniyela bokuphatha**

control joint

A groove which is formed, sawn, or tooled in a concrete or masonry structure to regulate the location and amount of cracking and separation resulting from the dimensional change of different parts of the structure, thereby avoiding the development of high stresses.

Source definition: www.en.wikitionary.org

isiZulu **isivekela ukdubuka**
isiZulu **isivikela kutlewuka**

coping *{protective cap)*

The protective top member of any vertical construction such as *a wall or chimney.*

Source definition: Dictionary of Construction Terminology

isiZulu **isisibekelwana sokuvimbela**

corbel

A structural piece of stone, wood or metal jutting from a wall to carry a *superincumbent weight.*

Source definition: wikipedia.com adapted

isiZulu **ikhobheli**

comer bead

A material that is used on the corners of walls in drywall construction to make the corners crisp and professional looking.

Source definition: www.wisegeek.com

isiZulu **isiklamuzelisi makhona**

cornice

A decorative border of wood or stone at the edge of the ceiling of a *room or under the roof of* a *building.*

Source definition: www.dictionary.cambridge.com

isiZulu ipulangwe lonqenqema lesilingi
isiZulu ikhonisi

counterfort
A strengthening buttress at *right angles to a retaining wall, bonded to it to prevent overturning or to increase its bending strength.*
Synonym **buttress**

Source definition: www.collinsdictionary.com

isiZulu **insika eqinisayo**

course *{roof}*
A row of shingles or roll roofing running the length of the roof.

Source definition: Dictionary of Construction Terminology

isiZulu **ikhosi**

cramp

Metal component built into masonry to join it to another member, for example a *window frame ('frame cramp'), or to join two masonry units together.*
Synonym **clamp**

Source definition: Aleck Associates Ltd

isiZulu **ikilempu**

crane

A mechanically operated device which is located on *or around* a *building site for the purpose of lifting building components or equipment into position.*

Source definition: Construction Glossary of Building Terms

isiZulu **unkaxa**
isiZulu **isicakuli**
isiZulu **umboko**
isiZulu **ujibha**
isiZulu **umshini wokufula izimpahla ezisindayo**

crank

A device which allows movement to go between parts of a machine or which changes backward and forward movement into circular movement.

Source definition: www.wikipedia.com adapted

isiZulu **isigwedlo**
isiZulu **ikrenki**

cricket *{roof}*

A device used at roof intersections to divert water.

Source definition: Beaufortonline.com

isiZulu **ukhalo lophahla**

cripple *{building frame}*

A structural element that is shorter than usual, as a stud above a door opening or below a window sill. Source definition: Thefreedictionary.com

isiZulu **insikalencane**

cripple jack rafter → cripple

cross bridging

A diagonal bracing between adjacent floor joints, placed near the centre of the joist span to prevent joists from twisting.

Source definition: Dictionary of Construction Terminology

isiZulu **ukuqinisa okuphambanayo**
isiZulu **uqinisa okunqumlayo**

cross gable

A roof that has two or more gable rooflines that intersect.

Source definition: http://realtormag.realtor.org adapted

isiZulu **uphahla lokugamanxana kwamagebula**

cross hipped roof

A type of a hip roof that has two intersecting hip sections that run perpendicular to each other.

Source definition: www.chasinggreen.org

isiZulu **uphahla oluyisiphambano**
uphahla olunqamulayo
isiZulu

culvert

A structure that allows water to flow under a road, railroad, trail, or similar obstruction from one side to the other side.

Source definition: Wikipedia.org

isiZulu **umsele wokudonsa amanzi emgwaqeni**

cupola *{roof}*

A small, decorative structure built on the roof of a house that is often placed over an attached garage and may also be used for ventilating purposes.

Source definition: Beaufortline.com

isiZulu **ikhaphola**

curb roof
A roof having two or more slopes on each side of the ridge.

Source definition: Homebuildingmanual.com

isiZulu **uphahla olutshekile**
isiZulu **uphahla lonqenqema**

curing *{concrete}*

The process of maintaining satisfactory moisture and temperature conditions for freshly placed concrete for some specified time for proper hardening of concrete.

Source definition: Civilengineeringx .com

isiZulu **ukuqinisa ikhonkolo**

custodial lock *{windowhardware}*

A window hardware only operable with a tool or key.

Sourcedefinition: Glossary of Industry Terms

isiZulu **isikhiya sefasitela**

dado (wall)

The lower part of the wall of a room, below about waist height, when decorated differently from the upper part.

Source definition: Oxforddictionaries.com

isiZulu **ibhande elizungeza udonga endlini**
isiZulu **i-dado**

damper

A moveable metal plate in a flue or chimney, used to regulate the draught and so control the rate of combustion.

Source definition: Concise Oxford English Dictionary

isiZulu **insimbi evimbela umoya wokuvuthisa umlilo**

damp-proof course

A type of moisture control applied to building walls and floors to prevent moisture from passing into the interior spaces.
Abbreviation **DPC**

Source definition: Wikipedia

isiZulu **udamkosi isithiyamswakama**
isiZulu

dead bolt

An exterior security lock installed on exterior entry doors that can be activated only with a key or thumb-tum.

Source definition: Dictionary of Construction Terminology

isiZulu **umshudo**

design engineering
A discipline that creates and transforms ideas and concepts into a product definition that satisfies customer requirements.

Source definition: Innovationexcellence.com adapted
isiZulu **ubunjiniyela bezomqopho**
isiZulu **ubunjiniyela bezomdwebo**
isiZulu **ubunjiniyela bezokuqamba**
isiZulu **ubunjiniyela bezoklama**

die *{specialised tool}*

A specialised tool used in manufacturing industries to cut or shape material mostly using a press.

Source definition: Wikipedia

isiZulu **ifolomu**

domed roof
An architectural element that resembles the hollow upper half of a sphere.

Source definition: Wikipedia

isiZulu **uphahla olugobongo**

dormer *{window}*

An opening in a sloping roof, the framing of which projects out to form a vertical wall suitable for windows or other openings.

Source definition: Beaufortline.com

isiZulu **ifasitela legumbimkhathi**

isiZulu **ifasitela elusephahleni**

downpipe downspout

downspout

A pipe on the side of a building that carries rain water down from the roof to the ground.

Synonym **downpipe**

Source definition: Macmillan English Dictionary

isiZulu **umbhobho wegadasi**
isiZulu **ipayiphi ewewukayo**

DPC → damp-proof course

drain tile

A perforated, corrugated plastic pipe laid at the bottom of the foundation wall and used to drain excess water away from the foundation.

Source definition: Dictionary of Construction Terminology

isiZulu **umbhobho wokudonsa amanzi**

dry-packed concrete

A strong mixture of cement and sand damped with small amount of water, used to fill holes in existing walls, for example in underpinning.

Source definition: Aleck Associates Ltd

isiZulu **ukhonkolo wokuvala imigodi**

drywall

A board made of several plies of fiberboard, paper, or felt bonded to a hardened gypsum plaster core and used especially as wallboard.

Source definition: Mariam-Webster.com

isiZulu **udonga lwebhodi**

Dutch gable roof

A gable whose sides have a shape made up of one or more curves and has a pediment at the top.

Source definition: Wikipedia

isiZulu **uphahla lwegebula lwesiDutch**

dwarf wall

A low wall, not as high as the story of a building, often used as a garden wall or fence.

Source definition: Thefreedictionary.com

isiZulu **udonga elifishane**
isiZulu **ubonda elifishane**

E

earthquake engineering

An interdisciplinary branch of engineering that designs and analyses structures, such as buildings and bridges, with earthquakes in mind and its overall goal is to make such structures more resistant to earthquakes.
Synonym **seismic engineering**

Source definition: Wikipedia.org adapted

isiZulu **ubunjiniyela bezoku zama zama kwomhlaba**

ECSA → Engineering Council of South Africa

egress window *{e.g. in case of an emergency}*

A window large enough, as defined by local business codes for entry or exit in case of an emergency.

Source definition: Alure.com adapted

isiZulu **ifasitela eliphumela ngaphandle**

elbow *{plumbing}*

A sharply bent or fabricated angle fitting, usually of pipe, conduit, or sheet metal.

Source definition: Dictionary of Construction Terminology

isiZulu **umbhobho oyindololwane**

electronic engineering → electronics engineering

electronics engineering

A discipline which uses the scientific knowledge of the behaviour and effects of electrons to develop components, devices, systems, or equipment that uses electricity as part of its driving force.

Synonym **electronic engineering**

Source definition: Wikipedia

isiZulu **ubunjiniyela bezebonhlansi**

elevator

A large container for carrying people or goods from one floor of a building to another.
Synonym **lift**

Source definition: Longman Dictionary of Contemporary English adapted

isiZulu **ilifthi**

embankment

A ridge constructed of earth, fill rocks, or gravel and used most commonly to retain water or to carry a roadway.

Source definition: Dictionary of Construction Terminology

isiZulu **udonga lokuvimbela**
isiZulu **ubonda lokuvimbela**

engineer

A person who is professionally trained to design and build machines, engines, certain equipment, or to construct roads, bridges, buildings, etc., using scientific principles.

Source definition: Cambridge Learners Advanced Dictionary adapted

isiZulu **unjiniyela**

engineering

The application of scientific and mathematical principles to practical ends such as the design, manufacture, and operation of efficient and economical structures, machines, processes, and systems.

Source definition: Thefreeditcionary.com

isiZulu **ubunjiniyela**

engineering brick

A type of brick used where the strength, low water porosity or acid (flue gas) resistance are needed.

Source definition: Wikipedia.org

isiZulu **isitini sobunjiniyela**

Engineering Council of South Africa

A statutory body established in terms of the Engineering Profession Act (EPA), 46 of 2000 and its primary role is the regulation of the engineering profession in terms of this Act.

Acronym **ECSA**

Source definition: Engineeringnews.co.za adapted

isiZulu **umKhandlu wobuNjiniyela wase niNgizimu Afrika**

environmental engineering

The branch of engineering that is concerned with protecting people from the effects of adverse environmental effects.

Source definition: Livescience.com adapted

isiZulu **ubunjiniyela bebunjalo bendawo**

escalator

A set of stairs that move and carry people from one level within a building to another.

Source definition: Longman Dictionary of Contemporary English

isiZulu **izitebhisi ezizihambelayo**

escutcheon *{ornamental or protective plate, e.g. around keyhole}*

An ornamental plate that fits around a pipe extending through a wall or floor to hide the cut out hole.

Source definition: Dictionary of Construction Terminology

isiZulu **i-escuthcheon**
isiZulu **isikashini**

extrados

The exterior curve or surface of an arch or vault.

Source definition: Dictionary.com

isiZulu **ingaphandle legobela**

F

face brick

A brick which is *intended to be visible, and is thus designed with some aesthetic aims in mind so that it* is *visually interesting and appealing to look at.*

Source definition: www.wisegeek.com adapted

isiZulu **isitini sangaphandle**

faced wall

A wall whose masonry facing and backing are of different materials.

Source definition: Thefreedictionary.com

isiZulu **udonga olwakhe ngezitini ezingafani**

fascia

A decorative board fixed to the ends of the rafters.

Source definition: Aleck Associates Ltd.

isiZulu **ifishiyabhodi**
isiZulu **uqwembe lwesikhoco sendlu**

faulting

The difference in elevation of two adjacent concrete slabs at a joint, primarily caused by the traffic-induced movement of base material particles from under one joint edge to under the adjacent joint edge.

Source definition: Definitions of Civil Engineering Terms (1992)

isiZulu **ukuphama okuhlukile**

fenestration
The design, construction, or presence of openings in a building and includes windows, doors, louvres, vents, wall panels, skylights, storefronts, curtain walls, and slope glazed systems.

Source definition: Wikipedia.org adapted

isiZulu **ukuhlelwa kwesakhiwo**
isiZulu **ukuba nezikhala kwesakhiwo**

ferrule
A metal tube used to keep roof gutters open.

Source definition: Dictionary of Construction Terminology
isiZulu **iferuli**
isiZulu **isongo lokuqinisa ilungu**

filler-joist floor
An obsolete but commonly-found form of floor comprising a concrete slab reinforced with steel L-beams known as rolled steel joints.

Source definition: Aleck Associates Ltd.

isiZulu **indawo yaphansi eqinisiwe ngentsimbi nokhonkolo**

fink truss

A wood or steel truss used to support a roof with a span of up to 50 feet.

Source definition: www.Yourdictionary.com

isiZulu **amakabha kaFink**
isiZulu **amabhanuko kaFink**
isiZulu **uhlaka lophahla kaFink**
isiZulu **uhlaka lophahla olunxantathu**

firebrick

A block of refractory ceramic material used in lining furnaces, kilns, fireboxes, and fireplaces.

Source definition: Wikipedia

isiZulu **isitina esimelana nomlilo**

firewall

A wall or partition designed to inhibit or prevent the spread of fire.

Source definition: Concise Oxford English Dictionary English 11th *Edition*

isiZulu **ubonda lokuvimbela umlilo**
isiZulu **udonga lokuvimbela umlilo**

fixture branch *{plumbing}*

Any pipe which connects several plumbing fixtures, such as a drain serving two or more fixtures or a supply pipe between the water-distributing pipe and several fixtures.

Source definition: Thefreedictionary.com

isiZulu **ipayipi ekuhlanganiswa kulo**

isiZulu **ipayipi ekudibaniswa kulo**

fixture unit *{unit of measure in plumbing}*

A unit of measure, based on the rate of discharge, time of operation and frequency of use of a fixture, that expresses the hydraulic load imposed by that fixture on the sanitary plumbing installation.

Source definition: Wikipedia.org adapted

isiZulu **isilinganisi payipi**

isiZulu **isikali somthamo**

flagstone

A generic flat stone, usually used for paving slabs or walkways, patios, fences and roofing.

Source definition: Wikipedia.org adapted

isiZulu **itshe eliyixwexwe**

flange

A projecting rim, collar, or ring on a shaft, pipe, machine housing, etc., cast or formed to give additional strength, stiffness, or supporting area, or to provide a place for the attachment of other objects.

Source definition: Dictionary.com

isiZulu **iflenji**
isiZulu **impundu yesondo**

flap gate *{e.g. to prevent inflow of water}*

A device that allows water to flow in one direction only through a culvert; it is used especially to drain surface water from coastal marshes at low tide.

Source definition: www.Yourdictionary.com

isiZulu **isango lokulawula amanzi**

flashing *{e.g. to prevent seepage from wind and water}*

Material, usually metal, used to prevent seepage of wind and water at any roof intersection or projection such as vent pipes, valleys, chimneys, dormers etc.

Source definition: Engineering-dictionary.org

isiZulu **ucwecwe lokhethe eluvalela imvula ingangeni**

flat roof

A roof with a slight fall which is designed and constructed to allow rainwater to be shed by gutters, outlets or to the perimeter of the roof.

Source definition: National Building Regulation Code of Good Practice

isiZulu **uphahla eliyithafa**

flatwork

Any flat system of construction, such as a concrete slab, sidewalks, patios, asphalt drives and parking lots.

Source definition: Dictionary.com

isiZulu **ithafa**

flitched beam

A compound beam used in the construction of houses, decks, and other primarily wood- frame structures.

Source definition: Wikipedia.org adapted

isiZulu **ugongolo**
isiZulu **umjanjatho**

floating wall

A non-bearing wall built on a concrete floor.

Source definition: Dictionary of Construction Terminology

isiZulu **ubonda oluntantayo**
isiZulu **udonga oluntatayo**

floor → storey

flue pipe

A pipe that leads from a fire or heater to the outside of a building, taking smoke, gases, or hot air away.

Source definition: www.dictionary.cambridge.org

isiZulu **umbhobho wentuthu**
isiZulu **umbhobho kashimula**

fly ash → pulverised fuel ash

fly rafter *{roofing}*

A gable-end rafter on a roof overhang that runs parallel to the common rafters and is supported by the lookout rafter.

Source definition: Dictionary of Construction Terminology

isiZulu **umshayo**

flywheel *{mechanical device}*

A heavy wheel that is part of some engines.

Source definition: Collins Dictionary

isiZulu **ifulayiwili**

folding door

A type of door which opens by folding back in sections or so-called panels.

Source definition: Wikipedia

isiZulu **umyango osongayo**

footing *{concrete support}*

A foundation unit constructed in brick work, masonry or concrete under the base of a wall or a column for the purpose of distributing the load over a large area.

Source definition: www.Quora.com

isiZulu **isizinzisi**
isiZulu **isisekelo**

foundation

The part of a structure of a building that is below the ground and supports the rest of it.

Source definition: Macmillan English Dictionary

isiZulu **isisekelo**
isiZulu **umthambo**

frog *{brick}*

A depression made on the face of bricks during moulding.

Source definition: Civilsutra.in

isiZulu **isifocosesitini**

G

gable *{roof}*

The triangular upper part of a wall at the end of a ridged roof.

Source definition: Concise Oxford English Dictionary

isiZulu **igebuli**
isiZulu **igebula**

galvanised iron *{iron coated with zinc}*

Iron, especially a sheet of corrugated iron, covered with a protective coating of zinc.

Source definition: www.Collinsdictioary.com

isiZulu **uthayela**

gambrel roof
A hipped roof with a small gable forming the upper part of each end.

Source definition: www.oxforddictionaries.org

isiZulu **uphahla oluyigambreli**
isiZulu **uphahla lwegebulana**

geotechnical engineering

The branch of engineering concerned with the analysis, design and construction of foundations, slopes, retaining structures, embankments, tunnels, levees, wharves, landfills and other systems that are made of or are supported by soil or rock.

Source definition: Ejge.com adapted

isiZulu **ubunjiniyela ngobunjalomhlaba**

girder

A beam, as of steel, wood, or reinforced concrete, used as a main horizontal support in a building or bridge.

Source definition: Thefreedictionary.com

isiZulu **insika ephansi okwakhiweyo**
isiZulu **umjanjatho wensimbi**

green roof *{roof covered with e.g. vegetation}*

A roof covered with vegetation, designed for its aesthetic value and to optimise energy conservation.

Source definition: www.dictionary.com

isiZulu **uphahla eluhlobile**

isiZulu **uphahla oluhlaza**

grille

A metal frame with bars or wire across, that is used for protecting a door or a window.

Source definition: Macmillan English Dictionary

isiZulu **ifasitela elinezinsimbi ezivimbileyo**

grout

A mortar or paste for filling crevices, especially the gaps between wall or floor tiles.

Source definition: Concise Oxford English Dictionary

isiZulu **igrawuthi**
isiZulu **isinamathelisi**

gusset plate
A triangular plate of steel that is used to connect beams and girders to columns.

Source definition: Wikipedia.org amended

isiZulu **isiqinisindwangu**

gutter

An open pipe at the lower edge of a roof which collects and carries away rain water.

Source definition: Cambridge Advanced Learners Dictionary

isiZulu **ugadasi**

H

half-hip roof

A variant of a hip roof depicting a small modification at the top of the gable.

Source definition: Myrooff.com

isiZulu **uphahla oluqhunsuke macala**

hardware *{tools and equipment}*

Metal tools, materials and equipment used in a house or a garden, such as hammers, nails and screws.

Source definition: Cambridge Advanced Learners Dictionary

isiZulu **izimpahla zokwakha**
isiZulu **amathulusi**

hearth

The floor of a fireplace in a house and the area around it.

Source definition: Macmillan English Dictionary

isiZulu **iziko**

hip and valley roof
A modified or extended hip roof.

Source definition: www.qbis.com

isiZulu **uphahla ulonwebekile**

hip roof
A simple roof which slopes downward at all points and has a uniform angle of pitch.

Source definition: Wikihow

isiZulu **umjanjatho onabile**

hod *{three-sided container for carrying bricks etc}*

A three-sided container mounted on a pole, used to carry bricks or mortar up a ladder.

Source definition: Aleck Associates Ltd.

isiZulu **okokuphatha izitini**

honeycomb brickwork

A brick bond characterised by the absence of certain bricks for decorative purposes, or to allow ventilation or provide a screened effect.

Source definition: Thefreedictionary.com

isiZulu **udonga oluhlobiswe njengokhekheba**

Howe truss

A truss having vertical and diagonal members between the upper and lower horizontal members.

Source definition: Meriam-Webster .com

isiZulu **amakabha kaHowe**
isiZulu **amabhanuko kaHowe**

hydraulic cement

A product used to stop water and leaks in concrete and masonry structures and is a type of cement, similar to mortar, that sets extremely fast and hardens after it has been mixed with water.

Source definition: Thebalance.com adapted

isiZulu **usemende womfutholuketshezi**

hydraulic engineering

The branch of civil engineering dealing with the use and control of water in motion.

Source definition: Vocabulary.com

isiZulu **ubunjiniyelabomfutholuketshezi**

industrial engineering
The branch of engineering that is concerned with the production of industrial goods, especially by the design of efficient plants and procedures and the management of

materials, energy, and labour.

Source definition: Thefreedictionary.com

isiZulu **ubunjiniyela bezemsembenzi**

insulation

The act of covering something to stop heat, sound, or electricity from escaping or entering, or the fact that something is covered in this way.

Source definition: Cambridge.org

isiZulu **ukuvimbelakushisa**
isiZulu **ukwemboza**

intrados

The interior curve or surface of an arch or vault.

Source definition: Dictionary.com

isiZulu **igobelalangaphakathilweashi**

J

jamb *{lining of e.g.* a *doorway}*

The side and head lining of a doorway, window, or other opening.

Source definition: Homebuildingmanual.com

isiZulu **isigxobo somnyango**

isiZulu **impeladonga yesikhala**

joggle

A joint between two pieces of stone, concrete, or timber, consisting of a projection in one of the pieces fitting into a notch in the other, or a small piece let in between the two.

Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu **ijoyinti**
isiZulu **isihlanganisi**

joinery

The wooden components of a *building collectively.*

Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu **umsebenziwokubaza amapulangwe**

joint sealant

A material used as a filler in concrete pavement joints to prevent infiltration of water, soil and other fine particles.

Source definition: Definitions of Civil Engineering Terms (1992)

isiZulu **ijoyinti yokuxhumanisa**

joist

Any of the small timbers or metal beams ranged parallel from wall to wall in a structure to support a floor or ceiling.

Source definition: Mariam-Webster.com

isiZulu **ijoyisti**
isiZulu **umshayo wokusekela**

K

keystone

A stone at the top of an arch that keeps the structure together.

Source definition: Macmillan English Dictionary

isiZulu **itshe eliyisisekelo**

isiZulu **isikhonkhwane seMashi**

kicker *{stability}*

A wood block or board attached to a formwork member in a building frame or formwork to make the structure more stable.

Source definition: Dictionary of Construction Terminology

isiZulu **isizinzisi**

king closer *{brick}*

A rectangular brick having one corner cut diagonally to half the end of the brick and used to fill an opening in a course larger than half a brick.

Source definition: Thefreedictionary.com adapted

isiZulu **i-king closer**
isiZulu **isitini esingunxande**

king post *{roof}*
A structural member running vertically between the apex and base of a triangular roof truss.

Source definition: Dictionary.com

isiZulu **ikabha eliyisisekelo**

L

laminated strand lumber

An engineered wood product developed in the 1980s in which wood strands are glued together and pressed into forms using steam injection.
Abbreviation **LSL**

Source definition: Thefreedictionary.com

isiZulu **amapulangwe anamathelisiwe**

latch

A spring lock for an outer door, which catches when the door is closed and can only be opened from the outside with a key.

Source definition: Concise Oxford English Dictionary

isiZulu **isiqhebeza somnyango iweji**
isiZulu

lateral sewer → side sewer

lath

A thin strip of wood nailed to studs or joints as *carrier for plaster.* Source

definition: Aleck Associates Ltd.

isiZulu **ilati**
isiZulu **ipulangwe elilula**

lattice
A framework consisting of an ornamental design made of strips of wood or metal.

Source definition: WordReference

isiZulu **ilathisi**
isiZulu **isihonga esakhiwe ngokuphuca izintingo**

lean-to roof
A single slope roof with its upper edge adjoining a *wall or a building.*

Source definition: https://gharpedia.com

isiZulu **uphahla oluehlelayo**

ledger

A horizontal scaffold pole fixed to two upright poles for supporting the outer ends of putlogs.

Source definition: Thefreedictionary.com

isiZulu **ileja**

lewis *{steeldevice}*

A steel device for lifting heavy blocks of stone or concrete, consisting of three pieces arranged to form a dovetail.

Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu **isifunqulisamatshe noma ukhonkolo**

Lift → elevator

lift pit
That part of an elevator shaft that extends from the threshold level of the lowest landing door down to the floor at the very bottom of the shaft.

Source definition: Thedictionaryforcostruction.com

isiZulu **umgodi welifthi**
isiZulu **umgodi weshafti**

lime mortar
A mortar made of lime, sand, water, and occasionally a small quantity of cement.

Source definition: Meriam-Webster.com

isiZului **udaka lomcako**
siZulu **udaka lokhalikho**

lintel
A piece of stone or wood that supports the wall above a door or window.
Synonym **lintol**

Source definition: Aleck Associates Ltd.

isiZulu **ilentela**
isiZulu **umshayo ophezu komnyango**
isiZulu **umshayo ophezu kwefasitela**

lintol → lintel

load-bearing wall

A wall that is an active structural element of a building, that is, it bears the weight of the elements above said wall, resting upon it by conducting its weight to a foundation structure.

Source definition: Wikipedia

isiZulu **ubonda lokuthwala isakhiwo**
isiZulu **udonga lokuthwala isakhiwo**

louver → louvre

louvre

A framed opening, as *in a wall, door, or window, fitted with fixed or movable horizontal slats for admitting air or light and often for shedding rain.*

Source definition: Thefreedictionary.com

isiZulu **i-louvre**

LSL → laminated strand lumber

M

manhole

A hole in the surface of a road or street, covered with a metal lid and used for entering an underground passage such as *sewer.*

Source definition: Macmillan English Dictionary

isiZulu **umbhobho wokungena**

mansard roof

A roof having four sides, in each of which the lower part of the slope is steeper than the upper part.

Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu **uphahla oluyimpindakwehla**
isiZulu **uphahla oluyimpindamgingqilizi**
isiZulu **uphahla lukaMansard**

mantelpiece → mantlepiece

mantelpiece

A construction framing the opening of a fireplace and usually covering part of the chimney

breast in a *more or* less*decorative manner.*
Synonym **mantelpiece**

Source definition: Dictionary.com

isiZulu **ishalufu eliphezu kweziko**
isiZulu **isembeso seziko**

manufacturing engineering

A branch of professional engineering requiring such education and experience as *is necessary to understand and apply engineering procedures in manufacturing processes and methods of production of industrial products.*

Source definition: Researchgate.net adapted

isiZulu **ubunjiniyela bezokwenza**
isiZulu **ubunjiniyela bezemishini**

masonry

The bricks or stones that make a building wall, or other structures.

Source definition: Macmillan English Dictionary

isiZulu **ubonda lwamatshe abaziweyo**
isiZulu **udonga lwamatshe abaziweyo**

mastic *{waterproof filler}*

A putty-like waterproof filler and sealant used in building.

Source definition: Collins Cobuild

isiZulu **imastiki**

matte finish → matt finish

matt finish

A paint, colour, or surface that is dull rather than shiny.
Synonym **matte finish**

Source definition: Collins Cobuild

isiZulu **umbala obuthuthu**

maul *{tool}*

A heavy, long-handled hammer used especially to drive stakes, piles, or wedges. Source

definition: Thefreedictionary.com

isiZulu **isando**

mechanical engineering

The branch of engineering concerned with the design, construction, and operation of machines and machinery.

Source definition: Collinsdictionary.com

isiZulu **uburjiniyela bezemishini**

millwork

Woodwork (such as doors, sashes, or trim) manufactured at a mill.

Source definition: Homebuildingmanual.com

isiZulu **umsebenziwamapulangwe**
isiZulu **okwamapulangwe**

mining engineering

A branch of engineering concerned primarily with the location and evaluation of mineral deposits, the survey of mining areas, the layout and equipment of mines, and the supervision of mining operations.

Source definition: Mariam-Webster.com

isiZulu **ubunjiniyela bezemigodi**
isiZulu **ubunjiniyela bezemayini**

miter saw → mitre saw

mitre saw
A specialised tool that lets one make cuts at a variety of angles.
Synonym **miter saw**

Source definition: www.Google.com

isiZulu **isaha lemitha**

monolithic concrete
A reinforced concrete cast with no joints other than construction joints.

Source definition: Encyclopedia Britannica

isiZulu **ikhonkolo lebumbene**

mono-pitch roof

A single-sloped roof surface, often not attached to another roof surface.
Synonym **single-pitch roof**

Source definition: Wikipedia adapted

isiZulu **uphahla eluphakeme**

mortar

A mixture of lime with cement, sand, and water, used in building to bond bricks or stones.

Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu **udaka**

mortice

A hole cut into a piece of wood or stone into which one fits the end of another piece of wood or stone called a tenon in order to join the two pieces.
Synonym **mortise**

Source definition: Macmillan English Dictionary

isiZulu **ingoxi epulangweni**
isiZulu **isihlanganisi magilasi esimile**
isiZulu **imothisi**

mortise → mortice

mullion *{window}*

A piece of metal, wood, or stone used for separating the pieces of glass in a window.

Source definition: Macmillan English Dictionary

isiZulu **isihlanganisi magilasi esimile**

muntin *{window}*

Any of the strips of wood or metal used for support between panes of glass, as *in a window.*

Source definition: Collins English Dictionary

isiZulu **imicu esekela igilasi yefasitela**

N

nano-engineering

A field focused on manipulating processes that occur on the scale of 1 to 100 nanometres.

Source definition: Wisegeek.com adapted

isiZulu **uburjiniyela benano**

nanometre

A unit of length in the metric system, equal to one billionth (short scale) of a *metre.*

Source definition: Wikipedia.com adapted

isiZulu **i-nanomitha**

nanotechnology

The manipulation and manufacture of materials and devices on the scale of *atoms or small groups of atoms.*

Source definition: Britannica.com

isiZulu **ithekinoloji yenano**
Synonym **buchwepheshe benano**

needle *{steel beam}*

A steel beam used to support an existing structure while it is being repaired, or to provide support when moving a *structure, or when removing a portion of the wall below the beam.*

Source definition: Thefreedictionary.com adapted

isiZulu **ibhimu yensimbi**
isiZulu **umshayo wensimbi**

non-load bearing wall

A wall capable only of supporting its own weight and (if it is an exterior wall) capable of resisting the force of the wind blowing against it; it cannot support an imposed load.

Source definition: Thefreedictionary.com

isiZulu **udonga olungenakumelana nomthwalo?**
isiZulu **udonga olungenakumelana nomthwalo?**

O

oriel window
An upper storey window projecting outward from a wall.

Source definition: Theconstructioncivil.org

isiZulu **iwindi lweoriyeli**
isiZulu **ifasitela lweoriyeli**

isiZulu **fasitela eliphumele ngaphandle**

outrigger
A structural element projecting out from a building to act as support, usually for a barge roof overhang.

Source definition: En.mimi.hu

isiZulu **isizinzisi sesikhobe sesinqe sophahla**
isiZulu **isizinzisi sesakhiwo**

P

padstone

A block of concrete or stone used to spread the weight of a beam or joist, to avoid crushing the wall upon which it rests.

Source definition: Aleck Associates Ltd.

isiZulu **iphedistoni**

parapet *{wall}*

A barrier which is an extension of the wall at the edge of a roof, terrace, balcony, walkway or other structure.

Source definition: Aleck Associates Ltd.

isiZulu **udongasivimbelakuwa**
isiZulu **uthango lokuvikela**
isiZulu **ipharaphethi**

partition *{wall}*

A non-load bearing wall between rooms or areas in a building.

Source definition: Aleck Associates Ltd.

isiZulu **uthango lokwahlukanisa**
isiZulu **isahlukaniso**

partition stud → stud

party wall
A wall that divides two buildings that are joined together, and belongs to both of them.

Source definition: Dictionary.cambrdige.org

isiZulu **udonga oluhlukanisa izindlu**
isiZulu **ubonda oluhlukanisa izindlu**

petroleum engineering

The study of how to locate and extract energy resources, such as oil and natural gas, from the earth.

Source definition: Learn.org adapted

isiZulu **ubunjiniyela bezephetroli**
isiZulu **ubunjiniyela bezephalafini**

pier *{e.g. support for a bridge}*

A wide column or a wall of masonry, plain or reinforced concrete for carrying heavy loads, such as a *support for a bridge.*

Source definition: Definitions of Civil Engineering Terms (1992)

isiZulu **insika iphiye**
isiZulu **insika yamatshe**

pilaster *{column}*

A flat column that is slightly further forward than the rest of a *wall.*

Source definition: Macmillan English Dictionary

isiZulu **insika**

pile *{foundation}*

Wooden, concrete, or metal posts which are pushed into the ground and on which buildings or bridges are built which are often used in very wet areas so that the buildings do not flood.

Source definition: Collins Cobuild adapted

isiZulu **insika okwakhiwa phezu kwazo**

pile driver

A *large machine that pushes posts into the ground to support new buildings.*

Source definition: Macmillan English Dictionary

isiZulu **i-pile driver**

pillar

A *tall vertical structure, usually of stone, used as a support for building.*

Source definition: Concise Oxford English Dictionary

isiZulu **insika**

pilot hole

A *guiding hole for a nail or screw, or for drilling a larger hole.*

Source definition: Dictionary of Construction Terminology

isiZulu **inturja yesipikili**

plaster *{walls and ceilings}*

A soft mixture of lime with sand or cement and water for spreading on walls and ceilings to form a smooth hard surface when dried.

Source definition: Concise Oxford English Dictionary

isiZulu **udaka lokunameka**
isiZulu **udaka lokuphahleka**

plasterboard

A board made of plaster set between two sheets of paper, used especially to line inner walls.

Source definition: Concise Oxford English Dictionary

isiZulu **ipulangwe lodaka**

plinth

The portion of the external wall between the level of the street and the level of the floor first above the street.

Source definition: Theconstructioncivil.org

isiZulu **isisekelo**
isiZulu **ipilinti**
isiZulu **uxhaso**
isiZulu **ukholomu**

plum → plum stone

plumbing fixture

An exchangeable device which can be connected to a plumbing system to deliver and drain water.

Source definition: Wikipedia.org adapted

isiZulu **isisetjenziswa sokumfunza amanzi**

plum stone

A large stone or piece of solid concrete used as a filler in mass concrete.
Synonym **plum**

Source definition: Aleck Associates Ltd.

isiZulu **itshelokugwalisa**

plywood

A type of board used for building houses, furniture etc., made from thin layers of wood that are fixed together using glue.

Source definition: Macmillan English Dictionary

isiZulu **ipulangwe**

pointing *{cement}*

The cement or mortar between the stones or bricks in a wall.

Source definition: Macmillan English Dictionary

isiZulu **udaka lokwakha**

poling board

A board used to support the sides of an excavated structure.

Source definition: Oxforddictionaries.com

isiZulu **ibhodi yokusekela indawo eghubiweyo ibhodi**
isiZulu **yokusekela isakhiwo embiweyo**

portal frame
A frame, usually of steel, consisting of 'two uprights and a cross beam at the top.

Source definition: Collinsdictionary.com
isiZulu **ifulemu lesakhiwo**
Synonym **uhlaka lesakhiwo**

portico *{entryway}*
A covered entryway attached to house, usually open on three sides and supported by posts or columns.

Source definition: Beaufortonline.com
isiZulu **umnyango**
isiZulu **isango**

Source definition: Yourdictionary.com

Portland cement

A kind of cement that hardens under water, made by burning a mixture of limestone and clay or materials similar.

Source definition: Yourdictionary.com

isiZulu **usemende we-Portland**

post stressed concrete

Concrete strengthened with steel wires which are stressed after the concrete has cured.
Synonym post tensioned concrete

Source definition: Aleck Associates Ltd.

isiZulu **ikhonkolo eqiniswe ngensimbi**

post-tensioned concrete → post-stressed concrete

prefabricated house

A house that is built in sections or component parts in a plant, and then assembled at the site.

Source definition: Beuafortonline.com

isiZulu **indlu iphrifebhu**

pre stressed concrete

Concrete strengthened with steel wires which are stressed before the concrete is poured.
Synonym pre tensioned concrete

Source definition: Aleck Associates Ltd.

isiZulu **ikhonkolo eqinlsiwe kokucala ngensimbi**
isiZulu **ikhonkolo eqaliswe ngensimbi**

pre-tensioned concrete → pre-stressed concrete

primer

The first, base coat of paint when a paint job consists of two or more coats.

Source defintion: Homebuildingmanual.com

isiZulu **upende wokuqala**

profilograph *{instrument}*
An instrument for measuring and recording roughness of the surface over which it travels.

Source definition: Thefreedictionary.com

isiZulu **iphrofilografu**

progressive collapse *{demolition}*

The process wherein the collapse of part of a building leads to the collapse of an adjacent part in 'house of cards' fashion.

Source definition: Aleck Associates Ltd.

isiZulu **ukubhidlizwa ngokwehlukana kwesakhiwo**

pugging *{insulation}*

A traditional infill between timber floor joints intended to enhance the acoustic insulation of the floor.

Source definition: Aleck Associates Ltd.

isiZulu **ukufakwa kwesivimbelimsindo**

pulley *{e.g. construction}*

A wheel with a grooved rim around which a cord passes, used to raise heavy weights.

Source definition: Oxford English Dictionary

isiZulu **isondo lokugijimisa intambo noma iketanga**
isiZulu **umdonso**
isiZulu **iphuli**

pulverised fuel ash

A fine white powder resulting from burning powdered coal in power stations, which can be used to supplement cement in making concrete for civil engineering works.
Synonym **fly ash**

Source definition: Aleck Associates Ltd.

isiZulu **umlotha wezibasozophuquza**
isiZulu **umlotha wezibasozencushuza**

purlin

A horizontal structural member which supports a sloping roof covering, with or without rafters, and which carries the roof loads to the primary framing members.

Source definition: Aleck Associates Ltd.

isiZulu **iphelini**
isiZulu **ithandela**

putlock → putlog

putlog

A short horizontal pole projecting from a wall, on which scaffold floorboards rest.

Synonym **putlock**

Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu **isixhasi-sikafula**

pyramid hip roof

A roof that takes the shape of a pyramid and it is constructed on top of a square or a rectangular base.

Source definition: www.myrooff.com adapted

isiZulu **uphahla oluyiphiramidi**
isiZulu **uphahla oluyisikwele mcijo**

Q

quarry
An excavation or pit, usually open to the air, from which building stone, slate, or the like, is obtained by cutting, blasting, etc.

Source definition: Dictionary.com

isiZulu **igilasi elinomumo wedayimani**

isiZulu **inkwali**

quarry tile
A man-made or machine-made clay tile used to finish a floor or wall.

Source definition: Dictionary of Construction Terminology

isiZulu isitini sokufuela senkwali

queen closer *{brick}*
A brick of normal length and thickness but of half normal width, used to complete a course or to space regular bricks.

Source definition: Thedictionary.com
isiZulu **isitini esiphungulwe emhlubulweni**
Synonym **isitini esihafulwe emhlubulweni**

queen post *{roof}*

A tension member in a truss that can span longer openings than a king post truss.

Source definition: Wikipedia

isiZulu **isekansika**

quoin *{wall}*

The external corner where two brick walls meet.

isiZulu **itshe lekhona**
isiZulu **itshe legumbi**
isiZulu **ikhoyini**

R

radon system *{ventilation system}*

A ventilation system beneath the floor of a basement and/or structural wood floor and designed to fan exhaust radon gas to the outside of the home.

Source definition: Homebuildingmanual.com

isiZulu **indlela yokungenisa umoya**

rafter *{roof}*

A large piece of wood that supports a sloping roof.

Source definition: Macmillan English Dictionary

isiZul **umshayo**
u **umjibe**
isiZulu **umjanjatho**
isiZulu

raft foundation

A thick concrete slab reinforced with steel which covers the entire contact area of the structure like a thick floor.

Source definition: civil-engg-world.blogspot.com

isiZulu **umsahyo wesisekelo**
isiZulu **umjibe wesisekelo**
isiZulu **umjanjatho wesisekelo**
isiZulu **isihlenga sesisekelo**

rebate *{woodwork}*
A groove cut along the edge of a board producing an L-shaped strip that is used as trim and in joint work in cabinet construction.

Source definition: Beaufortonline.com

isiZulu **i-rebate**

reinforced concrete

Concrete in which metal bars or wire are embedded to strengthen it.

Source definition: Concise Oxford English Dictionary

isiZulu **ikhonkolo eliqinisako**

restrainer → retarder

retarder *{cement}*

A substance added to slow down the rate of a *chemical change, such as one added to cement to delay its setting.*
Synonym restrainer

Source definition: Collins English Dictionary

isiZulu **isilibazisi**
isiZulu **isivimbeli**

reveal *{architecture}*
Either side surface of an aperture in a wall for a *door or window.*

Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu **i-rivili**

revolving door

A door, especially at the entrance of a *building, typically made of three or four rigid upright sections joined at right angles and rotating about* a *central upright pivot.*

Source definition: Thefreedictionary.com

isiZulu **umyango oginqikayo**
isiZulu **umyango ophendukayo**

ridge *{roof}*
The edge formed where the two sloping sides of a *roof meet at the top.*

Source definition: Concise Oxford English Dictionary

isiZulu **umqolo wophahla**

isiZulu **ukhalolophahla**

ridge tile
A curved tile which covers the ridge on a *pitched roof.*

Source definition: Aleck Associates Ltd.

isiZulu **umbhobho wesitini sokufulela**

riprap *{e.g. wall}*

A sustaining wall or foundation of random stone to prevent erosion on an embankment.

Source definition: Beaufortonline.com

isiZulu **udonga elivikela ukukhukhuleka?**

riser *{staircase}*

A vertical board rising from the back of one tread of a staircase to the front of the next.

Source definition: Aleck Associates Ltd.

isiZulu **ukuphakama kwezithebisi**

roof light →skylight

rough arch

A brick arch in which the bricks are rectangular and the arch shape is formed by means of the mortar joints being wedge-shaped.

Source definition: Aleck Associates Ltd.

isiZulu **i-ashi yezitini ezingasikwanga**

rustication

A type of decorative masonry achieved by cutting back the edges of stones to a plane surface while leaving the central portion of the face either rough or projecting markedly.

Source definition: Britannica.com

isiZulu **i-rustication**
isiZulu **umhlobiso wezici zamatshe**

S

saddle-back roof

A double sloping roof with a ridge and gables at each end.

Source definition: Thefreedictionary.com

isiZulu **uphahla lokhalo lwegqumqa?**

sanitary engineering

The branch of civil engineering associated with the supply of water, disposal of sewage, and other public health services.

Source definition: Collinsdictionary.com

isiZulu **ubunjiniyela benkucunkucu**

sanitary sewer

A sewer system designed for the collection of waste water from the bathroom, kitchen and laundry drains, and is usually not designed to handle storm water.

Source definition: Dictionary of Construction Terminology

isiZulu **ipayipi lokuchitha inkucunkucu**

sash window

A window that can be opened either by sliding the bottom half up or by sliding the top half down.
Synonym **cased window**

Source definition: Meriam-Webster.com

isiZulu ifasitela eliphakanyiswayo

scaffold

A structure of poles and planks used by workers to stand on when building.

Source definition: Shuters Life Orientation Leaners Book 2006

isiZulu **isikafodi**

scarf joint

A method of joining two members end to end in woodworking or metalworking.
Synonym **scarph joint**

Source definition: Wikipedia adapted

isiZulu **ukuhlanganiswa okuyisikafu**

isiZulu **ukudibaniswa okuyisikafu**

scarph joint → scarf joint

screed

A strip of wood, plaster, or metal placed on a wall or pavement as a guide for the even application of plaster or concrete.

Source definition: Thefreedictionary.com

isiZulu **iskridi**
isiZulu **isilinganisi**

scupper

Any opening in a wall, parapet, bridge curb, or slab that provides an outlet through which excess water can drain.
Synonym **scupper hole**

Source definition: Dictionary of Construction Terminology

isiZulu **imbobo**

scupperhole → scupper

scuttle

A small opening or hatch with a moveable lid in the deck or hull of a ship or in the roof, wall, or floor of a building.

Source definition: Thefreedictionary.com

isiZulu **inturja**

seal coat *{roads}*

A thin bituminous application to a surface or wearing course to seal and waterproof small voids and to embed sand or chips to provide better traction.

Source definition: Definitions of Civil Engineering Terms (1992)

isiZulu **itiyela**

seismic engineering → earthquake engineering

septic tank

A tank in which the solid matter of continuously flowing sewage is disintegrated by bacteria.

Source definition: Meriam-Webster.com

isiZulu **ithangelokubolisela**

sewer

A pipe or conduit which is the property of or is vested in the local authority and which is used or intended to be used for the conveyance of sewage.

Source definition: The Concrete & Mortar Handbook adapted

isiZulu **umbhobho wonkucunkucu**

sewer connection → sewer stub

sewer stub

The point at which a home's sewer line joins the municipal sewer system.

Synonym **sewer connection**

Source definition: Dictionary of Construction Terminology

isiZulu **iqhosha lokuhlanganisa**

shear wall

A rigid vertical diaphragm capable of transferring lateral forces from exterior walls, floors, and roofs to the ground foundation in a direction parallel to their planes.

Source definition: Britannica.com

isiZulu **udonga olumelana noku zamazama komhlaba**
isiZulu **udonga olunkhonkhiwe**

shed roof

A roof having only one sloping plane and no hips, ridges or valleys.

Source definition: Yourdictionary.com

isiZulu **uphahla olutshekele eceleni**

sheer legs *{lifting device}*

A hoisting apparatus made from poles joined at or near the top and separated at the bottom, used for lifting heavy objects.

Source definition: Concise Oxford English Dictionary

isiZulu **umshini wokufula izimpahla ezisindayo**
isiZulu **isifunquli**

shim

A small piece of scrap lumber or shingle, usually wedge shaped, which when forced behind a furring strip or framing member forces it into position.

Source definition: www.askdefine.com

isiZulu **iweji**

shingle *{walls and roofs}*

A rectangular wooden tile used on walls or roofs.

Source definition: Dictionary of Construction Terminology

isiZulu **ishingili**

shutter

Each of a pair of hinged panels fixed inside or outside a window that can be closed for security or privacy or to keep out the light.

Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu **isivalo sewindl**
isiZulu **isivalo sefasitela**

side sewer

The portion of the sanitary sewer which connects the interior waste water lines to the main sewer lines.
Synonym **lateral sewer**

Source definition: Dictionary of Construction Terminology

isiZulu **ipayipi yenkucunkucu eseceleni**

sill

A shelf or slab of stone, wood, or *metal at the foot of a window or doorway.*

Source definition: Concise Oxford English Dictionary

isiZulu **isili yefasitela**
isiZulu **isili yosango**

sill plate

The bottom horizontal member of *a wall or building to which vertical members are attached.*

Source definition: Wikipedia

isiZulu **ipuleti yesili**

sill seal

A type of insulation (fibreglass or foam) installed between the foundation wall and wood sill plate to fill gaps.

Source definition: Dictionary of Construction Terminology amended

isiZulu **isinamathelisi sesili**

single-pitch roof → mono-pitch roof

siphonage *{plumbing}*

The emptying of the seal in a trap by the aspiration of the water in the trap due to the downward rush of water and air in the pipes with which the trap is connected.

Source definition: www.wordnik.com

isiZulu **ukukhamba ngefanelo kwamanzi**

skewback *{supporting wall}*

An inclined part of a pier or abutment from which an arch springs.
Synonym **springer**

Source definition: Theconstructioncivil.org

isiZulu **islsekela-ashi**

skewback → springer

skirting → baseboard

skylight

An opening in a roof covered by glass or plastic material to admit natural light.
Synonym **roof light**

Source definition: Beaufortonline.com

isiZulu **ifasitela phezulu ophahleni**

slag *{binder}*

A latent hydraulic binder that is used in concrete and other construction applications as a *partial cement replacement material.*

Source definition: Afrisam.co.za

isiZulu **isibopho**

sleeper *{flooring}*
A wood member embedded in concrete, as in a floor, that serves to support and to fasten the subfloor or flooring.

Source definition: Homebuildingmanual.com

isiZulu **isisekeli esifakwa epulangweni**

sleeper wall

A masonry wall constructed to support a suspended ground floor.

Source definition: The Concrete & Mortar Handbook

isiZulu **ubonda lwamapulangwe**
Synonym **udonga lwamapulangwe**

sliding door

A type of door which opens horizontally by sliding, usually parallel to a wall.

Source definition: Wikipedia

isiZulu **umyango oshelelezayo**

slurry *{e.g. cement}*

A thin, watery mixture of neat cement or cement and sand.

Source definition: Definitions of Civil Engineering Terms (1992)

isiZului **udaka elilula**
siZulu **udaka olumanzi**

soaker *{metal sheet}*

A metal sheet bent at a right angle, part of the waterproof flashing of the junction of a tiled or slated roof abutting a wall.

Source definition: Aleck Associates Ltd.

isiZulu **isivimbelimanzi**

soffit *{architecture}*

The underside of an architectural structure such as an arch or balcony.

Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu **isofithi**

soil pipe

A pipe that conveys the discharge from water closets or similar fixtures to the sanitary sewer system.

Synonym **cesspipe**

Source definition: Dictionary of Construction Terminology

isiZulu **umbhobho wenkucunkucu**
isiZulu **ipayipi yendle**

soldier *{to strengthen or align}*

An upright brick, timber, or other building element.
Synonym **soldier beam**

Source definition: Aleck Associates Ltd.

isiZulu **ibhimu yokuqinisa**
isiZulu **umshayo wokuqinisa**

soldier beam → soldier

sole plate

A strip of timber which is laid on top of walls to level the underside of flooring joists.

Source definition: A to Z Glossary of Definitions and Terms used in the National Building Regulation Code of Good Practice

isiZulu **isandlalelo sodonga**

sonotube

A large tube of compressed fibre into which wet concrete is poured and left to harden, used to form pillars.

Source definition: Oxforddictionaries.com

isiZulu **i-sonotube**

spandrel *{architecture}*
The almost triangular space between one side of the outer curve of an arch, a wall and the ceiling or framework.

Source definition: Concise Oxford English Dictionary

isiZulu **isipandela**

isiZulu **isipandreli**

spine wall
A load-bearing partition between the front and rear rooms of the house.

Source definition: Aleck Associates Ltd.

isiZulu **udonga**
isiZulu **umthangala**
isiZulu **ubonda**

spiral staircase → spiral stairway

spiral stairway

Any succession of tapered treads forming a curved stairway which extends as a single flight from one floor to another and which has a minimum radius of curvature of less than 100 mm.
Synonym spiral staircase

Source definition: The Concrete & Mortar Handbook

isiZulu **isitezi esisongelekayo splay**

An oblique surface {bevel or chamfered), as the jambs of a doorway or window; of which one side makes an oblique angle with the other.

Source definition: Aleck Associates Ltd.

isiZulu **intuba**
isiZulu **indawo enabile**
isiZulu **indawo ethambekekile**
isiZulu **indawo letshekile**

splice *{steelwork connection}*

A steelwork connection for joining for example two lengths of column to form a longer column.

Source definition: Aleck Associates Ltd.

isiZulu **isidibanisi**

springer *{arch}*

The lowest stone in an arch, where the curve begins.

Synonym skewback

Source definition: Wikipedia.org

isiZulu **isiqalogobela**

isiZulu **ississekelo seashi**

isiZulu **isipringa**

springer → skewback

springing line
A line of intersection between the intrados and supports of an arch.

Source definition: Aleck Associates Ltd.

isiZulu **isiqondisi se-ashi**
isiZulu **umugqa wokuphambana**

sprinkler system *{fire extinguisher}*

An automatic fire extinguisher installed in a ceiling.

Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu **isicima umlilo**

squint brick

A brick used for forming acute or obtuse corners in brick masonry.

Source definition: Theconstructioncivil.org

isiZulu **isitini esisikwe ngokwe-engile**
isiZulu **isitini esinekhona ebukhali**

stack vent *{ventilation}*

A ventilating pipe connecting to a distance stack above the highest connected discharge pipe.

Source definition: A to Z Glossary of Definitions and Terms used in the National Building Regulation Code of Good Practice

isiZulu **umbhobho wokunghenisa umoya**
isiZulu **isiphefemulisi**

staircase → stairway

stairway

Any part of the building which provides a route of travel between different levels in such buildings and is formed by a single flight or by a combination of two or more flights and one or more intervening landings.

Synonym **staircase**

Source definition: A to Z Glossary of Definitions and Terms used in the National Building Regulation Code of Good Practice

isiZulu **izitebhisi**

steelwork
A frame of steel sections supporting other parts of the structure.

Source definition: Aleck Associates Ltd.

isiZulu **uphahla lwentsimbi**

stile

A vertical piece in the frame of a panelled door or sash window.

Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu **isitebhisi sokweqa ucingo**
isiZulu **isitebhisi sokweqa uthango**

storey

A part of a building which is situated between the top of any floor and the top of the floor next above it, or if there is no floor above it that portion between such floor and the ceiling above it.
Synonym **floor**

Source definition: A to Z Glossary of Definitions and Terms used in the National Building Regulation Code of Good Practice

isiZulu **isithezi**

storm drain → storm sewer

storm sewer

A sewer system designed to collect storm water and is separated from the waste water system.
Synonym **storm drain**

Source definition: Homebuildingmanual.com

isiZulu **umbhobho wamanzi ezikhukhula**

strap *{support}*

A component, usually steel, installed to ensure that walls are connected to and restrained by floors.

Source definition: Aleck Associates Ltd.

isiZulu **ibhande**

stretcher *{brick}*

A brick whose longest side is visible on the surface of the wall.

Source definition: Aleck Associates Ltd.

isiZulu **isitini esiveza uhlangothi**
isiZulu **umhlubulo westini**

string course
A horizontal band or course, as *of stone, projecting beyond or flush with the face of* a *building, often moulded and sometimes richly carved.*

Source definition: Dictionary.com

isiZulu **ibhande elihlukanisa isakhiwo**

strip flooring

A floor that comprises strips of width not less than 35 mm and not more than 90 mm and that are tongued on the one edge and grooved on the opposite edge.

Source definition: A to Z Glossary of Definitions and Terms used in the National Building Regulation Code of Good Practice

isiZulu **indawo yaphansi enziwe ngomdweshu**
indawo yaphansi enziwe ngamathwishi
isiZulu

structural engineering
A branch of *civil engineering dealing primarily with the design and construction of structures, such as bridges, buildings, dams.*

Source definition: Meriam-Webster.com

isiZulu **ubujiniyela bezakhiwo**

structural glass
A glass which is cast in the form of cubes, rectangular blocks, tile, or large rectangular plates; used widely for the surfacing of walls.

Source definition: Thefreedictionary.com

isiZulu **isakhiwo sengilazi**

stucco *{plaster}*
A type of plaster used for covering walls and ceilings, especially one that can be formed into decorative patterns.

Source definition: Dictionary.cambridge.org

isiZulu **umhlobiso we-stucco**

stud *{upright post}*

An upright post in the framework of a wall for supporting sheets of lath, drywall, or similar material.

Source definition: Thefreedictionary.com

isiZulu **iqhosha**
isiZulu **isitadi**
isiZulu **isibonda**
isiZulu **insika**

sump

A *pit in a basement floor which collects water and into which* a *sump pump is placed to remove water.*

Source definition: Beaufortonline.com

isiZulu **isampu**

surveying

The setting out on the ground of the positions of proposed construction or engineering works.

Source definition: Collinsdictionary.com

isiZulu **ukuhlola**

sway brace

Metal straps or wood blocks installed diagonally on the inside of a wall from bottom to top plate, to prevent the wall from twisting, racking, or falling over "domino" fashion.

Source definition: Homebuildingmanual.com

isiZulu **isiqinisi sokutengatenga**
isiZulu **isizinzisi sokutengatenga**

swing door

A door that can be pushed open from either side and that swings shut when it is released.

Source definition: Meriam-Webster.com

isiZulu **umyango ojikelezayo**

T

tack weld

Short intermittent welds made to hold components in place before full welding is begun.

Source definition: Collinsdictionary.com

isiZulu **ukushisela**

tail beam *{support}*

A relatively short beam or joist supported in a wall on one end and by a header at the other.
Synonym **tail joist**

Source definition: Homebuildingmanual.com

isiZulu **insika lencane**

tail joist → tail beam

tandem roller *{road}*

A type of road roller in which the front and back wheels consist of rollers of about the same *diameter.*

Source definition: Collinsdictionary.com

isiZulu **ugandaganda**

tenon

A piece that is *cut so that it sticks out from the end of a piece of wood and can be fitted into a hole called a mortise in another piece of wood to join them together.*

Source definition: Macmillan English Dictionary

isiZulu **ikhinqela**
isiZulu **ithenoni**

thatch roof

A roof covering made of straw, red palm leaves, or similar material fastened together to shed water and provide thermal insulation.

Source definition: Dictionary of Construction Terminology

isiZulu **uphahla lotshani**

theodolite

An optical instrument used by land surveyors for surveying and by engineers and builders for setting out lines and angles on the ground.

Source definition: Aleck Associates Ltd.

isiZulu **into okuklanywa ngayo izwe**

tie beam *{connection}*

A horizontal timber or the like for connecting two structural members to keep them from spreading apart, as *a beam connecting the feet of two principal rafters in* a *roof truss.*

Source definition: www.dictionary.com

isiZulu **isibambamishayo**

isiZulu **ifindo yomshayo**

tile

A thin slab or bent piece of baked clay, sometimes painted or glazed, used for various purposes, as *to form one of the units of* a *roof covering, floor, or revetment.*

Source definition: Dictionary.com

isiZulu **ithayela**
isiZulu **ubumba olushisiwe**
isiZulu **ubumba oluphekiwe**
isiZulu **uhlobo lwesitini sokufulela**

tower crane

A crane with a *fixed vertical* mast *that is topped by* a *rotating boom and equipped with* a *winch for hoisting and lowering loads.*

Source definition: Dictionary of Construction Terminology

isiZulu **umshini wokufula izimpahla ezisindayo**

transom → transome

transome

A horizontal member in joinery, for example the part of the frame between an upper and a lower window.
Synonym **transom**

Source definition: Aleck Associates Ltd.

isiZulu **itransomi**

transportation engineering

A branch of engineering dealing with planning, designing, estimation, construction, operation, maintenance, rehabilitation and management of transportation infrastructure for movement of people and goods from one *place to the other safely, timely, conveniently, comfortably, economically by using various modes like highways, railways, air ways, water ways and pipe ways also.*

Source definition: Tem-uet.blogspot.com adapted

isiZulu **ubujiniyela bezokuthutha**

trap *{pipe)*

A U-shaped pipe below plumbing fixtures designed to create a water seal and prevent sewer odours and gases from being released into the habitable areas.

Source definition: Beaufortonline.com

isiZulu **umbhobho wokuvikela iphunga**
isiZulu **umbhobho wokuvikela ukunuka**

tread *{stairway}*

The horizontal upper surface of a step in a stair, on which the foot is placed.

Source definition: Dictionary.com

isiZulu **isinyathelo**

trimmer *{joist}*
A joist which carries extra loads, for example, those due to an opening or partition.

Source definition: Aleck Associates Ltd.

isiZulu **ijoyisti**

isiZulu **isifekethiso**

truss

A prefabricated rigid framework used for roof and floor construction.

Source definition: ehow.com

isiZulu **amakabha**
isiZulu **uhlaka lophahla**
isiZulu **amabhanuko**

turbine
A machine in which the energy of a moving fluid, e.g. water, or wind is converted into mechanical energy.

Source definition: Collins English Dictionary

isiZulu **ithebhani**
isiZulu **umshiniwokuphehla ugesi**
isiZulu **umshiniophendulwa amanzi**

turret
A small tower at the comer of a building or wall, especially of a castle.
Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu **umbhoshongo**

U

underpinning *{support}*

The process of supporting the existing structure for renewing or repairing the lower walls or foundations.

Source definition: Theconstructioncivil.org

isiZulu **ukuqinisa ubonda**
Synonym **ukuqinisa udonga**

urban engineering

A branch of engineering that deals with the operation and problems; as laying out additions and parks, and constructing and maintaining sewer systems, waterworks, and pavements peculiar to urban life.

Source definition: Meriam-Webster.com

isiZulu **uburjiniyela basedolobheni**

V

valley *{roof or wall}*

An internal angle formed by the intersecting planes of a roof, or by the slope of a roof and a wall.

Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu **isigodi**

valley rafter *{roof}*

The rafter that follows the line of the valley and connects the ridge to the wall plate along the line where the two inclined, perpendicular sides of the roof meet.

Source definition: Dictionary of Construction Terminology

isiZulu **ikhabha**
isiZulu **ikapa elifishane**

vault

A roof in the form *of an arch or a series* of *arches, typical* of *churches and other large, formal buildings.*

Source definition: Concise Oxford English Dictionary 11th Edition

isiZulu **uphahla oluyingungu**

veneer

A thin decorative covering of fine wood applied to a coarser wood or other material.

Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu **isembozakuhlobisa ngokhuni**

vent *{circulation}*

A pipe built into a drainage system to provide air circulation, thus preventing siphonage and back pressure from affecting the function of the trap seals.

Source definition: A to Z Glossary of Definitions and Terms used in the National Building Regulation Code of Good Practice

isiZulu **imbobo**
isiZulu **isikhala**

veranda

A large, open porch, usually roofed and partly enclosed, as by a railing, often extending across the front and sides of a house.

Source definition: Dictionary.com

isiZulu **uvulande**

vitrolite *{clear glass}*
Panels formed of clear glass with colour glass laminated to one side and used as a wall veneer.

Source definition: Wentworthsstudio.com

isiZulu **ivithrolayithi**

voussoir

A wedge-shaped or tapered stone used to construct an arch.

Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu i-voussoir
isiZulu itshe le-ashi
isiZulu itshe lokwakha
isiZulu itshe legobela
isiZulu itshe lengungu

W

wainscot

The bottom part of the walls in a room, especially when it is covered with wood.

Source definition: Macmillan English Dictionary

isiZulu **umhlobisopulangwe ngaphansi kwebonda**
isiZulu **umhlobisopulangwe ngaphansi kwedonga**

wane *{defective edge in timber}*

A defective edge of a board due to remaining bark or a *beveled end.*

Source definition: Dictionary of Construction Terminology

isiZulu **isici sepulangwe**

waste pipe *{plumbing}*

A discharge pipe which conveys waste water only.

Source definition: A to Z Glossary of Definitions and Terms used in the National Building Regulation Code of Good Practice

isiZulu **umbhobho wezibi**
isiZulu **ipayipi yezibi**
isiZulu **ipayipi yamanzi angcolile**
isiZulu **umbhobho wenkucunkucu**

waste-water engineering

A branch of engineering that deals with the transportation and cleaning of blackwater, greywater, and irrigation water.

Source definition: Wikipedia.com adapted

isiZulu **uburjiniyela bokucitha amanzi angcolile**
isiZulu **ubunjiniyela bokucitha amanzi wenkucunkucu**

water seal

The water in a trap which acts as a barrier against the flow of any foul air or gas.

Source definition: A to Z Glossary of Definitions and Terms used in the National Building Regulation Code of Good Practice

isiZulu **isivimbeli samanzi**
isiZulu **isivalo samanzi**

water supply system

The system that supplies water throughout a building, including the service pipe(s), distribution and connecting pipes, fittings, and control valves.

Source definition: A to Z Glossary of Definitions and Terms used in the National Building Regulation Code of Good Practice

isiZulu **uhlelo lokuba khona kwamanzi**
isiZulu **uhlelo lwamanzi akhona**

weep hole *{drainage}*
An opening at the bottom of a wall which allows the drainage of water.

Source definition: Beaufortonline.com

isiZulu **umsele wokumunca amanzi**

window box → window buck

window buck
A square or rectangular box that is installed within a concrete foundation or block wall.
Synonym **window box**

Source definition: A to Z Glossary of Definitions and Terms used in the National Building Regulation Code of Good Practice

isiZulu **ibhokisi lefasitela**

window frame

A supporting frame for the glass of a window.

Source definition: Google.com

isiZulu **ifulemu lefasitele**
isiZulu **ifulemu lewindi**

window sash

The operating or moveable part of a window.

Source definition: A to Z Glossary of Definitions and Terms used in the National Building Regulation Code of Good Practice

isiZulu **iseshi lefasitela**
isiZulu **iseshi lewindi**

wired glass

Sheet glass with wire mesh embedded in the glass to prevent shattering.

Synonym **wire glass**

Source definition: Dictionary of Construction Terminology

isiZulu **ingilazi yocingo**
isiZulu **ingilazi yothango**

wire glass → wired glass

wire nut?

A plastic device used to connect bare wires together.

Source definition: A to Z Glossary of Definitions and Terms used in the National Building Regulation Code of Good Practice

isiZulu **inathi yocingo**
isiZulu **imuru yocingo**

wonderboard

A panel made out of concrete and fibreglass usually used as ceramic tile backing material.

Source definition: A to Z Glossary of Definitions and Terms used in the National Building Regulation Code of Good Practice

isiZulu **iwandabhodi**

Z

zone valve

A device, usually placed near the heater or cooler, which controls the flow of water or steam to parts of the building.

Source definition: A to Z Glossary of Definitions and Terms used in the National Building Regulation Code of Practice

isiZulu **ivalvu yokulawula ukuhamba kwamanzi**

zoning *{town planning}?*

A system of choosing areas to be developed for particular purposes, such as *houses or shops, when planning a town.*

Source definition: Dictionary of Contemporary English 6th Edition

isiZulu **ukuklanywa komkhakha womhlaba**

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DEPARTMENT OF SPORTS, ARTS AND CULTURE

NO. 261 **26 March 2021**

NOTICE IN TERMS OF THE PUBLICATION OF ENGLISH-ISIZULU ENGINEERING AND CONSTRUCTION TERM LIST FOR PUBLIC COMMENTS

I, Nkosinathi Emmanuel Mthethwa, Minister of Sport, Arts and Culture hereby publish the English-isiZulu Engineering and Construction Term List for public comments.

NE Mthethwa, MP
Minister of Sport, Arts and Culture
Date: 2021-03-12

sport, arts & culture
Department:
Sport, Arts and Culture
REPUBLIC OF SOUTH AFRICA

A

absorption field *{plumbing}*

A system of trenches containing coarse *aggregate and distribution pipes through which septic-tank effluent may seep into the surrounding soil.*

Source definition: www.thefreedictionary.com

isiZulu **ukumunca**

abutment *{retaining wall}*

A concrete support wall constructed at both ends of a bridge or an arch, in order to resist the horizontal force from the bridge or the arch, support the ends of the bridge span and to prevent the bank from sliding under.

Source definition: Definitions of Civil Engineering Terms (1992)

isiZulu **abhuthimenti**

isiZulu **insika**

access chamber

An underground chamber enabling access *to drains or underground services.*

Source definition: Aleckassociates.co.uk amended

isiZulu **intuba yokungena**

acrow prop *{temporary support}*

A *telescopic prop much used as a temporary support in construction. Source*

definition: Aleck associates Ltd.

isiZulu ***insika yokusekela isikhashana***

actuator

A component of machines that is responsible for moving or controlling a *mechanism or system.*

Source definition: https://enwekipedia.org

isiZulu **i-actuator**

aerospace engineering

The primary field of engineering concerned with the development of aircraft and spacecraft.

Source definition: Wikipedia.com

isiZulu **ubunjiniyela bezindizamshini**

aggregate *{concrete}*

A broad category of coarse particulate material used in construction, including sand, gravel, crushed stone, slag, recycled concrete and geosynthetic aggregates.

Source definition: www.wikipedia

isiZulu **inhlangarisela**
isiZulu **umumo ophelele**

agricultural engineering

The area of engineering concerned with the design, construction and improvement of farming equipment and machinery.

Source definition: Environmentalscience.org adapted

isiZulu **ubunjiniyela bemisebenziyokulima**

isiZulu **ubunjiniyela ngezolimo**

airbrick

A special type of brick that has small holes in it that allow air to go through a wall.

Source definition: Cambridge English Dictionary.org

isiZulu **isitini esingenisa umoya**

air-conditioner condenser

A device or unit used to condense a substance from its gaseous to its liquid state, by

cooling it.

Source definition: Wikipedia.org adapted

isiZulu **isijiyisi sokuguquluwa komoya endlini**
isiZulu **isijiyisi sokulinganiswa komoya endlini**

air conditioning

A system for controlling the humidity, ventilation, and temperature in a building or a vehicle.

Source definition: Concise Oxford English Dictionary

isiZulu **ukuhlelwa komoya ukuhwulwa**
isiZulu **komoya**
isiZulu **ukulinganiswa ubunjalo bomoya endlini**
isiZulu **ukulinganiswa komoya endlini**

aircrete

A lightweight aerated cement-based material from which easily handled high insulating building blocks are made.

Source definition: Aleck associates Ltd

isiZulu **ikhonkolo elilula**

air duct

A pipe or channel permitting air to travel through a system, building, or other structure, such as a mine.

Source definition: Collinsdictionary.com

isiZulu **ipayipi yomoya**

air-entrained concrete (complex compound noun)

A concrete used for constructing roads which has about 5% air and is therefore less dense than ordinary good concrete, but it has excellent freeze-thaw resistance.

Source definition: Definitions of Definitions of Civil Engineering Terms (1992)

isiZulu **ikhonkolo yokwakha umgwaqo**

alcove

A small area in a room that is created by building part of one wall further back than the rest of the wall.

Source definition: Macmillan English Dictionary

isiZulu **ikhosela ekamelweni**
isiZulu **ikhosela endlini**
isiZulu **igosi elakhiwe odongeni**

anchor *{for stability}*

Any fastener (usually metal) used to attach parts, such as joists, trusses, posts, etc., to masonry or masonry materials.

Source definition: Beaufortonline.com

isiZulu **isankora**
isiZulu **ihange**

ant cap

A *termite barrier (shield), usually of galvanised iron, placed over piers and dwarf walls to control the entry of termites.*

Source definition: Construction Dictionary of Building Terms

isiZulu **isivimbeli intuthwane**

applied engineering

The field concerned with the application of management, design, and technical skills for the design and integration of systems, the execution of new product designs, the improvement of manufacturing processes, and the management and direction of physical and/or technical functions of a firm or organisation.

Source definition: Wikipedia.org

isiZulu **uburjiniyela bokuqondisa**
isiZulu **uburjiniyela bokusentshenziswa**

arcade

A covered passage at the side of a building.

Source definition: Macmillan English Dictionary

isiZulu **imbubhe**
isiZulu **isakhiwo esinegobela**
isiZulu **i-akheyidi**

architect

Someone who plans, designs, and reviews the construction of buildings. Source definition: Wikipedia

isiZulu **umdwebizakhiwo isazi**
isiZulu **sokwakha**
isiZulu **umqambi wemumo wendlu**
isiZulu **umklamiwokwakhiwa kwezindlu**

architectural engineering

The branch of engineering that deals with the construction of *buildings (as distinguished from architecture as* a *design art).*

Source definition: Thefreedictionary.com

isiZulu **uburjiniyela bokwakhiwa kwezIndu**
isiZulu **uburjiniyela bokumiswa kwezakhiwo zezIndlu**
isiZulu **uburjiniyela boklama**

architecture

The art of *planning, designing, and constructing buildings.*

Source definition: Collinsdictionary.com adapted

isiZulu **indlela yokhwakha**

isiZulu **ukwakhiwa kwezindu**

isiZulu **ukumiswa kwezakhiwo**

architrave

A *frame around a doorway or window.*

Source definition: Concise Oxford English Dictionary

isiZulu **umhlobisonsika**
isiZulu **ukuhlobisa ngamapulangwe okuzungeza umyango**
isiZulu **ukuhlobisa ngamapulangwe okuzungeza ifasitela**

areaway

A sunken space affording access, air, and light to a basement.

Source definition: Mariam-Webster.com

isiZulu **indawo embelekile**
isiZulu **indawo eyisigobe**

area well

The space created by a corrugated metal or concrete barrier walls installed around a basement window to back the earth.

Source definition: Homewyse.com adapted

isiZulu **i-eriyaweli**

arris
A sharp edge formed when two planes or surfaces meet.
Synonym **arris edge**

Source definition: Beaufortline.com

isiZulu **i-arisi**

arris edge → arris

as-built drawing

A construction drawing revised to show significant changes made during the construction process, usually based on marked-up prints, drawings and other data furnished by the contractor or the engineer.

Source definition: Definitions of Definitions of Civil Engineering Terms (1992)

isiZulu **ukubuyekezwa komdwebosakhiwo**
isiZulu **ukubuyekezwa kweplani yesakhiwo**

ashpit
A receptacle in the bottom of a fireplace, or the like, for the accumulation of ashes.

Source definition: Dictionary.com

isiZulu **isifoco somlotha**
isiZulu **umgodi womlotha**
isiZulu **isikhoxe somlotha**

astragal
An applied moulding attached most commonly to the meeting edge of doors.

Source definition: Allegion

isiZulu **isihlanganisimagilasi esivundlile**
isiZulu **isihlanganisimagilasi esiqumile**
isiZulu **i-astragali**

atrium
A large open hall that goes up through all the levels of a building to the roof, which is usually made of glass.

CONTINUES ON PAGE 130 OF BOOK 2

Government Gazette
Staatskoerant

REPUBLIC OF SOUTH AFRICA
REPUBLIEK VAN SUID AFRIKA

Vol. 669 26 March Maart 2021 No. 44333

PART 2 OF 4

Source definition: Macmillan English Dictionary

isiZulu **i-athriyamu**

attic

A space found directly below the pitched roof of a house or other building.

Source definition: Wikipedia adapted

isiZulu **i-athiki**
isiZulu **igumbimkhathi**
isiZulu **igumbi eliphezulu endlini**

autonomous vehicle *{electrical engineering}*

A motor vehicle that uses artificial intelligence, sensors and global positioning system coordinates to drive itself without the active intervention of a human operator.

Source definition: Wikipedia.org.adapted

isiZulu **imoto ezihambelayo**

awning window

A window consisting of several top-hinged sections arranged in a vertical series, operated by one or more control devices that swing the bottom edges of the sections outward, and designed especially to admit air while excluding rain.

Source definition: Meriam-Webster.com

isiZulu **ifasitela lokusitha ilanga**
isiZulu **iwindi lokusitha ilanga**

axed arch

An arch made of bricks that have been roughly cut into a wedge shape.

Source definition: Thesciencedictionary.org

isiZulu **igobela**

B

back siphonage

The backward flow of used, contaminated, or polluted water from a plumbing fixture or vessel into the potable water supply, often due to negative pressure in a pipe.

Source definition: www.dictionaryof construction.com

isiZulu **umbhobho wukomunca amanzi emuva**
isiZulu **umbhobho wokuthelelela emuva kwamanzi**

back vent *{plumbing}*

A ventilating pipe attached to a waste pipe on the sewer side of its trap to prevent siphonage.

Source definition: Meriam-Webster.com

isiZulu **ipayipi yokungenisa umoya**

balcony
A deck projecting from the wall of a building above ground level.

Source definition: Beaufortline.com

isiZulu **uvulande ophezulu**
Synonym **uvulande osesitezi**

balloon framed wall complex
The structure of the building holding up the walls, floors, and roof.

Source definition: Study.com

isiZulu **udonga oluyibhaluni**
isiZulu **ubonda oluyibhaluni**

baluster

A short pillar forming part of a series supporting a rail or coping.

Source definition: Concise Oxford English Dictionary

isiZulu **ibhalusta**

isiZulu **belusithe**
isiZulu **belusitha**

balustrade
A rail and the row of balusters or posts that support it, as along the front of a gallery.

isiZulu **ibhalustredi**
isiZulu **isibambelelo sokuzivikela nokuzisiza esitezi**
Synonym **isibambelelo esakhiwe esitezi sokuzivikela ukuwa**

banister *{stairway}*
A handrail with supporting posts used alongside a stairway.

Synonym **bannister**

isiZulu **isibambelelo sokuvimbela abantu bangawi esitezi**
isiZulu **ibharista**

banister → banister

barge *{support}*
One of the sloping pieces of wood that supports a *roof.*

Source definition: Collins English Dictionary.com

isiZulu **isikhoco sendlu**

isiZulu **ibhaji**

barge board

A board which hangs from the projecting end of a *roof, covering the gables; often elaborately carved and ornamented in the Middle Ages.*

Source definition: ThoughtCo.com

isiZulu **uqwembe lwesikhoco sendlu**

baseboard

A trim board placed against *the wall around the room next to the floor.*
Synonym **skirting**

Source definition: Homebuildingmanual.com

isiZulu **isikeyiti**

base course
The bottom layer of material laid down in the construction of a pavement.

Source definition: Definitions of Civil Engineering Terms (1992)

isiZulu **isandlalelo sesisekelo**

base shoe *{flooring}*

A narrow moulding often of quarter round joining the bottom of a *baseboard and the floor.*

Source definition: Meriam-Webster.com

isiZulu **umhlobiso wendawo yaphansi**
isiZulu **isisekelo sendawu yaphansi**

bat *{brick}*

A brick cut transversely so as *to leave one end whole.*

Source definition: Dictionary.com

isiZulu **ibhathi**

batt *{fibreglass}*
A piece of fibreglass used to insulate buildings.

Source definition: Google.com

isiZulu **ibheti**

batten *{wood}*
A long strip of wood that is fixed to something to strengthen it or to hold it firm.

Source definition: Collins Cobuild English Dictionary adapted

isiZulu **ithandela**
isiZulu **ibhathini**
isiZulu **isikhonkhwane sokukhonkhotela**

batter *{wall}*
An inward slope from bottom to top of a wall face.

Source definition: Definitions of Civil Engineering Terms (1992)

isiZulu **ibhatha**
isiZulu **utsheku**
isiZulu **ukwehlela kophahla**
isiZulu **ukutshekela kophahla**
isiZulu **udonga lokutsheka**
isiZulu **ubonda lokutsheka**

bay window
A window built to project outwards from an outside wall.

Source definition: Google.com

isiZulu **iwindi eliphumela ngaphandle**
isiZulu **ifasitela eliphumela ngaphandle**
isiZulu **iwindiqhunsu**
isiZulu **ifasitelaqhunsu**

beam *{support}*

A long thick bar of wood, metal, or concrete, especially one used to support the roof of a building.

Source definition: www.wikipedia.com

isiZulu **umshayo**
isiZulu **umjanjatho**
isiZulu **ibhumu**

bearing wall

A wall that bears the weight of the house above said wall, resting upon it by conducting its weight to a foundation structure.

Source definition: Wikipedia

isiZulu **udonga oluyisisekelo**
isiZulu **ubonda oluyisisekelo**

berm .

An artificially placed continuous ridge or bank of earth, usually along a roadside.

Source definition: www.Dictionary of Construction Terminology

isiZulu **udonga**

isiZulu **unqenqema**
isiZulu **ukhalo**

bevel *{instrument}*

An instrument consisting of two rules or arms jointed together and opening to any angle for drawing angles or adjusting surfaces to be cut at an angle.

Source definition: Meriam-Webster.com

isiZulu **ibheveli**
isiZulu **isikwele ibheveli**

bifold door

A door that slides open, made from a series of panels that fold up against the wall like a concertina.

Source definition: vibrantdoors.co.uk

isiZulu **umyango osongayo**

billet

Each of a series of short cylindrical pieces inserted at intervals in Norman decorative mouldings.

Source definition: Concise Oxford English Dictionary

isiZulu **itiyela**
isiZulu **ibhilethi**

bitumen

A black, sticky substance such as tar or asphalt, used for making roads and roofs.

Source definition: Dictionary.cambridge.org

isiZulu **itiyela**
isiZulu **isitafutafu esimnyama esakha umgqwaqo**

bleeding *{concrete}*

A form of segregation where some *of the water in the concrete tends to rise to the surface of the freshly placed material.*

Source definition: www.concrete.org.uk

isiZulu **ukucwenga kwe khonkolo**
isiZulu **ukwahlukaniswa kwe khonkolo**

blinding *{layer of concrete}*

A layer of lean concrete usually 2 to 4 inches thick, put down on soil such as *clay to seal it and provide a clean bed for reinforcement to be laid on.*

Source definition: Definitions of Civil Engineering Terms (1992)

isiZulu **ikhebakheba**

blind nailing

A *type of nailing performed* so *that the nailhead cannot be seen on the face of the work.*

Source definition: Dictionary of Construction Terminology

isiZulu **umfutho ovaliwe**
isiZulu **ukushayela okuvaliwe**

block

A small wooden piece to brace framing members or to provide a nailing base for gypsum board or paneling.

Source definition: Homebuildingmanual.com

isiZulu **ibhloko**
isiZulu **ibhlokwe**

block out <n.>

A space where concrete is not to be placed, in a *concrete structure which is under construction.*

Source definition: Thefreedictionary.com adapted

isiZulu **indawo engafuni ikhonkolo**

isiZulu **indawu engathelwa ikhonkolo**

blotter

A drilling into earth to bring up samples of the soil.

Source definition: Definitions of Civil Engineering Terms (1992)

isiZulu **ibhulota**
isiZulu **i-blotter**

blueprint <n.>

A reproduction of a technical drawing, documenting an architecture or an engineering design, using a contact print process on light-sensitive sheets.

Source definition: Wikipedia

isiZulu **isifanekiso sento ezokwakhiwa**

isiZulu **isifanekiso somshini**

blue staking <n.>

The act of marking underground facilities such as electric, gas, water, telephone, cable or other underground facilities so that these networks are not damaged during excavation, trenching or digging activities.

Source definition: Arizona Corporation Commission

isiZulu **isigxobo**
isiZulu **isikhonkwane**

bonnet roof

A roof having a double slope on all four sides, the lower slope being less steep than the upper slope; often extends over an open-sided raised porch to provide excellent shade for the house and protection against rain.

Source definition: Thefreedictionary.com

isiZulu **uphahla lobhonethi**

boom *{mounted on e.g. a truck, vehicle}*
A truck used to hoist heavy material up and into place.

Source definition: Homebuildingmanual.com

isiZulu **ugongolo olwakhelwe ukuvala indlela**

boom *{access control}*

A bar, or pole pivoted to allow the boom to block vehicular access through a controlled point.

Source definition: Wikipedia

isiZulu **ugongolo olwakhelwe ukuvalaindela**

bottom plate
The horizontal beam on which the studs of a partition rest.

Source definition: Meriam-Webster.com

isiZulu **ibhimu evundlayo**
isiZulu **ibhimu enqamulayo**

bowstring truss
A structural truss consisting of a curved top chord meeting a bottom chord at each end.

Source definition: Dictionary.com

isiZulu **uphahla lemichilo**

breaker panel

A steel box that holds multiple circuit breakers wired to circuits that distribute power throughout one's home.

Source definition: HomeDepot.com

isiZulu **bhokisi lukagesi**

brick guard

A steel mesh panel used on scaffolding to make sure that loose bricks cannot fall off the scaffold.

Source definition: Aleck Associates Ltd. amended

isiZulu **isivimbeli sesitini**

brick ledge

The portion of a foundation wall where brick (veneer) rests.

Source definition: Dictionary of Construction Terminology

isiZulu **ishalafu lwesitini**

isiZulu **ileji lwesitini**

brick lintel

The angle that brick rests on, especially above a window, door, or other opening.

Source definition: Honmebuildingmanual.com

isiZulu **ilenteli**

brick mould
A *strip of material used to close the small gap between a brick wall and the frame of a door or window set into the wall.*

Source definition: www.wisegeek.com

isiZulu **i-brickmould**

brick mould
A *templet (used by a bricklayer, plasterer, in masonry, etc.) into which a liquid substance is cast or pressed and allowed to cool or harden so as to take a particular shape or pattern.*

Source definition: Shorter Oxford English Dictionary

isiZulu **ifolomo yezitini**

brick tie

A small architectural element that is used to connect two brick walls across a narrow cavity or to bind a brick wall to a wood or steel frame.

Source definition: www.wisegeek.com

isiZulu **isiqinisa ubonda**
isiZulu **isiqinisa udonga**

bridge
A *structure that is built over a river, road, or railway to allow people and vehicles to cross from one side to the other.*

Source definition: Dictionary.cambridge.org

isiZulu **ibhuluho**

bridge deck

The load-bearing floor of a bridge, that carries and spreads the loads to the main beams.

Source definition: Definitions of Civil Engineering Terms (1992)

isiZulu **itafula lebhuloho**

bridging *{stability and load distribution}*

A method of lateral bracing between joists for stiffness, stability, and load distribution.

Source definition: Dictionary of Construction Terminology

isiZulu **ukuqinisa**

buck *{subframe}*

The wood or metal subframe of a *door, installed in* a *wall to accommodate the finished frame.*

Source definition: Dictionary of Construction Terminology

isiZulu **uphahla oluncane**
isiZulu **ifulemu elincane**

building code

Municipal regulations that set forth standards and requirements for construction, maintenance, and occupancy of buildings in the interest of health, safety, and welfare of the public.

Source definition: BusinessDictionary.com

isiZulu **imithetho yezokwakha**

building paper

A heavy paper used especially in the construction of frame buildings to block draughts, for insulation, etc.

Source definition: www.dictionary.com

isiZulu **iphepha lokwakha**

built-up roof

A usually flat or slightly sloped roof that is covered with a special material applied in sealed, waterproof layers.

Source definition: www.dictionary.com

isiZulu **uphahla oluphakameyo**

butterfly roof

A roof having more than one slope, each descending inward from the eaves.

Source definition: www.dictionary.com

isiZulu **uphahla i-butterfly**

buttjoint

A joint formed by two pieces of wood or metal united end to end without overlapping.

Source definition: www.dictionary.com

isiZulu **ukuhlangana okuthingquphu**

buttress *{reinforcement}*

An architectural structure built against or projecting from a wall which serves to support or reinforce the wall.

Source defintion: www.wikipedia.com

isiZulu **umthangala**
isiZulu **insika eqinisayo**

buttress → counterfort

bypass *{road}*

A road or highway that avoids or "bypasses" a *built-up area, town, or village, to let through traffic flow without interference from local traffic, to reduce congestion in the built-up area, and to improve road safety.*

Source definition: en.wikipedia.org

isiZulu **indlela edlula eceleni**
isiZulu **indlela enqamulayo eceleni**

bypass doors

Doors that slide by each other and commonly used as *closet doors.*

Source definition: Homebuildingmanual.com

isiZulu **imnyango eshelelezayo**

C

CAD → computer-aided design

caisson *{a watertight retaining structure}*

A watertight boxlike structure or chamber, made of wood, steel, or concrete usually sunk excavating within it, for the purpose of gaining access to bed of a stream and placing the foundations at prescribed depth and which subsequently forms part of the foundation itself.

Source definition: Theconstructioncivil.org

isiZulu **ibhokisi umuntu asebenzela kulo phansi kwamanzi**

camber *{arched surface}*

A slightly arched surface of a *road to compensate for anticipated deflection or to allow for drainage.*

Source definition: Definitions of Civil Engineering Terms (1992)

isiZulu **ukuphakama komgwaqo**

cantilever *{beam}*

A beam which is *securely supported at one end, and hangs freely at the other.*

Source definition: Definitions of Civil Engineering Terms (1992)

isiZulu **insika elengayo**
isiZulu **ibhimu elengayo**

cased window → sash window

casement

A window sash opening on hinges that are generally attached to the upright side of its frame.
Synonym **casement window**

Source definition: www.dictionary.com

isiZulu **iwindi elivukele eceleni**
isiZulu **ifasitela elivulekele eceleni**
isiZulu **iwindi lekheyisimente**
isiZulu **ifasitela lekheyisimente**

casement window → casement

cast-in-place <adj.>

That is to be assembled or cast on site rather than prefabricated in a factory, e.g. a beam, a pile or other construction material.
Synonym **cast-in-situ**

Source definition: Quora.com amended

isiZulu **ehlanganiswa endaweni yokwakha**

cast-in-situ → cast-in-place

caulking *{sealing}*

The processes and material (also called sealant) to seal joints or seams *in various structures and* some *types of piping.*

Source definition: Wikipedia.org

isiZulu **ukunamathelisa**
isiZulu **ukugcwalisa imiveve ngetiyela**

cavity wall

A wall that consists of two separate walls with a space between them.

Source definition: Collins English Dictionary

isiZulu **ubonda elinombhobho**
isiZulu **undonga elinombhobho**

ceiling

An overhead interior surface that covers the upper limits of a room.

Source definition: Wikipedia adapted

isiZulu **isilingi**

celotex *{fibrous board}*

A black fibrous board that is used as exterior sheathing.

Source definition: Dictionary of Construction Terminology

isiZulu **iselotheksi**

cement mortar

A workable paste used to bind building blocks such as stones, bricks, and concrete masonry units together, fill and seal the irregular gaps between them, and sometimes add decorative colours or patterns in masonry walls.

Source definition: Wikipedia.org

isiZulu **udaka**

ceramic tile

A tile made from clay that has been permanently hardened by heat, often having a decorative glaze.

Source definition: Google.com

isiZulu **ithayela iseramikhi**

cesspipe → soil pipe

chase

A groove or space in walls or through floors of a building for piping or ducts.

Source definition: Wikipedia

isiZulu **umsele wombhobho**

chemical engineering

The branch of engineering concerned with the design and operation of industrial chemical plants.

Source definition: Concise Oxford English Dictionary

isiZulu **ubunjiniyela bekhemikhali**

chipboard

A building material made from wood chips compressed and bound with synthetic resin. Source

definition: www.yourdictionary.com

isiZulu **ibhodi**
isiZulu **ipulangwe yezwibela**

civil engineering

A professional engineering discipline that deals with the design, construction, and maintenance of the physical and naturally built environment, including works like roads, bridges, canals, dams, airports, sewerage systems, pipelines and railways.

Source definition: Wikipedia.org

isiZulu **ubunjiniyela bezokhwaka**

cladding

The separately applied exterior finish of a framed building.

Source definition: Aleck Associates Ltd

isiZulu **ukugqokisa**
isiZulu **ukwembesa**

clamp → cramp

clerestory

A large window or series of small windows along the top of a structure's wall, usually at or near the roof line.

Source definition: Thoughtco.com adapted

isiZulu **iklerestori**

clerestory roof

A roof with a vertical wall which sits between the two sloping sides, which features a row of windows.

Source definition: www.build.com adapted

isiZulu **uphahla loklerestori**

coastal engineering

The study of the processes ongoing at the shoreline and construction within the coastal zone.

Source definition: Coastal.udel.edu adapted

isiZulu **ubunjiniyela bogu**
isiZulu **ubunjiniyela basegwini**

collapsible door

A door which can be opened or closed by slight pull orpush.

Source defintion: https://gharpedia.com adapted

isiZulu **umyango obocozekayo**
isiZulu **umyango osongekayo**

collar *{roof}*

A preformed flange placed over a vent pipe to seal the roofing above the vent pipe

opening.

Source definition: Homebuildingmanual.com amended

isiZulu **isivimbela ukuvuza**

compaction *{construction material}*

The elimination of voids in construction materials, as in concrete, plaster, or soil, by vibration, tamping, rolling, or some other method or combination of methods.

Source definition: Dictionary of Construction Terminology

isiZulu **ukugingqika ukugoqeka**
isiZulu

computer-aided design

A computer technology that designs a product and documents the design's process.
Acronym **CAD**

Source definition: www.techopedia.com

isiZulu **ubuklama ngekhompyutha**

computer engineering

A *discipline that integrates several fields of electrical engineering and computer science required to develop computer hardware and software.*

Source definition: Wikipedia.org adapted

isiZulu **uburjiniyela bezekhompyutha**

concrete

A heavy, rough building material made from a mixture of broken stone or gravel, sand, cement, and water.

Source definition: Google.com

isiZulu **ukhonkolo usemende**
isiZulu

concrete pump

A piece of construction equipment designed to pump concrete through a hose, originating from a pump mounted on a truck or trailer.

Source definition: Construction & Home Renovation Glossary.com

isiZulu **isifutho sekhonkolo**
isiZulu **iphampu**

conduit

A *pipe used to protect wiring or another venerable construction product or component.*

Source definition: Construction & Home Renovation Glossary.com

isiZulu **umbhobhowecingolukagesi**
Synonym **ikhonduyithi**

construction

The building of things such as houses, factories, roads and bridges.

Source definition: Collins Cobuild

isiZulu **ukwakha**

construction engineering

A *specialised branch of civil engineering concerned with the planning, execution, and of construction operations for projects such as highways, dams, utility lines, and buildings.*

Source definition: Thefreedictionary.com

isiZulu **ubunjiniyela bezokwakha**

control engineering

The study and design of systems, typically of a mechanical or electrical nature, which control the operation of machinery.

Source definition: Oxforddictionaries.com

isiZulu **ubunjiniyela bokuqondisa**
isiZulu **ubunjiniyela bokuphatha**

control joint

A groove which is formed, sawn, or tooled in a concrete or masonry structure to regulate the location and amount of cracking and separation resulting from the dimensional change of different parts of the structure, thereby avoiding the development of high stresses.

Source definition: www.en.wikitionary.org

isiZulu **isivekela ukdubuka**
isiZulu **isivikela kutlewuka**

coping *{protective cap)*

The protective top member of any vertical construction such as *a wall or chimney.*

Source definition: Dictionary of Construction Terminology

isiZulu **isisibekelwana sokuvimbela**

corbel

A structural piece of stone, wood or metal jutting from a wall to carry a *superincumbent weight.*

Source definition: wikipedia.com adapted

isiZulu **ikhobheli**

comer bead

A material that is used on the corners of walls in drywall construction to make the corners crisp and professional looking.

Source definition: www.wisegeek.com

isiZulu **isiklamuzelisi makhona**

cornice

A decorative border of wood or stone at the edge of the ceiling of a *room or under the roof of* a *building.*

Source definition: www.dictionary.cambridge.com

isiZulu ipulangwe lonqenqema lesilingi
isiZulu ikhonisi

counterfort
A strengthening buttress at *right angles to a retaining wall, bonded to it to prevent overturning or to increase its bending strength.*
Synonym **buttress**

Source definition: www.collinsdictionary.com

isiZulu **insika eqinisayo**

course *{roof}*
A row of shingles or roll roofing running the length of the roof.

Source definition: Dictionary of Construction Terminology

isiZulu **ikhosi**

cramp

Metal component built into masonry to join it to another member, for example a window frame ('frame cramp'), or to join two masonry units together.
Synonym **clamp**

Source definition: Aleck Associates Ltd

isiZulu **ikilempu**

crane

A mechanically operated device which is located on or around a building site for the purpose of lifting building components or equipment into position.

Source definition: Construction Glossary of Building Terms

isiZulu **unkaxa**
isiZulu **isicakuli**
isiZulu **umboko**
isiZulu **ujibha**
isiZulu **umshiniwokufulaizimpahlaezisindayo**

crank

A device which allows movement to go between parts of a machine or which changes backward and forward movement into circular movement.

Source definition: www.wikipedia.com adapted

isiZulu **isigwedlo**
isiZulu **ikrenki**

cricket *{roof}*

A device used at roof intersections to divert water.

Source definition: Beaufortonline.com

isiZulu **ukhalo lophahla**

cripple *{building frame}*

A structural element that is shorter than usual, as a stud above a door opening or below a window sill. Source definition: Thefreedictionary.com

isiZulu **insikalencane**

cripple jack rafter → cripple

cross bridging

A diagonal bracing between adjacent floor joints, placed near the centre of the joist span to prevent joists from twisting.

Source definition: Dictionary of Construction Terminology

isiZulu **ukuqinisa okuphambanayo**
isiZulu **kuqinisa okunqmulayo**

u

cross gable

A roof that has two or more gable rooflines that intersect.

Source definition: http://realtormag.realtor.org adapted

isiZulu **uphahla lokugamanxana kwamagebula**

cross hipped roof

A type of a hip roof that has two intersecting hip sections that run perpendicular to each other.

Source definition: www.chasinggreen.org

isiZulu **uphahla oluyisiphambano**
uphahla olunqamulayo
isiZulu

culvert

A structure that allows water to flow under a road, railroad, trail, or similar obstruction from one side to the other side.

Source definition: Wikipedia.org

isiZulu **umsele wokudonsa amanzi emgwaqeni**

cupola *{roof}*

A small, decorative structure built on the roof of a house that is often placed over an attached garage and may also be used for ventilating purposes.

Source definition: Beaufortline.com

isiZulu **ikhaphola**

curb roof
A roof having two or more slopes on each side of the ridge.

Source definition: Homebuildingmanual.com

isiZulu **uphahla olutshekile**
isiZulu **uphahla lonqenqema**

curing *{concrete}*

The process of maintaining satisfactory moisture and temperature conditions for freshly placed concrete for some specified time for proper hardening of concrete.

Source definition: Civilengineeringx.com

isiZulu **ukuqinisa ikhonkolo**

custodial lock *{windowhardware}*

A window hardware only operable with a tool or key.

Sourcedefinition: Glossary of Industry Terms

isiZulu **isikhiya sefasitela**

dado (wall)

The lower part of the wall of a room, below about waist height, when decorated differently from the upper part.

Source definition: Oxforddictionaries.com

isiZulu **ibhande elizungeza udonga endlini**
isiZulu **i-dado**

damper

A moveable metal plate in a flue or chimney, used to regulate the draught and so control the rate of combustion.

Source definition: Concise Oxford English Dictionary

isiZulu **insimbi evimbela umoya wokuvuthisa umlilo**

damp-proof course

A type of moisture control applied to building walls and floors to prevent moisture from passing into the interior spaces.
Abbreviation **DPC**

Source definition: Wikipedia

isiZulu **udamkosi isithiyamswakama**
isiZulu

dead bolt

An exterior security lock installed on exterior entry doors that can be activated only with a key or thumb-tum.

Source definition: Dictionary of Construction Terminology

isiZulu **umshudo**

design engineering
A discipline that creates and transforms ideas and concepts into a product definition that satisfies customer requirements.

Source definition: Innovationexcellence.com adapted
isiZulu **ubunjlniyela bezomqopho**
isiZulu **uburjiniyela bezomdwebo**
isiZulu **uburjiniyela bezokuqamba**
isiZulu **ubunjiniyela bezoklama**

die *{specialised tool}*

A specialised tool used in manufacturing industries to cut or shape material mostly using a press.

Source definition: Wikipedia

isiZulu **ifolomu**

domed roof
An architectural element that resembles the hollow upper half of a sphere.

Source definition: Wikipedia

isiZulu ***uphahla olugobongo***

dormer *{window}*

An opening in a sloping roof, the framing of which projects out to form a vertical wall suitable for windows or other openings.

Source definition: Beaufortline.com

isiZulu **ifasitela legumbimkhathi**

isiZulu **ifasitela elusephahleni**

downpipe downspout

downspout

A pipe on the side of a building that carries rain water down from the roof to the ground.

Synonym **downpipe**

Source definition: Macmillan English Dictionary

isiZulu **umbhobho wegadasi ?**
isiZulu **ipayiphi ewewukayo**

DPC → damp-proof course

drain tile

A perforated, corrugated plastic pipe laid at the bottom of the foundation wall and used to drain excess water away from the foundation.

Source definition: Dictionary of Construction Terminology

isiZulu **umbhobho wokudonsa amanzi dry-**

packed concrete

A strong mixture of cement and sand damped with small amount of water, used to fill holes in existing walls, for example in underpinning.

Source definition: Aleck Associates Ltd

isiZulu **ikhonkolo yokuvala imigodi**

drywall

A board made of several plies of fiberboard, paper, or felt bonded to a hardened gypsum plaster core and used especially as wallboard.

Source definition: Mariam-Webster.com

isiZulu **udonga lwebhodi**

Dutch gable roof

A gable whose sides have a shape made up of one or more curves and has a pediment at the top.

Source definition: Wikipedia

isiZulu **uphahla lwegebula lwesiDutch**

dwarf wall

A low wall, not as high as the story of a building, often used as a garden wall or fence.

Source definition: Thefreedictionary.com

isiZulu **udonga elifishane**
isiZulu **ubonda elifishane**

E

earthquake engineering

An interdisciplinary branch of engineering that designs and analyses structures, such as buildings and bridges, with earthquakes in mind and its overall goal is to make such structures more resistant to earthquakes.
Synonym **seismic engineering**

Source definition: Wikipedia.org adapted

isiZulu **ubunjiniyela bezokuzama zama kwomhlaba**

ECSA → Engineering Council of South Africa

egress window *{e.g. in case of an emergency}*

A window large enough, as defined by local business codes for entry or exit in case of an emergency.

Source definition: Alure.com adapted

isiZulu **ifasitela eliphumela ngaphandle**

elbow *{plumbing}*

A sharply bent or fabricated angle fitting, usually of pipe, conduit, or sheet metal.

Source definition: Dictionary of Construction Terminology

isiZulu **umbhobho oyindololwane**

electronic engineering → electronics engineering

electronics engineering

A discipline which uses the scientific knowledge of the behaviour and effects of electrons to develop components, devices, systems, or equipment that uses electricity as part of its driving force.

Synonym **electronic engineering**

Source definition: Wikipedia

isiZulu **ubunjiniyela bezebonhlansi**

elevator

A large container for carrying people or goods from one floor of a building to another.
Synonym **lift**

Source definition: Longman Dictionary of Contemporary English adapted

isiZulu **ilifthi**

embankment

A ridge constructed of earth, fill rocks, or gravel and used most commonly to retain water or to carry a roadway.

Source definition: Dictionary of Construction Terminology

isiZulu **udonga lokuvimbela**
ubonda lokuvimbela
isiZulu

engineer

A person who is professionally trained to design and build machines, engines, certain equipment, or to construct roads, bridges, buildings, etc., using scientific principles.

Source definition: Cambridge Learners Advanced Dictionary adapted

isiZulu **unjiniyela**

engineering

The application of scientific and mathematical principles to practical ends such as the design, manufacture, and operation of efficient and economical structures, machines, processes, and systems.

Source definition: Thefreeditcionary.com

isiZulu **ubunjiniyela**

engineering brick

A type of brick used where the strength, low water porosity or acid (flue gas) resistance are needed.

Source definition: Wikipedia.org

isiZulu **isitini sobunjiniyela**

Engineering Council of South Africa

A statutory body established in terms of the Engineering Profession Act (EPA), 46 of 2000 and its primary role is the regulation of the engineering profession in terms of this Act.

Acronym **ECSA**

Source definition: Engineeringnews.co.za adapted

isiZulu **umKhandlu wobuNjiniyela wase niNgizimu Afrika**

environmental engineering

The branch of engineering that is concerned with protecting people from the effects of adverse environmental effects.

Source definition: Livescience.com adapted

isiZulu **ubunjiniyela bebunjalo bendawo escalator**

A set of stairs that move and carry people from one level within a building to another.

Source definition: Longman Dictionary of Contemporary English

isiZulu **izitebhisi ezizihambelayo**

escutcheon *{ornamental or protective plate, e.g. around keyhole}*

An ornamental plate that fits around a pipe extending through a wall or floor to hide the cut out hole.

Source definition: Dictionary of Construction Terminology

isiZulu **i-escuthcheon**
isiZulu **isikashini**

extrados

The exterior curve or surface of an arch or vault.

Source definition: Dictionary.com

isiZulu **ingaphandle legobela**

F

face brick

A brick which is intended to be visible, and is thus designed with some aesthetic aims in mind so that it is visually interesting and appealing to look at.

Source definition: www.wisegeek.com adapted

isiZulu **isitini sangaphandle**

faced wall

A wall whose masonry facing and backing are of different materials.

Source definition: Thefreedictionary.com

isiZulu **udonga olwakhe ngezitini ezingafani**

fascia

A decorative board fixed to the ends of the rafters.

Source definition: Aleck Associates Ltd.

isiZulu **ifishiyabhodi**
isiZulu **uqwembe lwesikhoco sendlu**

faulting

The difference in elevation of two adjacent concrete slabs at a joint, primarily caused by the traffic-induced movement of base material particles from under one joint edge to under the adjacent joint edge.

Source definition: Definitions of Civil Engineering Terms (1992)

isiZulu **ukuphama okuhlukile**

fenestration
The design, construction, or presence of openings in a building and includes windows, doors, louvres, vents, wall panels, skylights, storefronts, curtain walls, and slope glazed systems.

Source definition: Wikipedia.org adapted

isiZulu **ukuhlelwa kwesakhiwo**
isiZulu **ukuba nezikhala kwesakhiwo**

ferrule
A metal tube used to keep roof gutters open.

Source definition: Dictionary of Construction Terminology
isiZulu **iferuli**
isiZulu **isongo lokuqinisa ilungu**

filler-joist floor
An obsolete but commonly-found form of floor comprising a concrete slab reinforced with steel L-beams known as rolled steel joints.

Source definition: Aleck Associates Ltd.

isiZulu **indawo yaphansiecjnisiwe ngentsimbinokhonkolo**

fink truss

A wood or steel truss used to support a roof with a span of up to 50 feet.

Source definition: www.Yourdictionary.com

isiZulu **amakabha kaFink**
isiZulu **amabhanuko kaFink**
isiZulu **uhlaka lophahla kaFink**
isiZulu **uhlaka lophahla olunxantathu**

firebrick

A block of refractory ceramic material used in lining furnaces, kilns, fireboxes, and fireplaces.

Source definition: Wikipedia

isiZulu **isitina esimelana nomlilo**

firewall

A wall or partition designed to inhibit or prevent the spread of fire.

Source definition: Concise Oxford English Dictionary English 11th *Edition*

isiZulu **ubonda lokuvimbela umlilo udonga**
isiZulu **lokuvimbela umlllo**

fixture branch *{plumbing}*

Any pipe which connects several plumbing fixtures, such as a drain serving two or more fixtures or a supply pipe between the water-distributing pipe and several fixtures.

Source definition: Thefreedictionary.com

isiZulu **ipayipi ekuhlanganiswa kulo**

isiZulu **ipayipi ekudibaniswa kulo**

fixture unit *{unit of measure in plumbing}*

A unit of measure, based on the rate of discharge, time of operation and frequency of use of a fixture, that expresses the hydraulic load imposed by that fixture on the sanitary plumbing installation.

Source definition: Wikipedia.org adapted

isiZulu **isilinganisi payipi?**
isiZulu **isikali somthamo?**

flagstone

A generic flat stone, usually used for paving slabs or walkways, patios, fences and roofing.

Source definition: Wikipedia.org adapted

isiZulu **itsheeliyixwexwe**

flange

A projecting rim, collar, or ring on a shaft, pipe, machine housing, etc., cast or formed to give additional strength, stiffness, or supporting area, or to provide a place for the attachment of other objects.

Source definition: Dictionary.com

isiZulu **iflenji**
isiZulu **impundu yesondo**

flap gate *{e.g. to prevent inflow of water}*

A device that allows water to flow in one direction only through a culvert; it is used especially to drain surface water from coastal marshes at low tide.

Source definition: www.Yourdictionary.com

isiZulu **isango lokulawula amanzi**

flashing *{e.g. to prevent seepage from wind and water}*

Material, usually metal, used to prevent seepage of wind and water at any roof intersection or projection such as vent pipes, valleys, chimneys, dormers etc.

Source definition: Engineering-dictionary.org

isiZulu **ucwecwe lokhethe eluvalela imvula ingangeni**

flat roof

A roof with a slight fall which is designed and constructed to allow rainwater to be shed by gutters, outlets or to the perimeter of the roof.

Source definition: National Building Regulation Code of Good Practice

isiZulu **uphahla eliyithafa**

flatwork

Any flat system of construction, such as a concrete slab, sidewalks, patios, asphalt drives and parking lots.

Source definition: Dictionary.com

isiZulu **ithafa**

flitched beam

A compound beam used in the construction of houses, decks, and other primarily wood- frame structures.

Source definition: Wikipedia.org adapted

isiZulu **ugongolo**
isiZulu **umjanjatho**

floating wall

A non-bearing wall built on a concrete floor.

Source definition: Dictionary of Construction Terminology

isiZulu **ubonda oluntantayo**
isiZulu **udonga oluntatayo**

floor → storey

flue pipe

A pipe that leads from a fire or heater to the outside of a building, taking smoke, gases, or hot air away.

Source definition: www.dictionary.cambridge.org

isiZulu **umbhobho wentuthu**
isiZulu **umbhobho kashimula**

fly ash → pulverised fuel ash

fly rafter *{roofing}*

A gable-end rafter on a roof overhang that runs parallel to the common rafters and is supported by the lookout rafter.

Source definition: Dictionary of Construction Terminology

isiZulu **umshayo**

flywheel *{mechanical device}*

A heavy wheel that is part of some engines.

Source definition: Collins Dictionary

isiZulu **ifulayiwili**

folding door

A type of door which opens by folding back in sections or so-called panels.

Source definition: Wikipedia

isiZulu **umyango osongayo??**

footing *{concrete support}*

A foundation unit constructed in brick work, masonry or concrete under the base of a wall or a column for the purpose of distributing the load over a large area.

Source definition: www.Quora.com

isiZulu **isizinzisi isisekelo**
isiZulu

foundation

The part of a structure of a building that is below the ground and supports the rest of it.

Source definition: Macmillan English Dictionary

isiZulu **isisekelo**
isiZulu **umthambo**

frog *{brick}*

A depression made on the face of bricks during moulding.

Source definition: Civilsutra.in

isiZulu **isifocosesitini**

G

gable *{roof}*

The triangular upper part of a wall at the end of a ridged roof.

Source definition: Concise Oxford English Dictionary

isiZulu **igebuli**
isiZulu **igebula**

galvanised iron *{iron coated with zinc}*
Iron, especially a sheet of corrugated iron, covered with a protective coating of zinc.

Source definition: www.Collinsdictioary.com

isiZulu **uthayela**

gambrel roof
A hipped roof with a small gable forming the upper part of each end.

Source definition: www.oxforddictionaries.org

isiZulu **uphahla oluyigambreli**
isiZulu **uphahla lwegebulana**

geotechnical engineering

The branch of engineering concerned with the analysis, design and construction of foundations, slopes, retaining structures, embankments, tunnels, levees, wharves, landfills and other systems that are made of or are supported by soil or rock.

Source definition: Ejge.com adapted

isiZulu **uburnjiniyela ngobunjalomhlaba**

girder

A beam, as of steel, wood, or reinforced concrete, used as a main horizontal support in a building or bridge.

Source definition: Thefreedictionary.com

isiZulu **insika ephansi okwakhiweyo**
isiZulu **umjanjatho wensimbi**

green roof *{roof covered with e.g. vegetation}*

A roof covered with vegetation, designed for its aesthetic value and to optimise energy conservation.

Source definition: www.dictionary.com

isiZulu **uphahla eluhlobile**

isiZulu **uphahla oluhlaza**

grille

A metal frame with bars or wire across, that is used for protecting a door or a window.

Source definition: Macmillan English Dictionary

isiZulu **efasitela elinezinsimbi ezivimbileyo**

grout

A mortar or paste for filling crevices, especially the gaps between wall or floor tiles.

Source definition: Concise Oxford English Dictionary

isiZulu **igrawuthi**
isiZulu **isinamathelisi**

gusset plate
A triangular plate of steel that is used to connect beams and girders to columns.

Source definition: Wikipedia.org amended

isiZulu **isiqinisindwangu**

gutter

An open pipe at the lower edge of a roof which collects and carries away rain water.

Source definition: Cambridge Advanced Learners Dictionary

isiZulu **ugadasi**

H

half-hip roof

A variant of a hip roof depicting a small modification at the top of the gable.

Source definition: Myrooff.com

isiZulu **uphahla oluqhunsuke macala**

hardware *{tools and equipment}*

Metal tools, materials and equipment used in a house or a garden, such as hammers, nails and screws.

Source definition: Cambridge Advanced Learners Dictionary

isiZulu **izimpahla zokwakha amathulusi**
isiZulu

hearth

The floor of a fireplace in a house and the area around it.

Source definition: Macmillan English Dictionary

isiZulu **iziko**

hip and valley roof
A modified or extended hip roof.

Source definition: www.qbis.com

isiZulu **uphahla ulonwebekile?**

hip roof
A simple roof which slopes downward at all points and has a uniform angle of pitch.

Source definition: Wikihow

isiZulu **umjanjatho onabile**

hod *{three-sided container for carrying bricks etc}*

A three-sided container mounted on a pole, used to carry bricks or mortar up a ladder.

Source definition: Aleck Associates Ltd.

isiZulu **okokuphatha izitini??**

honeycomb brickwork

A brick bond characterised by the absence of certain bricks for decorative purposes, or to allow ventilation or provide a screened effect.

Source definition: Thefreedictionary.com

isiZulu **udonga oluhlobiswe njengokhekheba**

Howe truss

A truss having vertical and diagonal members between the upper and lower horizontal members.

Source definition: Meriam-Webster.com

isiZulu **amakabha kaHowe**
isiZulu **amabhanuko kaHowe**

hydraulic cement

A product used to stop water and leaks in concrete and masonry structures and is a type of cement, similar to mortar, that sets extremely fast and hardens after it has been mixed with water.

Source definition: Thebalance.com adapted

isiZulu **usemende womfutholuketshezi**

hydraulic engineering

The branch of civil engineering dealing with the use and control of water in motion.

Source definition: Vocabulary.com

isiZulu **ubujiniyela bomfutholuketshezi**

industrial engineering
The branch of engineering that is concerned with the production of industrial goods, especially by the design of efficient plants and procedures and the management of

materials, energy, and labour.

Source definition: Thefreedictionary.com

isiZulu **ubunjiniyela bezemsembenzi**

insulation

The act of covering something to stop heat, sound, or electricity from escaping or entering, or the fact that something is covered in this way.

Source definition: Cambridge.org

isiZulu **ukuvimbelakushisa**
isiZulu **ukwemboza**

intrados

The interior curve or surface of an arch or vault.

Source definition: Dictionary.com

isiZulu **igobelalangaphakathilweashi**

J

jamb *{lining of e.g. a doorway}*

The side and head lining of a doorway, window, or other opening.

Source definition: Homebuildingmanual.com

isiZulu **isigxobo somnyango**

isiZulu **impeladonga yesikhala**

joggle

A joint between two pieces of stone, concrete, or timber, consisting of a projection in one of the pieces fitting into a notch in the other, or a small piece let in between the two.

Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu **joyinti**
isiZulu **isihlanganisi**

joinery

The wooden components of a building collectively.

Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu **umsebenziwokubaza amapulangwe**

joint sealant

A material used as a filler in concrete pavement joints to prevent infiltration of water, soil and other fine particles.

Source definition: Definitions of Civil Engineering Terms (1992)

isiZulu **ijoyinti yokuxhumanisa**

joist

Any of the small timbers or metal beams ranged parallel from wall to wall in a structure to support a floor or ceiling.

Source definition: Mariam-Webster.com

isiZulu **ijoyisti**
isiZulu **umshayo wokusekela**

K

keystone

A stone at the top of an arch that keeps the structure together.

Source definition: Macmillan English Dictionary

isiZulu **itshe eliyisisekelo**

isiZulu **isikhonkhwane seMashi**

kicker *{stability}*

A wood block or board attached to a formwork member in a building frame or formwork to *make the structure more stable.*

Source definition: Dictionary of Construction Terminology

isiZulu **isizinzisi**

king closer *{brick}*

A rectangular brick having one corner cut diagonally to half the end of the brick and used to fill an opening in a course larger than half a brick.

Source definition: Thefreedictionary.com adapted

isiZulu **i-king closer**
isiZulu **isitini esingunxande**

king post *{roof}*
A structural member running vertically between the apex and base of a triangular roof truss.

Source definition: Dictionary.com

isiZulu **ikabha eliyisisekelo**

L

laminated strand lumber

An engineered wood product developed in the 1980s in which wood strands are glued together and pressed into forms using steam injection.
Abbreviation **LSL**

Source definition: Thefreedictionary.com

isiZulu **amapulangwe anamathelisiwe**

latch

A spring lock for an outer door, which catches when the door is closed and can only be opened from the outside with a key.

Source definition: Concise Oxford English Dictionary

isiZulu **isiqhebeza somnyango iweji**
isiZulu

lateral sewer → side sewer

lath

A thin strip of wood nailed to studs or joints as *carrier for plaster.* Source

definition: Aleck Associates Ltd.

isiZulu **ilati**
isiZulu **ipulangwe elilula**

lattice
A framework consisting of an ornamental design made of strips of wood or metal.

Source definition: WordReference

isiZulu **ilathisi**
isiZulu **isihonga esakhiwe ngokuphuca izintingo**

lean-to roof
A single slope roof with its upper edge adjoining a *wall or a building.*

Source definition: https://gharpedia.com

isiZulu **uphahla oluehlelayo**

ledger

A horizontal scaffold pole fixed to two upright poles for supporting the outer ends of putlogs.

Source definition: Thefreedictionary.com

isiZulu **ileja**

lewis *{steeldevice}*

A steel device for lifting heavy blocks of stone or concrete, consisting of three pieces arranged to form a dovetail.

Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu **isifunquli samatshe noma ikhonkolo**

Lift → elevator

lift pit
That part of an elevator shaft that extends from the threshold level of the lowest landing door down to the floor at the very bottom of the shaft.

Source definition: Thedictionaryforcostruction.com

isiZulu **umgodi welifthi umgodi**
isiZulu **weshafti**

lime mortar
A mortar made of lime, sand, water, and occasionally a small quantity of cement.

Source definition: Meriam-Webster.com

isiZului **udaka lomcako**
siZulu **udaka lokhalikho**

lintel
A piece of stone or wood that supports the wall above a door or window.
Synonym **lintol**

Source definition: Aleck Associates Ltd.

isiZulu **ilentela**
isiZulu **umshayo ophezu komnyango**
isiZulu **umshayo ophezu kwefasitela**

lintol → lintel

load-bearing wall

A wall that is an active structural element of a building, that is, it bears the weight of the elements above said wall, resting upon it by conducting its weight to a foundation structure.

Source definition: Wikipedia

isiZulu **ubonda lokuthwala isakhiwo**
Synonym **udonga lokuthwala isakhiwo**

louver → louvre

louvre

A framed opening, as *in a wall, door, or window, fitted with fixed or movable horizontal slats for admitting air or light and often for shedding rain.*

Source definition: Thefreedictionary.com

isiZulu **i-louvre**

LSL → laminated strand lumber

M

manhole

A hole in the surface of a road or street, covered with a metal lid and used for entering an underground passage such as *sewer.*

Source definition: Macmillan English Dictionary

isiZulu **umbhobho wokungena**

mansard roof

A roof having four sides, in each of which the lower part of the slope is steeper than the upper part.

Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu **uphahla oluyimpindakwehla**
isiZulu **uphahla oluyimpindamgingqilizi**
isiZulu **uphahla lukaMansard**

mantelpiece → mantlepiece

mantelpiece

A construction framing the opening of a fireplace and usually covering part of the chimney

breast in a *more or* less *decorative manner.*
Synonym **mantelpiece**

Source definition: Dictionary.com

isiZulu **ishalufu eliphezu kweziko**
isiZulu **isembeso seziko**

manufacturing engineering

A branch of professional engineering requiring such education and experience as *is necessary to understand and apply engineering procedures in manufacturing processes and methods of production of industrial products.*

Source definition: Researchgate.net adapted

isiZulu **ubunjiniyela bezokwenza**
isiZulu **ubunjiniyela bezemishini**

masonry

The bricks or stones that make a building wall, or other structures.

Source definition: Macmillan English Dictionary

isiZulu **ubonda lwamatshe abaziweyo**
isiZulu **udonga lwamatshe a baziweyo**

mastic *{waterproof filler}*

A putty-like waterproof filler and sealant used in building.

Source definition: Collins Cobuild

isiZulu **imastiki**

matte finish → matt finish

matt finish

A paint, colour, or surface that is dull rather than shiny.
Synonym **matte finish**

Source definition: Collins Cobuild

isiZulu **umbala obuthuthu**

maul *{tool}*

A heavy, long-handled hammer used especially to drive stakes, piles, or wedges. Source

definition: Thefreedictionary.com

isiZulu **isando**

mechanical engineering

The branch of engineering concerned with the design, construction, and operation of machines and machinery.

Source definition: Collinsdictionary.com

isiZulu **ubunjiniyela bezemishini**

millwork

Woodwork (such as doors, sashes, or trim) manufactured at a mill.

Source definition: Homebuildingmanual.com

isiZulu **umsebenziwamapulangwe okwamapulangwe**
isiZulu

mining engineering

A branch of engineering concerned primarily with the location and evaluation of mineral deposits, the survey of mining areas, the layout and equipment of mines, and the supervision of mining operations.

Source definition: Mariam-Webster.com

isiZulu **ubunjiniyela bezemigodi**
isiZulu **ubunjiniyela bezemayini**

miter saw → mitre saw

mitre saw
A specialised tool that lets one make cuts at a variety of angles.
Synonym **miter saw**

Source definition: www.Google.com

isiZulu **isaha lemitha**

monolithic concrete
A reinforced concrete cast with no joints other than construction joints.

Source definition: Encyclopedia Britannica

isiZulu **ikhonkolo lebumbene**

mono-pitch roof

A single-sloped roof surface, often not attached to another roof surface.
Synonym **single-pitch roof**

Source definition: Wikipedia adapted

isiZulu **uphahla eluphakeme**

mortar

A mixture of lime with cement, sand, and water, used in building to bond bricks or stones.

Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu **udaka**

mortice

A hole cut into a piece of wood or stone into which one fits the end of another piece of wood or stone called a tenon in order to join the two pieces.
Synonym **mortise**

Source definition: Macmillan English Dictionary

isiZulu **ingoxi epulangweni**
isiZulu **isihlanganisi magilasi esimile**
isiZulu **imothisi**

mortise → mortice

mullion *{window}*

A piece of metal, wood, or stone used for separating the pieces of glass in a window.

Source definition: Macmillan English Dictionary

isiZulu **isihlanganisi magilasi esimile**

muntin *{window}*

Any of the strips of wood or metal used for support between panes of glass, as *in a window.*

Source definition: Collins English Dictionary

isiZulu **imicu esekela igilasi yefasitela**

N

nano-engineering

A field focused on manipulating processes that occur on the scale of 1 to 100 nanometres.

Source definition: Wisegeek.com adapted

isiZulu **uburjinyela benano**

nanometre

A unit of length in the metric system, equal to one billionth (short scale) of a metre.

Source definition: Wikipedia.com adapted

isiZulu **i-nanomitha**

nanotechnology

The manipulation and manufacture of materials and devices on the scale of atoms or small groups of atoms.

Source definition: Britannica.com

isiZulu **ithekinoloji yenano**
Synonym **buchwepheshe benano**

needle *{steel beam}*

A steel beam used to support an existing structure while it is being repaired, or to provide support when moving a structure, or when removing a portion of the wall below the beam.

Source definition: Thefreedictionary.com adapted

isiZulu **ibhimu yensimbi umshayo**
Synonym **wensimbi**

non-load bearing wall

A wall capable only of supporting its own weight and (if it is an exterior wall) capable of resisting the force of the wind blowing against it; it cannot support an imposed load.

Source definition: Thefreedictionary.com

isiZulu **udonga olungenakumelana nomthwalo? udonga**
Synonym **olungenakumelana nomthwalo?**

O

oriel window
An upper storey window projecting outward from a wall.

Source definition: Theconstructioncivil.org

isiZulu **iwindi lweoriyeli**
isiZulu **ifasitela lweoriyeli**

isiZulu **fasitela eliphumele ngaphandle**

outrigger
A structural element projecting out from a building to act as support, usually for a barge roof overhang.

Source definition: En.mimi.hu

isiZulu **isizinzisi sesikhobe sesinqe sophahla**
isiZulu **isizinzisi sesakhiwo**

P

padstone

A block of concrete or stone used to spread the weight of a beam orjoist, to avoid crushing the wall upon which it rests.

Source definition: Aleck Associates Ltd.

isiZulu **iphedistoni**

parapet *{wall}*

A barrier which is an extension of the wall at the edge of a roof, terrace, balcony, walkway or other structure.

Source definition: Aleck Associates Ltd.

isiZulu **udongasivimbelakuwa**
isiZulu **uthango lokuvikela**
isiZulu **ipharaphethi**

partition *{wall}*

A non-load bearing wall between rooms or areas in a building.

Source definition: Aleck Associates Ltd.

isiZulu **uthango lokwahlukanisa**
isiZulu **isahlukaniso**

partition stud → stud

party wall
A wall that divides two buildings that are joined together, and belongs to both of them.

Source definition: Dictionary.cambrdige.org

isiZulu **udonga oluhlukanisa izindlu**
isiZulu **ubonda oluhlukanisa izindlu**

petroleum engineering

The study of how to locate and extract energy resources, such as oil and natural gas, from the earth.

Source definition: Learn.org adapted

isiZulu **ubunjiniyela bezephetroli**
isiZulu **ubunjiniyela bezephalafini**

pier *{e.g. support for a bridge}*

A wide column or a wall of masonry, plain or reinforced concrete for carrying heavy loads, such as a *support for a bridge.*

Source definition: Definitions of Civil Engineering Terms (1992)

isiZulu **insika iphiye**
isiZulu **insika yamatshe**

pilaster *{column}*

A flat column that is slightly further forward than the rest of a *wall.*

Source definition: Macmillan English Dictionary

isiZulu **insika**

pile *{foundation}*

Wooden, concrete, or metal posts which are pushed into the ground and on which buildings or bridges are built which are often used in very wet areas so that the buildings do not flood.

Source definition: Collins Cobuild adapted

isiZulu **insika okwakhiwa phezu kwazo**

pile driver

A *large machine that pushes posts into the ground to support new buildings.*

Source definition: Macmillan English Dictionary

isiZulu **i-pile driver**

pillar

A *tall vertical structure, usually of stone, used as a support for building.*

Source definition: Concise Oxford English Dictionary

isiZulu **insika**

pilot hole

A *guiding hole for a nail or screw, or for drilling a larger hole.*

Source definition: Dictionary of Construction Terminology

isiZulu **inturja yesipikili**

plaster *{walls and ceilings}*

A soft mixture of lime with sand or cement and water for spreading on walls and ceilings to form a smooth hard surface when dried.

Source definition: Concise Oxford English Dictionary

isiZulu **udaka lokunameka**
isiZulu **udaka lokuphahleka**

plasterboard

A board made of plaster set between two sheets of paper, used especially to line inner walls.

Source definition: Concise Oxford English Dictionary

isiZulu **ipulangwe lodaka plinth**

The portion of the external wall between the level of the street and the level of the floor first above the street.

Source definition: Theconstructioncivil.org

isiZulu **isisekelo ipilinti**
isiZulu **uxhaso**
isiZulu **ukholomu**

plum → plum stone

plumbing fixture

An exchangeable device which can be connected to a plumbing system to deliver and drain water.

Source definition: Wikipedia.org adapted

isiZulu **isisetjenziswa sokumfunza amanzi**

plum stone

A large stone or piece of solid concrete used as a filler in mass concrete.
Synonym **plum**

Source definition: Aleck Associates Ltd.

isiZulu **itshelokugwalisa**

plywood

A type of board used for building houses, furniture etc., made from thin layers of wood that are fixed together using glue.

Source definition: Macmillan English Dictionary

isiZulu **ipulangwe**

pointing *{cement}*

The cement or mortar between the stones or bricks in a wall.

Source definition: Macmillan English Dictionary

isiZulu **udaka lokwakha**

poling board

A board used to support the sides *of an excavated structure.*

Source definition: Oxforddictionaries.com

isiZulu **ibhodi yokusekela indawo eghubiweyo ibhodi**
isiZulu **yokusekela isakhiwo embiweyo**

portal frame
A frame, usually of steel, consisting of 'two uprights and a cross beam at the top.

Source definition: Collinsdictionary.com
isiZulu **ifulemu lesakhiwo**
Synonym **uhlaka lesakhiwo**

portico *{entryway}*
A covered entryway attached to house, usually open on three sides and supported by posts or columns.

Source definition: Beaufortonline.com
isiZulu **umnyango**
isiZulu **isango**

Source definition: Yourdictionary.com

Portland cement

A kind of cement that hardens under water, made by burning a mixture of limestone and clay or materials similar.

Source definition: Yourdictionary.com

isiZulu **usemende we-Portland**

post stressed concrete

Concrete strengthened with steel wires which are stressed after the concrete has cured.
Synonym post tensioned concrete

Source definition: Aleck Associates Ltd.

isiZulu **ikhonkolo eqiniswe ngensimbi**

post-tensioned concrete → post-stressed concrete

prefabricated house

A house that is built in sections or component parts in a plant, and then assembled at the site.

Source definition: Beuafortonline.com

isiZulu **indlu iphrifebhu**

pre stressed concrete

Concrete strengthened with steel wires which are stressed before the concrete is poured.
Synonym pre tensioned concrete

Source definition: Aleck Associates Ltd.

isiZulu **ikhonkolo eqinisiwe kokucala ngensimbi**
Synonym **ikhonkolo eqaliswe ngensimbi**

pre-tensioned concrete → pre-stressed concrete

primer

The first, base coat of paint when a paint job consists of two or more coats.

Source defintion: Homebuildingmanual.com

isiZulu **upende wokuqala**

profilograph *{instrument}*

An instrument for measuring and recording roughness of the surface over which it travels.

Source definition: Thefreedictionary.com

isiZulu **iphrofilografu**

progressive collapse *{demolition}*

The process wherein the collapse of part of a building leads to the collapse of an adjacent part in 'house of cards' fashion.

Source definition: Aleck Associates Ltd.

isiZulu **ukubhidlizwa ngokwehlukana kwesakhiwo**

pugging *{insulation}*

A traditional infill between timber floor joints intended to enhance the acoustic insulation of the floor.

Source definition: Aleck Associates Ltd.

isiZulu **ukufakwa kwesivimbelimsindo**

pulley *{e.g. construction}*

A wheel with a grooved rim around which a cord passes, used to raise heavy weights.

Source definition: Oxford English Dictionary

isiZulu **isondo lokugijimisa intambo noma iketanga**
isiZulu **umdonso**
isiZulu **iphuli**

pulverised fuel ash

A fine white powder resulting from burning powdered coal in power stations, which can be used to supplement cement in making concrete for civil engineering works.
Synonym **fly ash**

Source definition: Aleck Associates Ltd.

isiZulu **umlotha wezibasozophuquza**
isiZulu **umlotha wezibasozencushuza**

purlin

A horizontal structural member which supports a sloping roof covering, with or without rafters, and which carries the roof loads to the primary framing members.

Source definition: Aleck Associates Ltd.

isiZulu **iphelini**
isiZulu **ithandela**

putlock → putlog

putlog

A short horizontal pole projecting from a wall, on which scaffold floorboards rest.

Synonym **putlock**

Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu **isixhasi-sikafula**

pyramid hip roof

A roof that takes the shape of a pyramid and it is constructed on top of a square or a rectangular base.

Source definition: www.myrooff.com adapted

isiZulu **uphahla oluyiphiramidi**
isiZulu **uphahla oluyisikwele mcijo**

Q

quarry
An excavation or pit, usually open to the air, from which building stone, slate, or the like, is obtained by cutting, blasting, etc.

Source definition: Dictionary.com

isiZulu **igilasi elinomumo wedayimani**

isiZulu **inkwali**

quarry tile
A man-made or machine-made clay tile used to finish a floor or wall.

Source definition: Dictionary of Construction Terminology

isiZulu isitini sokufuela senkwali

queen closer *{brick}*
A brick of normal length and thickness but of half normal width, used to complete a course or to space regular bricks.

Source definition: Thedictionary.com
isiZulu **isitini esiphungulwe emhlubulweni**
Synonym **isitini esihafulwe emhlubulweni**

queen post *{roof}*

A tension member in a truss that can span longer openings than a king post truss.

Source definition: Wikipedia

isiZulu **isekansika**

quoin *{wall}*

The external corner where two brick walls meet.

isiZulu **itshe lekhona**
isiZulu **itshe legumbi**
isiZulu **ikhoyini**

R

radon system *{ventilation system}*

A ventilation system beneath the floor of a basement and/or structural wood floor and designed to fan exhaust radon gas to the outside of the home.

Source definition: Homebuildingmanual.com

isiZulu **indlela yokungenisa umoya rafter**

{roof}

A large piece of wood that supports a sloping roof.

Source definition: Macmillan English Dictionary

isiZulu **umshayo**
isiZulu **umjibe**
isiZulu **umjanjatho**

raft foundation

A thick concrete slab reinforced with steel which covers the entire contact area of the structure like a thick floor.

Source definition: civil-engg-world.blogspot.com

isiZulu **umsahyo wesisekelo**
isiZulu **umjibe wesisekelo**
isiZulu **umjanjatho wesisekelo**
isiZulu **isihlenga sesisekelo**

rebate *{woodwork}*
A groove cut along the edge of a board producing an L-shaped strip, that is used as trim and in joint work in cabinet construction.

Source definition: Beaufortonline.com
isiZulu **i-rebate**

reinforced concrete

Concrete in which metal bars or wire are embedded to strengthen it.

Source definition: Concise Oxford English Dictionary

isiZulu **ikhonkolo eliqinisako**

restrainer → retarder

retarder *{cement}*

A substance added to slow down the rate of a chemical change, such as one added to cement to delay its setting.
Synonym restrainer

Source definition: Collins English Dictionary

isiZulu **isilibazisi**
isiZulu **isivimbeli**

reveal *{architecture}*
Either side surface of an aperture in a wall for a door or window.

Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu **i-rivili**

revolving door

A door, especially at the entrance of a building, typically made of three or four rigid upright sections joined at right angles and rotating about a central upright pivot.

Source definition: Thefreedictionary.com

isiZulu **umyango oginqikayo**
isiZulu **umyango ophendukayo**

ridge *{roof}*
The edge formed where the two sloping sides of a roof meet at the top.

Source definition: Concise Oxford English Dictionary

isiZulu **umqolo wophahla**

isiZulu **ukhalolophahla**

ridge tile
A curved tile which covers the ridge on a pitched roof.

Source definition: Aleck Associates Ltd.

isiZulu **umbhobho wesitini sokufulela**

riprap *{e.g. wall}*

A sustaining wall or foundation of random stone to prevent erosion on an embankment.

Source definition: Beaufortonline.com

isiZulu **udonga elivikela ukukhukhuleka?**

riser *{staircase}*

A vertical board rising from the back of one tread of a staircase to the front of the next.

Source definition: Aleck Associates Ltd.

isiZulu **ukuphakama kwezithebisi roof**

light →skylight

rough arch

A brick arch in which the bricks are rectangular and the arch shape is formed by means of the mortar joints being wedge-shaped.

Source definition: Aleck Associates Ltd.

isiZulu **i-ashi yezitini ezingasikwanga**

rustication

A type of decorative masonry achieved by cutting back the edges of stones to a plane surface while leaving the central portion of the face either rough or projecting markedly.

Source definition: Britannica.com

isiZulu **i-rustication**
isiZulu **umhlobiso wezici zamatshe**

S

saddle-back roof

A double sloping roof with a ridge and gables at each end.

Source definition: Thefreedictionary.com

isiZulu **uphahla lokhalo lwegqumqa?**

sanitary engineering

The branch of civil engineering associated with the supply of water, disposal of sewage, and other public health services.

Source definition: Collinsdictionary.com

isiZulu **ubunjiniyela benkucunkucu**

sanitary sewer

A sewer system designed for the collection of waste water from the bathroom, kitchen and laundry drains, and is usually not designed to handle storm water.

Source definition: Dictionary of Construction Terminology

isiZulu **ipayipi lokuchitha inkucunkucu**

sash window

A window that can be opened either by sliding the bottom half up or by sliding the top half down.
Synonym **cased window**

Source definition: Meriam-Webster.com

isiZulu ifasitela eliphakanyiswayo

scaffold

A structure of poles and planks used by workers to stand on when building.

Source definition: Shuters Life Orientation Leaners Book 2006

isiZulu **isikafodi**

scarf joint

A method of joining two members end to end in woodworking or metalworking.
Synonym **scarph joint**

Source definition: Wikipedia adapted

isiZulu **ukuhlanganiswa okuyisikafu**

isiZulu **ukudibaniswa okuyisikafu**

scarph joint → scarf joint

screed

A strip of wood, plaster, or metal placed on a wall or pavement as a guide for the even application of plaster or concrete.

Source definition: Thefreedictionary.com

isiZulu **iskridi**
isiZulu **isilinganisi**

scupper

Any opening in a wall, parapet, bridge curb, or slab that provides an outlet through which excess water can drain.
Synonym **scupper hole**

Source definition: Dictionary of Construction Terminology

isiZulu **imbobo**

~~**scupperhole**~~ → scupper

scuttle

A small opening or hatch with a moveable lid in the deck or hull of a ship or in the roof, wall, or floor of a building.

Source definition: Thefreedictionary.com

isiZulu **inturja**

seal coat *{roads}*

A thin bituminous application to a surface or wearing course to seal and waterproof small voids and to embed sand or chips to provide better traction.

Source definition: Definitions of Civil Engineering Terms (1992)

isiZulu **itiyela**

seismic engineering → earthquake engineering

septic tank

A tank in which the solid matter of continuously flowing sewage is disintegrated by bacteria.

Source definition: Meriam-Webster.com

isiZulu **ithangelokubolisela**

sewer

A pipe or conduit which is the property of or is vested in the local authority and which is used or intended to be used for the conveyance of sewage.

Source definition: The Concrete & Mortar Handbook adapted

isiZulu **umbhobhowonkucunkucu**

sewer connection → sewer stub

sewer stub

The point at which a home's sewer line joins the municipal sewer system.

Synonym **sewer connection**

Source definition: Dictionary of Construction Terminology

isiZulu **iqhosha lokuhlanganisa**

shear wall

A rigid vertical diaphragm capable of transferring lateral forces from exterior walls, floors, and roofs to the ground foundation in a direction parallel to their planes.

Source definition: Britannica.com

isiZulu **udonga olumelana noku zamazama komhlaba**
isiZulu **udonga olunkhonkhiwe**

shed roof

A roof having only one sloping plane and no hips, ridges or valleys.

Source definition: Yourdictionary.com

isiZulu **uphahla olutshekele eceleni**

sheer legs *{lifting device}*

A hoisting apparatus made from poles joined at or near the top and separated at the bottom, used for lifting heavy objects.

Source definition: Concise Oxford English Dictionary

isiZulu **umshini wokufula izimpahla ezisindayo**
isiZulu **isifunquli**

shim

A small piece of scrap lumber or shingle, usually wedge shaped, which when forced behind a furring strip or framing member forces it into position.

Source definition: www.askdefine.com

isiZulu **iweji**

shingle *{walls and roofs}*

A rectangular wooden tile used on walls or roofs.

Source definition: Dictionary of Construction Terminology

isiZulu **ishingili**

shutter

Each of a pair of hinged panels fixed inside or outside a window that can be closed for security or privacy or to keep out the light.

Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu **isivalo sewindl isivalo**
isiZulu **sefasitela**

side sewer

The portion of the sanitary sewer which connects the interior waste water lines to the main sewer lines.
Synonym **lateral sewer**

Source definition: Dictionary of Construction Terminology

isiZulu **ipayipi yenkucunkucu eseceleni**

sill

A shelf or slab of stone, wood, or *metal at the foot of a window or doorway.*

Source definition: Concise Oxford English Dictionary

isiZulu **isili yefasitela**
Synonym **isili yosango**

sill plate

The bottom horizontal member of *a wall or building to which vertical members are attached.*

Source definition: Wikipedia

isiZulu **ipuleti yesili**

sill seal

A type of insulation (fibreglass or foam) installed between the foundation wall and wood sill plate to fill gaps.

Source definition: Dictionary of Construction Terminology amended

isiZulu **isinamathelisi sesili**

single-pitch roof → mono-pitch roof

siphonage *{plumbing}*

The emptying of the seal in a trap by the aspiration of the water in the trap due to the downward rush of water and air in the pipes with which the trap is connected.

Source definition: www.wordnik.com

isiZulu **ukukhamba ngefanelo kwamanzi**

skewback *{supporting wall}*

An inclined part of a pier or abutment from which an arch springs.
Synonym **springer**

Source definition: Theconstructioncivil.org

isiZulu **isisekela-ashi**

skewback → springer

skirting → baseboard

skylight

An opening in a roof covered by glass or plastic material to admit natural light.
Synonym **roof light**

Source definition: Beaufortonline.com

isiZulu **ifasitela phezulu ophahleni slag**

{binder}

A latent hydraulic binder that is used in concrete and other construction applications as a *partial cement replacement material.*

Source definition: Afrisam.co.za

isiZulu **isibopho**

sleeper *{flooring}*
A wood member embedded in concrete, as in a floor, that serves to support and to fasten the subfloor or flooring.

Source definition: Homebuildingmanual.com

isiZulu **isisekeli esifakwa epulangweni**

sleeper wall

A masonry wall constructed to support a suspended ground floor.

Source definition: The Concrete & Mortar Handbook

isiZulu **ubonda lwamapulangwe**
Synonym **udonga lwamapulangwe**

sliding door

A type of door which opens horizontally by sliding, usually parallel to a wall.

Source definition: Wikipedia

isiZulu **umyango oshelelezayo**

slurry *{e.g. cement}*

A thin, watery mixture of neat cement or cement and sand.

Source definition: Definitions of Civil Engineering Terms (1992)

isiZului **udaka elilula**
siZulu **udaka olumanzi**

soaker *{metal sheet}*

A metal sheet bent at a right angle, part of the waterproof flashing of the junction of a tiled or slated roof abutting a wall.

Source definition: Aleck Associates Ltd.

isiZulu **isivimbelimanzi**

soffit *{architecture}*

The underside of an architectural structure such as an arch or balcony.

Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu **isofithi**

soil pipe

A pipe that conveys the discharge from water closets or similar fixtures to the sanitary sewer system.

Synonym **cesspipe**

Source definition: Dictionary of Construction Terminology

isiZulu **umbhobho wenkucunkucu ipayipiyendle**
isiZulu

soldier *{to strengthen or align}*

An upright brick, timber, or other building element.
Synonym **soldier beam**

Source definition: Aleck Associates Ltd.

isiZulu **ibhimu yokuqinisa**
isiZulu **umshayo wokuqinisa**

soldier beam → soldier

sole plate

A strip of timber which is laid on top of walls to level the underside of flooring joists.

Source definition: A to Z Glossary of Definitions and Terms used in the National Building Regulation Code of Good Practice

isiZulu **isandlalelo sodonga**

sonotube

A large tube of compressed fibre into which wet concrete is poured and left to harden, used to form pillars.

Source definition: Oxforddictionaries.com

isiZulu **i-sonotiube**

spandrel *{architecture}*
The almost triangular space between one side of the outer curve of an arch, a wall and the ceiling or framework.

Source definition: Concise Oxford English Dictionary

isiZulu **isipandela**

isiZulu **isipandreli**

spine wall
A load-bearing partition between the front and rear rooms of the house.

Source definition: Aleck Associates Ltd.

isiZulu **udonga**
isiZulu **umthangala**
isiZulu **ubonda**

spiral staircase → spiral stairway

spiral stairway

Any succession of tapered treads forming a curved stairway which extends as a single flight from one floor to another and which has a minimum radius of curvature of less than 100 mm.
Synonym spiral staircase

Source definition: The Concrete & Mortar Handbook

isiZulu **isitezi esisongelekayo splay**

An oblique surface {bevel or chamfered), as the jambs of a doorway or window; of which one side makes an oblique angle with the other.

Source definition: Aleck Associates Ltd.

isiZulu **intuba**
isiZulu **indawo enabile**
isiZulu **indawo ethambekekile**
isiZulu **indawo letshekile**

splice *{steelwork connection}*

A steelwork connection for joining for example two lengths of column to form a longer column.

Source definition: Aleck Associates Ltd.

isiZulu **isidibanisi**

springer *{arch}*

The lowest stone in an arch, where the curve begins.

Synonym skewback

Source definition: Wikipedia.org

isiZulu **isiqalogobela**

isiZulu **isisekelo seashi**

isiZulu **isipringa**

springer → skewback

springing line
A line of intersection between the intrados and supports of an arch.

Source definition: Aleck Associates Ltd.

isiZulu **isiqondisi se-ashi**
isiZulu **umugqa wokuphambana**

sprinkler system *{fire extinguisher}*

An automatic fire extinguisher installed in a *ceiling.*

Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu **isicima umlilo**

squint brick

A brick used for forming acute or obtuse corners in brick masonry.

Source definition: Theconstructioncivil.org

isiZulu **isitini esisikwe ngokwe-engile isitini**
isiZulu **esinekhona ebukhali**

stack vent *{ventilation}*

A ventilating pipe connecting to a *distance stack above the highest connected discharge pipe.*

Source definition: A to Z Glossary of Definitions and Terms used in the National Building Regulation Code of Good Practice

isiZulu **umbhobho wokunghenisa umoya**
isiZulu **isiphefemulisi**

staircase → stairway

stairway

Any part of the building which provides a route of travel between different levels in such buildings and is formed by a *single flight* or *by a combination of two or more flights and one or more intervening landings.*

Synonym **staircase**

Source definition: A to Z Glossary of Definitions and Terms used in the National Building Regulation Code of Good Practice

isiZulu **izitebhisi**

steelwork

A frame of steel sections supporting other parts of the structure.

Source definition: Aleck Associates Ltd.

isiZulu **uphahla lwentsimbi**

stile

A vertical piece in the frame of a panelled door or sash window.

Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu **isitebhisi sokweqa ucingo**
isiZulu **isitebhisi sokweqa uthango**

storey

A part of a building which is situated between the top of any floor and the top of the floor next above it, or if there is no floor above it that portion between such floor and the ceiling above it.
Synonym **floor**

Source definition: A to Z Glossary of Definitions and Terms used in the National Building Regulation Code of Good Practice

isiZulu **isithezi**

storm drain → storm sewer

storm sewer

A sewer system designed to collect storm water and is separated from the waste water system.
Synonym **storm drain**

Source definition: Homebuildingmanual.com

isiZulu **umbhobho wamanzi ezikhukhula**

strap *{support}*

A component, usually steel, installed to ensure that walls are connected to and restrained by floors.

Source definition: Aleck Associates Ltd.

isiZulu **ibhande**

stretcher *{brick}*

A brick whose longest side is visible on the surface of the wall.

Source definition: Aleck Associates Ltd.

isiZulu **isitini esiveza uhlangothi**
isiZulu **umhlubulo westiri**
isiZulu

string course
A horizontal band or course, as *of stone, projecting beyond or flush with the face of* a *building, often moulded and sometimes richly carved.*

Source definition: Dictionary.com

isiZulu **ibhande elihlukanisa isakhiwo strip**

flooring

A floor that comprises strips of width not less than 35 mm and not more than 90 mm and that are tongued on the one edge and grooved on the opposite edge.

Source definition: A to Z Glossary of Definitions and Terms used in the National Building Regulation Code of Good Practice

isiZulu **indawo yaphansi enziwe ngomdweshu**
indawo yaphansi enziwe ngamathwishi
isiZulu

structural engineering
A branch of *civil engineering dealing primarily with the design and construction of structures, such as bridges, buildings, dams.*

Source definition: Meriam-Webster.com

isiZulu **ubujiniyela bezakhiwo**

structural glass
A glass which is cast in the form of cubes, rectangular blocks, tile, or large rectangular plates; used widely for the surfacing of walls.

Source definition: Thefreedictionary.com

isiZulu **isakhiwo sengilazi**

stucco *{plaster}*

A type of plaster used for covering walls and ceilings, especially one that can be formed into decorative patterns.

Source definition: Dictionary.cambridge.org

isiZulu **umhlobiso we-stucco**

stud *{upright post}*

An upright post in the framework of a wall for supporting sheets of lath, drywall, or similar material.

Source definition: Thefreedictionary.com

isiZulu **iqhosha**
isiZulu **isitadi**
isiZulu **isibonda**
isiZulu **insika**

sump

A pit in a basement floor which collects water and into which a sump pump is placed to remove water.

Source definition: Beaufortonline.com

isiZulu **isampu**

surveying

The setting out on the ground of the positions of proposed construction or engineering works.

Source definition: Collinsdictionary.com

isiZulu **ukuhlola**

sway brace

Metal straps or wood blocks installed diagonally on the inside of a wall from bottom to top plate, to prevent the wall from twisting, racking, or falling over "domino" fashion.

Source definition: Homebuildingmanual.com

isiZulu **isiqinisi sokutengatenga**
isiZulu **isizinzisi sokutengatenga**

swing door

A door that can be pushed open from either side and that swings shut when it is released.

Source definition: Meriam-Webster.com

isiZulu **umyango ojikelezayo**

T

tack weld

Short intermittent welds made to hold components in place before full welding is begun.

Source definition: Collinsdictionary.com

isiZulu **ukushisela**

tail beam *{support}*

A relatively short beam or joist supported in a wall on one end and by a header at the other.
Synonym **tail joist**

Source definition: Homebuildingmanual.com

isiZulu **insika lencane**

tail joist → tail beam

tandem roller *{road}*

A type of road roller in which the front and back wheels consist of rollers of about the same *diameter.*

Source definition: Collinsdictionary.com

isiZulu **ugandaganda**

tenon

A piece that is *cut so that it sticks out from the end of a piece of wood and can be fitted into a hole called a mortise in another piece of wood to join them together.*

Source definition: Macmillan English Dictionary

isiZulu **ikhinqela**
isiZulu **ithenoni**

thatch roof

A roof covering made of straw, red palm leaves, or similar material fastened together to shed water and provide thermal insulation.

Source definition: Dictionary of Construction Terminology

isiZulu **uphahla lotshani**

theodolite

An optical instrument used by land surveyors for surveying and by engineers and builders for setting out lines and angles on the ground.

Source definition: Aleck Associates Ltd.

isiZulu **into okuklanywa ngayo izwe**

tie beam *{connection}*

A horizontal timber or the like for connecting two structural members to keep them from spreading apart, as *a beam connecting the feet of two principal rafters in* a *roof truss.*

Source definition: www.dictionary.com

isiZulu **isibambamishayo**

isiZulu **ifindo yomshayo**

tile

A thin slab or bent piece of baked clay, sometimes painted or glazed, used for various purposes, as *to form one of the units of* a *roof covering, floor, or revetment.*

Source definition: Dictionary.com

isiZulu **ithayela**
isiZulu **ubumba olushisiwe ubumba**
isiZulu **oluphekiwe uhlobo lwesitini**
isiZulu **sokufulela**

tower crane

A crane with a *fixed vertical* mast *that is topped by* a *rotating boom and equipped with* a *winch for hoisting and lowering loads.*

Source definition: Dictionary of Construction Terminology

isiZulu **umshini wokufula izimpahla ezisindayo**

transom → transome

transome

A horizontal member in joinery, for example the part of the frame between an upper and a lower window.
Synonym **transom**

Source definition: Aleck Associates Ltd.

isiZulu **itransomi**

transportation engineering

A branch of engineering dealing with planning, designing, estimation, construction, operation, maintenance, rehabilitation and management of transportation infrastructure for movement of people and goods from one *place to the other safely, timely, conveniently, comfortably, economically by using various modes like highways, railways, air ways, water ways and pipe ways also.*

Source definition: Tem-uet.blogspot.com adapted

isiZulu **ubujiniyela bezokuthutha**

trap *{pipe)*

A U-shaped pipe below plumbing fixtures designed to create a water seal and prevent sewer odours and gases from being released into the habitable areas.

Source definition: Beaufortonline.com

isiZulu **umbhobho wokuvikela iphunga umbhobho**
isiZulu **wokuvikela ukunuka**

tread *{stairway}*

The horizontal upper surface of a step in a stair, on which the foot is placed.

Source definition: Dictionary.com

isiZulu **isinyathelo**

trimmer *{joist}*
A joist which carries extra loads, for example, those due to an opening or partition.

Source definition: Aleck Associates Ltd.

isiZulu **ijoyisti**

Synonym **isifekethiso**

truss

A prefabricated rigid framework used for roof and floor construction.

Source definition: ehow.com

isiZulu **amakabha**
uhlaka lophahla
amabhanuko

turbine
A machine in which the energy of a moving fluid, e.g. water, or wind is converted into mechanical energy.

Source definition: Collins English Dictionary

isiZulu **ithebhani**
isiZulu **umshiniwokuphehla ugesi**
isiZul-u **umshiniophendulwa amanzi**

turret
A small tower at the comer of a building or wall, especially of a castle.
Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu **umbhoshongo**

U

underpinning *{support}*

The process of supporting the existing structure for renewing or repairing the lower walls or foundations.

Source definition: Theconstructioncivil.org

isiZulu **ukuqinisa ubonda**
Synonym **ukuqinisa udonga**

urban engineering

A branch of engineering that deals with the operation and problems; as laying out additions and parks, and constructing and maintaining sewer systems, waterworks, and pavements peculiar to urban life.

Source definition: Meriam-Webster.com

isiZulu **uburnjiniyela basedolobheni**

V

valley *{roof or wall}*

An internal angle formed by the intersecting planes of a *roof, or by the slope of a roof and a* wall.

Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu **isigodi**

valley rafter *{roof}*

The rafter that follows the line of the valley and connects the ridge to the wall plate along the line where the two inclined, perpendicular sides of the roof meet.

Source definition: Dictionary of Construction Terminology

isiZulu **ikhabha**

Synonym **ikapa elifishane**

vault

A roof in the form *of an arch or a series* of *arches, typical* of *churches and other large, formal buildings.*

Source definition: Concise Oxford English Dictionary 11th Edition

isiZulu **uphahla oluyingungu**

veneer

A thin decorative covering of fine wood applied to a coarser wood or other material.

Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu **isembozakuhlobisa ngokhuni**

vent *{circulation}*

A pipe built into a drainage system to provide air circulation, thus preventing siphonage and back pressure from affecting the function of the trap seals.

Source definition: A to Z Glossary of Definitions and Terms used in the National Building Regulation Code of Good Practice

isiZulu **imbobo**
Synonym **isikhala**

veranda

A large, open porch, usually roofed and partly enclosed, as by a railing, often extending across the front and sides of a house.

Source definition: Dictionary.com

isiZulu **uvulande**

vitrolite *{clear glass}*
Panels formed of clear glass with colour glass laminated to one side and used as a wall veneer.

Source definition: Wentworthsstudio.com

isiZulu **ivithrolayithi**

voussoir

A wedge-shaped or tapered stone used to construct an arch.

Source definition: Concise Oxford English Dictionary English 11th Edition

isiZulu i-voussoir
isiZulu itshe le-ashi
isiZulu itshe lokwakha
isiZulu i-ash itshe legobela
isiZulu itshe lengungu

W

wainscot

The bottom part of the walls in a room, especially when it is covered with wood.

Source definition: Macmillan English Dictionary

isiZulu **umhlobisopulangwe ngaphansi kwebonda**
isiZulu **umhlobisopulangwe ngaphansr donga**

wane *{defective edge in timber}*

A defective edge of a board due to remaining bark or a *beveled end.*

Source definition: Dictionary of Construction Terminology

isiZului **isici sepulangwe**

waste pipe *{plumbing}*

A discharge pipe which conveys waste water only.

Source definition: A to Z Glossary of Definitions and Terms used in the National Building Regulation Code of Good Practice

isiZului **umbhobho wezibi**
siZulu **ipayipi yezibi**
isiZulu **ipayipi yamanzi angcolile**
umbhobho wenkucunkucu

waste-water engineering

A branch of engineering that deals with the transportation and cleaning of blackwater, greywater, and irrigation water.

Source definition: Wikipedia.com adapted

isiZulu **ubunjiniyela bokucitha amanzi angcolile**
isiZulu **ubunjiniyela bokucitha amanzi wenkucunkucu**

water seal

The water in a trap which acts as a barrier against the flow of any foul air or gas.

Source definition: A to Z Glossary of Definitions and Terms used in the National Building Regulation Code of Good Practice

isiZulu **isivimbeli samanzi**
isiZulu **isivalo samanzi**

water supply system

The system that supplies water throughout a building, including the service pipe(s), distribution and connecting pipes, fittings, and control valves.

Source definition: A to Z Glossary of Definitions and Terms used in the National Building Regulation Code of Good Practice

isiZulu **uhlelo lokuba khona kwamanzi**
isiZulu **uhlelo lwamanzi akhona**

weep hole *{drainage}*
An opening at the bottom of a *wall which allows the drainage of water.*

Source definition: Beaufortonline.com

isiZulu **umsele wokumunca amanzi?**

window box → window buck

window buck
A square or rectangular box that is installed within a concrete foundation or block wall.
Synonym **window box**

Source definition: A to Z Glossary of Definitions and Terms used in the National Building Regulation Code of Good Practice

isiZulu **ibhoklsi lefasitela**

window frame

A supporting frame for the glass of a window.

Source definition: Google.com

isiZulu **ifulemu lefaslitele ifulemu**
isiZulu **lewindi**

window sash

The operating or moveable part of a *window.*

Source definition: A to Z Glossary of Definitions and Terms used in the National Building Regulation Code of Good Practice

isiZului **iseshi lefasitela iseshl**
siZulu **lewindi**

wired glass

Sheet glass with wire mesh embedded in the glass to prevent shattering.

Synonym **wire glass**

Source definition: Dictionary of Construction Terminology

isiZulu **ingilazi yocingo**
isiZulu **ingilazi yothango**

wire glass → wired glass

wire nut

A plastic device used to connect bare wires together.

Source definition: A to Z Glossary of Definitions and Terms used in the National Building Regulation Code of Good Practice

isiZulu **inathi yocingo**
isiZulu **imuru yocingo**
isiZulu **imuru yothango**

wonderboard

A panel made out of concrete and fibreglass usually used as ceramic tile backing material.

Source definition: A to Z Glossary of Definitions and Terms used in the National Building Regulation Code of Good Practice

isiZulu **iwandabhodi**

Z

zone valve

A device, usually placed near the heater or cooler, which controls the flow of water or steam to parts of the building.

Source definition: A to Z Glossary of Definitions and Terms used in the National Building Regulation Code of Practice

isiZulu **ivalvu yokulawula ukuhamba kwamanzi zoning**

{town planning}

A system of choosing areas to be developed for particular purposes, such as houses or shops, when planning town.

Source definition: Dictionary of Contemporary English 6th Edition

isiZulu **ukuklanywa komkhakha womhlaba**

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DEPARTMENT OF HUMAN SETTLEMENTS

NO. 262 **26 March 2021**

REGULATIONS UNDER THE RENTAL HOUSING ACT, 1999

I, Lindiwe Nonceba Sisulu, Minister for Human Settlements hereby publishes the draft Regulations under the Rental Housing Act, 1999, as amended for public comment. The draft Regulation is hereby attached.

Any interested persons or institutions are hereby invited to submit written comments or representations with regard to the draft Bill within 60 days of the date of publication of this notice. All comments or presentations must be submitted in writing in one of the following ways:

(a) By post to: The Director General
Department of Human Settlements
Private Bag x 644
Pretoria
0001

For attention: [Ms Rose Murray and Ms Lisa Masilo]

or

(b) Delivered to: The Director-General
Department of Human Settlements
260 Justice Mohamed Street

For attention: [Ms L Masilo and Ms R Murray]

Or

(c) By electronic mail: [Ms Rose.Murray@dhs.gov.za and Ms Lisa.Masilo@dhs.gov.za]

Enquiries: [Ms L Masilo 012-444-9097 & Ms R Murray 012-444-9283]

Comments received after the closing date may not considered.

DEPARTMENT OF HUMAN SETTLEMENTS

No. ... 2015

REGULATIONS IN TERMS OF THE RENTAL HOUSING ACT, 50 OF 1999

The Minister of Human Settlements has under section 15 of the Rental Housing Act, 1999, made the regulations set out in the Schedule.

SCHEDULE

ARRANGEMENT OF REGULATIONS

CHAPTER 1

INTRODUCTORY PROVISIONS

1 Definitions

In these Regulations, any word or expression defined in the Act has the same meaning unless the context indicates otherwise, and -

"Act" means the Rental Housing Act, 1999 (Act 50 of 1999);

"common property" in relation to a multi-tenanted dwelling means –

(a) the land on which the dwelling is situated; and

(b) those parts of the dwelling not reserved for exclusive use of any person;

"complaint" means a complaint lodged by a landowner or tenant in terms of section 13 of the Act;

"complainant" means a tenant, landowner or a group of tenants or landowners or interest group who lodges a complaint with the Tribunal as contemplated in section 13 of the Act;

"days" when prescribed for the doing of any act or for any other purpose, is calculated by excluding the first day and including the last day, unless the last day falls on a Sunday or public holiday, in which case the time is calculated by excluding the first day and such Sunday or public holiday

"e-mail" means e-mail as defined in section 1 of the Electronic Communications and Transactions Act, 2002 (Act 25 of 2002);

"fee" means a fee determined by the Tribunal for any submission or application in terms of these Regulations;

"mediation" means the process of dispute resolution contemplated in section 13(2)(c) of the Act;

"mediator" means a person appointed as mediator by the Tribunal in accordance with section 13(2)(c);

"presiding officer" means the chairperson, deputy chairperson or member appointed as contemplated in section 10(2B) of the Act conducting a hearing as contemplated in section 13 of the Act,

"register" means the register contemplated in section 13(8) of the Act;

"Regulations" mean these Regulations and includes the Schedules attached hereto or referred to herein;

"respondent" means a person against whom a complaint has been lodged in terms of section 13 of the Act with the Tribunal; and

"services" means the provision of water, electricity, gas and refuse removal;

CHAPTER 2

SERVING AND FILING OF COMPLAINTS

2 Filing of complaint with Tribunal

(1) A complainant may lodge a complaint as contemplated in section 13 of the Act by filing a written complaint, signed by the complainant, on the form contemplated in Schedule 1 and in the manner determined in subregulation (2).

(2) A complaint may be filed in any one of the following ways:

(a) By registered post addressed to the offices of the Tribunal;

(b) by the physical submission of the complaint at the Rental Housing Information Office within the area of jurisdiction of the local municipality where the dwelling is situated, if applicable;

(c) by the physical submission of the complaint at the office of the relevant Tribunal;

(d) by facsimile to the offices of the Tribunal; and

(e) by e-mail to the official address determined by the Tribunal for that purposes.

(3) A complainant who files a complaint by means of a facsimile as contemplated in subregulation (2)(d) must –

(a) record the name and surname of the person receiving the facsimile at the office of the Tribunal on his or her original complaint; and

(b) file the original complaint if requested to do so by the Tribunal within seven days after being requested to do so.

(4) A complainant who files a complaint by means of an e-mail contemplated in subregulation (2)(e) must file the original complaint if requested to do so by the Tribunal within seven days after being requested to do so.

3 Tribunal's responsibilities on receipt of complaint

The following steps must be taken in respect of any complaint received by the Tribunal:

(a) A file must be opened and a reference number must be allocated to the complaint;

(b) the particulars of the dwelling to which the complaint refers must be listed in the register referred to in section 13 (8) of the Act;

(c) the complainant must be provided with an acknowledgement of receipt of the complaint which contains the reference number of the complaint;

(d) the Tribunal must conduct such preliminary investigations as may be necessary to determine whether the complaint relates to a dispute in respect of a matter which may constitute an unfair practice, and for this purpose any additional information required to provide a full and complete description of the matter may be obtained from either the complainant or the respondent alleged to be involved in the unfair practice concerned;

(e) if the Tribunal considers it necessary, it may instruct an inspector to compile a report on the complaint and if considered desirable require the inspector to first inspect the property concerned;

(f) the Tribunal must within 30 days of the receipt of the complaint, determine, as contemplated by section 13(2)(b) of the Act, whether the complaint relates to a dispute in respect of a matter which may constitute an unfair practice; and

(g) the determination contemplated by paragraph (f) must be recorded in the file referred to in paragraph (a).

4 Requirements if no dispute exists

If the Tribunal determines that the complaint does not relate to a dispute in respect of a matter which may constitute an unfair practice, the Tribunal must, within seven days of making the determination -

(a) notify the complainant and any other affected party in writing of its determination;

(b) if possible, furnish the complainant with an appropriate institution to which the matter should be referred, and

(c) record that the matter has been disposed of and close the relevant file.

5 Procedure on determination that dispute exists

If the Tribunal has determined that a complaint does relate to a dispute in respect of a matter which may constitute an unfair practice, the Tribunal must—

(a) further determine whether in its view the dispute may be resolved by mediation or whether in its view the dispute is of such a nature that it cannot be resolved by mediation; and

(b) cause its further determination contemplated by paragraph (a) to be recorded on the relevant file; and

(c) in writing, inform the parties of that further determination;

(d) if it has determined that the dispute may be resolved by mediation, appoint a mediator in terms of section 13(2)(c) of the Act; or

(e) if it has determined that the dispute is of such a nature that it cannot be resolved by mediation, arrange for a formal dispute hearing of the complaint, and, in writing, inform the parties of the particulars of the hearing.

6 Serving complaint on respondent

(1) A complainant must serve the complaint filed with the Tribunal on the respondent –

(a) By handing a copy of the complaint to –

(i) the respondent;

(ii) a representative authorised in writing to accept service on behalf of the respondent;

(iii) a person who appears to be at least 16 years old and in charge of the respondent's place of residence, business or place of employment premises at the time; or

(iv) a person referred to in subregulation (2);

(b) by leaving a copy of the document at-

(i) an address chosen by the respondent to receive service; or

(ii) any premises in accordance with subregulation (3);

(c) by faxing or telexing a copy of the document to the respondent's fax or telex number respectively, or a number chosen by the respondent to receive service;

(d) by sending a copy of the document by registered post or telegram to the last- known address of the party or an address chosen by the party to receive service; or

(e) by sending a copy of the document by e-mail to the respondent to the e-mail address chosen by the respondent to receive service.

(2) A complaint may also be served-

(a) on a company or other body corporate, by handing a copy of the complaint to a responsible employee of the company or body at its registered office, its principal place of business within the Republic or its main place of business;

(b) on a partnership, firm or association, by handing a copy of the complaint to a responsible employee or official at the place of business of the partnership, firm or association or, if it has no place of business, by serving a copy of the document on a partner, the owner of the firm or the chairman or secretary of the managing or other controlling body of the association, as the case may be;

(c) on a municipality, by serving a copy of the complaint on the municipal manager or any person acting on behalf of that person;

(d) on a statutory body, by handing a copy of the complaint to the secretary or similar officer or member of the board or committee of that body, or any person acting on behalf of that body;

(e) on a provincial department, by handing a copy of the complaint to a responsible employee at the head office of that department.

(3) If no person identified in subregulation (2) is willing to accept service, service may be effected by affixing a copy of the document to-

(a) the main door of the premises concerned; or

(b) if this is not accessible, a post-box or other place to which the public has access.

(4) The Tribunal or a presiding officer may order service in a manner other than prescribed in this regulation.

7 Proof of service of complaint on respondent

(1) A party must prove to the Tribunal or presiding officer that a document was served in terms of these Regulations, by providing the Tribunal or presiding officer -

(a) with a copy of proof of mailing the complaint by registered post to the other party;

(b) with a copy of the facsimile transmission report indicating the successful transmission to the respondent of the whole document; or

(c) if a document was served by hand -

(i) with a copy of a receipt signed by, or on behalf of, the other party clearly indicating the name and designation of the recipient and the place, time and date of service; or

(ii) with a statement confirming service signed by the person who delivered a copy of the document to the other party or left it at any premises.

(2) If proof of service in accordance with subregulation (1) is provided, it is presumed, until the contrary is proved, that the party on whom it was served has knowledge of the contents of the document.

(3) The Tribunal may accept proof of service in a manner other than prescribed in this rule, as sufficient.

8 Complaint or document sent by registered post

Any complaint or document sent by registered post by a party or the Tribunal is presumed, until the contrary is proved, to have been received by the person to whom it was sent seven days after it was posted.

9 Notice of proceedings before Tribunal

The Tribunal may provide notice of a mediation session or dispute hearing before it by means of any method referred to in regulation 6 and may, in addition, give notice by means of short message service.

10 Condonation for document delivered late

(1) This regulation applies to any document delivered outside of the applicable time period prescribed in these Regulations.

(2) A party must apply for condonation when delivering the document to the Tribunal.

(3) An application for condonation must set out the grounds for seeking condonation and must include details of the following:

(a) the degree of lateness;

(b) the reasons for the lateness;

(c) the referring parties' prospects of succeeding with the referral and obtaining the relief sought against the other party;

(d) any prejudice to the other party; and

(e) any other relevant factors.

(4) The Tribunal may assist a referring party to comply with this regulation.

11 Electronic submissions

(1) Where these Regulations -

(a) require a person to -

(i) submit a document, a copy of a document or any notice to another person,

(ii) notify another person of any matter; and

(b) that other person has an address for the purposes of electronic communications,

the document, copy, notice or notification may be sent or made by way of electronic communications.

(2) Where these Regulations permit a person to make representations on any matter or document, those representations may be made—

(a) in writing, or

(b) by way of electronic communications

(3) The Electronic Communications and Transactions Act, 2002 (Act No. 25 of 2002) apply to any electronic communication made in terms of this regulation.

CHAPTER 3

MEDIATION

12 Notification of mediation

(1) If the Tribunal is of the view that a dispute may be resolved through mediation, it must notify the parties to the dispute of its decision to mediate the dispute.

(2) Notice of its decision to mediate and the date of the mediation session must be in writing and must be given in accordance with the methods provided for in regulation 6 at least 7 days before the scheduled date of the mediation session unless the method used is by registered post, in which case notice must be given 28 days before the scheduled date of the mediation session.

(3) The parties to the dispute may agree to a shorter period of notice.

(4) If a dispute arises between parties to an agreement, the parties may of their

own volition decide to resolve that dispute through mediation.

13 Tribunal may seek to resolve dispute before mediation session

The Tribunal or mediator may contact the parties by telephone or other means, prior to the commencement of the mediation session, in order to seek to resolve the dispute.

14 Failure to attend mediation session

(1) The parties to a dispute must attend a mediation session in person, irrespective of whether they are represented or not.

(2) If a party is represented at the mediation session but fails to attend in person, the mediator may-

(a) continue with the proceedings in the absence of that party;

(b) adjourn the proceedings to a later date; or

(c) dismiss the matter by issuing a written ruling.

(3) In exercising a discretion in terms of subregulation (2), a mediator must take into account, amongst other things –

(a) whether the party has previously failed to attend a mediation session in respect of that dispute;

(b) any reason given for that party's failure to attend;

(c) whether mediation can take place effectively in the absence of that party;

(d) the likely prejudice to the other party of the mediator's ruling; and

(e) any other relevant factors.

(4) A mediator must be satisfied that the party had been properly notified of the date, time and venue of the proceedings, before making any decision in terms of subregulation (2).

(5) If a matter is dismissed, the Tribunal must send a copy of the ruling to the parties.

15 Mediation proceedings may not be disclosed

(1) Mediation proceedings are private and confidential and are conducted on a without prejudice basis.

(2) No person may refer to anything said at mediation proceedings during any subsequent proceedings, unless the parties agree thereto in writing.

(3) No person, including a mediator, may be called as a witness during any subsequent proceedings in the Tribunal or in any court to give evidence about what transpired during mediation.

16 Mediation proceedings

(1) The mediation session shall be conducted as follows:

(a) The mediator shall explicitly discuss the issue of confidentiality with the parties prior to the commencement of any mediation session;

(b) the mediator must at the start of the mediation session inform the parties that –

(i) he or she merely acts as a facilitator in an attempt to resolve the dispute between them and that the decision to be arrived at will be the decision of the parties and not his or her decision; and

(ii) the mediation process will be conducted such that –

(aa) each party will be given an opportunity to outline their case;

(bb) each party may, at any stage of the proceedings, recess into caucus, in another room or office;

(cc) if the respective party does not have any objection thereto, then the mediator may attend the caucus meeting and make suggestions and proposals;

(dd) if the party in the caucus meeting does not have any objection, then the mediator may convey any proposal, attitude or indication or suggestion stemming from the caucus meeting to the other party.

(c) the mediator must conduct mediation only in those disputes in which he or she can be impartial with respect of all of the parties and the subject matter of the dispute;

(d) the mediator must disclose to the parties all actual or potential conflicts of interest;

(e) the mediator must not conduct mediation unless the parties, after being informed of the actual or potential conflict, give their consent and the mediator determines that the conflict is not so significant as to cast doubt of the integrity of the process on himself or herself;

(f) if, at any time, the mediator believes that any party to the mediation is unable to understand and participate fully in the proceedings due to mental impairment, emotional disturbance, intoxication, language barriers or other reasons, the mediator must limit the scope of the mediation to a level consistent with the party's ability to participate and make a recommendation that the party may obtain appropriate

assistance in order to continue with the process or terminate, adjourn or postpone the mediation session.

(2) The mediator must attempt to obtain testimony or documents voluntarily, which he or she considers necessary, from a person who is not party to the mediation and record all efforts made to obtain the information in the file.

(3) If the required testimony or documentation cannot be obtained voluntarily, the mediator may issue summons in the form of a subpoena as contemplated in Schedule 2 to these Regulations.

(4) The issue of a subpoena must be authorised by the Tribunal.

(5) A mediation process must be completed within 30 days from the date of delivery of the notice of mediation referred to in regulation 8: Provided that the Tribunal may agree to extend the period for a further 30 days.

(6) If the parties cannot reach agreement through mediation the matter must be referred to the Tribunal for a formal hearing and ruling in terms of the Act and the mediator must submit a report summarising the evidence to the Tribunal.

(7) If the mediation results in an agreement, it must be reduced to writing and signed by all the parties and the mediator.

(8) Before signing an agreement contemplated in subregulation (7) the mediator must ensure that each party fully understands the agreement and is entering into it voluntarily.

(9) No party may be coerced in any manner to reach agreement.

(10) A mediation agreement must be recorded in the register.

17 Failure to comply with mediation agreement

(1) If any party to a mediation agreement referred to in section 16(7) alleges that the other party has failed to comply with the provision of the mediation agreement, that party may seek relief by reporting the allegations to the Tribunal.

(2) Upon receipt of an allegation contemplated in subregulation (2) the Tribunal must conduct an investigation into such allegation to determine whether the clauses of the mediation agreement are being adhered to.

(3) If the Tribunal finds that a party is not adhering to the terms of a mediation agreement, the Tribunal must conduct a hearing and make such a ruling as it considers necessary.

CHAPTER 4

DISPUTE HEARINGS

18 Tribunal of record

(1) The Tribunal is a tribunal of record and a record must be kept of -

(a) any decision of the Tribunal;

(b) any evidence given to the Tribunal;

(c) any objections made to any evidence received or tendered;

(d) any on-site inspection and any matter recorded as a result thereof; and

(e) the proceedings of the Tribunal generally.

(2) The record referred to in subregulation (1) must be kept by such means, including legible notes or digital recording, as the Tribunal may deem expedient.

(3) The record must be certified as correct by the presiding officer and thereafter filed in the register.

(4) A party may request a copy of the record or a portion of a record kept in terms of this regulation, on payment of the applicable fee.

19 Notification of dispute hearing

The Tribunal must give written notice of the date of the dispute hearing and such notice must be given in accordance with the methods provided for in regulation (6) at least 21 days before the scheduled date of the dispute hearing unless the method used is by registered post, in which case notice must be given 28 days before the scheduled date of the dispute hearing.

20 Issuing of subpoena

(1) Any party who requires the Tribunal or a presiding officer to subpoena a person must file a completed form as contemplated in Schedule 2 together with a written motivation setting out why the evidence of the person to be subpoenaed is necessary.

(2) The subpoena must, in addition to the written motivation required in terms of subregulation (1), set out in clear terms –

(a) the full names of the person from whom the information is required;

(b) the information that is required; and

(c) the book, document or thing to be produced.

(3) A party requesting the Tribunal to waive the requirement for the party to pay witness fees in terms of regulation 5 must set out the reasons for the request in writing at the time of requesting the Tribunal to issue a subpoena in respect of that witness.

(4) An application in terms of subregulation (1) must be filed with the Tribunal at least 14 days before the dispute hearing, or as directed by the presiding officer hearing the complaint.

(5) The Tribunal or the presiding officer may refuse to issue a subpoena if-

(a) the party does not establish why the evidence of the person is necessary;

(b) the party subpoenaed does not have a reasonable period in which to comply with the subpoena;

(c) the Tribunal or the presiding officer is not satisfied that the party has made arrangements to pay the witness fees and the reasonable travel costs of the person subpoenaed.

(6) A subpoena must be served on the witness subpoenaed or his or her nominated agent personally -

(a) by the person who has requested the issue of the subpoena or by the Sheriff, at least seven days before the scheduled date of the dispute hearing; and

(b) if so directed by the Tribunal, accompanied by payment of the witness fees for one day in accordance with the tariff of allowances referred to in regulation 5 and the witnesses' reasonable travel costs.

21 Expert witness

A party intending to call an expert witness must give seven days' prior to the dispute hearing, notice thereof to the Tribunal and the other party together with a summary of the proposed evidence of such witness, any document on which the witness will rely during evidence and the basis on which the witness is regarded to be an expert, to enable the other party to consider the summary and obviate the need for postponement.

22 Filing of statements

(1) The Tribunal or presiding officer may direct-

(a) the referring party in a mediation to deliver a statement of case; and

(b) the other party to deliver an answering statement.

(2) A statement in terms of subregulation (1) must-

(a) set out the material facts upon which the party relies and the legal issues that arise from the material facts;

(b) be delivered within the time-period specified by the presiding officer.

23 Pre-hearing conference

(1) The parties to a dispute hearing must hold a pre-hearing conference dealing with the matters referred to in subregulation (2), if directed to do so by the Tribunal.

(2) In a pre-hearing conference, the parties must attempt to reach consensus on the following:

(a) any means by which the dispute may be settled;

(b) facts that are agreed between the parties;

(c) facts that are in dispute;

(d) the issues that the Tribunal is required to decide;

(e) the precise relief claimed and if compensation is claimed, the amount of the compensation and how it is calculated;

(f) the sharing and exchange of relevant documents, and the preparation of a bundle of documents in chronological order with each page numbered;

(g) the manner in which documentary evidence is to be dealt with, including any agreement on the status of documents and whether documents, or parts of documents, will serve as evidence of what they appear to be;

(h) whether evidence on affidavit will be admitted with or without the right of any party to cross-examine the person who made the affidavit;

(i) which party must begin;

(j) the necessity for any on-the-spot inspection;

(k) securing the presence at the Tribunal of any witness;

(l) the resolution of any preliminary points that are intended to be taken;

(m) the exchange of witness statements;

(n) expert evidence;

(o) any other means by which the proceedings may be shortened;

(p) an estimate of the time required for the dispute hearing;

(q) the right of representation; and

(r) whether an interpreter is required and, if so, for how long and for which languages.

(3) Unless a dispute is settled, the parties must draw up and sign a minute setting out the facts on which the parties agree or disagree.

(4) A minute in terms of subregulation (3) may also deal with any other matter listed in subregulation (2).

(5) The referring party must ensure that a copy of the pre-hearing conference minute is delivered to the appointed presiding officer within seven days of the conclusion of the pre-hearing conference.

(6) The presiding officer may, after receiving a pre-hearing minute referred to in subregulation (3) –

(a) enrol the matter for hearing

(b) direct the parties to hold a further pre-hearing conference; or

(c) make any other direction to the parties concerning the conduct of the dispute hearing.

(7) The parties to a dispute hearing may agree to hold a pre-hearing conference in terms of this subregulation.

24 Jurisdiction of Tribunal

If during the dispute hearing it appears to the presiding officer that the Tribunal may not have jurisdiction to hear the dispute, that presiding officer must require the complainant to prove that the Tribunal has jurisdiction.

25 Postponement of dispute hearing

(1) A dispute hearing may be postponed-

(a) in the event of an emergency;

(b) by agreement between the parties in terms of subregulation (2); or

(c) by application and on notice to the other parties in terms of subregulation (3).

(2) The Tribunal must postpone a dispute hearing without the parties appearing if-

(a) all the parties to the dispute agree in writing to the postponement; and

(b) the written agreement for the postponement is received by the Tribunal more than seven days prior to the scheduled date of the dispute hearing.

(3) If the conditions of subregulation (2) are not met, any party may apply in terms of regulation 30 to postpone a dispute hearing by delivering an application to the other parties to the dispute and filing a copy with the Tribunal before the scheduled date of the dispute hearing.

(4) After considering the written application, the Tribunal may-

(a) without convening a hearing, postpone the matter; or

(b) convene a hearing to determine whether to postpone the matter.

26 Representation before Tribunal

(1) (a) In a mediation session a party to the dispute may appear in person or be represented only by, if that party is a juristic person, a director or employee of that party and if it is a close corporation, a member thereof;

(b) In any dispute hearing, a party to the dispute may appear in person or be represented only by -

(i) if that party is a juristic person, a director or employee of that party and if it is a close corporation, a member thereof;

(ii) if that party is a local municipality or provincial department, by the employee delegated to appear; or

(ii) a legal practitioner.

(2) If a party to the dispute objects to the representation of another party to the dispute or the presiding officer suspects that the representative of a party does not qualify in terms of this regulation, the presiding officer must determine the issue.

(3) The presiding officer may call upon the representative to establish why the representative should be permitted to appear in terms of this regulation.

(4) A representative must tender any documents requested by the presiding officer.

27 Joinder or substitution of party to proceedings

(1) The Tribunal or presiding officer may join any number of persons as parties in proceedings if their right to relief depends on substantially the same question of law or fact.

(2) A presiding officer may make an order joining any person as a party in the proceedings if the party to be joined has a substantial interest in the subject matter of the proceedings.

(3) A presiding officer may make an order in terms of subregulation (2) -

(a) of its own accord;

(b) on application by a party; or

(c) if a person entitled to join the proceedings applies at any time during the proceedings to intervene as a party.

(4) An application in terms of this regulation must be made in terms of regulation 30.

(5) When making an order in terms of subregulation (2), a presiding officer may-

(a) give appropriate directions as to the further procedure in the proceedings; and

(b) make an order of costs in accordance with these Regulations.

(6) If in any proceedings it becomes necessary to substitute a person for an existing party, any party to the proceedings may apply to the Tribunal for an order substituting that party for an existing party, and a presiding officer may make such order or give appropriate directions as to the further procedure in the proceedings.

(7) An application to join any person as a party to proceedings or to be substituted for an existing party must be accompanied by copies of all documents previously delivered, unless the person concerned or that person's representative is already in possession of the documents.

(8) Subject to any order made in terms of subregulation (5) and (6), a joinder or substitution in terms of this regulation does not affect any steps already taken in the proceedings.

28 Correcting citation of party

If a party to any proceedings has been incorrectly or defectively cited, the Tribunal may, on application and on notice to the parties concerned, correct the error or defect.

29 Consolidation of disputes

The Tribunal or presiding officer, of its own accord or on application, may consolidate more than one dispute so that the disputes may be dealt with in the same proceedings.

30 Disclosure of documents

(1) All relevant documents must be disclosed by the parties before commencement of the dispute hearing.

(2) Either party may request a presiding officer to make an order as to the disclosure of relevant documents.

(3) The parties may agree on the disclosure of documents.

31 Failure to attend proceedings before Tribunal

(1) If a party to the dispute fails to attend or be represented at any proceedings before the Tribunal and that party-

(a) had referred the dispute to the Tribunal, a presiding officer may dismiss the matter by issuing a written ruling; or

(b) had not referred the matter to the Tribunal, the presiding officer may-

(i) continue with the proceedings in the absence of that party; or

(ii) adjourn the proceedings to a later date.

(2) A presiding officer must be satisfied that the party had been properly notified of the date, time and venue of the proceedings, before making any decision in terms of subregulation (1).

(3) If a matter is dismissed, the Tribunal must send a copy of the ruling to the parties.

32 Payment of witness fees

(1) A witness summoned to give evidence before the Tribunal is entitled to such fees and costs as are specified in the tariff of allowances payable to witnesses in civil cases prescribed under section 51(*bis*) of the Magistrate's Court Act, 1944 (Act 32 of 1944).

(2) The Tribunal must pay the applicable witness fee to each person who appears before a presiding officer in response to a subpoena issued by the Tribunal.

(3) Any person who requests the Tribunal to issue a subpoena must pay the witness fee too each person who appears before a presiding officer in response to the subpoena and who remains in attendance until excused by the presiding officer.

(4) The Tribunal may on good cause shown waive the requirement in subregulation (2) and pay to the witness the prescribed witness fee.

(5) Despite the provisions of subregulation (1) and (2) the presiding officer may, in appropriate circumstances, order that a witness receive no fee or only part of the applicable witness.

33 Cost order

(1) In any proceedings of the Tribunal, the presiding officer may make an order for the payment of costs according to section 13(12)(a) of the Act and when doing so have regard to -

(a) the measure of success that the parties achieved;

(b) consideration of fairness that weighs in favour or against granting a cost order;

(c) any with prejudice offers that were made with a view to settling the dispute;

(d) whether a party or the person who represented that party in the proceedings acted in a frivolous or vexatious manner –

(i) by proceeding with or defending the dispute in the proceedings;

(ii) in his or her conduct during the proceedings;

(e) the effect that a cost order may have on a continued rental relationship;

(f) any agreement concluded between the parties concerning the basis on which costs should be awarded;

(g) the importance of the issues raised during the proceedings to the parties as well as to the rental property community at large; and

(h) any other relevant factor.

(2) A presiding officer may make an award of costs in favour of a party who is represented by another person in any proceedings of the Tribunal, in respect of reasonable disbursements actually incurred in the conduct of the proceedings.

(3) The presiding officer who makes an order for the payment of costs according to this regulation must clearly specify the items and amounts in respect of which the costs are ordered.

(4) A presiding officer may make an award of costs in respect of the legal fees of a party that is represented in any proceeding of the Tribunal by a legal practitioner, only if the other party were represented by a legal practitioner.

(5) Any dispute concerning an award of costs must be submitted to the Tribunal.

CHAPTER 5

CONDONATION, JOINDER, SUBSTITUTION, VARIATION OR RECISION

34 Submission of application for condonation, joinder, substitution, variation or rescision

(1) This regulation applies to any application for condonation, joinder, substitution, variation or rescission.

(2) An application must be brought on notice to all persons who have an interest in the application.

(3) The party bringing the application must sign the notice of application in accordance with regulation 6 and must state-

(a) the title of the matter;

(b) the case number assigned to the matter by the Tribunal;

(c) the relief sought;

(d) the address at which the party delivering the document will accept delivery of all documents and proceedings;

(e) that any party that intends to oppose the matter must deliver a notice of opposition and answering affidavit within fourteen days after the application has been delivered to it;

(f) that the application may be heard in the absence of a party that does not comply with subparagraph (e) ;

(g) that a schedule is included listing the documents that are material and relevant to the application.

(4) The application must be supported by an affidavit and the affidavit must clearly and concisely set out-

(a) the names, description and addresses of the parties;

(b) a statement of the material facts, in chronological order, on which the application is based, in sufficient detail to enable any person opposing the application to reply to the facts;

(c) a statement of legal issues that arise from the material facts, in sufficient detail to enable any party to reply to the document;

(d) if the application is filed outside the relevant time period, grounds for condonation in accordance with subregulation (9); and

(e) if the application is brought urgently, the circumstances why the matter is urgent and the reasons why it cannot be dealt with in accordance with the time frames prescribed in these Regulations.

(5) (a) Any party opposing the application may deliver a notice of opposition and an answering affidavit within fourteen days from the day on which the application was served on that party.

(b) A notice of opposition and an answering affidavit must contain, with the changes required by the context, the information required by subregulation (3) and (4) respectively.

(6) (a) The party initiating the proceedings may deliver a replying affidavit within seven days from the day on which any notice of opposition and answering affidavit are served on it.

(b) The replying affidavit must address only issues raised in the answering affidavit and may not introduce new issues of fact or law.

(7) A presiding officer may permit the affidavits referred to in this regulation to be substituted by a written statement.

(8) In an urgent application, the Tribunal or a presiding officer -

(a) may dispense with the requirements of this regulation; and

(b) may only grant an order against a party that has had reasonable notice of the application.

(9) (a) The Tribunal must allocate a date for the hearing of the application once a replying affidavit is delivered, or once the time limit for delivering a replying affidavit has lapsed, whichever occurs first.

(b) The Tribunal must notify the parties of the date, time and place of the hearing of the application.

(c) Applications may be heard on a motion roll.

(10) Despite this regulation, the Tribunal or a presiding officer may determine an application in any manner it deems fit.

35 Variation or rescission of Tribunal ruling

(1) An application for the variation or rescission of a Tribunal ruling must be made within 14 days of the date on which the applicant became aware of -

(a) the Tribunal ruling; or

(b) a mistake common to the parties to the proceedings.

(2) A ruling made by a presiding officer which has the effect of a final order, will be regarded as a ruling for the purposes of this regulation.

CHAPTER 6

APPEALS

Part A: Appeal Adjudicators

36 Selection of panel of appeal adjudicator

(1) An appeal against a dispute ruling of the Tribunal must be heard by an appeal adjudicator appointed by the MEC from a panel of adjudicators in terms of section 17A of the Act.

(2) The MEC must create and update a panel of appeal adjudicators composed by him and her, every three years, from nominations received in terms of these Regulations.

(3) The MEC must invite nominations on the form contemplated in Schedule 3 and from the nominations received appoint those persons who qualify for appointment as contemplated in section 17A to the panel of appeal adjudicators.

(4) A person who is appointed to the panel of appeal adjudicators must, on appointment sign a code of conduct referred to in Schedule 4.

37 Functions of appeal adjudicator

(1) The appeal adjudicator must consider and decide all appeals referred to it by the MEC in terms of the Act.

(2) The appeal adjudicator must keep a record of all appeal proceedings presided over by him or her.

(3) The appeal adjudicator must provide the reasons for any decision or determination made by it.

(4) The appeal adjudicator must provide the Tribunal with the outcome of the appeal for recording in the register referred to in section 8 of the Act.

38 Disqualification from appointment as appeal adjudicator

(1) A person may not be appointed or continue to serve as an appeal adjudicator, if that person –

(a) is not a citizen of the Republic, and resident in the province;

(b) is a member of parliament, a provincial legislature, a house of leaders or a municipal council in terms of the constitution.

(c) is an un-rehabilitated insolvent;

(d) is of unsound mind, as declared by a court;

(e) has at any time been convicted of an offence involving dishonesty;

(f) has at any time been removed from an office of trust on account of misconduct; or

(g) has previously been removed from a Tribunal for a breach of any provision of the Act.

(2) An appeal adjudicator must vacate office if he or she becomes subject to a disqualification as contemplated in subsection (1).

39 Conflict of interest

(1) An appeal adjudicator –

(a) must make full disclosure of any conflict of interest including any potential conflict of interest in any matter which he or she is appointed to consider;

(b) may not decide any appeal in relation to any matter in respect of which he or she has a conflict of interest.

(2) For the purposes of this regulation, an appeal adjudicator has a conflict of interest if –

(a) the appeal adjudicator, or a family member, partner or business associate of the appeal adjudicator is the appellant or respondent in terms of a dispute serving before the Tribunal, or if the appeal adjudicator has a pecuniary or material interest in the ruling that has been appealed; or

(b) the appeal adjudicator has any other interest that may preclude, or may reasonably be perceived as precluding the appeal adjudicator from performing his or her functions in a fair, unbiased and proper manner.

(c) the appeal adjudicator is in the full-time employment of a party to the appeal.

Part B: Procedure for Appeals

40 Notice of appeal

(1) A person who has lodged an appeal must simultaneously give notice of the appeal to the Tribunal and the other party to the dispute hearing.

(2) The Tribunal or the other party to whom a notice of appeal has been given in terms of subsections (1) may oppose the appeal.

41 Hearing of appeal

After an appeal has been lodged, the MEC must –

(a) refer the appeal to the appeal adjudicator and must determine a date and time for the hearing of the appeal; and

(b) notify the appellant, the Tribunal and the other party to the dispute ruling who has opposed the appeal of the date and time of the hearing of the appeal.

42 Jurisdiction of appeal adjudicator

An appeal adjudicator referred to in section 17A of the Act, considers an appeal on one or more of the following:

(a) the procedure of conducting the dispute hearing was procedurally unfair as contemplated in the Promotion of Administrative Justice Act, 2000 (Act No. 3 of 2000); or

(b) the merits of the ruling.

43 Hearing by appeal adjudicator

(1) An appeal may be heard by an appeal adjudicator by means of -

(a) a written hearing; or

(b) an oral hearing.

(2) A written hearing may be held if it appears to the appeal adjudicator that the issues for determination of the appeal can be adequately determined in the absence of the parties by considering the documents or other material lodged with or provided to him or her.

(3) An oral hearing may be held –

(a) if it appears to the appeal adjudicator that the issues for determination of the appeal cannot be adequately determined in the absence of the parties by considering the documents or other material lodged with or provided to it; or

(b) if such hearing would assist in the expeditious and fair disposal of the appeal.

(4) If appropriate in the circumstances, the oral hearing may be held by electronic means.

44 Representation before appeal adjudicator

If the appeal adjudicator decides to hold an oral hearing, any party to the appeal proceedings may appear in person or may be represented by another person.

45 Opportunity to make submissions and inspect documents

The appeal adjudicator must ensure that every party to a proceeding before the appeal adjudicator is given an opportunity to present his or her case and, in particular, to inspect

any documents to which the appeal adjudicator proposes to have regard in reaching a decision in the proceeding and to make submissions in relation to those documents.

46 Decision of appeal adjudicator

(1) An appeal adjudicator must -

(a) consider and determine all appeals lawfully submitted to him or her;

(b) confirm, vary or revoke the decision of the Tribunal;

(c) provide written reasons for any decision made by him or her;

(d) give directions relevant to its functions to the Tribunal;

(e) keep a record of all the proceedings of the appeal; and

(f) determine whether the appeal falls within its jurisdiction.

(2) If the appeal adjudicator revokes a decision of the Tribunal it may remit the matter to the Tribunal or replace the decision with any decision it regards necessary.

(3) The MEC may appoint a technical adviser to advise or assist the appeal adjudicator with regard to a matter forming part of the appeal.

47 Determination of appeal

(1) An appeal must be heard by the appeal adjudicator within a period of 30 days of the date on which the appeal was referred to the appeal adjudicator by the MEC.

(2) After the appeal has been determined, the MEC must inform the appellant, the Tribunal and the other party to the dispute hearing accordingly.

CHAPTER 7

NORMS AND STANDARDS

WE REQUIRE THE POLICY FRAMEWORK REFERRED TO IN SECTION 2(3) OF THE ACT IN ORDER TO COMPLETE THIS CHAPTER

48 Terms and conditions of lease agreement

(1) A written lease agreement must comply with the provisions of the Act and contain the clauses required in terms of section 5 thereof.

(2) A landowner must provide all services agreed to in the lease agreement.

(3) A landowner and a tenant may include in a lease agreement terms and conditions not prohibited by these Regulations, the Act or any other law.

(4) A lease agreement must exclude any provision which –

(a) imposes a penalty for late payment of rent whether or not the penalty rakes the form of an administrative charge or any other form other than interest;

(b) excludes the liability of either party for failing to comply with a duty under the lease agreement, these Regulations, the Act or any other law;

(c) limits or prevents either party from using the normal rights of recourse against the other because of the other's failure to comply with any duty under the lease agreement, these Regulations, the Act or any other law; or

(d) precludes wither party from being a member of a landowner's or tenant's association.

49 Safety, health and hygiene requirements for rental housing

(1) A landowner must –

(a) maintain the common property, if any, in good order or repair;

(b) maintain the outside of the dwelling, including the walls and roof in good order and repair;

(c) maintain the electrical, plumbing, sanitary, heating, ventilation, air conditioning systems and elevator system of the common property in good order and repair;

(d) repair any damage to the dwelling or common area caused by fair wear and tear;

(e) provide and maintain appropriate container and places for the removal of ashes, garbage, rubbish and other waste incidental to the dwelling and arrange for its removal;

(f) effect repairs for which a landowner is responsible for under a lease agreement and as identified during inspections by the landowner or on receipt of a notice from the tenant to do such repairs, but a landowner is not responsible for such repairs if a tenant, his or her household members or visitors brought about the state of disrepair; and

(g) effect the repairs referred to in paragraph (f) within 14 days of receipt of notice from the tenant or such further period as may be agreed to between the landowner and tenant.

(2) A tenant must –

(a) use the dwelling in a proper manner and for the purpose for which it is let, and in a manner which does not contravene the Act, these Regulations or any other law;

(b) dispose from the dwelling all ashes, garbage, rubbish and other waste in a clean and safe manner;

(c) maintain the dwelling in a clean, tidy and safe state of repair;

(d) in a reasonable manner use all electrical, plumbing, sanitary heating, ventilating, air-conditioning and other facilities and appliances, including elevators, on the premises;

(e) refrain from intentionally or negligently damaging, defacing, impairing or removing any part of the dwelling or common property or knowingly permitting any person to do so, who is on the premises with the tenant's permission or allowed access to the premises by the tenant and the tenant is liable for the repair of such damage, fair wear and tear excluded, at the tenant's own cost;

(f) return the dwelling in the same condition as the tenant received it in, fair wear and tear excluded;

(g) replace globes and maintain, replace or repair electrical fittings and switches

(h) maintain, replace or repair all water-borne taps, stoves, locks handles and windows where such damage is not due to natural causes;

(i) maintain the garden, if any, and keep the same in a neat and tidy condition;

(j) comply with the House Rules; which are enforceable pursuant to these Regulations;

(k) maintain the swimming pool, including but not limited to, all pumps, hoses and accessories, in good order and repair, subject to fair wear and tear.

50 Basic living conditions

A landowner must let a dwelling which at the commencement of the lease is in a condition –

(a) that is habitable; and

(b) which complies with these Regulations, the Act and any other law.

CHAPTER 8

GENERAL MATTERS

51 Short title and date of commencement

These Regulations are called the Rental Housing Tribunal Regulations, 2018 and comes into operation on the date determined by the Minister by publication of a notice thereof in the *Gazette*.

SCHEDULE 1

COMPLAINT FORM

COMPLAINT FORM FOR THE RENTAL HOUSING TRIBUNAL

FOR OFFICIAL USE

REFERENCE NO:

A. PARTICULARS OF COMPLAINANT

TITLE: _____ NAME: _____

CAPACITY e.g. LANDLORD OR TENANT: _____

ID NUMBER: _____

ADDRESS (FLAT NAME, ROOM NO., STREET NAME): _____

_____

_____

POSTAL ADDRESS: _____

TELEPHONE (H): _____ (W) _____

FAX: _____

B. DETAILS OF DWELLING

ADDRESS WHERE THE SUBJECT MATTER OF THE DISPUTE IS SITUATED:

_____

_____

DESCRIPTION OF DWELLING: HOUSE / FLAT / ROOM / GARAGE / HOSTEL ROOM / OTHER (SPECIFY) _____

NUMBER OR UNITS IN BUILDING (IF APPLICABLE): _____

NUMBER OF TENANTS LIVING IN THE DWELLING: _____

C. PARTICULARS OF TENANT/LANDLORD COMMITTEE MEMBERS

NAME:

TELEPHONE: FAX:

DWELLING NUMBER:

NAME:

TELEPHONE: FAX:

DWELLING NUMBER:

NAME:

TELEPHONE: FAX:

DWELLING NUMBER:

D. PARTICULARS OF RESPONDENT(S)

TITLE: _____

NAME: _____

CAPACITY e.g. LANDLORD OR TENANT: _____

ADDRESS (FLAT NAME, ROOM NO., STREET NAME): _____

_____

_____

POSTAL ADDRESS: _____

_____

TELEPHONE (H): _____ (W) _____

FAX: _____

E. ADDITIONAL INFORMATION

NAME OF CARETAKER:

TELEPHONE NO: FAX:

NAME OF OWNER OF BUILDING:

TELEPHONE: FAX:

ADDRESS (FLAT NAME, ROOM NO., STREET NAME):

POSTAL ADDRESS:

NAME OF MANAGING AGENT:

TELEPHONE: FAX:

NAME OF BOND HOLDER:

TELEPHONE: FAX:

F. PERSON/ORGANISATION THAT REFERRED THE COMPLAINT

NAME: _____

TELEPHONE: _____

FAX: _____

REF. NO.: _____

G. FINANCIAL STATUS OF BUILDING

TOTAL ELECTRICITY ARREARS: R _____

TOTAL WATER ARREARS: R _____

TOTAL RATES & TAXES OWED TO COUNCIL: R _____

TOTAL OWED TO THE MANAGING AGENT: R _____

H. BACKGROUND

HAS A COMPLAINT FOR THIS BUILDING BEEN SUBMITTED BEFORE?

YES ☐

NO ☐

I. LIST OF COMPLAINTS/DISPUTES

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

J. RENT

MONTHLY RENTAL AGREEMENT: _____

DOES THE RENTAL INCLUDE PAYMENT FOR WATER AND ELECTRICITY?

YES ☐

NO ☐

BY WHICH DATE MUST THE RENT BE PAID EACH MONTH?

_____

WHERE AND HOW MUST THE RENT BE PAID? _____

_____

TO WHOM DOES THE RENT HAVE TO BE PAID?: _____

_____

DO YOU HAVE RECEIPTS FOR PAYMENT (rent, electricity, water)?

*YES ☐

NO ☐

ADDITIONAL INFORMATION: _____

_____

*If yes, please supply.

K. PARTICULARS OF TENANT

NAME: _____

MARITAL STATUS: _____

NUMBER OF DEPENDANTS: _____

ARE THE RENTED PREMISES RENT CONTROLLED?

YES ☐

NO ☐

IF YES, WAS THE RENT FIXED BY THE FORMER RENT BOARD OR THE PRESEN RENTAL HOUSING TRIBUNAL?

_____

DATE ON WHICH THE RENT WAS FIXED: _____

IS RENT PAID MONTHLY OR WEEKLY? _____

AMOUNT: _____

L. LEASE AGREEMENT

WHEN WAS THE FIRST DATE OF OCCUPATION OF THE DWELLING?

_____

WAS A WRITTEN LEASE ENTERED INTO?

YES ☐

NO ☐

DO YOU HAVE A COPY OF THE LEASE?

*YES ☐

NO ☐

VERBAL LEASE AGREEMENT

WHAT WAS THE AGREED DURATION OF STAY IN THE DWELLING?

_____

M. EVICTION

WERE YOU GIVEN A WRITTEN NOTICE TO VACATE?

*YES ☐

NO ☐

WHEN WERE YOU TOLD TO VACATE? _____

WHO TOLD YOU TO VACATE? _____

SUMMONS OF EVICTION

WHEN WAS THE SUMMONS SERVED ON YOU? _____

WAS THE SUMMONS SERVED ON YOU PERSONALLY?

*YES ☐

NO ☐

ADDITIONAL INFORMATION

_____

*If yes, please supply.

N. MAINTENANCE

WHAT ARE THE EXACT MAINTENANCE PROBLEMS?

_____

_____

_____

_____

_____

WAS A CHECKLIST COMPLETED WHEN YOU MOVED IN?

*YES ☐

NO ☐

WHEN DID THE MAINTENANCE PROBLEMS FIRST ARISE?

_____

WAS IT DISCUSSED WITH THE LANDLORD/AGENT?

*YES ☐

NO ☐

IF YES, WHO DID YOU COMPLAIN TO? _____

WHEN DID YOU COMPLAIN? _____

WHAT WAS THE RESPONSE WHEN YOU COMPLAINED? _____

_____

*If yes, please supply.

N. MAINTENANCE

WHAT ARE THE EXACT MAINTENANCE PROBLEMS?

_____

_____

_____

_____

_____

WAS A CHECKLIST COMPLETED WHEN YOU MOVED IN?

*YES ☐

NO ☐

WHEN DID THE MAINTENANCE PROBLEMS FIRST ARISE?

_____

WAS IT DISCUSSED WITH THE LANDLORD/AGENT?

*YES ☐

NO ☐

IF YES, WHO DID YOU COMPLAIN TO? _____

WHEN DID YOU COMPLAIN? _____

WHAT WAS THE RESPONSE WHEN YOU COMPLAINED? _____

_____

_____

_____

*If yes, please supply.

O. DEPOSIT

WHAT AMOUNT WAS PAID AS DEPOSIT?_____

WHEN WAS THE DEPOSIT PAID:_____

DID YOU RECEIVE A RECEIPT?

*YES ☐

NO ☐

WHEN DID YOU ASK FOR A REFUND?_____

TO WHOM WAS THE REQUEST FOR A REFUND MADE? _____

_____

WHAT WAS THE REPLY? _____

_____

IF PART OF THE DEPOSIT WAS REFUNDED, HOW MUCH WAS REFUNDED?

_____

HOW MUCH WAS THE TOTAL DEDUCTION? _____

HAS THE LANDLORD/AGENT GIVEN ANY DETAILS FOR THE NON-REFUNDING OF THE DEPOSIT?

YES ☐

NO ☐

If yes, provide the details: _____

HAS THE LANDLORD GIVEN ANY DETAILS ABOUT THE DEDUCTIONS MADE TOGETHER WITH RECEIPTS?

*YES ☐

NO ☐

If yes, provide the details: _____

*If yes, please supply.

_____

SIGNATURE OF COMPLAINANT

DATE: _____

FOR OFFICIAL USE

NAME OF MEMBER OF STAFF: _____

SIGNATURE: _____

DATE OF RECEIPT OF COMPLAINT: _____

SCHEDULE 2

SUBPOENA

Complaint Reference No_____

RENTAL HOUSING TRIBUNAL OF _____ PROVINCE

ESTABLISHED UNDER SECTION 7 OF THE RENTAL HOUSING ACT, 1999

In the application of _____ , and

(Insert name of applicant)

In respect of the dwelling known as _____

(Insert full description of dwelling and description of property on which the dwelling is located)

SUBPOENA

_____

_____

_____

(State name, occupation and place of business and residence of person being required to appear)

BE INFORMED:

That you are hereby required to appear in person before this Tribunal at_____on

(insert venue)

_____of _____ at _____

(insert date) *(insert month)* *(insert time)*

And thereafter to remain in attendance until excused by the Tribunal in regard to all matters within our knowledge relating to the matter pending before this Tribunal wherein the Applicant is seeking _____

AND FURTHER BE INFORMED:

To bring and produce to this Tribunal the following:

(insert accurately the documents, book or thing to be produced)

(1) _____

(2) _____

(3) _____

AND FURTHER BE INFORMED:

That should you, on any account, neglect to comply with any provisions of this Subpoena, you may render yourself liable to a fine and/or imprisonment not exceeding two years.

Signed and dated at _____this _____day of_____.

_____

Tribunal Chairperson

SCHEDULE 3

Standard Call for Nominations for Persons to be Appointed as Appeal Adjudicators to the Panel of Adjudicators

CALL FOR NOMINATIONS FOR PERSONS TO BE APPOINTED AS APPEAL ADJUDICAOTRS ON THE PANEL OF APPEAL ADJUDICATORS

CLOSING DATE: (INSERT DATE)

In terms of the Rental Housing Act, 50 of 1999, the MEC of Human Settlements for the _____Province hereby invites nominations for members of the public to be appointed to the panel of appeal adjudicators of the _____Province.

The period of office of an appeal adjudicator will be three years calculated from the date of appointment of such appeal adjudicator by the MEC of Human Settlements for the _____Province.

Nominees must be persons who possess legal qualifications and expertise in rental housing matters or consumer matters pertaining to rental housing matters.

Each nomination must be in writing and must contain the following information:

(a) The name and address of the nominator, who must be a natural person and a person may nominate himself or herself;

(b) The name, address and identity number of the nominee;

(d) Motivation by the nominator for the appointment of the nominee to the panel of appeal adjudicators (not exceeding one page);

(e) A short curriculum vitae of the nominee (not exceeding two pages);

(f) Certified copies of qualifications and registration certificates indicating registration with a relevant professional body or voluntary association.

Please note that failure to comply with the above requirements may result in the disqualification of the nomination.

Nominations must be sent to:

The MEC for Human Settlements

Pronve of _____

P.O. Box _____

_____

_____

For Attention: _____

For Enquiries: _____

Tel _____

_____

* I, ... (full names of nominee),

ID No (of nominee)..... ,

hereby declare that –

(a) I am available to serve on the panel of appeal adjudicators.
(b) there is no conflict of interest OR I have the following interests which may conflict with an appeal submitted to the MEC of Human Settlements:
_____
_____
_____

(c) I am not disqualified in terms of regulation 38 of the Rental Housing Tribunal Regulations, 2018 to serve as an appeal adjudicator and I authorise the MEC of Human Settlements to verify any record in relation to such disqualification or requirement.
(d) I undertake to sign, commit to and uphold the Code of Conduct applicable to appeal adjudicators.

_____

Signature of nominee

SCHEDULE 4

Code of Conduct for a Member of the Tribunal and an Appeal Adjudicator

General conduct

1. A member of the Tribunal and an appeal adjudicator must at all times—
   (a) act in accordance with the principles of accountability and transparency;
   (b) disclose his or her personal interests in any decision to be made by the Tribunal or by him or her as appeal adjudicator in which he or she serves or has been requested to serve;
   (c) abstain completely from direct or indirect participation as an advisor or decision-maker in any matter in which he or she has a personal interest and leave any chamber in which such matter is under deliberation unless the personal interest has been made a matter of public record and the Tribunal or the MEC has given written approval and has expressly authorised his or her participation.

2. A member of the Tribunal and an appeal adjudicator may not—
   (a) use the position or privileges of a member of the Tribunal or as an appeal adjudicator or confidential information obtained as a member of the Tribunal or as appeal adjudicator for personal gain or to improperly benefit another person; and
   (b) participate in a decision concerning a matter in which that member or that members' spouse, partner or business associate, has a direct or indirect personal interest or private business interest.

Gifts

3. A member of the Tribunal and an appeal adjudicator may not receive or seek gifts, favours or any other offer under circumstances in which it might reasonably be inferred that the gifts, favours or offers are intended or expected to influence a person's objectivity as an advisor or decision-maker in the decision-making process.

Undue influence

4. A member of the Tribunal and an appeal adjudicator may not—
   (a) use the power of any office to seek or obtain special advantage for private gain or to improperly benefit another person that is not in the public interest;
   (b) use confidential information acquired in the course of his or her duties to further a personal interest;
   (c) disclose confidential information acquired in the course of his or her duties unless required by law to do so or by circumstances to prevent substantial injury to third persons; and

(d) commit a deliberately wrongful act that reflects adversely on the Tribunal, the appeal adjudicator, MEC or provincial department by seeking business by stating or implying that he or she is prepared, willing or able to influence decisions of the Tribunal by improper means or that he or she is prepared to make a decision that serves the interest of that party.

DEPARTMENT OF WATER AND SANITATION

NO. 263 **26 March 2021**

AMENDMENT OF THE VAAL RIVER CATCHMENT MANAGEMENT AGENCY WATER MANAGEMENT AREA THROUGH EXTENDING THE BOUNDARY AND AREA OF OPERATION TO INCLUDE THE ORANGE WATER MANAGEMENT AREA IN TERMS OF SECTION 78(4) OF THE NATIONAL WATER ACT, 1998 (ACT NO. 36 OF 1998) AND AMENDMENT OF THE NAME OF THE VAAL RIVER CATCHMENT MANAGEMENT AGENCY TO THE VAAL-ORANGE CATCHMENT MANAGEMENT AGENCY. PUBLISHED FOR PUBLIC COMMENTS FOR A PERIOD OF SIXTY DAYS

I, L N Sisulu, MP, Minister of Human Settlements, Water and Sanitation, hereby, in terms of section 78(3) of the National Water Act, 1998 (Act No. 36 of 1998), declare that -

a) the Vaal River Catchment Management Agency extends the boundary and area of operation to include the Orange Water Management Area;

b) that the proposed Catchment Management Agency name is the Vaal-Orange Catchment Management Agency;

c) the areas of operation of the proposed Vaal-Orange Catchment Management Agency include the previous Vaal and the Orange Water Management Areas as pronounced in the National Water Resource Strategy 2. Both of the Water Management Areas fall largely within the Gauteng, Free State and Northern Cape Provinces, and includes all properties in respect of which and person is entitled to use water by virtue of entitlements in terms of section 22(1) of the Act from-

   (i) any other water resources situated outside the area described in paragraph (c)(i) above, which water resources and accompanying area, the Department of Water and Sanitation or the responsible authority may require the Vaal-Orange Catchment Management Agency to control,

d) all initial and delegated functions will be performed by the Vaal-Orange Catchment Management Agency.

e) water resource management charges will be billed by the Vaal-Orange Catchment Management Agency in accordance to section 57(2) of the National Water Act, 1998.

f) affected staff will be transferred as a going concern to the Vaal-Orange Catchment Management Agency according to section 89(1)(2).

All interested persons are invited to send their comments in writing on the proposed extension of boundary and area of operation to: The Director-General
Attention: Ms T Baloi
Department of Water and Sanitation
Private Bag X313
PRETORIA
0001

Or by e-mail to: BaloiTG@dws.gov.za

L N SISULU, MP
MINISTER OF HUMAN SETTLEMENTS, WATER AND SANITATION
DATE: 03/02/2021

CONTINUES ON PAGE 258 OF BOOK 3

Government Gazette
Staatskoerant

REPUBLIC OF SOUTH AFRICA
REPUBLIEK VAN SUID AFRIKA

Vol. 669 26 March Maart 2021 No. 44333

PART 3 OF 4

INDEPENDENT COMMUNICATIONS AUTHORITY OF SOUTH AFRICA

NO. 264 **26 March 2021**

350 Witch-Hazel Avenue, Eco Point Office Park
Eco Park, Centurion.
Private Bag X10, Highveld Park 0169

DISCUSSION DOCUMENT ON THE REVIEW OF THE INDEPENDENT BROADCASTING AUTHORITY (ADVERTISING, INFOMERCIALS AND PROGRAMME SPONSORSHIP) REGULATIONS, 1999

INVITATION FOR WRITTEN REPRESENTATIONS

In terms of section 4B of the Independent Communications Authority of South Africa Act, 2000 (Act No. 13 of 2000) ("ICASA Act"), as amended, the Authority hereby wishes to communicate its intention to conduct an Inquiry regarding the Review of the Independent Broadcasting Authority (Advertising, Infomercials and Programme Sponsorship) Regulations, 1999 ("the Regulations").

Interested persons are hereby invited to submit their written representations on the Discussion Document, which will also be made available on the Authority's website at http://www.icasa.org.za and in the Authority's Library at 350 Witch-Hazel Avenue, Eco Point Office Park, Eco Park, Centurion, (Ground Floor at Block B), between 09h00 and 16h00, Monday to Friday.

Written representations on the Discussion Document must be submitted to the Authority by no later than 07 June 2021 by post or electronically (in Microsoft Word or PDF) and marked specifically for attention: Mamedupe Kgatshe. Delivery address: 350 Witch-Hazel Avenue, Eco Point Office Park, Eco Park, Centurion, (Ground Floor at Block B). Where possible, written representations should also be e-mailed to mkgatshe@icasa.org.za and rarc@icasa.org.za. Enquiries should

be directed to mkgatshe@icasa.org.za and gmalefo@icasa.org.za or 012 568 3259; between 10h00 and 16h00, Monday to Friday.

Written representation(s) received by the Authority pursuant to this notice, will be made available on the Authority's website at http://www.icasa.org.za or can be sent via email upon request by any individual or can be collected from the Authority's library by appointment.

At the request for confidentiality by any person who submits written representations pursuant to this notice, the Authority may determine that such representations or any portion thereof is to be treated as confidential in terms of section 4D of the ICASA Act. The request for confidentiality must be accompanied by a written statement in line with section 4D (4) of the ICASA Act explaining why the specific information should be treated as confidential. Where the request for confidentiality is refused, the person who made the request will be granted an opportunity to withdraw such representations or portion(s) thereof.

Persons submitting written representations are further invited to indicate, as part of their submissions, whether they require an opportunity to make oral presentations to the Authority.

_____

DR KEABETSWE MODIMOENG
CHAIRPERSON
DATE: 23/03/2021

TABLE OF CONTENTS

1. INTRODUCTION

1.1 The Independent Communications Authority of South Africa (hereinafter referred to as "ICASA" or "the Authority") in terms of section 4B of the Independent Communications Authority of South Africa Act, 2000 (Act No. 13 of 2000, as amended) ("ICASA Act") hereby publishes the Discussion Document on the Review of the Independent Broadcasting Authority (Advertising, Infomercials and Programme Sponsorship) Regulations, 1999.

1.2 The Discussion Document is arranged as follows: Section 2 outlines the background and legislative mandate. Section 3 presents information on recent trends on advertisement, infomercials and programme sponsorship revenues and section 4 outlines the regulation of Advertising in South Africa. Section 5 discusses an international perspective on the regulation of advertisements, infomercials and programme sponsorship and the concluding remarks are contained in section 6. Sections 7 encompasses questions posed by the Authority to the public and interested stakeholders.

2 LEGISLATIVE MANDATE AND BACKGROUND

2.1 The Authority is established pursuant to section 192 of the Constitution of the Republic of South Africa, 1996 which requires that national legislation must establish an independent authority to regulate broadcasting in the public interest, and to ensure fairness and a diversity of views broadly representing the South African society.

2.2 The Authority is further enjoined by the ICASA Act, the Electronic Communications Act, 2005 (Act No. 36 of 2005), as amended ("the ECA") and the Broadcasting Act, 1999 (Act No 4. of 1999), as amended ("the Broadcasting Act") to regulate broadcasting in the public interest.

2.3 In 1999, the Independent Broadcasting Authority published a Position Paper[1] and the Independent Broadcasting Authority (Advertising, Infomercials and Programme Sponsorship) Regulations, 1999 ("the Advertising Regulations").[2]

2.4 In 2009, the Authority started a process to review the Advertising Regulations in accordance with section 4B of the ICASA Act. As part of the public consultation process, the Authority published the Draft Regulations on Advertising, Infomercials and Programme Sponsorship for Broadcasting Service Licensees, 2009 ("Draft Advertising Regulations, 2009")[3].

2.5 Stakeholders responded to the Draft Advertising Regulations, 2009 and highlighted that the Authority did not have a clear regulatory mandate over advertising. Thereafter, the Authority published the Findings Document regarding the draft Regulations on Advertising, Infomercials and Programme Sponsorship for Broadcasting Service Licensees, 2009[4] and concluded that the Authority should seek legal certainty on its mandate to regulate the scheduling of advertisements, infomercials and programme sponsorships. Therefore, the Authority decided not to amend or repeal the Advertising Regulations until the ECA had been amended to enhance clarity and certainty.[5]

2.6 The Authority undertook a regulatory review of its broadcasting Regulations in 2013, including the Regulation of Advertising, Infomercials and Programme Sponsorship[6]. The regulatory review revealed that there was a need to strengthen the relationship between the Authority and the

[1] Position Paper on a definition of Advertising, the regulation of Infomercials and the Regulation of Programme Sponsorship, 31 March 1999, published on the Authority's website at www.icasa.org.za
[2] Published under Government Gazette 19922 of 01 April 1999
[3] Published under General Notice 172 in Government Gazette 31903 of 13 February 2009
[4] Published under General Notice 1659 in Government Gazette 32826 of 18 December 2009
[5] Findings Document regarding the draft regulations on Advertising, Infomercial and Programme Sponsorship for Broadcasting Service Licensees, 2009, Paragraph 10.6.
[6] Final Report on the Review of the Broadcasting Regulatory Framework towards a Digitally Converged Environment in South Africa, Government Gazette No. 36598 of 25 June 2013, pages 24 - 27.

Advertising Standards Authority of South Africa ("ASASA"[7]) and to clarify each entity's role and deal with perceptions of overlapping jurisdictions. These challenges had already been highlighted by stakeholders as early as 2009.

2.7 In 2014, the Electronic Communications Amendment Act, 2014 (Act No. 1 of 2014) ("EC Amendment Act")[8] came into operation.[9] The EC Amendment Act provided for the amendment of section 55 to ensure that the Authority could regulate scheduling of adverts, infomercials and programme sponsorships.[10]

2.8 Following the amendment, section 55(1) of the ECA now provides that all broadcasting services licensees must adhere to the Code as from time to time determined and administered by the ASASA and any advertising Regulations prescribed by the Authority in respect of scheduling of adverts, infomercials and programme sponsorship.

2.9 Furthermore, section 55(2) of the ECA provides that the Complaints and Compliance Committee ("CCC") must adjudicate complaints concerning alleged breaches of the Code by broadcasting service licensees who are not members of the ASASA, in accordance with section 17C of the ICASA Act, as well as complaints concerning alleged breaches of the advertising Regulations.

2.10 Section 55(3) provides that where a broadcasting licensee, irrespective of whether or not he or she is a member of the said ASASA, is found to have breached the Code or advertising Regulations, such broadcasting licensee must be dealt with in accordance with applicable provisions of sections 17A to 17H of the ICASA Act.

[7] Section 1 of the ECA states that "Advertising Standards Authority of South Africa" means the entity which regulates the content of advertising, or any entity that replaces it but has the same functions. Currently the administration of the Code of Advertising Practice is done by the Advertising Regulatory Board ("ARB").
[8] Published under General Notice 266 in Government Gazette 37536 of 7 April 2014.
[9] Published under General Notice 406 in Government Gazette 37670 of 21 May 2014.
[10] Clause 2.27 of the Memorandum on the Objects of the Electronic Communications Amendment Bill, 2012 published under Government Gazette No. 35525 of 18 July 2012.

2.11 Section 4(3)(j) of the ICASA Act empowers the Authority to make regulations on any matter consistent with the objects of the Act and underlying statutes or that are incidental or necessary for the performance of its functions.

Purpose of the inquiry

2.12 The purpose of this inquiry is to determine the effectiveness of the Advertising Regulations and whether there is a need for amendments. Given the rapid evolution of the broadcasting sector, Advertising Regulations are outdated and need to be reviewed as they have been in force for a period of over eighteen (18) years. The Authority is therefore undertaking an inquiry in terms of section 4B of the ICASA Act on the Advertising Regulations.

2.13 In reviewing these Regulations, the Authority also seeks to ensure;

- the protection of viewers from excessive advertising;
- that advertising, infomercial and programme sponsorship is clearly distinguishable from normal programming;
- that broadcasters adhere to the limits on advertising and infomercials; and
- that broadcasters maintain editorial independence and control over programming.

3 RECENT TRENDS ON ADVERTISEMENTS, INFOMERCIALS AND PROGRAMME SPONSORSHIP REVENUES

3.1 The purpose of this section is to identify and understand trends on advertisements, infomercials and programme sponsorships revenue for TV and radio (for commercial, community and public services), to improve the Advertising Regulations where necessary.[11]

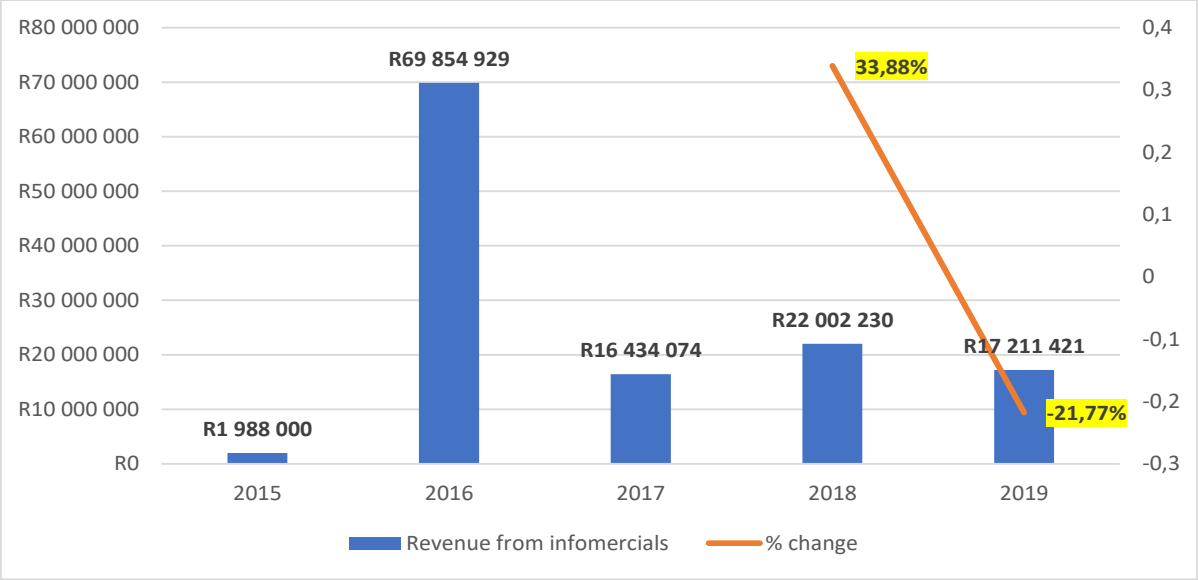
[11] State of the ICT Sector Report in South Africa-2019
https://www.icasa.org.za/uploads/files/State-of-the-ICT-Sector-Report-March-2020.pdf

3.2 Advertisement revenue decreased by 8.17% in 2018 and decreased by 11.39% in 2019. However, for a period of five (5) years (which is from 2015 to 2019), advertising revenue increased by 4.93% overall.[12]

3.3 Programme sponsorship revenue as a proportion of total broadcasting revenue was 2% or below over the four (4) year period ending in 2018.[13]

3.4 Revenue from infomercials increased by 33.88% in 2018 and decreased by 21.77% in 2019.[14]

Figure 1: Revenue from infomercials



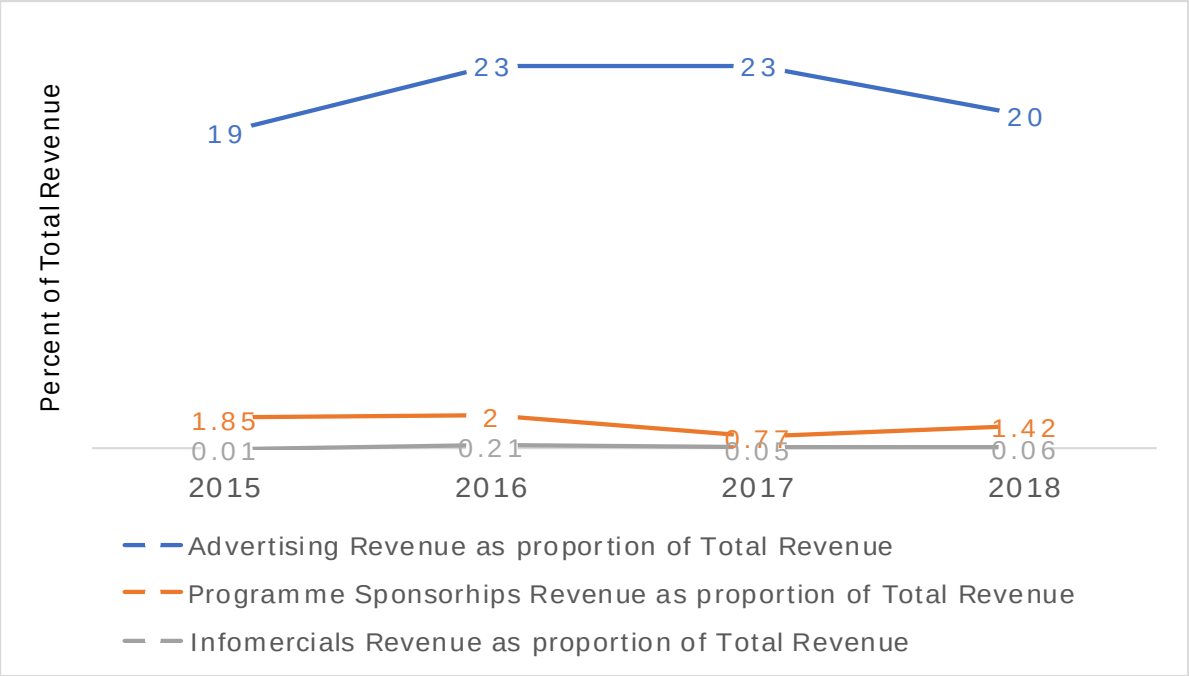
Source: ICASA Broadcasting Questionnaires 2015-2019

3.5 For a period of 5 years revenue from infomercials increased by 71.53%.[15]

3.6 Figure 2 below presents the revenue trends from advertisements, infomercials and programme sponsorships as a proportion of total broadcasting revenue in the past 4 years from 2015 to 2018.[16]

[12] State of the ICT Sector Report in South Africa-2019
[13] State of the ICT Sector Report in South Africa-2019
[14] State of the ICT Sector Report in South Africa-2019
[15] State of the ICT Sector Report in South Africa-2019
[16] State of the ICT Sector Report in South Africa -2019
https://www.icasa.org.za/uploads/files/State-of-the-ICT-Sector-Report-March-2020.pdf

Figure 2: Proportion of Broadcasting Revenue from Advertisements, Infomercials and Programme Sponsorships



Source: ICASA Broadcasting Questionnaire 2015-2019

4. REGULATION OF ADVERTISING IN SOUTH AFRICA

4.1 Advertising is often considered essential to the success of broadcasters. The ICT industry is highly competitive, thus various companies utilize both audio and/or audio-visual broadcasting to reach customers through advertising, thus increasing their revenue through advertising. Although Advertising is intended to be interruptive, that is, it must capture the viewers' attention, too many advertisements can be a nuisance too. Therefore, regulating Advertising is very important to protect consumers.

4.2 The Authority has developed the mechanisms explored below, in its endeavour to regulate advertising, infomercials and programme sponsorship in the public interest.

4.3 The Authority would like to solicit input on the mechanisms listed below from the public and interested stakeholders.

Advertising

4.4 The Authority's regulation of Advertisement seeks to provide consumers with certainty on what should be easily identifiable as an advertisement. The Regulation also intends to assist broadcasters with classifying advertisement from other programming. The Authority proposes a uniform definition of Advertising that is to be applied by broadcasters. The definition of advertising should be:

- Unambiguous;
- Easily implementable and enforceable;
- Measurable;
- Fair to stakeholders; and
- Be applied uniformly.[17]

4.5 Advertising is defined in the Advertising Regulations to mean any material broadcast, in visual and/or audio form for which the broadcaster receives a consideration, in cash or otherwise, and which promotes the interest of any person, product or service, provided that:

(a) spot commercial, which is a public service announcement for which the broadcaster receives a consideration, any material that would constitute infomercial but for the fact that is of two minutes' duration or less, that part of sponsorship package which is constituted by spot commercials, and commercial features shall be regarded as being advertisement; but

(b) public services announcement in respect of which the broadcaster does not receive any consideration, supply agreements, infomercials exceeding two minutes in duration, branded filler material which is of the public services nature, sponsorship elements which form part of in-programme material presenters' credit and (in relation to competition and self-promotions), programme competition, branded promotional

[17] Position Paper on a definition of Advertising, the regulation of Infomercials and the Regulation of Programme Sponsorship, published 31 March 1999, page 8

spots and self-promotion promos shall not be regarded as advertisements.[18]

4.6 The Authority does not regulate advertising content but has a regulatory mandate to prescribe the duration and frequency of advertisements, infomercials and programme sponsorships. This mandate also covers issues of:

(a) ensuring compliance by broadcasters;

(b) regulating the amount of advertising that may be transmitted; and

(c) distinguishing material which is considered advertisement from that which is not, to provide clarity to broadcasting service licensees such as distinction made in terms of regulation 3(3) of the Regulations.

4.7 To be specific, regulation 3(3) of the Advertising Regulations states that any broadcaster who transmits a programme competition, a branded promotional spot, branded filler material, a self-promotion promo or a sponsorship element in the form of the air depiction of, or referral to any brand, product or name, shall ensure that the primary purpose of the broadcast of such material is to promote the broadcaster or the programme concerned, rather than the commercial interest of the person, product or service referred to in the course of such transmission. Regulation 3(4) of the Advertising Regulations further states that transmission elements such as continuity announcement and station identification, in the form of on-screen logos, signature tunes and the like do not constitute an advertisement.[19]

4.8 Furthermore, the Position Paper proposes that the definition of advertising should not be static because broadcasting is a changing and dynamic industry and broadcasters are further encouraged to conduct research on the amount

[18] The Regulation relating to the definition of Advertising and the Regulation of Infomercials and Programme Sponsorship in respect of broadcasting services, Government Gazette 19922 of 01 April 1999.

[19] The Regulation relating to the definition of Advertising and the Regulation of Infomercials and Programme Sponsorship in respect of broadcasting services, government gazette 19922 of 01 April 1999, page 6.

of advertising tolerance and perception, and are requested to update the Authority on such research.[20]

Infomercials

4.9 In drafting the 1999 Advertising Regulations, the Authority was concerned that some broadcasters can misconstrue the scheduling of infomercials in programming[21]. The Authority is still concerned that infomercials and programming are often confused and therefore it is important to make sure that infomercials are clearly identified and do not form part of programming.

4.10 Regulation 1.10 of the Advertising Regulations define infomercial as "*material of more than two minutes' duration, broadcast in visual and/or audio form, for which a broadcaster receives a consideration, in cash or otherwise, which is usually (but not necessarily) presented in a programme format, which promotes the interest of any person, product or service, which entails a direct offer of a product or service to a member or members of the public in return for payment, and which usually (but not necessarily) contains a demonstration of the use of the product or service concerned, and includes material known as tele-shopping, home shopping, direct marketing and direct sales*"[22].

4.11 The Regulations provide that no broadcaster may transmit an infomercial during prime time or during the transmission of, or breaks during the transmission of, any children's programming. The Regulations further state that every broadcaster should ensure that all infomercials transmitted by it are presented and labelled in a manner that will be clear to the audience that such infomercials do not constitute programme material. Broadcasters are not allowed to transmit infomercials for more than two hours during the performance period[23] in any one day. Moreover, the Regulations do not apply

[20] Position Paper on a definition of Advertising, the regulation of Infomercials and the Regulation of Programme Sponsorship, published 31 March 1999, page 11, published on the Authority's website at www.icasa.org.za
[21] The 1999 Independent Broadcasting Authority Position Paper, published 31 March 1999, page 12
[22] The Regulation relating to the definition of Advertising and the Regulation of Infomercials and Programme Sponsorship in respect of broadcasting services, government gazette 19922 of 01 April 1999
[23] The Regulation relating to the definition of Advertising and the Regulation of Infomercials and Programme Sponsorship in respect of broadcasting services, government gazette 19922 of 01 April 1999, page 7.

to any dedicated infomercial channels which may obtain a broadcasting license from the Authority[24].

4.12 The Authority encourages broadcasters to conduct research on the amount and scheduling of infomercials.[25] Therefore, the information from broadcasters will assist this inquiry, if available.

Programme Sponsorship

4.13 The Authority, during the 1999 Advertising Regulation making process, noted that the over-riding concern with programme sponsorship is to preserve the editorial integrity of sponsored programme.[26]

4.14 With regards to sponsorship of children's programming the Authority alluded to the vulnerability of children in distinguishing between programme content and sponsorship. Broadcasters should ensure that sponsorship during children's programming is suitable for children.[27]

4.15 The Advertising Regulations define programme sponsorship as direct or indirect financing, whether partial or fully, of the production or transmission of broadcast programme material by an advertiser or person with a view of promoting its own or another person's name, trade mark, image, activities or product. Sponsorship element is defined as marketing material that forms part of, or is superimposed on, broadcast programme material and includes but is not necessarily limited to on-screen corner logos, opening and closing billboards, stings, squeezebacks, the on-air depiction of or referral to, any brand or name, ribbons crawls, naming rights and product placements.[28]

Performance period means the period of 126 hours in one week measured between the hours of 05h00 and 23h00 each day

[24] Ibid, page 7.

[25] Position Paper on a definition of Advertising, the regulation of Infomercials and the Regulation of Programme Sponsorship, published 31 March 1999, page 13, published on the Authority's website at www.icasa.org.za

[26] Ibid, page 14

[27] Ibid, page 15

[28] The Regulation relating to the definition of Advertising and the Regulation of Infomercials and Programme Sponsorship in respect of broadcasting services, government gazette 19922 of 01 April 1999, page 4.

4.16 Regulation 5.1 of the Advertising Regulations states that every broadcaster who derives benefits from programme sponsorship shall ensure that in relation to the relevant sponsored programme, editorial control remains with the broadcaster. The Regulations provide that for every programme sponsorship obtained or accepted by a broadcaster, the broadcaster must enter into a written sponsorship contract with the sponsor which should provide that the sponsor shall not be entitled in any way to influence the content or scheduling of the sponsored programme. Broadcasters are required to submit to the Authority copies of sponsorship contracts concluded.[29]

4.17 Regulation 5.3 of the Advertising Regulations requires that broadcasters who provide television broadcasting services shall not obtain or accept any programme sponsorships from any person in respect to any news or current affairs programme. However, Regulation 5.4 of the Advertising Regulations provides that broadcasters are allowed to obtain or accept programme sponsorship in respect of weather forecast or sports results bulletin that constitutes part of a news programme broadcast by that broadcaster. The Regulations are silent on obtaining programme sponsorship for sound broadcasting service licensees on news.[30]

4.18 The 1999 Position Paper[31] noted that sponsorship of radio news is an established tradition in South Africa and radio broadcasters receive significant revenue from such. However, the Authority encouraged radio broadcasters to phase out such sponsorship.

4.19 Regulation 5.9 provides that a broadcaster should, before and after the transmission of a sponsored programme, state clearly the nature of sponsor's association with the relevant sponsored programme. Preference should be given to descriptions such as "*sponsored by*" or "*in association*

[29] Ibid, page 7.
[30] Ibid, page 8.
[31] Position Paper on a Definition of Advertising, the Regulation of Infomercials and the Regulation of Programme Sponsorship in respect of Broadcasting services, published 31 March 1999, pages 13-14, published on the Authority's website at www.icasa.org.za

with", as opposed to descriptions such as "*brought to you by*" or "*with compliments of*".[32]

4.20 Regarding product placement, the Authority decided that whilst it does not approve of product placement, complete prohibition may have unduly negative effect on the broadcasters' revenue and potentially on local content production. Broadcasters should consider phasing out product placement especially in children's' programming.[33] The Authority in this process is reviewing whether product placement should be allowed, and if allowed, the extent to which it should be allowed.

4.21 Regulation 1.15 of the Advertising Regulations defines Product Placement as the "*depiction of, or a reference to, a product or service in material (other than an advertisement) broadcast in visual and/or audio form, in respect of which the broadcaster and/or the producer of the material concerned receives payment or other valuable consideration, and which promotes the interests of any person, product or service*". Product Placement is not allowed during news and current affairs programmes.[34]

5. INTERNATIONAL PERSPECTIVE

5.1 In other countries, advertising is regulated by legislation, and in some cases by self-regulatory organizations within the advertising industry. The Authority has looked at the different approaches from other countries in the regulation of advertising to assess the possible areas of improvement for South Africa in terms of scheduling and duration of advertisements, infomercials and programme sponsorship.

5.2 In conducting the benchmarking exercise, the Authority studied Kenya, Tanzania and Namibia as these countries were found by the Authority to

[32] The Regulation relating to the definition of Advertising and the Regulation of Infomercials and Programme Sponsorship in respect of broadcasting services, government gazette 19922 of 01 April 1999, page 9.
[33] Position Paper on a definition of Advertising, the regulation of Infomercials and the Regulation of Programme Sponsorship, published 31 March 1999, page 16, published on the Authority's website at www.icasa.org.za
[34] The Regulation relating to the definition of Advertising and the Regulation of Infomercials and Programme Sponsorship in respect of broadcasting services, government gazette 19922 of 01 April 1999, page 8

have more information on advertising, infomercials and programme sponsorship regulation.

5.3 In addition, three developed countries were also assessed, namely the United Kingdom, Australia and Canada. The rationale behind benchmarking with these countries is that they have advertising, infomercials and programme sponsorship regulations which provide more details on the scheduling of advertisements, infomercials and programme sponsorship.

5.4 The following paragraphs discuss each of these countries in relation to legislation and the regulations.

5.5 Kenya

5.5.1 In Kenya, advertising, infomercials and programme sponsorship is regulated by two bodies namely Communications Authority of Kenya (CAK) and the Advertising Standards Body for Kenya (ASBK). The CAK regulates Telecommunications, Radio Communication and Postal Services, and focus on the scheduling of advertisements, infomercials and programme sponsorship.[35] The ASBK is responsible for the content of advertisements. This is an industry body established to facilitate a process which culminates in the adoption of the Advertising Code of Practice and Marketing (Code).[36]

5.5.2 It is worth noting that there is no law that establishes the Code, but the Regulator adopts the Code in terms of section (13)(1) of the KICA[37], which is administered by ASBK. [38]

5.5.3 The scheduling of Advertisements is regulated through the Kenya Information and Communications (Broadcasting) Regulations of 2009 ("Kenya Regulations").

[35] https://ca.go.ke/
[36] Advertising Standard Body of Kenya (The Code of Advertising Practice and Direct marketing, April 2003
[37] Kenya Information and Communications Act, 1998, page 169
[38] The Code of Advertising Practice and Direct Marketing, April 2003. The Advertising Standards Body is an independent body established by the marketing and advertising industry to ensure self-regulation.

Advertising

5.5.4 The Kenya Regulations define advertising as the broadcast of any item in return for payment or other valuable consideration to a broadcaster. The Kenya Regulations further state that a licensee should ensure the following:

(a) any advertising breaks are clearly distinguishable from broadcast programmes; and
(b) its presenters, when reading advertisements, make a clear distinction between the programming material and the advertisements they deliver.

Infomercials

5.5.5 According to regulation 31 of Kenya Regulations, an infomercial refers to any advertising broadcast in visual or audio form, lasting for more than two minutes which may contain demonstrations of the use of the product or service advertised, and includes direct offers to the public in return for payment, and results in the broadcaster receiving payment in monetary terms or otherwise[39].

5.5.6 Regulation 31 further states that a licensee should not broadcast infomercials:
(a) for a period exceeding three and a half hours of the performance period in any day;
(b) during prime time; or
(c) during any break in the transmission of a children's programme[40].

5.5.7 The Kenya Regulations further provide that licensees should ensure, through visual or audio form, that the broadcast of any infomercial is distinguishable from any broadcast programme material.

[39] Kenya Information and Communications (Broadcasting) Regulations, 2009.
[40] Kenya Information and Communications (Broadcasting) Regulations, 2009, page 149.

5.6 Tanzania

5.6.1 Advertising in Tanzania is regulated by the Tanzania Communications Regulatory Authority ("TCRA"). The TCRA is established in terms of the Tanzania Communications Regulatory Authority Act, 2003 (Act No. 12 of 2003). Section 109 of the Electronic and Postal Communications Act of 2010 provides the mandate to regulate Advertising and Sponsorship. The Electronic and Postal Communications (Radio and Television Broadcasting Content) Regulations, 2018 ("Tanzania Regulations)[41] apply in relation to broadcasting content services on any platform in Mainland Tanzania.

Advertising

5.6.2 The Tanzania Regulations define advertising similarly to Kenya as the broadcasting of any material in return for payment or other valuable consideration to a broadcaster. The purpose of advertisements should be to:

(a) sell to audiences any product or service;
(b) convince audiences of a belief or course of action; or
(c) promote a product, service, belief, course of action, person or organization[42]

5.6.3 Regulation 20(2) of the Tanzania Regulations specifies that a licensee should observe the following, *inter alia*[43]:

(a) ensure that any advertising breaks are clearly distinguishable from broadcast programmes;

[41] Tanzania Communications Regulatory Authority Act of 2003 and the Electronic and Postal Communications (Radio and Television Broadcasting Content) Regulations, gazette 134 of 2018.
[42] The Electronic and Postal Communications (Radio and Television Broadcasting Content) Regulations, 2018, page 3.
[43] The Electronic and Postal Communications (Radio and Television Broadcasting Content) Regulations, 2018, page 18.

(b) ensure that its presenters, when reading advertisements, make a clear distinction between programming material and the advertisements they deliver;

(c) ensure that there is a clear separation of advertising content and programme, and shall –

(i) broadcast a maximum of five minutes of advertising material in any thirty minutes of broadcast;

(ii) insert a maximum of two advertising breaks in a thirty minutes programme;

(iii) ensure that an advertisement does not exceed a duration of sixty seconds; and

(iv) abide by the provisions of the Code of Ethics for Advertising and Sponsorship for the Broadcast Media issued by the TCRA.

5.6.4 Commercial service broadcasting licensees in Tanzania are funded largely by advertising which is also a source of profit.

Infomercials

5.6.5 Similar to Kenya, Tanzania defines infomercials as any advertising broadcast in visual or audio form, lasting for more than two minutes, which may contain demonstrations of the use of the product or service advertised, entailing direct offers to the public in return for payment, and which results in the broadcaster receiving payment in monetary terms or otherwise[44].

5.6.6 Regulation 21(1) of the Tanzania Regulations specifies that an infomercial should not be broadcast:

(a) for a period exceeding three and half hours of the performance period in any day; and

[44]The Electronic and Postal Communications (Radio and Television Broadcasting Content) Regulations 2018 gazette 134, page 5.

(b) during prime-time or during any break in the transmission of a children's programme[45].

5.6.7 Regulation 21(1) further states that the licensee should ensure that the broadcast of any infomercial is distinguishable from any programme material broadcast.

5.6.8 It is worth noting that the aforementioned obligations do not apply to broadcasting stations that exclusively broadcast infomercials[46].

Sponsorship

5.6.9 Tanzania defines a sponsored programme as a programme that has all or part of its cost paid by a sponsor[47].

5.6.10 The Tanzania Regulations further provide that sponsorship of an information programme must not compromise the accuracy and impartiality of the programme content.[48]

5.7 Namibia

5.7.1 The Communications Regulatory Authority of Namibia (CRAN) is an independent body that was established in terms of the Communications Act No. 8 of 2009. The CRAN was found in 2011 as a replacement to the Namibia Communications Commission. The CRAN regulates the telecommunications services and networks that entail broadcasting, postal and radio spectrum.

5.7.2 In Namibia advertising is regulated by the CRAN in terms of the Communications Act No.8 of 2009.

[45] The Electronic and Postal Communications (Radio and Television Broadcasting Content) Regulations, 2018, gazette 134, page 17.
[46] The Electronic and Postal Communications (Radio and Television Broadcasting Content) Regulations, 2018, gazette 134, page 17.
[47] The Electronic and Postal Communications (Radio and Television Broadcasting Content) Regulations, 2018, gazette 134, page 7.
[48] Regulation 15(2)(g).

Advertising

5.7.3 CRAN prescribes the amount and nature of advertisements that may be broadcast and prohibits the broadcast of advertisements that are degrading or offensive[49]. CRAN defines an advertisement as "*any visual or audio communication, representation, reference or notification of any kind, which is intended to promote the sale, leasing or use of any brand, product, belief, goods or services, or which appeals for or promotes the support of any cause and includes promotional content of display material, menus, labels, and packaging but excludes editorial material unless it is editorial material for which consideration has been given or received*"[50].

5.7.4 Regulation 16 (1) of the CRAN Broadcasting Code provides that an advertisement broadcast by a broadcasting licensee must be presented in such a manner that a reasonable audience will be able to identify such advertisement at the time of the broadcast, as advertising material[51].

5.8 United Kingdom

5.8.1 The United Kingdom's Office of Communications ("OFCOM") regulates advertising in terms of section 9 of the OFCOM Broadcasting Code of 2011 ("the OFCOM Code"). The rules in this section were drafted to ensure that editorial content remains distinct from advertising. They require broadcasters to retain editorial control over the programmes they transmit.

5.8.2 The rules serve to protect viewers from both excessive commercial references in programming and from surreptitious advertising by:

(a) limiting the extent to which references to products, services and trademarks can feature in programming;

[49] Communications Act, 2009, Section 89(2)(i).
[50] CRAN Advertising Code of Broadcasting for Broadcasting Licensees, gazette 6750 ,2018s, page 3.
[51] CRAN Advertising Code.

(b) requiring that viewers are made aware of a reference to a product, service or trademark feature in programming as a result of a commercial arrangement between the broadcaster or producer and a third-party funder; and

(c) helping to ensure that broadcasters do not exceed the limits placed on the amount of advertising they can transmit[52].

5.8.3 The purpose of advertising rules as set out in section 9 of the OFCOM Code is to:

(a) "*ensure that broadcasters maintain editorial independence and control over programming (editorial independence);*

(b) *ensure that there is distinction between editorial content and advertising (distinction);*

(c) *protect audiences from surreptitious advertising (transparency);*

(d) *ensure that audiences are protected from the risk of financial harm (consumer protection); and*

(e) *ensure that unsuitable sponsorship is prevented (unsuitable sponsorship)*"[53].

5.8.4 Surreptitious advertising is defined as "*an advertising that involves a reference to a product, service or trade mark within a programme, where such a reference is intended by the broadcaster to serve as advertising and this is not made clear to the audience. Such advertising is likely to be considered intentional if it occurs in return for payment or other valuable consideration to the broadcaster or producer*"[54].

5.8.5 Section 9.4 provides that products, services and trademarks must not be promoted in programming.[55]

[52] OFCOM Broadcasting Code of 2011.
[53] The OFCOM Broadcasting Code (2011), p 46.
[54] Section 9.3 of the OFCOM Broadcasting Code (2011).
[55] Ibid

5.8.6 In terms of section 9.5 of the OFCOM Code, no undue prominence may be given in programming to a product, service or trademark. The section further states that undue prominence may result from:

(a) "*the presence of, or reference to, a product, service or trade mark in programming where there is no editorial justification; or*

(b) *the manner in which a product, service or trade mark appears or is referred to in programming*"[56].

Advertisements and Infomercials

5.8.7 OFCOM defines advertising as "*any form of announcement broadcast whether in return for payment or for similar consideration or broadcast for self-promotional purposes by a public or private undertaking or natural person in connection with a trade, business, craft or profession to promote the supply of goods or services, including immovable property rights and obligations, in return for payment*"[57].

5.8.8 The Code on the Scheduling of Television Advertising (April 2016) ("Scheduling Code") defines teleshopping or infomercial "*as direct offers broadcast to the public with a view to the supply of goods or services, including immovable property, rights and obligations, in return for payment, with a minimum uninterrupted duration of 15 minutes*[58].

5.8.9 Time slots dedicated to television advertising and teleshopping on a non-public service channel must not exceed 12 minutes per hour, per day, of which no more than 9 minutes may be television advertising. On public service channels, time slots dedicated to television advertising and teleshopping must not exceed an average of 7 minutes per hour, in a day or 8 minutes per hour between 18:00 and 23:00[59].

[56] Section 9.5 of the OFCOM Broadcasting Code (2011).
[57] For the purpose of this Code, this includes S4C, which is authorized by the Broadcasting Act 1990, Page 1
[58] Code on the Scheduling of Television Advertising (1 April 2016)
[59] Ibid

5.8.10 In the event that a broadcaster transmits less advertising than it scheduled, OFCOM may grant the broadcaster a limited exemption[60].

5.8.11 Section 5 of the Scheduling Code provides that the advertising breaks during programmes on public service channels may not exceed 3 minutes and 50 seconds, of which advertising and teleshopping slots may not exceed 3 minutes and 30 seconds. This excludes advertising breaks in Film.[61]

5.8.12 In the event a television advertisement or teleshopping is inserted during programmes, television broadcasters must ensure that the integrity of the programme is not prejudiced. It is worth noting that breaks are not permitted within schools' programmes.[62]

5.8.13 Children's programmes with a scheduled duration of less than 30 minutes may not be interrupted by advertising. However, the transmission of children's programmes with a scheduled duration of longer than 30 minutes may be interrupted by advertising or teleshopping, once for each scheduled period of at least 30 minutes.

5.8.14 The following programmes may not include advertising or teleshopping breaks during the service:

(a) religious service;
(b) a news or current affairs programme of less than half an hour scheduled duration;
(c) a documentary of less than half an hour scheduled duration;
(d) a programme designed and broadcast for reception in schools; and
(e) broadcasts of a formal Royal ceremony.

[60] Ibid
[61] Ibid
[62] Ibid

Product placement

5.8.15 The Communications Act[63] provides for definitions of product placement and prop placement. Product placement means "the inclusion in a programme of, or of a reference to a product, service or trade mark where the inclusion is for a commercial purpose and is in return for the making of any payment, or the giving of other valuable consideration, to any relevant provider or any person connected with a relevant provider and is not prop placement"[64].

5.8.16 The OFCOM Code defines prop placement as "the inclusion in a programme of, or of a reference to a product, service or trade mark where the provision of the product, service or trade mark has no significant value, and no relevant provider, or person connected with a relevant provider has received any payment or other valuable consideration in relation to its inclusion in, or the reference to it in the programme, disregarding the costs saved by including the product, service or trade mark, or a reference to it in the programme[65].

5.8.17 Section 9.6 of the OFCOM Code states that product placement is prohibited except in programme genres such as films, series made for television (or other audio-visual media services), sports programmes and light entertainment programmes[66].

5.8.18 In terms of section 9.7 of the OFCOM Code, news programmes or children's programmes must not contain product placements[67]. Section 9.8 states that product placement must not influence the content and scheduling of a programme in a way that affects the responsibility and editorial independence of the broadcaster[68].

[63] The Communications Act 2003, as amended.
[64] Schedule 11A (1)(1) of the Communications Act 2003, as amended and section 9.5 of the OFCOM Broadcasting Code (2011).
[65] Schedule 11A (1)(2) of the Communications Act 2003, as amended and section 9.5 of the OFCOM Broadcasting Code (2011).
[66] Ibid.
[67] Ibid.
[68] Ibid.

5.8.19 References to placed products, services and trademarks must not be promotional or unduly prominent[69]. Product placement is not permitted in the religious programmes, consumer advice programmes and current affairs programmes[70].

5.8.20 Sections 9.11 and 9.13 prohibit the product placement of cigarettes or other tobacco products, placement by or on behalf of an undertaking whose principal activity is the manufacture or sale of cigarettes or other tobacco products and placement of prescription-only medicines[71].

5.8.21 In addition, the OFCOM Code prohibits product placement of alcoholic drinks, foods or drinks high in fat, salt or sugar, gambling, infant formula (baby milk), including follow-on formula, all medicinal products, electronic or smokeless cigarettes, cigarette lighters, cigarette papers, or pipes intended for smoking, or any product, service or trade mark that is not allowed to be advertised on television[72].

5.8.22 Product placement must be signalled clearly, by means of a universal neutral logo, as follows:

(a) at the beginning of the programme in which the placement appears;
(b) when the programme recommences after commercial breaks; and
(c) at the end of the programme[73].

5.8.23 In terms of section 9.5 of the OFCOM Code, no undue prominence may be given in programming to a product, service or trademark. The section further states that undue prominence may result from:

(a) "*the presence of, or reference to, a product, service or trade mark in programming where there is no editorial justification; or*

[69] Ibid.
[70] Ibid.
[71] Ibid.
[72] OFCOM Broadcasting Code (2011).
[73] Ibid.

(b) *the manner in which a product, service or trade mark appears or is referred to in programming*"[74].

Sponsorship

5.8.24 Programme-related material may be sponsored, and the sponsor may be credited when details of how to obtain the material are given[75]. News and current affairs programmes must not be sponsored[76]. Section 9.16 states that programming (including a channel) may not be sponsored by any sponsor that is prohibited from advertising on television[77]. Sponsorship must comply with both the content and scheduling rules that apply to television advertising[78]. A sponsor must not influence the content and/or scheduling of a channel or programming in such a way as to impair the responsibility and editorial independence of the broadcaster and must not be unduly prominent[79].

5.8.25 In terms of section 9.19, sponsorship must be clearly identified by means of sponsorship credits. Sponsorship credits must be broadcast at the beginning and/or during and/or end of the programme[80] and must be distinct from editorial content and advertising[81]. These must make clear the identity of the sponsor by reference to its name or trade mark and the association between the sponsor and the sponsored content[82].

5.8.26 Sponsorship credits must not encourage the purchase or rental of the products or services of the sponsor or a third party. The focus of the credit must be the sponsorship arrangement itself. Such credits may include explicit reference to the sponsor's products, services or trademarks for the

[74] Section 9.5 of the OFCOM Broadcasting Code (2011).
[75] Ibid.
[76] Ibid.
[77] Ibid.
[78] Ibid.
[79] Ibid.
[80] Section 9.20 of the OFCOM Broadcasting Code (2011).
[81] Section 9.21 and 9.22 of the OFCOM Broadcasting Code (2011).
[82] Section 9.19 of the OFCOM Broadcasting Code (2011).

sole purpose of helping to identify the sponsor and/or the sponsorship arrangement[83].

5.8.27 Such credits must consist of a brief, neutral visual or verbal statement identifying the sponsorship arrangement. This can be accompanied by only a graphic of the name, logo, or any other distinctive symbol of the sponsor. The content of the graphic must be static and must contain no advertising messages, calls to action or any other information about the sponsor, its products, services or trademarks[84].

5.8.28 Sections 9.26 to 9.29 provides for premium rate telephony services (PRS). Section 9.27 states that PRS will normally be regarded as products or services, and must therefore not appear in programmes, except where:

(a) they enable viewers to participate directly in or otherwise contribute directly to the editorial content of the programme; or
(b) they fall within the meaning of programme-related material[85].

5.8.29 Section 9.28 provides that where a PRS is featured in a programme, the primary purpose of the programme must continue to be clearly editorial and PRS must be clearly subsidiary to that primary purpose.

Programme related material

5.8.30 Programme-related material consists of products or services that are both directly derived from a programme and specifically intended to allow viewers to benefit fully from, or to interact with, that programme. The OFCOM Code states that broadcasters may refer to the availability of programme-related material without such references counting towards the amount of advertising they are permitted to transmit[86]. Programme-related

[83] Section 9.22 of the OFCOM Broadcasting Code (2011).
[84] Section 9.22 of the OFCOM Broadcasting Code (2011).
[85] OFCOM Broadcasting Code (2011).
[86] Ibid.

material may be promoted only during or around the programme from which it is directly derived and only where it is editorially justified[87].

5.8.31 Further, the OFCOM Code states that charity appeals are allowed in programming only if they are broadcast free of charge. Whilst charities differ from purely commercial entities, there is still a potential risk that the audience may suffer financial harm as a result of such appeals. Many charities operate in competition with one another and the rules therefore aim to ensure that charity appeals benefit a range of charities. Where appropriate, broadcasters must pay attention to section 5 of the OFCOM Code on due impartiality[88].

5.8.32 Broadcasters may broadcast appeals for donations to make editorial content or fund their service[89]. Section 9.38 states that broadcasters must not offer any additional benefits or other incentives to donors[90]. Appeals for funds for programming or services must not be given undue prominence in relation to the overall output of the service[91].

5.8.33 The OFCOM Code defines a financial promotion as an invitation or inducement to engage in investment activity (in accordance with section 21(1) of the Financial Services and Markets Act 2000). Further, the Code defines an investment recommendation as the one that occurs when someone directly recommends a particular investment decision, for example, buying or selling a particular share or underwriting a particular share offer[92]. In terms of the Code, the rules applying to such promotions and recommendations reflect the particular risk that such references could result in financial harm to the audience, and the resulting need for editorial independence and transparency to be maintained and protected[93].

[87] Ibid.
[88] Ibid.
[89] The OFCOM Broadcasting Code (2011), p 62.
[90] Section 9.38 of the OFCOM Broadcasting Code (2011).
[91] Section 9.39 of the OFCOM Broadcasting Code (2011).
[92] The OFCOM Broadcasting Code (2011), p 61.
[93] The OFCOM Broadcasting Code (2011, p 61.

5.9 Australia[94]

5.9.1 In Australia, broadcasting is regulated by the Australian Communications and Media Authority ("ACMA"). On the other hand, advertising is regulated by three regulators, namely the Advertising Standards Bureau ("ASB"), the Australian Competition and Consumer Commission ("ACCC") and the State Departments or Offices of Fair Trading ("State Department)[95].

Advertising Regulations

5.9.2 Television and radio advertising regulation in Australia differs according to the industry or sector involved[96]. The regulations/codes on broadcasting include the following:

(a) the Commercial Television Industry Code of Practice ("Australia Code") has provisions about placement of advertisements, the amount of non-program matter (including advertisements) scheduled per hour, loudness of advertisements in relation to adjacent programming and disclosure of commercial arrangements (agreements or arrangements under which products or services are endorsed or featured in programs) in exchange for payment[97];

(b) The Children's Television Standards ("Children's Standards") regulate the amount and content of advertisements directed specifically at children during designated children's viewing periods[98];

(c) The Television Program Standard for Australian Content in Advertising ("TPS 23") regulates the amount of foreign-produced advertising that may be broadcast[99];

(d) The Commercial Radio Australia Code of Practice ("Commercial Radio Code") requires that advertising is clearly distinguishable from other

[94] https://www.acma.gov.au/theACMA/About/Corporate/Responsibilities/regulation-responsibilities-acma, retrieved on 9 July 2019.
[95] https://www.acma.gov.au/theACMA/About/Corporate/Responsibilities/advertising-on-radio-and-tv, retrieved on 8 July 2019.
[96] Ibid, retrieved on 8 July 2019.
[97] Ibid, retrieved on 8 July 2019.
[98] Ibid, retrieved on 8 July 2019.
[99] Ibid, retrieved on 8 July 2019.

program material and places restrictions on the promotion of betting odds and gambling advertisements in live sports coverage[100];

(e) The Commercial Radio Disclosure Standards ("Disclosure Standards") regulate the disclosure of sponsorship arrangements[101];

(f) Community radio and television stations are not allowed to broadcast advertisements. They may broadcast sponsorship announcements, within hourly limits (five minutes for radio stations and seven minutes for television stations)[102];

(g) The Special Broadcasting Service Code of Practice ("Special Broadcasting Code") has provisions about placement of advertisements and hourly time limits on advertisements[103];

(h) The ASTRA Code of Practice for Subscription Narrowcast Television ("ASTRA Code") has provisions about the placement of advertisements and the content of locally produced advertisements[104]; and

(i) The Open Narrowcast Television Code of Practice ("Open Code") has provisions about the placement of advertisements[105].

5.10 Canada

5.10.1 In Canada the Canadian Radio-television and Telecommunications Commission ("CRTC") regulates advertising.

Advertising

5.10.2 The CRTC defines advertising material as "*any commercial message or programming that promotes a station, network or program but it does not include;*

(a) a station or network identification;

[100] Ibid, retrieved on 8 July 2019.
[101] Ibid, retrieved on 8 July 2019.
[102] Ibid, retrieved on 8 July 2019.
[103] Ibid, retrieved on 8 July 2019.
[104] Ibid, retrieved on 8 July 2019.
[105] Ibid, retrieved on 8 July 2019.

(b) the announcement of an upcoming program that is voiced over credits; or

(c) a promotion for a Canadian program or a Canadian feature film, even if a sponsor is identified in the title of the program or film or as a sponsor of that program or film, as long as the identification is limited to the sponsor's name and does not include a description, representation or attribute of the sponsor's products or services"[106].

5.10.3 On the other hand, a commercial message is defined as "an advertisement that is intended to sell or promote goods, services, natural resources or activities, including an advertisement that mentions or displays in a list of prizes, the name of the person selling or promoting the goods, services, natural resources or activities, and that is broadcast in a break within a program or between programs"[107].

5.10.4 The CRTC allows various aspects of broadcasting to advertise for specified minutes depending on their importance[108]. The time limitations exclude the promotion of Canadian programming, public service announcements, political advertisements and product placements within a television programming and virtual advertisements[109].

5.10.5 The CRTC stipulates that discretionary services[110] receive a maximum of 12 minutes of national advertising, and mainstream sports services and national news services receive an average of 12 minutes per hour over the broadcast day[111]. In contrast, television stations and commercial AM and FM radio stations do not have limitations on advertising[112]. The Canadian Broadcasting Corporation's ("CBC") radio networks are prohibited from carrying advertising, except for programming already available on networks but strictly on a sponsored basis.

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[106] https://laws-lois.justice.gc.ca/eng/regulations/SOR-2017-159/page-1.html.
[107] https://laws-lois.justice.gc.ca/eng/regulations/SOR-2017-159/page-1.html.
[108] https://crtc.gc.ca/eng/television/pulicit/publicit.htm.
[109] https://crtc.gc.ca/eng/television/pulicit/publicit.htm.
[110] A discretionary service is a Canadian specialty channel which, as defined by the Canadian Radio-television and Telecommunications Commission, may be carried optionally by all subscription television providers.
[111] https://crtc.gc.ca/eng/television/pulicit/publicit.htm.
[112] https://crtc.gc.ca/eng/television/pulicit/publicit.htm.

Community Broadcasting Advertising

5.10.6 CRTC regulations require that[113]:

(a) the cable community channels be restricted from carrying commercial advertising but be allowed to transmit sponsorships and contra advertising[114];
(b) community based low power television and digital services be restricted to 12 minutes of local advertising per hour;
(c) campus radio stations are allowed 4.2 minutes per day of advertising; and
(d) community radio stations are free from any time limitations of advertising.

Infomercials

5.10.7 The CRTC defines an infomercial as "a combination of entertainment and information with the sale or promotion of goods and services in a programme that is more than 12 minutes long". The infomercial must have a disclaimer informing the audience that the programming has been paid for by the company concerned[115].

5.10.8 On commercial radio stations, an advertisement that's more than 3 minutes long must be identified as a paid commercial, by clear and prominent announcements, before and after the segments. Announcements must be repeated during breaks and before returning to a programme.[116]

[113] https://crtc.gc.ca/eng/television/pulicit/publicit.htm.
[114] Contra advertising refers to oral or written acknowledgement contained within a community program that has received goods and services free of charge for the use in connection with the product of the program.
[115] https://crtc.gc.ca/eng/television/pulicit/publicit.htm.
[116] https://crtc.gc.ca/eng/television/pulicit/publicit.htm.

6. CONCLUSION

6.1 Section 55(1) of the ECA states that the Authority regulates the scheduling of Advertising, Infomercials and Programme Sponsorship. The role of ASASA, as contemplated in section 55 (1) of the ECA is with regards to content of Advertising whilst the Authority's focus is on scheduling of adverts, infomercials and programme sponsorship.

6.2 The Authority acknowledges the rapid evolution of the broadcasting sector; hence, it started the process to review the Regulations and has conducted an international study, comprising of six countries. The study signifies the importance of distinguishing advertising, infomercials and programme sponsorship from normal programming and highlights the broadcasters' responsibility to maintain editorial independence. Further, the rules serve to protect viewers from both excessive commercial references in programming and from surreptitious advertising.

6.3 The Authority acknowledges the need for the broadcasters to generate revenue to sustain themselves, which should be balanced with the purpose of broadcasting, which is to inform, educate and entertain, whilst considering protection of consumers. Therefore, the purpose of this Discussion Document is to solicit comments as part of the process of reviewing the Regulations.

6.4 The Authority will hold public hearings on the Discussion Document to allow interested parties an opportunity to make oral presentation to their submissions. This will be followed by a Findings Document together with Draft Regulations. Further, the interested parties will be afforded an opportunity to make oral presentations on the Draft Regulations. After this stage the final Advertising Regulations will be published.

7. QUESTIONS

7.1 In reviewing the current Regulations on Advertising, Infomercials and Programme Sponsorship, the Authority considered the provisions of the

legislation, the current Regulations, the views of interested parties as expressed in their responses to a questionnaire as well as international benchmarking. The information gathered through the aforesaid process necessitated a further engagement with stakeholders regarding provisions they would like to see forming part of the Regulations. The Authority felt that it is necessary and fair to provide interested stakeholders with an opportunity to make inputs that will strengthen the Regulations.

7.2 The following questions seek to get inputs and different views from stakeholders:

1. Are the current Regulations of Advertising, Infomercials and Programme Sponsorship effective? Please elaborate.

2. Is there a need to revisit the definition of Advertising, Infomercials and Programme Sponsorship? If the response is yes, how should they be redefined?

3. What is your view on advertising during news and current affairs for radio and television?

4. What is the impact of the current Advertising Regulations on the financial viability of broadcasters?

5. Are current Advertising Regulations able to protect broadcasters on editorial independence?

6. Does the current labelling of advertising make it easy for viewers/listeners to differentiate it from normal programming?

7. What is your view on advertisements that supersede programming?

8. What programmes should not allow infomercials?

9. Should the Authority regulate the duration of infomercials? Please elaborate

10. Should the Authority regulate the frequency of infomercials? Please elaborate.

11. What indicators of infomercials can be used so that they are easily identifiable?

12. Should the Regulations continue to prohibit the transmission of infomercials during prime time? Kindly provide a reason for your answer.

13. How should the Authority deal with push advertisement (squeezebacks)?

14. How should the Authority regulate product placement and promotional material inside a programme in a way that it does not supersede programming or tamper with editorial control?

15. What mechanisms should be put in place to ensure that programme sponsorship does not influence programmes?

16. What other measures can be put in place to ensure compliance with programme sponsorship requirements?

17. Should the Authority request that product placement be signalled? How should it be signalled?

18. Should product placement and sponsorship be allowed during children's programme? If so, what mechanisms should be put in place to ensure that there is a clear distinction between product placement and the programme?

19. Product placement is a component of branding, what other elements of branding should the Authority be concerned with?

20. In your view how should the Authority ensure that public interest is protected when regulating advertising, infomercials, product placement and programme sponsorship?

21. What lessons can be learned from other countries in terms of advertising, infomercials, programme sponsorship and product placement?

22. How should the Authority ensure the balancing act between sustainability of broadcasters relating to revenue generation through sponsorships, infomercials and advertising, with the need to protect the consumers?

23. What is your view in terms of promotional material inside programmes and advertising during the breaks on whether these amount to excessive advertising?

24. What are the determinants of advertising revenue?

25. What is the impact of online media on radio and television advertising revenue?

26. To what extent does the ECA provide the Authority with the requisite legislative mandate to regulate the broadcasting Advertising, Infomercials and Programme Sponsorship during the digital era?

27. To what extent should the Authority regulate Advertising, Infomercials and Programme Sponsorship in the digital environment to ensure that the regulations protect consumers?

28. Are there any other issues that the Authority should consider in the Regulation of Advertising, Infomercials and Programme Sponsorship?

PROCLAMATION NOTICES • PROKLAMASIE KENNISGEWINGS

DEPARTMENT OF SCIENCE AND INNOVATION

NO. 3 **26 March 2021**

by the

President of the Republic of South Africa

COMMENCEMENT OF THE SCIENCE AND TECHNOLOGY LAWS AMENDMENT ACT, 2020 (ACT NO. 9 OF 2020).

In terms of section 54 of the Science and Technology Laws Amendment Act, 2020 (Act No. 9 of 2020), I hereby determine 01 April 2021 as the date on which the said Act comes into operation.

Given under my Hand and the Seal of the Republic of South Africa at CAPE TOWN on this 19 day of FEBRUARY Two Thousand and Twenty-One.

PRESIDENT
By order of the President-in-Cabinet

DR BE NZIMANDE
MINISTER

ISIMEMEZELO

esivela

KuMongameli WaseRephabhuliki YaseNingizimu Afrika

No. R. 2021

UMTHETHO WOKUQALA UKUSEBENZA KOMTHETHO WOKUCHITSHIYELWA KWEMITHETHO YEZESAYENSI KANYE NOBUCHWEPHESHE, WEZI-2020 (UMTHETHO WE.9 KA-2020).

Ngokwesigaba se-54 soMthetho Wokichitshiyelwa Kwemithetho Yezesayensi Kanye Nobuchwepheshe, wezi-2020 (uMthetho We.9 wezi-2020), ngiqoka usuku lomhlaka 01 Mbasa 2021 njengosuku okuzoqala ngalo ukusebenza lo Mthetho.

Ikhishwe ngaphansi kweSandla sami nangaphansi kwesiGxivizo saseRiphabhuliki yaseNingizimu Afrika ...EKAPA..... Mhlaka ...19..... Inyanga ... ...NHLOLANJA... onyakeni wez 2021.

UMongameli
Ngomyalelo kaMongameli weKhabhinethi

DR BE NZIMANDE
UNGQONGQOSHE WEZEMFUNDO EPHAKEME, ZESAYENSI NEMIKHUBA EMISHA

PRESIDENT'S MINUTE NO: 19

In terms of section 54 of the Science and Technology Laws Amendment Act, 2020 (Act No. 9 of 2020), I hereby determine, by means of the accompanying proclamations in English and isiZulu, 01 of April 2021 as the date on which the said Act shall come into operation.

Given under my Hand and Seal of the Republic of South Africa at CAPE TOWN on this 19 day of FEBRUARY 2021

PRESIDENT

MINISTER OF THE CABINET

BOARD NOTICES • RAADSKENNISGEWINGS

BOARD NOTICE 19 OF 2021

ENSURING THE
EXPERTISE TO GROW
SOUTH AFRICA

Recognition of Prior Learning Policy

RPL-POL

ENGINEERING COUNCIL OF SOUTH AFRICA
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ECSA

TABLE OF CONTENTS

DEFINITIONS

Access refers to the provision of ease of entry to appropriate levels of education and training for all prospective applicants in a way that allows progression.

Authentic refers to evidence that must be attributed to the applicant.

Currency refers to evidence that must be related to current competence.

Progression refers to ensuring that the framework of qualifications allows individuals to move through the levels of national qualifications

Qualification refers to a registered national qualification consisting of a planned combination of learning outcomes which has a defined purpose, intended to provide qualifying students with applied competence and a basis for further learning and which has been assessed in terms of graduate attributes, registered on the National Qualifications Framework (NQF) and certified and awarded by a recognised institution.

Recognition of Prior Learning (RPL) is a process through which formal, non-formal and informal learning are measured, mediated for recognition across different contexts and certified against the requirements for credit, access, inclusion or advancement in the formal education and training system or workplace.

Sufficient refers to enough appropriate evidence to meet all criteria needed to certify the applicant as competent and it proves that the performance can be repeated.

Valid refers to the evidence that relates to the specific standards and criteria to be assessed.

ABBREVIATIONS

CBE	Council for the Built Environment
CHE	Council of Higher Education
DHET	Department of Higher education and Training
ECSA	Engineering Council of south Africa
EPA	Engineering Professions Act, 46 of 2000
HEQSF	Higher Education Qualification Sub Framework
IEA	International Engineering Alliance
IPD	Initial Professional Development
NATED	National Accredited Technical Education Diploma
NQF	National Qualification Framework
RPL	Recognition of Prior Learning
SAQA	South African Qualification Authority

BACKGROUND

The documents that define the Engineering Council of South Africa (ECSA) system for accreditation of programmes meeting educational requirements for professional categories are shown in Figure 1 which also locates the current document.

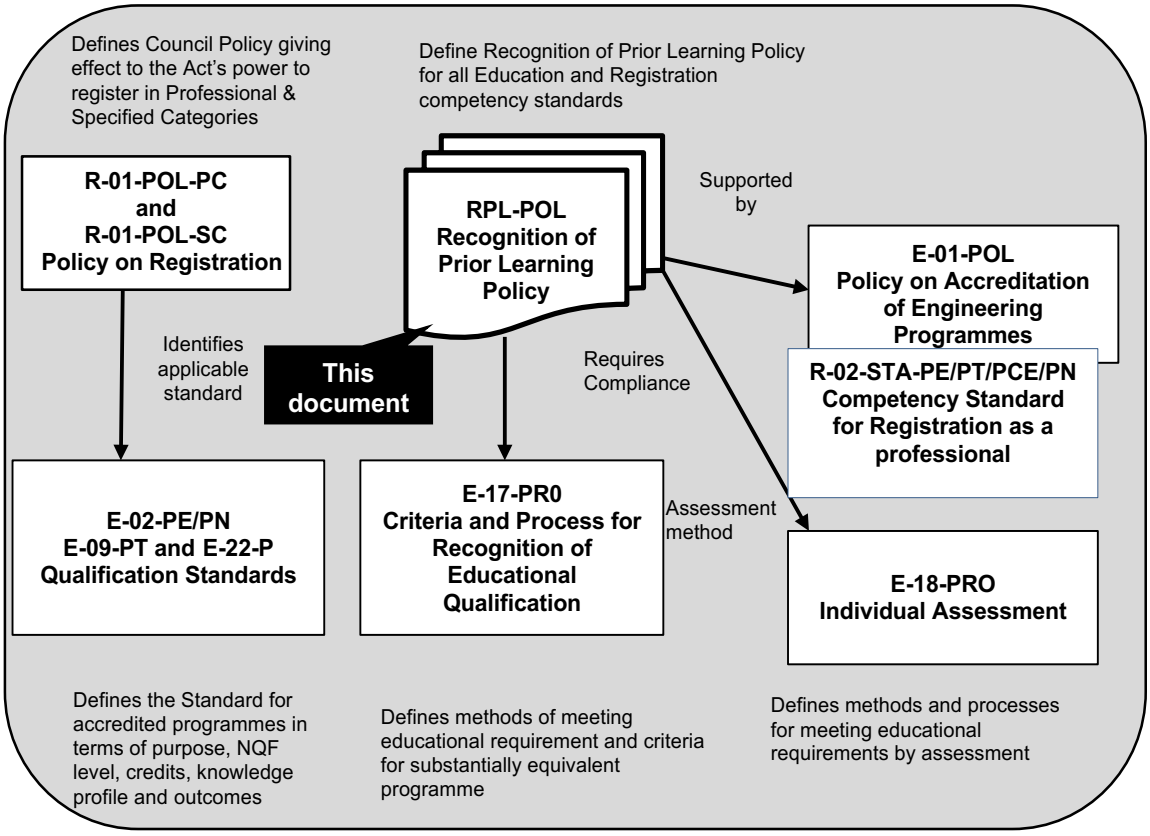

Figure 1: Documents defining the ECSA Accreditation System

ECSA defines RPL as in Section 19(2)(b)(iii) and (4) of the Engineering Professions Act, 46 of 2000 and compels ECSA to consider the submission of evidence of prior learning in engineering in its registration process taking into account "previous learning and experience of an applicant, how so ever obtained, against the learning outcomes required for a specified qualification and the acceptance for the purpose of qualification of that which meets those requirements."

This policy considers all RPL policies identified in section 3 below, specifically those in compliance with the new Higher Education Qualification Sub Framework (HEQSF), skills development providers, workplaces, RPL practitioners and RPL candidates.

1. PURPOSE OF THIS DOCUMENT

The purpose of this RPL Policy is to provide a strong enabling policy environment for the further development and implementation of RPL policy across the post-school education and training system, and across all levels of the NQF. To do so, this Policy establishes a coordinating mechanism for RPL, the funding thereof and the establishment of a fund for RPL implementation. It provides a firm policy statement to ensure that the NQF Act objectives are met, and especially to:

- facilitate access to and mobility and progression within education and training and career paths, (section 5(1)(b) of the NQF Act); and
- accelerate the redress of past unfair discrimination in education, training and employment opportunities (section 5(1)(d) of the NQF Act).

2. OBJECTIVES OF THE POLICY FRAMEWORK ON RPL

The objectives are to:

- meet the requirements of the Act in so far as to give credence to those persons presenting evidence of prior learning in engineering for registration as a Professional, a Candidate or in a specified category and as a specified category candidate
- facilitate recognition of competency and registration status for those applicants who do not fall within the accepted benchmark routes to registration
- broaden the entry routes into the profession and in so doing reduce the risk of danger in the interest of health and safety
- be aligned to the CBE policy on RPL
- be in compliance, where applicable, with the SAQA National Policy, QCTO RPL-001/14 Policy for the Implementation of RPL
- be in compliance, where applicable, with the CHE policies on the RPL.

3. PRINCIPLES FOR RECOGNITION OF PRIOR LEARNING

The principles embedded in this policy on assessment for RPL are as follows:

- The assessment must be credible, using various methods and instruments.
- The cost of RPL must be transparent and cost effective.
- Evidence must be valid, authentic, current and sufficient.
- Assessment must be planned and designed on the basis of understanding the requirements of previously accepted unit standards, part and whole qualifications, SAQA level descriptions and NQF level ratings.
- Moderation and quality assurance of the assessment must be undertaken.

- The system, process, competency requirements and assessment of RPL must be simple and easily understood.
- The system must comply with the requirements in the latest edition of the following policies
  - SAQA National Policy and the QCTO RPL-001/14 Policy for the Implementation of RPL
  - CHE policies on RPL
  - CBE Framework on RPL
  - NQF RPL co-ordinating Policy

4. POLICY STATEMENT

The implementation of RPL in general seeks to facilitate access to and mobility and progression within education, training and experience in arriving at a defined competency level in the workplace. It is, however, restricted by the different teaching and learning methodologies among technology and engineering science programmes.

4.1 Specified Categories

The Specified Category Alternate route allows experience of a defined standard and duration to be accepted in lieu of academic qualifications. The criterion-based method of meeting education requirements by evaluation and assessment is defined in **E-17-PRO-SC**.

4.2 Professional Engineering Technicians and Technologists

The educational base qualifications for the registration of Professional Technicians and Technologists is assessed not only through the benchmark qualifications presently provided through the suite of NATED 151 qualifications and the new HEQSF suite of educational programmes, but also through an engineering base qualification starting at least at NQF level 4. This is combined with Initial Professional Development (IPD) courses and a time period of working in engineering and responsible engineering at the designated NQF level and the International Engineering Alliance (IEA) Level Descriptors of Well Defined Activities and Broadly defined activities referred to in the Registration Document **R-02-STA-PE/PT/PCE/PN**.

4.3 Professional Certificated Engineers

The educational base qualifications for appointment as a Certificated Engineer, are a recognised engineering qualification, which requires varying periods of in-service training and experience.

Registration as a Professional Certificated Engineer in terms of document **R-02-STA-PE/PT/PCE/PN** requires the applicant to possess relevant skill, knowledge and experience to carry out broadly defined work. Registration in addition requires the applicant to hold a responsible appointment in terms of one of the Acts.

4.4 Professional Engineers

The educational base qualification for registration as a Professional Engineer is the South African Accredited engineering degree in compliance with **E-02-PE** or **E-22-PE**, or a suite of qualifications as indicated in ECSA educational policy **E-17-PRO**.

Registration as a Professional Engineer is dependent on the applicant meeting the requirements stipulated in Document **R-02-STA-PE/PT/PCE/PN** at the IEA level descriptors of Complex Activities.

5. APPLICABLE LEGISLATIVE FRAMEWORK

Section 19(2)(b)(iii) and (4) of the Engineering Professions Act, 46 of 2000 compels ECSA to consider the submission of evidence of prior learning in engineering in its registration process taking into account "previous learning and experience of an applicant, how so ever obtained, against the learning outcomes required for a specified qualification and the acceptance for the purpose of qualification of that which meets those requirements".

This policy must be read in conjunction with:

- The Council for the Built Environment (CBE) Act, 43 of 2000 and with ECSA's individual policies being aligned to the CBE framework
- The South African Qualifications Authority (SAQA), National Policy for the Implementation of the Recognition of Prior Learning (RPL) 2013, that served as a guide for ECSA in the development of its own RPL implementation policies inclusive of ECSA's professional requirements.
- The Council on Higher Education (CHE) policies on the Recognition of Prior Learning, Credit Accumulation and Transfer, and Assessment in higher education (August 2016).
- National Qualifications Framework Act, 67 of 2008; Recognition of Prior Learning (RPL) Coordination Policy (February 2016).
- SAQA's Policy and Criteria for Recognising a Professional Body and Registering a Professional Designation for the Purposes of the NQF Act, 67 of 2008 (as amended, March 2018)

- QCTO Policy for the implementation of Recognition of Prior Learning (RPL)

6. NATIONAL AND INTERNATIONAL COMPLIANCE

ECSA is recognised internationally under the auspices of the IEA via the following:

6.1 Educational Accords:

- Washington Accord (WA)
- Sydney Accord (SA)
- Dublin Accord (DA).

6.2. Competency Agreements:

- International Professional Engineers Agreement (IPEA)
- International Engineering Technologist Agreement (IETA)
- Agreement for International Engineering Technicians (AIET).

ECSA is not a member of the Asia Pacific Economic Cooperation (APEC) Engineer Agreement (one of the 4 competency agreements) due to South Africa's geographical position.

7. POLICY PROVISIONS

The principles embedded in this policy on assessment for RPL are as follows**:**

- The assessment must be credible, using various methods and instruments.
- The cost of RPL must be transparent and cost effective.
- Evidence must be appropriate.
- Assessment must be planned and designed on the basis of understanding the requirements of previously accepted unit standards, part and whole qualifications, SAQA level descriptions and credit ratings.
- Moderation and quality assurance of the assessment must be undertaken.
- The system, process, competency requirements and assessment of RPL must be simple and easily understood.
- The system must comply with the RPL model as described in section 7.1 below.

7.1 ECSA RPL Model

The ECSA model on RPL is embedded in the following ECSA approved policy documents.

- Criteria and Processes for Recognition of Educational Qualifications for Professional Categories – **E-17-PRO**

- Criteria and Processes for Recognition of Educational Qualifications for Specified Categories – **E-17-PRO-SC**
- Assessment of Educational Achievement in Professional Categories – **E-18-PRO**
- Policy on Registration of persons in Professional Categories – **R-01-POL-PC**
- Policy on Registration of persons in a Specified Category – **R-01-POL-SC**
- Competency Standard for Registration as a Professional Engineer – **R-02-STA-PE/PN/PT/PCE**
- Competency Standard for the Registration in a Specified Category – **R-02-STA-SC**.

Each policy irrespective of whether it is referenced to professional categories or specified categories defines four methods of meeting the educational requirements for registration either as a Candidate, or registration as a Professional or Specified Category Practitioner. This is detailed in document **E-17-PRO**.

ECSA also emphasises the accumulation of a combination of qualifications and Initial Professional Development (IPD) credits, at the appropriate NQF level coupled with work place experience in recognising a qualification as substantially equivalent to meet the minimum educational requirements to register as an Engineering Practitioner or Candidate Engineering Practitioner.

- Credits are awarded for knowledge and skills and not for experience alone.
- Detailed requirements for the various methods of satisfying the educational requirements for registration are set out in the documents tabled in 7.1 of this document.

BOARD NOTICE 20 OF 2021

ENSURING THE
EXPERTISE TO GROW
SOUTH AFRICA

Overarching Code of Practice for the Performance of Engineering Work

ENGINEERING COUNCIL OF SOUTH AFRICA
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ECSA

TABLE OF CONTENTS

ENGINEERING COUNCIL OF SOUTH AFRICA

Overarching Code of Practice for the Performance of Engineering Work

Engineering Profession Act, 2000

(Act 46 of 2000)

In terms of Section 27 of the Engineering Profession Act, 46 of 2000, the Engineering Council of South Africa makes known the Overarching Code of Practice for the Performance of Engineering Work in the Schedule.

SCHEDULE

DEFINITIONS

Act means the Engineering Profession Act, 46 of 2000 "as revised".

Appointment means a formal appointment of a practitioner by an employer or client to undertake and/or oversee and approve engineering work.

CBE means the Council for the Built Environment established by Section 2 of the Council for the Built Environment Act, 43 of 2000.

Code of Conduct means the Code of Conduct for Registered Persons: Engineering Profession Act, 46 of 2000, Board Notice 41 of 2017 – Government Gazette 142 No. 40691.

Competency means a combination of knowledge, training, experience and applicable qualifications that enables an individual to perform a task or an activity successfully.

Competent Person means a person who has the required knowledge, training, experience and, where applicable, qualifications, specific to the work or task being performed; provided that where appropriate qualifications and training are registered in terms of the provisions of the National Qualification Framework Act, 67 of 2008, those qualifications and that training are regarded as the required qualifications

Council means the Engineering Council of South Africa established by Section 2 of the Act.

Discipline means the disciplines of engineering as recognised by the Engineering Council of South Africa.

ECSA means the Engineering Council of South Africa established by Section 2 of the Act.

Engineering Work means the process of applying engineering and scientific principles, concepts, contextual and engineering knowledge to the research, planning, design, implementation, maintenance and management of work in the natural and built environments. It includes advisory services, assessment of engineering designs and determination of the risks posed by the design on workers, the public, and environment.

Information means engineering documents and data produced or relied on in the performance of engineering work that form a material part of the project records, among others design calculations, drawings, contract agreements, minutes of meetings and reports, whether in electronic format or otherwise.

Practice means any engineering professional service, advisory service or creative work requiring engineering education, training and experience and the application of special knowledge of the mathematical, physical and engineering sciences, or creative work such as consultation, research, investigation, evaluation, planning, surveying, risk assessment and design, in connection with any public or private utility, structure, building, machine, equipment, process, work or project.

Practitioner (or engineering practitioner) means a person who performs engineering work or provides advisory services relating to engineering work. It includes both registered persons and unregistered persons.

Profession means Engineering Profession.

Professional Registration Category means a professional registration category as specified under Section 18(1) (a)–(c) of the Act, including Professional Engineer, Professional Engineering Technologist, Professional Certificated Engineer, Professional Engineering Technician, Candidate and Specified Category Practitioner.

Registered Person means a person registered under a category referred to in Section 18 of the Act.

Unregistered Person means any person undertaking engineering work who is not registered in terms of the Act. This does not include persons registered by other statutory bodies and are part of teams undertaking engineering work.

Works (or engineering works) means a process, structure, component, machine or similar that is carried out, constructed, erected, demolished, manufactured or maintained within the natural or built environment, typically in conformance with an engineering design.

1. INTRODUCTION

In terms of Section 27(1) of the Act, the Council must draw up a Code of Conduct for Registered Persons and may draw up a Code of Practice in consultation with the Council for the Built Environment, Voluntary Associations and registered persons. The Council is also responsible for administering the Code of Conduct and the Code of Practice and ensuring that these codes are available to all members of the public at all reasonable times. This Code of Practice for the Performance of Engineering Work was developed in consultation with the relevant stakeholders as required by the Engineering Profession Act, 46 of 2000.

This Code of Practice applies to all engineering disciplines and is referred to as an "overarching" Code of Practice. Respective disciplines and sub-disciplines may develop their own codes of practice to complement this code. This Code of Practice should be read in conjunction with the Code of Conduct for Registered Persons and is not intended to duplicate the requirements thereof.

2. POLICY STATEMENT

This code is a statement of good practice for the performance of engineering work by Registered or Unregistered Persons. It is applicable to the entire engineering profession. Section 27(3) of the Act requires Registered Persons to adhere to the requirements of this code.

3. PURPOSE

The purpose of this Code of Practice is to ensure that any person undertaking engineering work meets the prescribed requirements when practising and executing engineering work within the jurisdiction of the Act. The Code also sets appropriate levels of competence, regulating the execution of engineering work and specifying technical standards and best practices. Among others, the Code of Practice ensures that:

(a) Practitioners apply their specialised knowledge within their competence and skill in accordance with all relevant legislation;

(b) All Engineering Work is performed by a competent person and uniform competency and conduct standards apply to all practitioners;

(c) Engineering Work is performed in accordance with generally accepted norms and standards of the engineering profession;

(d) Practitioners apply innovation in a responsible and appropriate manner within their category and discipline of competence;

(e) Registered Persons apply their specialised knowledge and skill within their respective disciplines and categories of registration to ensure that engineering practice is appropriate, applicable, acceptable, affordable and sustainable; and

(f) Registered Persons encourage innovation, promote social upliftment where possible in all aspects of engineering works and set examples within the engineering profession.

4. APPLICABLE LEGISLATIVE FRAMEWORK

This Code of Practice should be read in conjunction with the Engineering Profession Act 46 of 2000, and the Code of Conduct for Registered Persons, Gazette no. 40691, dated 17 March 2017 as Board Notice 41 of 2017.

5. ETHICAL VALUES

Registered Persons must comply with Code of Conduct for Registered Persons.

6. ENGINEERING WORK

6.1 Nature of engineering work

(a) The performance of Engineering Work requires solving engineering problems and engaging in engineering activities.

(b) The broader context of Engineering Work encompasses a number of engineering disciplines and sub-disciplines, each dealing with a specific body of knowledge.

(c) Depending on the level of complexity, Engineering Work is carried out by practitioners possessing different levels of competence as typified by the various categories of registration given in Section 18(1) of the Act.

(d) Due to a common grounding in the mathematical and physical sciences, there are areas of overlap among the various disciplines of engineering as well as overlaps with other professions within the built environment. These overlaps generally occur at a basic level and divergence increases with the degree of specialisation.

6.2 Range of engineering problems and engineering activities

For the purposes of this code:

- Engineering problems are classified as complex, broadly defined, well-defined and specifically defined problems. The basis of the classification of engineering problems is given in the **R-02-PE/PT/PCE/PN/SC** documents available on the ECSA website.
- Engineering activities are classified as complex, broadly defined, well-defined and specifically defined activities. The basis of the classification of engineering activities is given in the **R-02-PE/PT/PCE/PN/SC** documents available on the ECSA website.

6.3 Engineering disciplines

The Council recognises the following engineering disciplines:

- aeronautical
- agricultural
- chemical
- civil
- computer
- electrical
- industrial
- mechanical
- mechatronics
- metallurgical
- mining

- specified categories.

Many of the engineering disciplines have sub-disciplines.
A Practitioner's engineering discipline is determined by tertiary education qualification and the discipline under which the Practitioner is registered by the Council.

6.4 Categories of registration

Engineering professionals' category of registration is determined by the category under which they are registered by the Council in terms of Section 18(1) of the Act.

The categories of registration include:

- Professional Engineer (PrEng) registered in terms of Section 18(1)(a)(i) of the Act
- Professional Engineering Technologist (PrTechEng) registered in terms of Section 18(1)(a)(ii) of the Act
- Professional Certificated Engineer (PrCertEng) registered in terms of Section 18(1)(a)(iii) of the Act
- Professional Engineering Technician (PrTechniEng) registered in terms of Section 18(1)(a)(iv) of the Act
- Specified Category Practitioner registered in terms of Section 18(1)(c) of the Act
- Candidate registered in terms of Section 18(1)(b) of the Act.

7. COMPETENCY REQUIREMENTS

7.1 General requirements

(a) All Engineering Work must be carried out by a competent engineering practitioner who is qualified by virtue of knowledge, training, experience and applicable qualifications to perform such work.

(b) All Practitioners must confine their performance of Engineering Work to the disciplines in which they are competent and / or registered by the Council, subject to the provisions of (a) above.

(c) All Practitioners must undertake continuing professional development (CPD) or independent learning activities sufficient to maintain and extend their competence in line with current good practice in the industry.

(d) Practitioners' competence and the nature of the work they are competent to perform should be assessed in terms of the criteria applicable to Registered Persons.

7.2 Requirements for Registered Persons

(a) Registered Persons must comply with the provisions of the Act.

(b) Registered Persons must demonstrate competence in accordance with the latest revision of the applicable ECSA Competency Standards. The applicable competency standards are:

- Competency Standard for Registration in Professional Categories as **R-02-STA-PE/PT/PCE/PN**.
- Specified Category Practitioner: Competency Standard for Registration in a Specific Category **R-02-SC**.

(c) Registered Persons may not undertake Engineering Work involving engineering problems and/or engineering activities more complex than those applicable to their category of registration as set out in the above referenced competency standards.

(d) Engineering Work performed by a person who is registered in the category of Candidate must be carried out under the supervision and control of a Registered Person in accordance with the provision of clause 8.2.

(e) Registered Persons must comply with the Council's CPD requirements.

7.3 Overlaps

Persons registered in a particular discipline may perform Engineering Work in a different discipline if their knowledge, training, experience and applicable qualifications specifically render them competent to perform such work.

Persons registered as professionals under a Professions' Act other than the Engineering Profession Act may perform Engineering Work if their knowledge, training, experience and applicable qualifications specifically render them competent to perform such work and the work is performed in accordance with the requirements of the Act under which they are registered. The assessment of competency should be in accordance with 7.1(d).

8. PRACTICE REQUIREMENTS

8.1 Adherence to legislation and recognised standards

In executing Engineering Work, Practitioners must comply with all relevant legislation and amendments thereto, among others:

- Engineering Profession Act 46 of 2000
- Occupational Health and Safety Act, 85 of 1993
- National Building Regulations and Building Standards Act, 103 of 1977
- National Environmental Management Act, 107 of 1998
- Employment Equity Act, 55 of 1998.

All Engineering Work must be carried out in accordance with the norms of the profession. Such norms are generally represented by national and international standards, industry standards, codes of practice and best practice guidelines.

Any deviation from recognised standards or work beyond the scope of such standards should be assessed in terms of sound engineering and scientific fundamentals by a Practitioner with the required competence.

8.2 Supervision of Candidates and Unregistered Persons

Engineering work by a Candidate or by an Unregistered Person acting on behalf of a Registered Person must be performed under the direction, control and supervision of a person registered in the appropriate category and discipline who must assume full professional responsibility for such work.

Any decisions or instructions by a Candidate or an Unregistered Person acting on behalf of a Registered Person must be confirmed by a Registered Person in writing.

8.3 Checking of Engineering Work

All designs, drawings, reports and similar documentation must be reviewed by a competent person.

Note: The extent of the review depends on the nature or the work and the size of the organisation. Sole Practitioners should, as a minimum, re-read and self-check all documents, and/or repeat any calculations preferably using different methods or undertake independent third-party review.

8.4 Inspection and monitoring of works

(a) Practitioners responsible for the design of works must carry out the necessary inspection and monitoring during and after the execution of the works to ensure that the design intent has been met, unless this is excluded from the Practitioner's scope or an independent person/ organisation is appointed for this purpose.

(b) No approval or final certificate may be issued if the inspection and monitoring necessary for such approval or certification have not been carried out or the design intent has not been met.

(c) Where such inspection and monitoring are carried out by a person other than the Registered Person issuing the approval or certification, the Registered Person must satisfy him- or herself of the competence of the other person and the adequacy of the inspection and monitoring, and must assume full responsibility for the correctness of the approval or certification.

(d) A Registered Person responsible for inspection, certification or approval of works must take reasonable steps to ascertain the programme of works and when such inspections are required.

(e) Where a Registered Person responsible for certification or approval of works is unable to fulfil the above requirements, he or she must immediately inform the owner/client and, where appropriate, the relevant authority.

8.5 Records

All information produced during the performance of Engineering Work must be safely and securely stored for future reference for a minimum period of 10 years from the date of completion of the work, as specified in the Code of Conduct.

Where this information is stored in electronic format, reasonable steps must be taken to protect the data against unauthorised access, loss or deletion.

8.6 Signing of documents

(a) The Practitioner's and reviewer's signatures must be affixed to all design calculations, drawings, reports, instructions, certificates and similar documents together with the names of the signatories and dates of signature. Authenticated or certified electronic signatures may be used.

(b) Documents compiled by a Candidate must be signed both by the Candidate and by the Registered Person under whose supervision and control the document was compiled.

(c) Practitioners may not:

- sign blank or incomplete documents
- sign documents on behalf of another Practitioner without written consent of that Practitioner; or
- permit the use of their signature by others without written consent.

(d) On becoming aware of a document signed on their behalf without their consent, Practitioners must take all reasonable steps to withdraw the document. Failure to do so will be taken as consent by the Practitioner to the use of their signature.

(e) Practitioners must take full responsibility for the content of any documents signed on their behalf with their consent.

8.7 Quality and risk management

Practitioners must implement quality and risk management systems covering all aspects of their work, appropriate to the nature of the work and the size of the organisation.

Quality and risk management systems must be reviewed on a regular basis. Compliance with the system should be audited at least annually.

Organisations undertaking Engineering Work should consider external certification, such as ISO 9001 and ISO 14001.

9. GOOD PRACTICE GUIDELINES-INFORMATIVE

9.1 Appointments and contract agreements

(a) Tenders or proposals for the performance of Engineering Work should be in writing clearly stating the scope of the work, deliverables, assumptions, exclusions, limitations, client-supply items, programme, basis of pricing and terms of contract. Where possible, standard forms of contract should be used.

(b) All appointments should be in writing and should incorporate the information stipulated in 9.1(a), either expressly or by reference.

(c) Variations to agreements should be recorded in writing and signed by all parties to the agreement.

9.2 Intellectual property rights and confidentiality

The ownership of intellectual property rights should be agreed between the parties. In the absence of such an agreement, the ownership of intellectual property remains with the party who created or supplied the intellectual property.

Practitioners must respect intellectual property rights and adhere to the terms of any confidentiality agreements between parties.

9.3 Professional activities and responsibilities

Practitioners at all levels are encouraged to register with the Council and to engage in the activities of learned societies and Voluntary Associations.

Mentoring of young Practitioners should be a priority in any engineering organisation. Exchange programmes between employers can be considered where the necessary range of experience is not available in-house.

Leading Practitioners are encouraged to contribute actively to the advancement of the profession through professional organisations, standards authorities, Voluntary Associations, research institutions and learned societies. Interaction between Practitioners and institutions of higher education should also be encouraged.

10. INTERPRETATION AND COMPLIANCE

10.1 Interpretation

(a) In this code, reference to the singular includes the plural and reference to one gender includes the other.

(b) Any terms or words not defined have their normal meanings.

(c) All Sections of this Code of Practice are normative unless marked “informative”.

10.2 Compliance

In terms of Section 27(3) of the Act, all Registered Persons must comply with this Code of Practice.

This code serves as a statement of good practice within the industry and is intended to establish the norms of the profession with regard to the competence and conduct of all Practitioners, whether registered or not.

11. ADMINISTRATION

11.1 General

This Code of Practice is subject to revision by the Council from time-to-time, in consultation with the Council for the Built Environment, Voluntary Associations and Registered Persons.

The Council is responsible for administering this Code of Practice and must ensure that the latest version of the code is posted on the Council's web site.

12. REFERENCES

Council for the Built Environment (2014). Draft notice in terms of the Council for the Built Environment Act, 43 of 2000 identifying the scope of work for the Engineering Council of South Africa. Draft 19, 6 March 2014. http://bit.ly/ECSA_IDoEW, accessed 10 January 2020.

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BOARD NOTICE 21 OF 2021

BOARD NOTICE

IDENTIFICATION OF ENGINEERING WORK REGULATIONS

ENGINEERING COUNCIL OF SOUTH AFRICA
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ECSA

TABLE OF CONTENTS

ENGINEERING COUNCIL OF SOUTH AFRICA

NOTICE IN TERMS OF THE ENGINEERING PROFESSION ACT, 2000 (ACT NO. 46 OF 2000)

The Council for the Built Environment has under section 20(2) of the Council for the Built Environment Act , 2000 , (Act No. 43 of 2000), read with regulation 2 of the Identification of Work Regulations, 2013, and in accordance with the Council for the Built Environment Policy with Regard to the Identification of Work for the Built Environment Professions determined by the Council for the Built Environment under section 20(1)(a) of the Council for the Built Environment Act, 2000, identified the scope of work for the Engineering Council of South Africa set out in the Schedule.

SCHEDULE

DEFINITIONS

1. In this notice, unless the context otherwise indicates, every word takes the meaning as defined in the Engineering Profession Act and the Built Environment Act, 2000, and

"**categories of registration**" means the categories in which a person is registered in terms of section 18(1(a) of the Engineering Profession Act;

"**construction works**" means the provision of a combination of goods and services arranged for the development, extension, installation, repair, maintenance, renewal, removal, renovation, alteration, dismantling or demolition of a fixed asset including buildings;

"**construction works project**" means a project of which the scope comprises construction works:

"**core service**" means a service referred to in item 4;

"discipline" means the demarcation of the specific body of knowledge within a profession which is applied in a specific context;

"ECSA" means the Engineering Council of South Africa established under section 2 of the Engineering Profession Act;

"**engineering discipline**" means the body of knowledge which is applied in one of the following contexts-

(a) aeronautical;
(b) agricultural;
(c) chemical;
(d) civil;
(e) electrical or electronic;
(f) industrial;
(g) mechanical;
(h) metallurgical; or mining;

"engineering infrastructure" means infrastructure comprising engineering works including transport, water, energy, communications and waste management infrastructure;

"Engineering Profession Act" means the Engineering Profession Act, 2000 (Act No. 46 of 2000) and any regulations issued in terms thereof;

"engineering project" means a project of which the scope comprises engineering work including engineering infrastructure;

"engineering work" means the process of applying engineering and scientific principles, concepts, contextual and engineering knowledge to the research, planning, design, implementation and management of work in both the natural and built environments;

"principal consultant" means the person or entity appointed by the client to manage and administer the services of all other consultants;

"principal agent" means the person or entity appointed by the client and who has full authority and obligation to act in terms of the construction contract;

"profession" means any of the professions regulated by the professions' Acts ,

"professional certificated engineer" means a person registered in that category in terms of section 18(1)(a)(iii) of the Engineering Profession Act;

"professional engineer" means a person registered in that category in terms of section 18(1)(a)(i) of the Engineering Profession Act;

"professional engineering technician" means a person registered in that category in terms of section 18(1)(a)(iv) of the Engineering Profession Act;

"professional engineering technologist" means a person registered in that category in terms of section 18(1)(a)(ii) of the Engineering Profession Act;

"service" means a core service or a specialised service;

"specialised service" means a service which falls outside the standard competencies of a registered person who is a professional and which requires an additional qualification, experience, skill and/or registration with any other applicable council for the professions; and

"specified category practitioner" means a person registered in terms of section 18(1)(c) of the Engineering Profession Act as a registered lift inspector, registered lifting machinery inspector, medical equipment maintainer, fire protection systems inspector or any other category specified by ECSA.

IDENTIFIED ENGINEERING WORK

2. (1) For the purposes of this Notice, identified engineering work is work that-

(a) entails the engineering activities performed by a person registered in one of the categories of registration to differentiate the one category of registration from another;

(b) requires for its performance the core competencies within the competency areas that a registered person must possess to perform engineering work in the appropriate category of registration;

(c) includes the core services performed by a registered person in any of the categories of registration in a particular engineering discipline;

(d) includes the practise areas of a particular engineering discipline within which a registered person performs engineering work; and

(e) involves performing core services in any of the practise areas of an engineering discipline in accordance with the scope of services, if applicable.

(2) The elements of identified engineering work contemplated in sub-item (1) are referred to in-

(a) item 3 which contains the criteria for category differentiation that is used to determine the engineering activities performed by a person registered in one of the categories of registration;

(b) item 4 which contains the core competencies required for each competency area;

(c) items 6 to 15 which contain the core services and practice areas for each of the engineering disciplines; and

(d) item 16 which contain the scope of services for specific engineering work.

CATEGORY DIFFERENTIATION AND ENGINEERING ACTIVITIES

3. (1) The criteria for category differentiation is based on a distinction between -

a) a complex, broadly-defined, well-defined and specifically-defined engineering problem; and

b) a complex, broadly-defined, well-defined and specifically-defined engineering activity.

(2) A complex engineering problem is a problem that-

a) requires in-depth fundamental and specialised engineering knowledge and at least one of the following attributes:

(i) Is ill-posed, under- or over specified and requires identification and refinement;

(ii) is high-level and includes component parts or sub-problems;

(iii) is unfamiliar or involves infrequently encountered issues; and

b) possesses, in addition to he attributes referred to in paragraph (a), at least one of the following attributes:

(i) The solution is not obvious and requires originality or analysis based on fundamentals;

(ii) is outside the scope of standards and codes;

(iii) requires information from a variety of sources that is complex, abstract or incomplete;

(iv) involves wide-ranging or conflicting issues of a technical or engineering nature and involves wide-ranging interested or affected parties with wide-ranging or conflicting opinions; and

c) possesses, in addition to the attributes referred to in paragraphs (a) and (b), at least one of the following attributes:

(i) The problem requires judgement in decision making in uncertain contexts;

(ii) has significant consequences in a range of contexts.

(3) A broadly-defined engineering problem is a problem that-

(a) requires coherent and detailed engineering knowledge underpinning the applicable technology area and at least one of the following attributes;

(i) Is ill-posed, under- or over specified, requiring identification and interpretation into the technology area;

(ii) encompass systems within broadly-defined engineering systems;

(iii) belong to families of problems which are solved in well-accepted but innovative ways;

(b) possesses, in addition to the attributes referred to in paragraph (a), at least one of the following attributes:

(i) Can be solved by structured analysis techniques;

(ii) may be partially outside standards and codes but must provide justification to operate outside;

(iii) requires information from a practice area and sources interfacing with a practice area that is broadly-defined or incomplete;

(iv) involves a variety of issues which may impose conflicting constraints: technical , engineering and interested or affected parties;

(c) possesses, in addition to the attributes referred to in paragraphs (a) and (b), at least one of the following attributes:

(i) requires judgement in decision making in a practice area, considering interfaces to other areas

(ii) has significant consequences which are important in a practice area, but may extend more widely.

(4) A well-defined engineering problem is a problem that-

(a) can be solved mainly by practical engineering knowledge, underpinned by related theory;

(b) possesses, in addition to the attributes referred to in paragraph (a), at least one of the following attributes:

(i) Is largely defined but may require clarification;

(ii) requires discrete, focused tasks within engineering systems;

(iii) is routine, frequently encountered and may be unfamiliar but in familiar context;

(c) possesses, in addition to the attributes referred to in paragraphs (a) and (b), at least one of the following attributes:

(i) Can be solved in standardised or prescribed ways;

(ii) is encompassed by standards, codes and documented procedures and requires authorisation to work outside limits;

(iii) the information is concrete and largely complete, but requires checking and possible supplementation;

(iv) involves several issues but with few of these imposing conflicting constraints and a limited range of interested and affected parties;

(d) possesses, in addition to the attributes referred to in paragraphs (a), (b) and (c), at least one of the following attributes:

(i) requires practical judgement in a practice area in evaluating solutions, considering interfaces to other role-players;

(ii) has consequences which are locally important but not far reaching.

(5) A specifically-defined engineering problem is a problem that-

(a) can be solved primarily by specific practical engineering knowledge, underpinned by related theory and at least one of the following attributes:

(i) Is fully defined but require feedback;

(ii) is discrete, specifically focused tasks within engineering systems;

(iii) is routine, frequently encountered, may be unfamiliar but in a familiar specified context;

(b) possesses, in addition to the attributes referred to in paragraph (a), at least one of the following attributes:

(i) Can be solved by standardised or prescribed ways;

(ii) is encompassed by specific standards, codes and documented procedures and requires authorisation to work outside limits;

(iii) the information is concrete, specific and largely complete, but requires checking and possible supplementation;

(iv) involves specific issues but few of these imposing conflicting constraints and a specific range of interested and affected parties;

(c) possesses, in addition to the characteristics referred to in paragraphs (a) and (b), at least one of the following attributes:

(i) Requires practical judgement in a specific practice area in evaluating solutions, considering interfaces to other role players;

(ii) has consequences which are locally important but within a specified category and its wider impact are dealt with by others.

(6) For the purpose of this item, a complex engineering activity means an activity that has two or more of the following characteristics:

(a) The scope of activities may encompass entire complex engineering systems or complex subsystems;

(b) it has a context that is complex and varying, is multidisciplinary, requires teamwork, unpredictable, may need to be identified;

(c) it requires diverse and significant resources: including people, money, equipment, materials and technologies;

(d) significant interactions exist between wide- ranging or conflicting technical, engineering or other issues;

(e) it is constrained by time, finance, infrastructure, resources, facilities, standards and codes and applicable laws;

(f) it has significant risks and consequences in a range of contexts;

(g) it includes but is not limited to design; planning; investigation and problem resolution; improvement of materials, components, systems or processes; implementation, manufacture or construction; engineering operations; maintenance; closure or disposal; project management; research, development and commercialisation.

(7) For the purpose of this item, a broadly-defined engineering activity means an activity that has two or more of the following characteristics:

(a) The scope of the practice area i linked to technologies used and changes by adoption of new technology into current practice;

(b) the practice area is located within a wider, complex context, requires teamwork, has interfaces to other parties and disciplines;

(c) it involves the use of a variety resources, including people, money, equipment, materials, technologies;

(d) it requires resolution of occasional problems arising from interactions between wide-ranging or conflicting technical, engineering and other issues;

(e) it is constrained by available technology, time, finance, infrastructure, resources, facilities, standards and codes and applicable laws;

(f) it has significant risks and consequences in a practice area and related areas.

(g) it includes but is not limited to design; planning; investigation and problem resolution; improvement of materials, components, systems or processes; implementation, manufacture or construction; engineering operations; maintenance; closure or disposal; project management; research, development and commercialisation.

(8) For the purpose of this item, a well-defined engineering activity means an activity that has two or more of the following characteristics:

(a) The scope of the practice area is defined by techniques applied; change by adopting new techniques into current practice;

(b) the practice area is located within a wider, complex or broadly-defined context, with well-defined working relationships with other parties and disciplines;

(c) the work involves familiar, defined range of resources (including people, money, equipment, materials and technologies);

(d) it requires resolution of interactions manifested between specific technical factors with limited impact on wider issues;

(e) it is constrained by operational context, defined work package, time, finance, infrastructure, resources, facilities, standards and codes and applicable laws;

(f) it has risks and consequences that are locally important but generally not far reaching;

(g) it includes but is not limited to design; planning; investigation and problem resolution; improvement of materials, components, systems or processes; implementation, manufacture or construction; engineering operations; maintenance; closure or disposal; project management; research, development and commercialisation.

(9) For the purpose of this item, a specifically-defined engineering activity means an activity or task that has two or more of the following characteristics:

(a) The scope of the specific practice area is defined by specific techniques applied, change by adopting new specific techniques into current narrow practice;

(b) the practice area is located within a wider, complex context, with specifically-defined working relationships with other parties and disciplines;

(c) the work involves specific familiar resources, including people, money, equipment, materials and technologies;

(d) it requires resolution of interactions manifested between specific technical factors with limited impact on wider issues;

(e) it is constrained by operational context, defined work package, time, finance, infrastructure, resources, facilities, standards and codes and applicable laws;

(f) it has risks and consequences that are locally important but are specifically-defined;

(g) it includes but is not limited to: planning; investigation and problem resolution; improvement of materials, components, systems or processes, engineering operations, maintenance, project management, development and commercialisation.

(10) For the purpose of this Notice, a professional engineer is expected to demonstrate and apply the core competencies referred to in Table 1 of item 4 at the complex level described in sub-items (2) and (5).

(11) For the purpose of this Notice, a professional engineering technologist and a professional certificated engineer is expected to demonstrate and apply the core competencies referred to in Table 1 of item 4 at the broadly-defined level described in sub-items (3) and (6).

(12) For the purpose of this Notice, a professional engineering technician is expected to demonstrate and apply the core competencies referred to in Table 1 of item 4 at the well-defined level described in sub- items (4) and (7).

(13) For the purpose of this Notice, a specified category practitioner is expected to demonstrate and apply the core competencies referred to in Table 1 of item 4 at the specifically-defined level described in sub-items
(5) and (9).

(14) ECSA must develop guidelines using the complex, broadly-defined, well-defined and specifically-defined criteria contemplated in this item, to enable a client or employer to establish which category of registered person is required to perform the work of a specific nature.

CORE COMPETENCIES REQUIRED TO PERFORM IDENTIFIED ENGINEERING WORK

4 (1) A person who performs any identified engineering work in a particular engineering discipline must, in addition to any other requirement contemplated in the Engineering Profession Act-

(a) be suitably qualified;

(b) be registered by ECSA in the appropriate category applicable to the level of service performed; and

(c) possess the necessary core competency in the competency areas referred to in this item to perform such core service as a professional engineer, professional engineering technologist, professional certificated engineer, professional engineering technician or a specified category practitioner.

(2) For the purpose of sub-item (1) "suitably qualified" means being in possession of a qualification that is recognised or accredited by ECSA for purposes of registering a person in any of the categories referred to in section 18(1)(a), (b) and (c) of the Engineering Profession Act.

(3) The competency areas referred to in sub-item (1)(c) for a professional engineer, professional engineering technologist, professional certificated engineer, professional engineering technician and a specified category practitioner are:

(a) Define, investigate and analyse engineering problems;

(b) design or develop solutions to engineering problems;

(c) comprehend and apply engineering, technological, technical and specific knowledge in the practice area;

(d) manage part or all of one or more engineering activities;

(e) communicate clearly with others in the course of the engineering activity;

(f) recognise and address, if applicable, the foreseeable social, cultural and environmental impact of engineering activities generally;

(g) meet all legal and regulatory requirements and protect the health and safety of persons in the course of his or her engineering activity;

(h) conduct engineering activities ethically;

(i) exercise sound judgement in the course of engineering activities;

(j) be responsible for making decisions on part or all of one or more engineering activities; and

(k) undertake professional development or independent learning activities sufficient to maintain and extend his or her competence.

(4) The core competencies referred to in sub-item (1)(c) that a person registered as a professional engineer, professional engineering technologist, certificated engineer and professional engineering technician or specified category practitioner must possess when he or she performs any core service in a particular engineering discipline referred to in item 5 are as indicated by the competency area in Table 1 below.

(5) The purpose of a competency area is to limit the applicable knowledge required for each category of registration.

(6) The core competencies must be assessed by utilising the competency indicators for each competency area referred to in Table 2 below.

(7) The competency indicators in Table 2 below are only typifying and other competency indicators may be used provided such other competency indicators are clear indicators of competence

Table 1: Competency areas required of a person registered as a professional engineer, professional engineering technologist, certificated engineer, professional engineering technician and a specified category practitioner to perform the core services

Professional Engineer	Professional Engineering Technologist and Professional Certificated Engineer	Professional Engineering Technician	Specified Category Practitioner Note: The tenn *specifically-defined engineering* below may be interchanged with the specific category designation, i.e. Lift Inspector, Lifting Machinery Inspector, Medical Equipment Maintainer, Fire Protection Systems Inspector, or any future specified category prescribed by the Council.
2. Demonstration of Competence Competence must be demonstrated within *complex engineering activities,* defined below, by integrated perfonnance of the Competency areas defined in item 3(6) above at the level defined for each Competency area. Required contexts and functions may be specified in the applicable Discipline Specific Training Guidelines. Characteristics of *Complex engineering problems* are indicated in item 3(2) above.	2. Demonstration of Competence Competence must be demonstrated within *broadly-defined engineering activities,* defined below, by integrated perfonnance of the Competency areas defined in item 3(7) above at the level defined for each Competency area. Required contexts and functions may be specified in the applicable Discipline Specific Training Guidelines. Characteristics of *Broadly-defined engineering problems* are indicated in item 3(3) above.	2. Demonstration of Competence Competence must be demonstrated within we*l/- defined engineering activities,* defined below, by integrated perfonnance of the Competency areas defined in item 3(8) above at the level defined for each Competency area. Required contexts and functions may be specified in the applicable Discipline Specific Training Guidelines. Characteristics of *Well-defined engineering problems* are indicated in item 3(4) above.	2. Demonstration of Competence Competence must be demonstrated within *specifically-defined engineering* activities, defined below, by integrated perfonnance of the Competency areas defined in item 3(9) above at the level defined for each Competency area. Required contexts and functions may be specified in the applicable Discipline Specific Training Guidelines. Characteristics of *Specifically-defined engineering problems* are indicated in item 3(5) above
Competence Area 1: Define, investigate and analyse complex engineering problems.	**Competence Area 1:** Define, investigate and analyse broadly-defined engineering problems.	**Competence Area 1:** Define, investigate and analyse well-defined engineering problems	**Competence Area 1:** Define, investigate and analyse specifically-defined engineering problems (tasks)
Level Descriptor: *Complex engineering problems have the characteristics indicated in item 3(2) above.*	Level Descriptor: *Broadly-defined engineering problems have the characteristics indicated in item 3(3) above.*	Level Descriptor: *Well-defined engineering problems have the characteristics indicated in item 3(4) above.*	Level Descriptor: *Specifically-defined engineering problems have the characteristics indicated in item 3(5) above.*

Range Statement: The problem may be the design of a component, system or process or a recommendation of the remedy to a problematic situation.	Range Statement: The problem may be a design requirement, an applied R&D requirement or a problematic situation in an existing component, system or process. The problem is one amenable to solution by technologies known. This competency area is concerned with the understanding of a problem: competency area 2 is concerned with the solution.	Range Statement: The problem may be part of a larger engineering activity or may stand alone. The design problem is amenable to solution by established techniques practiced regularly. This competency area is concerned with the understanding of a problem: competency area 2 is concerned with the solution .	Range Statement: The problem (task) may be part of a larger engineering activity or may be stand alone. The design (planning) problem is amenable to solution I by established specific techniques practiced regularly. This competency area is concerned with theI understanding of a problem: competency area 2 is concerned with the solution.
Professional Engineer	**Professional Engineering Technologist and Professional Certificated Engineer**	**Professional Engineering Technician**	**Specified Category Practitioner**
Competency Area 2: Design or develop solutions to complex engineering problems	**Competency Area 2:** Design or develop solutions to broadly-defined engineering problems	**Competency Area 2:** Design or develop solutions to well-defined engineering problems .	**Competency Area 2:** Design or develop (plan) solutions to specifically- defined engineering problems (tasks).
Range Statement: The solutions may be the design of a component, system or process or a recommendation of the remedy to a problematic situation.	**Range Statement:** Solutions are those enabled by the technologies in the broadly-defined practice area.	**Range Statement:** The solution is amenable to established methods, techniques or procedures within the well-defined practice area.	**Range Statement:** The solution conforms to specific established methods, techniques or procedures within the specifically-defined practice area.
Competency Area 3: Comprehend and apply advanced knowledge: principles, specialist knowledge, jurisdictional and local knowledge	**Competency Area 3:** Comprehend and apply advanced knowledge embodied in widely accepted and applied engineering procedures processes, systems or methodologies and those specific to the jurisdiction in wich he or she practices	**Competency Area 3:** Comprehend and apply knowledge embodied in established engineering practices and knowledge specific to the jurisdiction in which he or she practices	**Competency Area 3:** Comprehend and apply knowledge embodied in established specific engineering practices and knowledge specific to the field in which he or she practices
Range Statement: Applicable knowledge includes: (a) specialist knowledge has depth in the practice area and is underpinned by the fundamental knowledge of an engineering discipline or cross disciplinary area allowing a fundamentals-based, first principle analytical approach building models as required (b) A working knowledge of interacting disciplines (engineering and other) to underpin teamwork.	**Range Statement:** Applicable knowledge includes: (a) Technological knowledge that is well established and applicable to the practice area irrespective of location, supplemented by locally relevant knowledge, for example, established properties of local materials. Emerging technologies are adopted from form (b) A working knowledge of interacting disciplines (engineering and other) to underpin team work.	**Range Statement:** Applicable knowledge includes: (a) Technical knowledge that is applicable to the practice area irrespective of location, supplemented by locally relevant knowledge, for example established properties of local materials (b) A working knowledge of interacting disciplines. Codified knowledge in related areas: financial, statutory, safety, management	**Range Statement:** Applicable knowledge includes: (a) Technical knowledge that is applicable to the specific practice area irrespective of location, supplemented by locally relevant knowledge, for example established properties of local materials. (b) A working knowledge of interacting disciplines. Codified knowledge in related areas: financial statutory, safety, management.

(c) Jurisdictional knowledge includes legal and regulatory requirements as well as locally relevant codes of practice, as required for practice area : law of contract , contract administration, health and safety environmental, intellectual property, quality management, risk management, maintenance management, regulation, project management or construction management.	(c) Jurisdictional knowledge includes legal and regulatory requirements as well as locally relevant codes of practice, as required for practice area: law of contract, contract administration, health and safety, environmental, intellectual property, quality management, risk management, maintenance management, regulation, project management or construction managemen	(c) Jurisdictional knowledge includes legal and regulatory requirements as well as prescribed codes of practice	(c) Jurisdictional knowledge includes legal and regulatory requirements as well as prescribed codes of practice.
Professional Engineer	**Professional Engineering Technologist** **Professional Certificated Engineer**	**Professional Engineering Technician**	**Specified Category Practitioner**
Competency Area 4: Manage part or all of one or more complex engineering activities.	**Competency Area 4:** Manage part or all of one or more broadly-defined engineering activities.	**Competency Area 4:** Manage part or all of one or more well-defined engineering activities	**Competency Area 4:** Manage part or all of one or more specifically-defined engineering activities
Competency Area 5: Communicate clearly with others in the course of his or her engineering activities	**Competency Area 5:** Communicate clearly with others in the course of his or her broadly-defined engineering activities.	**Competency Area 5:** Communicate clearly with others in the course of his or her well-defined engineering activities	**Competency Area 5:** Communicate clearly with others in the course of his or her ***specifically-defined engineering*** activities
Range Statement: Management and communication in complex engineering involves: • Planning activities; • Organising activities; • Leading activities and • Controlling activities. Communication relates to technical aspects and wider impacts of professional work. Audience includes peers, other disciplines, client and stakeholders audiences. Appropriate modes of communication must be selected.	**Range Statement:** Management and communication in broadly-defined engineering involves: • Planning activities; • Organising activities; • Leading activities and • Controlling activities. Communication relates to technical aspects and wider impacts of professional work. Audience includes peers, other disciplines, client and stake- holders audiences. Appropriate modes of communication must be selected. The engineering technologist is expected to perform the communication functions reliably and repeatedly.	**Range Statement:** Management and communication in well-defined engineering involves: • Planning activities; • Organising activities; • Leading activities and • Controlling activities. Communication relates to technical aspects and wider impacts of professional work. Audience includes peers, other disciplines, client and stakeholders audiences. Appropriate modes of communication must be selected. The Engineering Technician is expected to perform the communication functions reliably and repeatedly	**Range Statement:** Management and communication in specifically-defined engineering involves: • Planning activities • Organising activities • Leading activities • Implementing activities • Controlling activities. Communication relates to technical aspects and wider impacts of work. Audience includes peers, other disciplines, client and stake-holders audiences. Appropriate modes of communication must be selected. The Specified Category practitioner Is expected to perform the communication functions reliably and repeatedly

Competency Area 6: Recognise and address the reasonably foreseeable social, cultural and environmental effects of complex engineering activities.	**Competency Area 6:** Recognise and address the foreseeable social, cultural and environmental effects of broadly- defined engineering activities generally.	**Competency Area 6:** Recognise the foreseeable social, cultural and environmental effects of well-defined engineering activities generally	**Competency Area 6:** Recognise the foreseeable social, cultural and environmental effects of specifically-defined engineering activities generally
Competency Area 7: Meet all legal and regulatory requirements and protect the health and safety of persons in the course of his or her complex engineering activities.	**Competency Area 7:** Meet all legal and regulatory requirements and protect the health and safety of persons in the course of his or her broadly-defined engineering activities.	**Competency Area 7:** Meet all legal and regulatory requirements and protect the health and safety of persons in the course of his or her well-defined engineering activities.	**Competency Area 7:** Meet all legal and regulatory requirements and protect the health and safety of persons in the course of his or her specifically-defined engineering activities.
Professional Engineer	**Professional Engineering Technologist and Professional Certificated Engineer**	**Professional Engineering Technician**	**Specified Category Practitioner**
Range Statement: Impacts and regulatory requirements include: • Direct and indirect, immediate and long- term effects of engineering solutions; • Application of principles of sustainability; • Regulatory requirements that are explicit for the context and are generally applicable; • Persons whose health and safety are to be protected are both inside and outside the workplace.	**Range Statement:** Impacts and regulatory requirements include: • Requirements include both explicit regulated factors and those that arise in the course of particular work; • Impacts considered extend over the lifecycle of the project and include the consequences of the technologies applied; • Effects to be considered include direct and indirect, immediate and long-term related to the technology used; • Safe and sustainable materials, components and systems; • Regulatory requirements are explicit for the context in general; • Persons whose health and safety are to be protected are both inside and outside the workplace.	**Range Statement:** Impacts and regulatory requirements include: • Impacts to be considered are generally those identified within the established methods, techniques or procedures used in the practice area; • Regulatory requirements are prescribed; • Apply prescribed risk management strategies; • Effects to be considered and methods used are defined; • Prescribed safe and sustainable materials, components and systems; • Persons whose health and safety are to be protected are both inside and outside the workplace.	**Range Statement:** Impacts and regulatory requirements include: • Impacts to be considered are generally those identified within the established methods, techniques or procedures used in the specific practice area; • Regulatory requirements are prescribed; • Apply prescribed risk management strategies; • Effects to be considered and methods used are defined; • Prescribed safe and sustainable materials, components and systems; • Prescribed maintenance protocols; • Persons whose health and safety are to be protected are both inside and outside the workplace.

Competency Area 8: Conduct engineering activities ethically	**Competency Area 8:** Conduct engineering activities ethically	**Competency Area 8:** Conduct engineering activities ethically	**Competency Area 8:** Conduct engineering activities ethically
Competency Area 9: Exercise sound judgement in the course of complex engineering activities.	**Competency Area 9:** Exercise sound judgement in the course of broadly- defined engineering activities.	**Competency Area 9:** Exercise sound judgement in the course of well- defined engineering activities	**Competency Area 9:** Exercise sound judgement in the course of specifically-defined engineering activities

Professional Engineer	Professional Engineering Technologist and Professional Certificated Engineer	Professional Engineering Technician	Specified Category Practitioner
Range Statement: Situations in which judgement must be applied involve interactions between wide- ranging or conflicting technical, engineering or other issues. Judgement in decision making involves: • taking diverse, wide ranging risk factors into account; or • significant consequences in a range of contexts; or • wide ranges of interested and affected parties with widely varying needs.	**Range Statement:** Judgement is expected both within the application of technologies, in their wider impacts and when dealing with interfaces to other disciplines and technologies. Judgement in decision making involves : • taking several risk factors into account;or • significant consequences in technology application and related contexts; or • ranges of Interested and affected parties with widely varying needs.	**Range Statement:** Judgement is expected both within the application of methods, techniques and procedures and in assessing their immediate impacts. Judgement in decision making involves: • taking limited risk factors into account some of which may be ill-defined; or • consequences are in the immediate work context; or • identified set of interested and affected parties with defined needs to be taken into account.	**Range Statement:** Judgement is expected both within the application of category specific methods, techniques and specific procedures and in assessing their immediate impacts. Judgement in decision making involves: • taking specific category risk factors into account some of which may be ill-defined; or • consequences are in the immediate work context; or • identified set of interested and affected parties with defined needs to be taken into account. •
Competency Area 10: Be responsible for making decisions on part or all of complex engineering activities.	**Competency Area 10:** Be responsible for making decisions on part or all of one or more broadly-defined engineering activities	**Competency Area 10:** Be responsible for making decisions on part or all of all of one or more well-defined engineering activities.	**Competency Area 10:** Be responsible for making decisions on part or all of one or more specifically-defined engineering activities
Range Statement: Responsibility exercised for competency areas of significant parts of a one or more complex engineering activity	**Range Statement:** Responsibility must be discharged for significant parts of one or more broadly-defined engineering activity.	**Range Statement:** Responsibility must be discharged for significant parts of a one or more well-defined engineering activity	**Range Statement:** Responsibility must be discharged for significant parts of one or more specifically-defined engineering *activity*.
Note 1: While actual responsibility for the work may not have been taken, due to statutory or other requirements, for a Professional Engineer to take the responsibility, evidence must be shown of responsible recommendations and luc!gement.	**Note 1:** Demonstrating responsibility would work under the supervision of a competent engineering practitioner who takes the actual responsibility but is expected to perform as if he/she is in a responsible position	**Note 1:** Demonstrating responsibility would be under supervision of a competent engineering practitioner but is expected to perform as if he/she is in a responsible position.	**Note 1:** Responsible for the evaluation of work output in a supervisory capacity .

Professional Engineer	Professional Engineering Technologist and Professional Certificated Engineer	Professional Engineering Technician	Specified Category Practitioner Technologist
Competency Area 11: Undertake professional development activities sufficient to maintain and extend his or her competence	**Competency Area 11:** Undertake professional development activities sufficient to maintain and extend his or her competence	**Competency Area 11:** Undertake independent learning activities sufficient to maintain and extend his or her competence	**Competency Area 11:** Undertake independent learning activities sufficient to maintain and extend his or her competence
Range Statement: Professional development involves: • Taking ownership of own professional development • Planning own professional development strategy • Selecting appropriate professional development activities and • Recording professional development strategy and activities learning ability s; while displaying independent	**Range Statement:** Professional development involves: • Taking ownership of own professional development; • Planning own professional development strategy • Selecting appropriate professional development activities; and • Recording professional development strategy and activities learning ability s; while displaying independent	**Range Statement:** Professional development involves: • Taking ownership of own professional development; • Planning own professional development strategy • Selecting appropriate professional development activities; and • Recording professional development strategy and activities learning ability s; while displaying independent	**Range Statement:** Development involves: • Taking ownership of own development; • Planning own development strategy; • Selecting appropriate development activities: and • Recording development strategy and activities ; displaying independent learning ability

Table 2: The competency indicators to determine the competency in each of the competency areas required of a person registered as a professional engineer, professional engineering technologist, certificated engineer, professional engineering technician and a specified category practitioner

Professional Engineer	Professional Engineering Technologist and Professional Certificated Engineer	Professional Engineering Technician	Specified Category
Competency Area 1: Define, investigate and analyse complex engineering problems.	**Competency Area 1:** Define, investigate and analyse broadly-defined engineering problems.	**Competency Area 1:** Define, investigate and analyse well-defined engineering problems	**Competency Area 1:** Define, investigate and analyse *specifically-defined engineering* problems (tasks)
Competency Indicator: A creative, systematic analysis of complex problems typified by the following performances is expected: 1. Define, investigate or analyse complex engineering problems; 2. Perform/assist in defining or formulating engineering problems, leading to an agreed definition to the problem to be addressed; 3. Perform/assist in investigating engineering problems including; i. Collecting; ii. Organising; and, iii. Evaluating information; 4. Perform/assist in analysing engineering problems: i. Use conceptualisation, abstraction, modelling; ii. Identify and justify assumptions, limitations, constraints, premises; using analytical methods both mathematical and non-mathematical; iii. Evaluate result of analysis, using judgement; iv. Express an understanding emerging from the analysis.	**Competency Indicator:** A structured analysis of broadly-defined problems typified by the following performances is expected: 1. Identify and formulate the problem agreeing with client on a problem statement. Analyse and evaluate information. 2. Use conceptualisation, abstraction and modelling. Justify judgement and assumptions made. Express understanding emerging from analysis.	**Competency Indicator:** A structured analysis of well-defined problems typified by the following performances is expected: 1. Identify and interpret the activity agreeing with client on a problem statement. 2. Analyse and clarify information, drawings, codes, procedures, etc. Revise and agree on acceptance criteria if necessary.	**Competency Indicator**: An analysis of specifically- defined engineering problems (tasks) typified by the following performances is expected: 1. Understand the activity agreeing with the client. 2. Analyse and clarify information, drawings, codes, procedures, etc.

Professional Engineer	Professional Engineering Technologist and Professional Certificated Engineer	Professional Engineering Technician	Specified Category Practitioner
Competency Area 2: Design or develop solutions to complex engineering problems	**Competency Area 2:** Design or develop solutions to broadly-defined engineering problems	**Competency Area 2:** Design or develop solutions to well-defined engineering problems.	**Competency Area 2:** Design or develop (plan) solutions to specifically- defined engineering problems (tasks).
Competency Indicator: This competency area is normally demonstrated after a problem analysis as defined in competency area 1. Working systematically to synthesise a solution to a complex problem, typified by the following performances is expected : 1. Analyse the design/ planning /solution requirement and draw up detailed requirements specification; 2. Synthesise a range of potential solutions to problem or approaches to developing a solution; 3. Evaluate the potential approaches against requirements, including cost, and impacts outside requirements; 4. Present reasoned arguments and proposal for preferred option; 5. Fully develop design of selected option; 6. Evaluate resulting solution; 7. Produce design documentation for implementation.	**Competency Indicator:** This competency area is normally demonstrated after a problem analysis as defined in competency area 1. Working systematically to synthesise a solution to a broadly-defined problem, typified by the following performances is expected: 1. Analyse the requirement drawing up a design specification. 2. Synthesise potential solutions or approaches and evaluate; 3. Select the best complete solution and develop fully. Present reasoned arguments and proposal. Agree with client and produce design documentation for implementation;	**Competency Indicator:** This competency area is normally demonstrated after a problem analysis as defined in competency area 1.Working systematically to synthesise a solution to a well- defined problem, typified by the following performances is expected: 1. Develop and analyse alternative approaches to meeting the problem specification. Check impacts; 2. Select the best complete solution, seeking advice on aspects of the proposal or design process that fall outside established practice or standards. Agree with client;	**Competency Indicator:** This competency area is normally demonstrated after a problem (task) analysis as defined in competency area 1. Working systematically to reach a solution to a specifically- defined problem (task), typified by the following performances is expected: 1. Develop and analyse alternative approaches to do the task. Check impacts; 2. Select the best complete plan, seeking advice on aspects of the proposal or plan that fall outside established practice or standards. Agree with client;
Competency Area 3: Comprehend and apply advanced knowledge: principles, specialist knowledge , jurisdictional and local knowledge.	**Competency Area 3:** Comprehend and apply the knowledge embodied in widely accepted and applied engineering procedures, processes, systems or methodologies and he/she practices those specific to the jurisdiction in which.	**Competency Area 3:** Comprehend and apply knowledge embodied in established engineering practices and knowledge specific to the jurisdiction in which he/she practices	**Competency Area 3:** Comprehend and apply knowledge embodied in established specific engineering practices and knowledge specific to the field in which he/she practices.

Professional Engineer	Professional Engineering Technologist and Professional Certificated Engineer	Professional Engineering Technician	Specified Category
Competency Indicator: This competency area is normally demonstrated in the course of design, investigation or operations. 1. Display mastery of understanding of engineering principles, practice and technologies in the practice area; 2. Apply general and underpinning engineering knowledge to support analysis and provide insight; 3. Use a fundamentals-based, first principles analytical, approach building models as required; 4. Display working knowledge of areas that interact with the practice area 5. Display a working knowledge of interacting disciplines (engineering and other) to underpin teamwork; 6. Apply related knowledge: financial, statutory, safety, management	**Competency Indicator:** This competency area is normally demonstrated in the course of design, investigation or operations. 1. The thorough understanding and application of engineering principles to support analysis; 2. The use of specialised knowledge in an analytical approach and application of related knowledge in broadly-defined engineering activities	**Competency Indicator:** This competency area is normally demonstrated in the course of design, investigation or operations. 1. The use of codified underpinning educational knowledge in practical well-defined activities; 2. The understanding of knowledge expressed in well-defined procedures and techniques.	**Competency Indicator:** This competency area is normally demonstrated in the course of planning investigation or operations 1. The use of codified underpinning educational knowledge in practical specifically-defined engineering activities; 2. The understanding of knowledge expressed in specifically-defined procedures and techniques
Competency Area 4: Manage part or all of one or more complex engineering activities	**Competency Area 4:** Manage part or all of one or more broadly-defined engineering activities	**Competency Area 4:** Manage part or all of one or more well-defined engineering activities	**Competency Area 4:** Manage part or all of one or more specifically-defined engineering activities
Competency Indicator: The display of personal and work process management abilities are expected: 1. Manage complex engineering activities 2. Pian, organise, lead and control complex engineering activities; 3. Manage him- or herself; 4. Participate effectively in a team environment; 5. Manage people, and/or work priorities, and/or work processes and/or resources; 6. Demonstrate knowledge of finance as it is applied in engineering; 7. Demonstrate knowledge of the conditions and operations of contract 8. Demonstrate the ability to establish and maintain professional and business thinking	**Competency Indicator:** The display of personal and work process management abilities are expected: 1. Manage broadly-defined engineering activities 2. Participate effectively in a team environment 3. Manage self-people, and/or work priorities, and/or work processes and/or resources; 4. Demonstrate knowledge of finance as it is applied to engineering 5. Demonstrate knowledge of the conditions and operations of contract; 6. Demonstrate the ability to establish and maintain professional and business relationships .	**Competency Indicator:** The display of personal and work process management abilities are expected 1. Manage self, work priorities, processes & resources 2. Participate effectively in a team environment	**Competency Indicator:** The display of personal and work process management abilities are expected: 1. Manage self, work priorities, processes and resources; 2. Participate effectively in a team environment.

Professional Engineer	Professional Engineering Technologist and Professional Certificated Engineer	Professional Engineering Technician	Specified Category
Competency Area 5: Communicate clearly with others in the course of his or her engineering activities	**Competency Area 5:** Communicate clearly with others in the course of his or her broadly-defined engineering activities.	**Competency Area 5:** Communicate clearly with others in the course of his or her well-defined engineering activities	**Competency Area 5:** Communicate clearly with others in the course of his or her specifically-defined engineering activities
Competency Indicator: Demonstrates effective communicated by: 1. Writing clear, concise, effective, technically correct reports using a structure and style which meets communication objectives and user/audience requirements; 2. Reading and evaluating technical and legal matters relevant to the function of a Prof engineer 3. Receiving instructions, ensuring correct interpretation 4. Issuing clear instructions to subordinates using appropriate language and communication aids, ensuring that language and other communication barriers are overcome; 5. Making oral presentations using structure style, language, visual aids and supporting documents appropriate to the audience and purpose.	**Competency Indicator:** Demonstrates effective communication by: 1. Writing clear, concise, effective, technically correct reports using a structure and style which meets communication objectives and user/audience requirements; 2. Reading and evaluating technical and legal matters relevant to the function of a Prof Engineering Technologist 3. Receiving instructions, ensuring correct interpretation; 4. Issuing clear instructions to subordinates using appropriate language and communication aids, ensuring that language and other communication barriers are overcome 5. Making oral presentations using structure, style, language, visual aids and supporting documents appropriate to the audience and purpose	**Competency Indicator:** Demonstrates effective communication by: 1. Writing clear, concise, effective, technically correct reports 2. Issuing clear instructions to subordinates and present point of view effectively	**Competency Indicator:** Demonstrates effective communication by: 1. Writing clear, concise, effective, technically correct reports. 2. Issuing clear instructions to subordinates and present point of view effectively.

Professional Engineer	Professional Engineering Technologist and Professional Certificated Engineer	Professional Engineering Technician	Specified Category
Competency Area 6: Recognise and address the reasonably foreseeable social, cultural and environmental effects of complex engineering activities.	**Competency Area 6:** Recognise and address the foreseeable socia defined engineering activities generally I cultural and environmental effects of broadly-defined engineering activities generally	**Competency Area 6:** Recognise the foreseeable social, cultural and environmental effects of well-defined engineering activities generally	**Competency Area 6:** Recognise the foreseeable social, cultural and environmental effects of specifically-defined engineering activities generally
Competency Indicator: This competency area is normally displayed in the course of analysis and solution of problems, by typically: 1. Identifying interested and affected parties and their expectations; 2. Identifying interactions between technical and social cultural and environmental factors 3. Identifying environmental impacts of the engineering activity; 4. Identifying sustainability issues; 5. Proposing and evaluating measures to mitigate negative effects of engineering activity 6. Communicating with stakeholders	**Competency Indicator:** This competency area is normally displayed in the course of analysis and solution of problems, by typically: 1. Identifying interested and affected parties and their expectations; 2. Identifying interactions between technical and social cultural and environmental factors; 3. Identifying environmental impacts of the engineering activity 4. Identifying sustainability issues; 5. Proposing and evaluating measures to mitigate negative effects of engineering activity; 6. Communicating with stakeholders	**Competency Indicator:** This competency area is normally displayed in the course of analysis and solution of problems, by typically: 1. Identifying affected parties and environmental impacts of the engineering activity; 2. Proposing mitigating measures and communicating with stakeholders	**Competency Indicator:** This competency area is normally displayed in the course of evaluating and planning tasks, by typically 1. Identifying affected parties and environmental impacts of the engineering activity; 2. Proposing mitigating measures and communicating on measures with stakeholders
Competency Area 7: Meet all legal and regulatory requirements and protect the health and safety of persons in the course of his or her complex engineering activities.	**Competency Area 7:** Meet all legal and regulatory requirements and protect the health and safety of persons in the course of his or her broadly-defined engineering activities.	**Competency Area 7:** Meet all legal and regulatory requirements and protect the health and safety of persons in the course of his or her well-defined engineering activities.	**Competency Area 7:** Meet all legal and regulatory requirements and protect the health and safety of persons in the course of his or her specifically-defined engineering activities.
Competency Indicator: 1. Identifying applicable legal, regulatory and health and safety requirements for the engineering activity; 2. Identifying health and safety requirements applicable for the engineering activity 3. Assistance or awareness of the selection of safe and sustainable materials, components and systems; 4. Assistance or awareness of recognising and identifying risk and applying accepted risk management strategies	**Competency Indicator:** 1. .Identifying applicable legal, regulatory and health and safety requirements for the engineering activity; 2. Identifying health and safety requirements applicable for the engineering activity 3. Assistance or awareness of the selection of safe and sustainable materials, components and systems; 4. Assistance or awareness of recognising and identifying risk and applying accepted risk management strategies.	**Competency Indicator:** 1. Identifying applicable legal, regulatory and health and safety requirements for the engineering activity 2. Managing risks and use safe and sustainable materials, components and systems, seeking advice when necessary	**Competency Indicator:** 1. Identifying applicable legal, regulatory and health and safety requirements for the specifically- defined engineering activity 2. Managing risks and use safe and sustainable materials, components and systems, seeking advice when necessary

Professional Engineer	Professional Engineering Technologist and Professional Certificated Engineer	Professional Engineering Technician	Specified Category Practitioner
Competency Area 8: Conduct engineering activities ethically	**Competency Area 8:** Conduct engineering activities ethically	**Competency Area 8:** Conduct engineering activities ethically	**Competency Area 8:** Conduct engineering activities ethically
Competency Indicator: A professional approach must be demonstrated at all times by: i. Knowledge of ECSA Code of Conduct; ii. Member/active participation in activities of a recognised VA; iii. Understanding of Professional Society structures/Network/! nteraction Sensitivity to ethical issues and the adoption of a systematic approach to resolving these issues is expected, typified by: 1. Identifying the central ethical problem 2. Identifying affected parties and their interest 3. Searching for possible solutions for the dilemma; 4. Evaluating each solution using the interests of those involved, accorded suitable priority; 5. Selecting and justifying the solution that best resolves the dilemma	**Competency Indicator:** A professional approach must be demonstrated at all times by: i. Knowledge of ECSA Code of Conduct; i. Member/active participation in activities of a recognised VA; i. Understanding of Professional Society structures/Network/! nteraction Sensitivity to ethical issues and the adoption of a systematic approach to resolving these issues is expected, typified by: 1. Identifying the central ethical problem 2. Identifying affected parties and their interest 3. Searching for possible solutions for the dilemma; 4. Evaluating each solution using the interests of those involved, accorded suitable priority 5. Selecting and justifying the solution that best resolves the dilemma	**Competency Indicator:** Sensitivity to ethical issues and the adoption of a systematic approach to resolving these issues is expected, typified by: 1. Identifying ethical problems and affected parties and their interests; 2. Compliance with ECSA's Code of Conduct.	**Competency Indicator:** Sensitivity to ethical issues and the adoption of a systematic approach to resolving these issues is expected, typified by 1. Awareness of ethical problems and affected parties and their interests; 2. Compliance with ECSA's Code of Conduct
Competency Area 9: Exercise sound judgement in the course of complex engineering activities.	**Competency Area 9:** Exercise sound judgement in the course of broadly defined engineering activities.	**Competency Area 9:** Exercise sound judgement in the course of well- defined engineering activities	**Competency Area 9:** Exercise sound judgement in the course of specifically-defined engineering activities
Competency Indicator: Exhibition of sound engineering judgement is expected by: 1. Considering several factors, some of which may not be well-defined or unknown; 2. Considering the interdependence interactions, and relative importance of factors 3. Foreseeing consequences of actions 4. Evaluating a situation in the absence of full evidence 5. Drawing on experience and knowledge	**Competency Indicator:** Exhibition of judgement is expected by: 1. Considering several factors, some of which may not be well-defined or unknown; 2. Considering the interdependence interactions, and relative importance of factors 3. Foreseeing consequences of actions 4. Evaluating a situation in the absence of full evidence 5. Drawing on experience and knowledge	**Competency Indicator:** Exhibition of judgement is expected by: 1. Considering a limited number of factors and their independence 2. Foreseeing consequences of actions , evaluating a situation in the absence of full evidence	**Competency Indicator:** Exhibition of judgement is expected by: 1. Considering specific factors applicable to the category and how they are interrelated; 2. Foreseeing consequences of actions , evaluating a situation in the absence of full evidence

Professional Engineer	Professional Engineering Technologist and Professional Certificated Engineer	Professional Engineering Technician	Specified Category
Competency Area 10: Be responsible for making decisions on part or all of complex engineering activities.	**Competency Area 10:** Be responsible for making decisions on part or all of one or more broadly-defined engineering activities	**Competency Area 10:** Be responsible for making decisions on part or all of all of one or more well-defined engineering activities	**Competency Area 10:** Be responsible for making decisions on part or all of one or more specifically-defined engineering activities
Competency Indicator: Responsibility is displayed by the following performance: 1. Having due regard to technical social, environmental and sustainable development consideration 2. Seeking advice from a responsible authority on any matter considered to be outside area of competence 3. Making decisions on and take responsibility for one or more complex engineering activity	**Competency Indicator:** Responsibility is displayed by the following performance: 1. Having due regard to technical social, environmental and sustainable development consideration 2. Seeking advice from a responsible authority on any matter considered to be outside area of competence 3. Making decisions on and take responsibility for one or more broadly-defined engineering activity	**Competency Indicator:** Responsibility is displayed by the following performance Demonstrating a professional approach at all times by applying theory to justify solutions Taking advice from a responsible authority on any matter considered to be outside applicable standards and codes; Evaluating work output, revising as required and taking responsibility' for this work output	**Competency Indicator:** Responsibility is displayed by the following performance: 1. Demonstrating a professional approach at all times by applying knowledge to justify actions; 2. Taking advice from a responsible authority on any matter considered to be outside applicable standards and codes 3. Evaluating work output, revising as required and taking responsibility' for this work output
Competency Area 11: Undertake professional development activities sufficient to maintain and extend his or her competence	**Competency Area 11:** Undertake professional development activities sufficient to maintain and extend his or her competence	**Competency Area 11:** Undertake independent learning activities sufficient to maintain and extend his or her competence	**Competency Area 11:** Undertake independent learning activities sufficient to maintain and extend his or her competence
Competency Indicator: Self-development managed by typically; 1. Planning own professional development strategy 2. Selecting appropriate professional development activities 3. Keeping record of professional development strategy and activities 4. Displaying independent learning ability 5. Completing professional development	**Competency Indicator:** Self-development managed by typically; 1. Planning own professional development strategy selecting appropriate professional developmental activities 2. Keeping record of professional development displaying independent learning ability	**Competency Indicator:** Self-development managed by typically: 1. Planning own professional development strategy selecting appropriate professional development activities 2. Keeping record of professional development displaying independent learning ability	**Competency Indicator:** Self-development is managed by typically 1. Planning own development strategy selecting appropriate development activities; 2. Keeping record of development displaying independent learning ability

PERFORMANCE OF CORE SERVICE IN PRACTISE AREA

5 (1) Identified engineering work in any engineering discipline consists of core services in certain practise areas.

(2) For the purposes of section 26(3)(a) of the Engineering Profession Act, work identified for persons registered in one of the categories in section 18(1)(a) or (c) of the Engineering Profession Act includes the core services for the practice areas referred to in in Items 6 to 15

(3) The core services and practise areas listed in items 6 to 15 are not exhaustive and any similar activity that is undertaken in order to perform a core service in compliance with an agreement to provide engineering work in an engineering discipline which work is not identified in items 6 to 15 is deemed to be a core service identified in items 6 to 15.

IDENTIFIED ENGINEERING WORK IN AERONAUTICAL ENGINEERING DISCIPLINE

6 (1) The core services in the aeronautical engineering discipline consist of the analysis, planning, design and development, manufacture, construction, operation and maintenance of all types of flight vehicles including fixed wing aircraft, helicopters, sail planes, airships, spacecraft and missiles, based on engineering sciences underlying flight dynamics, aerospace structures and propulsion systems.

(2) The core services in the aeronautical engineering discipline are performed in the following practise areas:

(a) Aircraft design;

(b) aircraft structures;

(c) aircraft propulsion systems;

(d) aerodynamics;

(e) avionics;

(f) aero-elasticity;

(g) stability and control;

(h) aircraft systems including hydraulic, pneumatic and avionic systems;

(i) wind tunnel testing;

U) flight testing;

(k) aircraft performance monitoring;

(l) airport/airfield management; and

(m) certification and safety programmes.

IDENTIFIED ENGINEERING WORK IN AGRICULTURAL ENGINEERING DISCIPLINE

7 (1) The core services in the agricultural engineering discipline consist of the analysis, planning, design and development, manufacture, construction, management, operation and maintenance of agricultural machinery, mechanisation, production and processing and natural resource management through the application of engineering sciences.

(2) The core services in the agricultural engineering discipline are performed in the following practise areas:

(a) Agricultural energy engineering;

(b) agricultural renewable energy engineering;

(c) agricultural product processing engineering;

(d) agricultural structures and facilities engineering;

(e) agricultural waste handling and management;

(f) aquaculture engineering;

(g) mechanisation engineering;

(h) irrigation engineering;

(i) hydrology and agricultural water use management;

U) natural resources engineering;

(k) food engineering;

(l) environmental engineering; and

(m) rural infrastructure engineering

IDENTIFIED ENGINEERING WORK IN CHEMICAL ENGINEERING DISCIPLINE

8 (1) The core services in the chemical engineering discipline consist of the analysis, planning, design and development, manufacture, construction, management, operation and maintenance of industrial-scale processes to convert raw and recycled materials to products through chemical and physical processes.

(2) The core services in the chemical engineering discipline are performed in the following practise areas:

(a) Processes where hazardous substances are present in significant quantities;

(b) processes where chemical reactions present particular hazards;

(c) processes involving advanced water treatment for potable water;

(d) advanced process control; and

(e) process simulation.

IDENTIFIED ENGINEERING WORK IN CIVIL ENGINEERING DISCIPLINE

9 (1) The core services in the civil engineering discipline consist of the analysis, planning, design and development, manufacture, construction, management, maintenance and operation of works comprising –

(a) a structure such as a building, dam, bridge, road, railway, runway or pipeline;

(b) a transportation, water supply and treatment, drainage and sewerage system;

(c) the result of an operation such as dredging, earthworks and a geotechnical process;

(d) waste disposal; and

(e) sea defenses and coastal protection; through the application of civil engineering sciences.

(2) The core services in the civil engineering discipline are performed in the following practise areas:

a) Structural engineering work;

b) geotechnical engineering work;

c) transportation engineering work;

d) environmental engineering work;

e) hydraulic engineering work;

f) municipal engineering work.

(3) Structural engineering work is the buildings, dams bridges, roads, highways runways, harbours, railways, relating to the structural safety and serviceability of both the temporary and permanent works associated with structures that provide shelter, carry loads or retain materials and fluids.

(4) Geotechnical engineering work is foundations, earthworks, excavations, ground improvement and geotechnical processes, subsurface investigation and sampling.

(5) Transportation engineering work is the transportation systems, including roads, railways, waterways, ports, harbours, airports, and all associated works such asyards, docks, lighthouses, rolling stock, and traffic engineering, geometric design- horizontal curves, vertical curves and sight distance.

(6) Environmental engineering work is solid waste disposal, soil conservation works, contaminated land remediation.

(7) Hydraulic engineering work is hydraulic systems including water resources and supply, pipelines, canals, water treatment and supply, stormwater and drainage works, sewerage systems; sanitation, waste disposal and coastal engineering.

(8) Municipal engineering work is services such as water treatment and supply – demands, hydraulic loading, storages (raw and treated water), sewerage works, transport building services, and urban development as indicated above

IDENTIFIED ENGINEERING WORK IN ELECTRICAL ENGINEERING DISCIPLINE

10 (1) The core services in the electrical engineering discipline consist of the analysis, planning, design, manufacture, construction, management, operation and maintenance of materials, components, plant and systems for generating, transmitting, distributing and utilising-

a) electrical energy;

b) electronic devices, apparatus and control systems for industrial systems, bio-medical and consumer products and processes; and

c) computing, communication and software for critical applications instrumentation and control of processes, through the application of electrical, electromagnetic and information engineering sciences.

(2) The core services in the electrical engineering discipline are performed in the following primary practise areas:

a) Electrical power engineering work;

b) electronic engineering work;

c) telecommunications engineering work;

d) computer and software engineering work.

(3) Electrical power engineering work includes the following practise areas:

(a) Conducting research and developing new or improved theories and methods related to electrical power engineering;

(b) advising on and designing power stations and systems which generate, transmit and distribute electrical power;

(c) specifying Instrumentation, measurement and control of equipment for the monitoring and control of electrical generation , transmission and distribution systems;

(d) supervising, controlling, developing and monitoring the operation and maintenance of electrical generation, transmission and distribution systems;

(e) advising on and designing systems for electrical motors, electrical traction and other equipment or electrical domestic appliances;

(f) specifying electrical installation and application in industrial and other buildings and objects;

(g) establishing control standards and procedures to monitor performance and safety of electrical generating and distribution systems, motors and equipment;

(h) determining manufacturing methods for electrical systems as well as the maintenance and repair of existing electrical systems, motors and equipment;

(i) design and development of electrical apparatus.

(4) Electronic engineering work includes the following practise areas:

(a) Conducting research and developing new or improved theories and methods related to electronics engineering;

(b) advising on and designing electronic devices or components, circuits, semi-conductors and systems;

(c) specifying production or installation methods, materials and quality standards and directing production or installation work of electronic products and systems;

(d) supervising, controlling, developing and monitoring the operation and maintenance of electronic equipment and systems ;

(e) establishing control standards and procedures to ensure efficient functioning and safety of electronic systems and equipment ;

(f) organising and directing maintenance and repair of existing electronic systems

and equipment;

(g) designing electronic circuits and components for use in fields such as aeronautical guidance and propulsion control, acoustics or instruments and control;

(h) determining manufacturing methods for electronic systems as well as the maintenance and repair of existing electronic systems and equipment;

(i) researching and advising on radar, telemetry and remote control systems, microwaves and other electronic equipment;

U) designing and developing signal processing algorithms and implementing these through appropriate choice of hardware and software;

(k) developing apparatus and procedures to test electronic components, circuits and systems;

(l) designing, specifying and implementing Control and Instrumentation of plant and processes;

(m) designing, specifying, control and monitoring of equipment for fire and safety in plant and factories;

(n) robotics and process control of manufacturing plant;

(o) energy efficiency PV.

(5) Telecommunications engineering work is a broad specialisation of electrical engineering encompassing the design, construction and management of systems that carry out the transmission, processing and storage of information as electrical or optical signals and the control services based on this capability and includes the following practice areas:

(a) Conducting research and developing new or improved theories and methods related to telecommunications engineering;

(b) advising on and designing telecommunications devices or components, systems, equipment and distribution centres;

(c) specifying production or installation methods, materials, quality and safety standards and directing production or installation work of telecommunications products and systems;

(d) supervising, controlling, developing and monitoring the operation and maintenance of telecommunication systems. networks and equipment;

(e) determining manufacturing methods for telecommunication systems as well as the maintenance and repair of existing telecommunication systems, networks and equipment;

(f) organising and directing maintenance and repair of existing telecommunication systems, networks and equipment;

(g) researching and advising on telecommunications equipment;

(h) planning and designing communications networks based on wired, fibre optical and wireless communication media;

(i) designing and developing signal processing algorithms and implementing these through appropriate choice of hardware and software;

(j)) designing telecommunications networks and radio and television distribution systems including both cable and over the air.

(6) Computer and software engineering work includes the following practice areas:

(a) Conducting research and developing new or improved theories and methods related to computer and software engineering;

(b) advising on and designing computer-based systems or components, systems equipment, software and distribution centres;

(c) specifying production or installation methods, materials, quality and safety standards and directing production or installation work of computer-based products, software and systems;

(d) supervising, controlling, developing and monitoring the operation and maintenance of computer- based systems, software, networks and equipment;

(e) organizing and directing maintenance and repair of existing computer-based systems, programmes and equipment;

(f) researching and advising on computer-based equipment and software;

(g) planning and designing computer-based communications networks based on wired, fibre optical and wireless communication media and ultra-high speed data networks;

(h) system Analysis, designing and developing complex computer-based systems and implementing these through appropriate choice of hardware and managing the development the necessary software;

(i) determining manufacturing methods for computer-based systems as well as the maintenance and repair of existing computer-based systems, networks and equipment.

IDENTIFIED ENGINEERING WORK IN INDUSTRIAL ENGINEERING DISCIPLINE

11 (1) The core services in the industrial engineering discipline consist of the analysis, design, planning, manufacture, construction, management, maintenance, operation, improvement and installation of integrated systems of processes, people, materials, information, equipment and energy, to ensure the effective and efficient delivery of quality goods and services through the application of industrial engineering sciences.

(2) A registered person who performs work in the industrial engineering discipline investigates and reviews the utilisation of personnel, facilities, equipment and materials, current operational processes and established practices, to recommend improvement in the efficiency of operations in a variety of commercial, industrial and production environments.

(3) The core services in the industrial engineering discipline are performed in the following practice areas:

(a) Agri produce process engineering;
(b) automation and control engineering;
(c) clinical engineering;
(d) enterprise resource management engineering;
(e) fabrication engineering;
(f) industrial efficiency engineering;
(g) industrial machinery engineering;
(h) manufacturing logistics engineering;
(i) manufacturing technology engineering;
(j) operations research engineering;
(k) plant engineering;
(l) process design engineering;
(m) process engineering;
(n) production engineering;

(o) quality management engineering;

(p) robotics and production automation engineering;

(q) safety engineering;

(r) supply chain management engineering; and

(s) value engineering,

IDENTIFIED ENGINEERING WORK IN MECHANICAL ENGINEERING DISCIPLINE

12 (1) The core services in the mechanical engineering discipline consist of the analysis, planning, design, manufacture, construction, management, operation and maintenance of materials, steel structures, components, machines plant and systems for

(a) lifting, hoisting and materials handling. turbines, pumps and fluid power, heating, cooling, ventilating and air conditioning,

(b) fuels, combustion, engines, steam plant, turbines,

(c) automobiles, trucks and special vehicles,

(d) fire protection;

(e) nuclear energy generation;

(f) steel structures, through the application of engineering sciences: mechanics, solid mechanics, thermodynamics, fluid mechanics.

(2) The core services in the mechanical engineering discipline are performed in the following practice areas:

(a) Advising on and designing machinery and tools for manufacturing, mining, construction,
agricultural and other purposes;

(b) advising on and designing steam, internal combustion and other non-electric motors and engines used in propulsion of railway locomotives, road vehicles or aircraft or for driving industrial or other machinery

(c) advising on and designing hulls, superstructures and propulsion systems of ships; mechanical plant and equipment for the release, control and utilisation of energy, heating, ventilation and refrigeration systems, steering gear, pumps and other mechanical equipment

(d) advising on and designing airframes, undercarriages and other equipment for

aircraft as well as suspension systems, brakes, vehicle bodies and other components of road vehicles

(e) advising on and designing non-electrical parts of apparatus or products such as word processors, computers, precision instruments, cameras and projectors;

(f) establishing control standards and procedures to ensure efficient functioning and safety of machines, machinery, tools, motors, engines, industrial plant, equipment or systems;

(g) ensuring that equipment, operation and maintenance comply with design specifications and safety standards.

IDENTIFIED ENGINEERING WORK IN METALLURGICAL ENGINEERING DISCIPLINE

13 (1) The core services in the metallurgical engineering discipline consist of either-

(a) physical metallurgical engineering which is the analysis, design, production, characterisation, failure analysis and application of materials, including metals, for engineering applications based on an understanding of the properties of matter and engineering requirements; or

(b) extractive metallurgical engineering which is the research, planning, design, developing and operating commercial-scale processes for the extraction of metals or intermediate compounds from ores by chemical or physical processes, including those at high temperatures, the operation and optimisation of process plants, through the application of metallurgical engineering sciences.

(2) The core services of a physical metallurgical engineer in the metallurgical engineering discipline are performed in the following practice areas:

(a) Develop, control and advise on processes used for casting, alloying, heat treating or welding of metals, alloys and other materials to produce commercial metal products or develop new alloys, materials and processes, evaluate and specify materials for engineering applications, and do quality control and failure analyses;

(b) investigate properties of metals and alloys, develop new alloys and advise on and supervise technical aspects of metal and alloy manufacture, processing, use and manufacturing;

(c) do residual life evaluations and predictions, failure analyses, and prescribe remedial actions to avoid material failures.

IDENTIFIED ENGINEERING WORK IN MINING ENGINEERING DISCIPLINE

14 (1) The core services in the mining engineering discipline consist of the analysis, planning, design and development, manufacture, construction, management, operation, maintenance and rehabilitation of works for the extraction of minerals from natural deposits on the earth's surface underground or under water through the application of mining engineering science.

(2) The core services in the mining engineering discipline are performed in the following practice areas:

(a) Conducting fundamental or operational research and advising on occupational health and safety and environmentally responsible mineral excavation methodology, processes and systems;

(b) designing and specifying mineral excavation processes, application of mining resources and mining technical support services required, occupational health, safety and environmental considerations and quality assurance;

(c) establish production and operational control standards and procedures to ensure compliance with legislation and site-specific requirements;

(d) manage occupational health, safety and environmentally-related hazards and accompanying risks;

(e) performing tests throughout the life-cycle stages and mineral excavation processes to determine the degree of control over variables identified during the strategic and tactical mine design and planning processes;

(f) develop appropriate site-specific risk management policies, procedures and standards;

(g) prepare pre-feasibility and feasibility reports and life-of-mine exploitation strategies and plans, business plans and bankable documents based on site-specific assumptions, premises, constrains and best practice standards;

(h) converting mineral resources into mineable reserves;

(i) performing mineral asset valuations;

(j) managing mineral assets; and

(k) education and training of candidate mining engineering practitioners.

IDENTIFIED ENGINEERING WORK FOR PROFESSIONAL CERTIFICATED ENGINEER

15 (1) For the purposes of section 26(3)(a) of the Engineering Profession Act, work identified for persons registered in terms of section 18(1)(a)(iii) of the Engineering Profession Act includes the core services for the practice areas referred to in sub-item (3)provided that the person so registered holds a statutory certificate of competency issued in terms of the Mines Health and Safety Act 1996, the Occupational Health and Safety Act 1993 or the Merchant Shipping Act 1951.

(2) The list of activities identified sub-item (3) is not exhaustive and any similar activity that is undertaken in order to perform a core service in compliance with an agreement to provide engineering work which is not listed in sub-item (3) below is deemed to be an activity listed in sub-item (3).

(3) Engineering work performed by a Professional Certificated Engineer includes-

(a) the application of current engineering technology

(b) the management and operation of technology based engineering solutions and processes;

(c) the introduction of known engineering services and management methods;

(d) the management of the implementation of broadly-defined engineering projects and the routine maintenance of engineering infrastructure;

(e) the management of moderate to high level of risks associated with engineering processes, systems, equipment and infrastructure; and

the specify operational and safety requirements to ensure inherently safe working conditions; within the specific context relating to persons working in factories, mines and on ships as certificated persons appointed in terms of the Occupational Health and Safety Act, 1993, the Mines Health and Safety Act, 1996 and the Merchant Shipping Act, 19517

(4) A person may perform work identified in this item if he or she is in possession of any one or more of the following government certificates of competency:

(a) Electrical Engineer's Certificate of Competency issued in terms of the Mines

Health and Safety Act, 1996;

(b) Mechanical Engineer's Certificate of Competency issued in terms of the Mines Health and Safety Act, 1996;

(c) Electrical Engineer's Certificate of Competency issued in terms of the Occupational Health and Safety Act, 1993;

(d) Mechanical Engineer's Certificate of Competency issued in terms of the Occupational Health and Safety Act, 1993;

(e) Manager's Certificate of Competency (Metalliferous) issued in terms of the Mines Health and Safety Act, 1996;

(f) Manager's Certificate of Competency (Coal) issued in terms of Mines Health and Safety Act, 1996; and

(g) Chief Engineer Officer- Foreign Going Certificate of Competency issued in terms of the Merchant Shipping Act, 1951.

SCOPE OF SERVICES

16 The standard services performed by a person registered in any category referred to in section 18(1)(a) of the Engineering Profession Act who performs identified engineering work in the applicable stages of an engineering project or construction works project are given in Table A in Annexure A.

WORK BY PERSON WHO OVERSEES PLANNING, DESIGN AND DELIVERY OF EDUCATION AND TRAINING PROGRAMME AND EMPLOYEE OF ORGAN OF STATE DEEMED IDENTIFIED WORK

17 (1) Any person who oversees the planning, design and delivery of education and training programmes accredited by ECSA and assessment of students at the engineering exit level at a higher education institution that is established, deemed to be established or declared as a public or private higher education institution under the Higher Education Act, 1997 (Act No 101 of 1997) or at a public college as defined in the Further Education and Training Colleges Act, 2006 (Act No. 16 of 2006), is deemed to be a person who performs identified work contemplated in item 2 of this Notice.

(2) Any person who is employed by an organ of state and whose conditions of service require of that person to manage the delivery and maintenance of engineering work is deemed to be a person who performs identified work contemplated in item 2 of this Notice.

(3) For the purpose of this item, "exit level" means the "exit level" contemplated in the Regulations issued in terms of the National Qualifications Framework Act, 67 of 2008.

PERFORMANCE OF IDENTIFIED WORK BY PERSON REGISTERED IN DIFFERENT CATEGORY

18 (1) For the purposes of section 18(2) of the Engineering Profession Act, a person who is registered as a Professional Engineer is deemed to be registered as an Engineering Technologist or Professional Engineering Technician and may perform the identified engineering work that a Professional Engineering Technologist or Professional Engineering Technician may perform as indicated in items 6 to 15 in the relevant engineering discipline provided that he or she is competent in terms of his or her education, training and experience to perform that work.

(2) A person who is registered as a Professional Engineering Technologist is deemed to be registered as a Professional Engineering Technician and may perform any of the identified engineering work that a Professional Engineer Technician may perform as indicated in items 6 to 15 in the relevant engineering discipline provided that he or she is competent in terms of his or her education, training and experience to perform that work.

(3) A person registered in a particular category referred to in section 18(1)(a) or (c) of the Engineering Profession Act, may, notwithstanding the provisions of items 6 to 15, perform any work identified in items 6 to 15 for a different category of registered person, if ECSA grants such registered person a transitional authorisation, special consent or category adjustment, as the case may be.

(4) A person who is registered as a Professional Certificated Engineer may perform engineering work identified at the broadly-defined level in the disciplines referred to in items 10, 12 and 14 commensurate with the qualification or combination of qualifications which led to the issuing of his or her certificate of competency referred

to in item 15.

(5) Notwithstanding the provisions of this item, a person who is registered as a candidate referred to in section 18(1)(b) of the Engineering Profession Act may not apply for special consent and may only perform identified engineering work under the direction, control and direct supervision of a person registered in the appropriate category in terms of the Engineering Profession Act if the professional or person concerned is authorised under items 6 to 15 in the relevant engineering discipline to perform such identified engineering work.

TRANSITIONAL AUTHORISATION

19 (1) A person who is registered in terms of the Engineering Profession Act and who, after commencement of that Act but before commencement of this notice, performed identified engineering work referred to in items 6 to 15 for a person registered in a category of registration in which he or she is not registered, may apply to ECSA for a transitional authorisation.

(2) An application for a transitional authorisation must be in writing, submitted to ECSA in the form determined by ECSA within six months from the date of commencement of this notice and be accompanied by-

(a) proof of practice during the period contemplated in sub-item (1) within the category that he or she is not registered for;

(b) all available documents pertaining to that practice;

(c) the name and contact details of at least two registered persons who are in a position to serve as personal referees;

(d) the fee determined by ECSA in accordance with section 12 of the Engineering Profession Act; and

(e) any other information required by ECSA.

(3) When considering an application for a transitional authorisation ECSA must take into account the education, training and experience of the applicant requesting such transitional authorisation to undertake the applicable identified engineering work commensurate with the competency requirements contemplated in item 4.

(4) ECSA may, after evaluation of the application for transitional authorisation refuse

or approve the transitional authorisation and if it approves the transitional authorisation it may subject the approval to any condition it considers appropriate.

(5) If ECSA refuses to grant a transitional authorisation it must, in writing, provide the applicant with the reasons for its decision within seven days of that decision.

(6) If ECSA approves the transitional authorisation it must issue a transitional authorisation certificate in the manner determined by it and the certificate must contain the conditions of issue, if any.

(7) A transitional authorisation certificate authorises the holder thereof to perform the work identified in terms of this Notice for another category of registered person for a period of five years provided that the holder remains a registered person, complies with the continuing professional development requirements and the conditions of approval, if any.

SPECIAL CONSENT

20 (1) A registered person who, after commencement of this notice, intends to perform work for a specific project, commission or appointment or a particular scope of work for which specific competencies are required and which is identified in this Notice for a person registered in a category of registration and linked to a particular discipline in which he or she is not registered, may apply to ECSA for special consent.

(2) An application for special consent must be in writing submitted to ECSA in the form determined by ECSA

and be accompanied by-

(a) a brief motivation for the application;

(b) if applicable, an affidavit from the prospective client of the applicant, other consultants on the proposed team and the proposed contractor;

(c) if applicable, an affidavit from the employer of the applicant who is entitled to perform the identified work by reason of the employer's registration in the applicable category;

(d) all available documents pertaining to the proposed project;

(e) the name and contact details of at least two persons who are in a position to serve as personal referees;

(f) the fee determined by ECSA in accordance with section 12 of the Engineering Profession Act; and

(g) any other information required by ECSA.

(3) When considering a request for special consent, ECSA must take into account the education, training and experience of the applicant requesting such special consent to undertake the applicable identified engineering work at the level of complexity of a project contemplated in item 3 commensurate with the competency requirements contemplated in item 4.

(4) ECSA may, after evaluation of the application for special consent referred to in this item, refuse or approve the special consent and if it approves the special consent it may subject the approval to any condition it considers appropriate.

(5) If ECSA refuses to grant a special consent it must, in writing, provide the applicant with the reasons for its decision within seven days of that decision.

(6) If ECSA grants the special consent:

(a) for a specific project, commission or appointment it must issue a special consent certificate for that specific project, commission or appointment; or

(b) for a particular scope of work which requires specific competencies, it must issue a special consent certificate for that particular scope of work, in the manner determined by it and the certificate must contain the conditions of issue, if any.

(7) A special consent certificate granted for -

(a) a specific project, commission or appointment, authorises the holder thereof to perform the relevant work for the duration of that project, commission or appointment; or

(b) a particular scope of work which requires specific competencies, authorises the holder thereof to perform the particular scope of work for a period of five years provided that the person remains a registered person, complies with continuing professional development requirements and the conditions of approval, if any.

CATEGORY ADJUSTMENT

21 (1) A registered person who, after commencement of this notice, generally wants to perform work identified in item 3 and 4 read with items 6 to 15, for a person registered in a category of registration in which he or she is not registered, may apply to ECSA for a category adjustment.

(2) An application for a category adjustment must comply with the rules of ECSA pertaining to registration.

CROSS DISCIPLINARY PRACTISE

22 A person who is registered as a professional and who performs identified engineering work in a particular discipline identified in items 5 to 16 for which he or she has the competence, education, training and experience, may perform identified engineering work in a different discipline if he or she has the competence, education, training and experience to perform such work in that different discipline.

DUAL REGISTRATION

23 A person who is registered as a professional under the professions' Acts, other than the Engineering Profession Act may apply for registration with ECSA provided that such person can show proficiency to perform the identified engineering work applicable to the respective category of registration.

SCOPE OF WORK IDENTIFIED BY COUNCIL FOR THE BUILT ENVIRONMENT FOR PROFESSIONALS OF OTHER COUNCILS FOR THE PROFESSIONS

24 (1) A person registered in a category referred to in section 18(1)(a) of the Architectural Profession Act, 2000 (Act No. 44 of 2000) may perform the scope of work determined in Annexure B which falls within the scope of the engineering profession regulated by the Engineering Profession Act if the education, training and experience of that person have specifically rendered him or her competent to perform that work and the work is performed within the framework of architectural work as defined in Notice No... of 2020 issued by the Council for the Built Environment.

(2) A person registered in a category referred to in section 18(1)(a) of the Engineering Profession Act may perform the scope of services contemplated in Notice No... of 2014 issued by the Council for the Built Environment which falls within the scope of services of the quantity surveying profession regulated by the Quantity Surveying Profession Act, 2000 (Act No. 44 of 2000), if the qualification , training and experience of that person have specifically rendered him or her competent to perform those services and the services are performed within the framework of engineering work.

(3) A person registered in a category referred to in section 18(1)(a)(i) of the Engineering Profession Act may perform the scope of work determined in Annexure C which falls within the scope of the project and construction project management professions regulated by the Project and Construction Project Management Professions Act, 2000 (Act No. 48 of 2000) if the education, training and experience of that person have specifically rendered him or her competent to perform that work and the work is performed within the context of a construction works project.

(4) A person registered in a category referred to in section 18(1)(a) of the Engineering Profession Act may, in conjunction with a person registered in terms of section 18(1)(a) of the Landscape

(5) Architectural Profession Act, 2000 (Act No. 45 of 2000) perform the scope of work identified in Notice No... of 2020 issued by the Council for the Built Environment, if the qualification, training and experience of that person have specifically rendered him or her competent to perform those services and the services are performed within the framework of engineering work or construction works.

APPEAL

25 Any person who feels aggrieved by an action of ECSA as a result of the work identified in this notice or due to the refusal by ECSA to grant a transitional authorisation, special consent or category adjustment contemplated in items 19, 20 or 21 may lodge an appeal against such an action with ECSA and section 35 of the Engineering Profession

Act applies with the necessary changes.

IMPROPER CONDUCT

26 Any registered person who is not permitted to undertake work identified in items 5 to 16 or who has not obtained a transitional authorisation, special consent or category adjustment to do so in terms of item 19, 20 or 21, is in breach of the code of conduct of ECSA and the provisions of the Engineering Profession Act relating to improper conduct applies.

TRANSITIONAL PROVISIONS

27 (1) Any person who is not registered in terms of the Engineering Profession Act, and who is required to be registered as a professional or in a specified category in terms of this Notice must, within 36 months of the date on which this Notice comes into operation, apply for registration according to the programme contemplated in sub-item

(2) in the appropriate category referred to in section 18(1)(a) or (c) of the Engineering Profession Act.

(2) A person who is required to be registered in terms of this Notice and whose surname-

(a) begins with the letter "A" to "K", may apply for registration from 1 January 2022;

(b) begins with the letter "L" to "Q", may apply for registration from 1 January 2023; and

(c) begins with the letter "R" to "Z", may apply for registration from 1 January 2024.

(3) Any person whose registration in a category referred to in section 18(1)(a) or (c) was cancelled in terms of the Engineering Profession Act within one year prior to the date on which this Notice commences must be re- registered in the appropriate professional category within six months from the date on which this Notice commences, unless he or she is not required to be so registered in terms of this Notice.

ANNEXURE A

WORK IDENTIFIED BY THE COUNCIL FOR THE BUILT ENVIRONMENT IN THE CONTEXT OF AN ENGINEERING PROJECT OR A CONSTRUCTION WORKS PROJECT INCLUDES THE SCOPE OF SERVICES IN THE FOLLOWING STAGES

1. The engineering work performed by a person registered in terms of section 18(1)(a) of the Engineering Profession Act in the context of an engineering project or a construction works project, includes the standard services set out in Table A to the extent that the registered person's education, training, experience and contextual knowledge render him or her competent to perform.
2. A person registered in terms of section 18(1)(a) of the Engineering Profession Act may, in the performance of engineering work in the context of an engineering project or the mechanical and electrical engineering work components of a construction works project, perform the work of a principal consultant or principal agent, if appointed as such by the client or employer, to the extent that the registered person's education, training, experience and contextual knowledge render him or her competent to perform.
3. Stages 7, 8 and 9 in Table A below are only applicable to engineering projects.

Table A: Scope of services for a person registered in terms of section 18(1)(a) of the Engineering Profession Act in the context of an engineering project or a construction works project.

STAGE 1: INCEPTION	
1	Assist in developing a clear project brief
2	Attend the project initiation meetings
3	Advise on policies, inter alia, procurement, logistics, indigenisation, standards and specifications for the
4	Advise on rights, constraints, consents and approvals
5	Define the services and scope of work required.
6	Conclude the terms of the agreement with the client
7	Inspect the site and advise on the necessary surveys, analyses, tests and site or other investigations where such information will be required for Stage 2 including the availability and location of

8	Determine availability of data, drawings and plans relating to the project
9	Advise on appropriate financial design criteria
10	Advise on other criteria that could influence the project life cycle cost significantly.
11	Provide necessary information within agreed scope of the project to the other consultants involved
STAGE 2: CONCEPT AND VIABILITY	
1	Agree the documentation programme with the principal consultant, and client and the other consultants
2	Attend design and consultants' meetings
3	Establish concept and project design criteria
4	Prepare initial concept design and related documentation
5	Advise the client regarding further surveys, analyses, tests and investigations which may be required
6	Refine and assess concept design to ensure conformance with all regulatory requirements and consents
7	Establish regulatory authorities' requirements and incorporate into the design
8	Establish access, utilities, services and connections required for the design
9	Co-ordinate design interfaces with the other consultants
10	Prepare preliminary process designs, preliminary designs and related documentation for approval by authorities and the client and suitable for costing
11	Prepare cost estimates and comment on life cycle costs as required
12	Liaise, co-operate and provide necessary information to the client, principal consultant and other consultants involved
13	Undertake preliminary risk assessments
STAGE 3: DESIGN DEVELOPMENT	
1	Review the documentation programme with the principal consultant and the other consultants
2	Attend design and consultants' meetings
3	Incorporate the client's and authorities' detailed requirements into the design
4	Incorporate the other consultants' designs and requirements into the design
5	Prepare design development drawings, including draft technical details and specifications
6	Review and evaluate design and outline specifications and exercise cost control and project
7	Prepare detailed estimates of construction costs and other costs
8	Liaise, co-operate and provide necessary information to the client, principal consultant and other
9	Submit necessary design documentation to local and other authorities for approval.
10	Conduct relevant risk assessments
STAGE 4: DOCUMENTATION AND PROCUREMENT	
1	Chair or attend design and consultants' meetings.
2	Prepare specifications and preambles for the works
3	Accommodate services design
4	Check cost estimate with the quantity surveyor and adjust designs and documents if necessary to remain within budget
5	Chair or assist the principal consultant in the formulation of or formulate the procurement strategy for contractors .
6	Review working drawings for compliance with the approved budget and scope
7	Prepare documentation for contractor procurement
8	Review designs, drawings and schedules for compliance with approved budget

9	Assist the principal consultant with calling of tenders and negotiation of prices, if required Calling for tenders and/or negotiation of prices and/or assist the principal consultant where relevant
10	Liaise, co-operate and provide necessary information to the principal consultant and the other consultants as required
11	Assist with evaluation of tenders
12	Assist with preparation of the contract documentation for signature
13	Assist in pricing, documentation and tender evaluation as required when the detailed services for these activities are provided by others
14	Assess samples and products for compliance and design intent
STAGE 5: CONSTRUCTION	
1	Attend the site handover
2	Issue construction documentation in accordance with the documentation programme including, in the case of structural engineering, reinforcing bending schedules and detailing and specifications of structural steel sections and connections
3	Carry out contract administration procedures delegated by the principal agent in terms of the contract
4	Prepare schedules of predicted cash flow
5	Prepare pro-active estimates for proposed variations for client decision-making
6	Attend regular site, technical and progress meetings
7	Inspect the works for quality and conformity to approved contract documentation
8	Adjudicate and resolve financial claims by contractor
9	Assist in the resolution of contractual claims by the contractor
10	Establish and maintain a financial control system
11	Clarify details and descriptions during construction as required
12	Prepare valuations for payment certificates to be issued by the principal agent
13	Instruct, witness and review of all tests and mock-ups carried out both on and off the site
14	Check and approve subcontract shop contractor drawings for design intent
15	Update and issue drawings register
16	Issue contract instructions as and when required
17	Review and comment on operation and maintenance manuals, guarantees, certificates and warranties
18	Inspect the works and issue practical completion and defects lists
19	Arranging for the delivery of all test certificates, statutory (regulatory) and other approvals, as built drawings and operating manuals.
20	Compilation of the required safety information
21	Prepared final account(s) for electrical and mechanical engineering works on a progressive basis
STAGE 6: CLOSE-OUT OF THE CONSTRUCTION PHASE	
1	Inspect and verify rectification of defects
2	Receive, comment and approve relevant payment valuations and completion certificates
3	Facilitate and/or prepare and/or procure operations and maintenance manuals, guarantees and warranties as- built drawings and documentation
4	Prepare and/or procure as-built drawings and documentation
5	Conclude the final accounts where relevant
6	Obtain final handover and acceptance from the client
STAGE 7: OPERATE IN ACCORDANCE WITH PURPOSE STATEMENT FOR LIFE OF PROJECT	

STAGE 8: MAINTAIN THE AS-BUILT-STATE FOR LIFE OF PROJECT
STAGE 9: SHUTDOWN PERMANENTLY; DECOMMISSION; DEMOLISH AND RE-INSTATE

ANNEXURE B

WORK IDENTIFIED BY THE COUNCIL FOR THE BUIIT ENVIRONMENT WHICH FALLS WITHIN THE SCOPE OF THE ENGINEERING PROFESSION WHICH IS REGULATED BY THE ENGINEERING PROFESSION ACT WHICH MAY BE PERFORMED BY A PERSON REGISTERED IN A CATEGORY REFERRED TO IN SECTION 18(1)(a) OF THE ARCHITECTURAL PROFESSION ACT

A person registered in terms of section 18(1)(a) of the Architectural Profession Act, 2000 may perform the following work which falls within the scope of the engineering profession which is regulated by the Engineering Profession Act to the extent that the registered person' education, training, experience and contextual knowledge render them competent to perform:

1. The design of any building or building component using the deemed-to-satisfy requirements given in SANS 10400: The application of the National Building Regulations, excluding the application of rational design or rational assessment as defined in SANS 10400-A.

ANNEXURE C

WORK IDENTIFIED BY THE COUNCIL FOR THE BUIIT ENVIRONMENT WHICH FALLS WITHIN THE SCOPE OF THE PROJECT AND CONSTRUCTION PROJECT MANAGEMENT PROFESSION REGULATED BY THE PROJECT AND CONSTRUCTION PROJECT MANAGEMENT PROFESSION ACT, 2000 WHICH MAY BE PERFORMED BY A PROFESSIONAL REGISTERED IN THE CATEGORY REFERRED TO IN 18(1)(a)(i) OF THE ENGINEERING PROFESSION ACT

1. A person registered in terms of section 18(1)(a)(i) of the Engineering Profession Act may perform the scope of services indicated in Table C1 below which falls within the scope of services identified by the Council for the Built Environment for a professional registered in terms of the Project and Construction Management Professions Act, 2000, to the extent that the registered person' education, training, experience and contextual knowledge render them competent to perform.

2. The work referred to in the table below is the work contemplated in Notice No. ... of 2014 issued by the Council for the Built Environment.

STAGE 1- PROJECT INITIATION AND BRIEFING
Standard Services
1.1 Assist the client in the procurement of the necessary and appropriate consultants including the clear definition of their roles, responsibilities and liabilities.
1.2. Establish in conjunction with the client, consultants, and all relevant authorities the site characteristics necessary for the proper design and approval of the intended project
1.3. Manage the integration of the preliminary design to form the basis for the initial viability assessment of the project
STAGE 2- CONCEPT AND FEASIBILITY
Standard Services
2.1 Assist the client in the procurement of the necessary and appropriate consultants including the clear definition of their roles, responsibilities and liabilities.
2.2 Advise the client on the requirement to appoint a Health and Safety Consultant
2.3 Manage and integrate the concept documentation for presentation to the client for approval

STAGE 3 - DESIGN DEVELOPMENT
Standard Services
3.1 Assist the client in the procurement of the balance of the consultants including the clear definition of their roles, responsibilities and liabilities.
3.2 Manage, co-ordinate and integrate the design by the consultants
3.3 Conduct and record the co-ordination meetings
3.4 Manage and monitor the timeous submission by the design team of all plans and documentation to obtain the necessary statutory approvals
3.5 Establish responsibilities and monitor the information flow between the design team.
3.6 Facilitate and monitor the timeous technical co-ordination of the design by the design team
STAGE 4- TENDER DOCUMENTATION AND PROCUREMENT
Standard Services
4.1 Manage the tender process in accordance with agreed procedures.
STAGE 5- CONSTRUCTION DOCUMENTION AND MANAGEMENT
Standard Services
5.1 Appoint contractor(s) on behalf of the client including the finalisation of all agreements.
5.2 Instruct the contractor on behalf of the client to appoint subcontractors.
5.3 Receive, co-ordinate, review and obtain approval of all contract documentation provided by the contractor, subcontractors, and suppliers for compliance with all of the contract requirements.
5.4 Facilitate the handover of the site to the contractor.
5.5 Regularly conduct and record the necessary site meetings
5.6 Monitor the compliance by the contractors of the requirements of the Health and Safety Consultant.
5.7 Monitor the preparation by the Environmental Consultants of the Environmental Management Plan
5.8 Establish the construction information distribution procedures.
5.9 Agree and monitor the Construction Documentation Schedule for timeous delivery of required information to the contractors.
5.10 Manage the review and approval of all necessary shop details and product propriety information.
5.11 Agree to the quality assurance procedures and monitor the implementation thereof by the consultants and contractors.
5.12 Monitor, review, approve and certify monthly progress payments.
5.13 Receive, review and adjudicate any contractual claims.
5.14 Issue the Practical Completion Lists and the Certificate of Practical Completion.

5.15 Issue of the Works Completion List by the consultants to the contractors.
5.16 Check the defects items to achieve Works Completion.
STAGE 6 - PROJECT CLOSE OUT
Standard Services
6.1 Issue the Works Completion Certificate
6.2 Preparation of all as-built drawings and design documentation.
6.3 The procurement of all statutory compliance certificates and documentation.
6.4 Issue the Final Completion Defects list and Certificate of Final Completion.

BOARD NOTICE 22 OF 2021

ENSURING THE
EXPERTISE TO GROW
SOUTH AFRICA

Guideline Professional Fees

(Scope of Services and Tariff of Fees for Persons Registered in terms of the Engineering Profession Act, 46 of 2000)

ENGINEERING COUNCIL OF SOUTH AFRICA
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ECSA

TABLE OF CONTENTS

CONTINUES ON PAGE 386 OF BOOK 4

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PART 4 OF 4

ENGINEERING COUNCIL OF SOUTH AFRICA

Guideline Professional Fees

(Scope of Services and Tariff of Fees for Persons Registered in terms of the Engineering Profession Act, 46 of 2000)

The Engineering Council of South Africa has, under Section 34(2) of the Engineering Profession Act. 2000 (Act No. 46 of 2000) determined the guideline scope of services and tariff of fees in the Schedule.

Any amount mentioned in or fee calculated in terms of this Schedule is exclusive of Value Added Tax.

The commencement date of these Rules shall be……

SCHEDULE

DEFINITIONS

In this Schedule, any word or expression defined in the Act has that meaning, and, unless the context otherwise indicates:

Building Project and Multi-Disciplinary Project means a project comprising building work or multi-disciplinary work, together with its associated engineering work, where the engineer is subject to the authority of another professional acting as the Principal Agent while financial and administrative matters may be dealt with by another professional, and where the engineer is only paid a fee based on the costs of a portion of works.

Client means any juristic person or organ of the State engaging a consulting engineer for services on a project.

Consulting Engineer or Consultant, for purposes of these rules only, means any professional registered in terms of the Act**,** or a juristic person who employs such professional, engaged by a client on a project.

Construction Monitoring means the process of administering the construction contract and over-seeing and/or inspecting the works, to the extent of the consulting engineer's engagement, for the purpose of verification that the works are being completed in accordance with the requirements of the contract that the designs are being correctly interpreted and that appropriate construction techniques are being utilised. Construction monitoring, to whatever extent, does not diminish the contractor's responsibility for executing and completing the works in accordance with his contract.

Contractor means any person or a juristic person under contract to a client to perform the works or part of it on a project, including a subcontractor under contract to such contractor.

Cost of the Works means the total final amount (or a fair estimate thereof), exclusive of value added tax, certified or which would, normally, be certifiable for payment to Contractors (irrespective of who actually carries out the works) in respect of the works

designed, specified or administered by the consulting engineer, before deduction of liquidated damages or penalties, including the following:

- Escalation, assuming continuity of the project through to final completion. Where delays occur in the project cycle the client and consultant should come to an agreement on the escalation that will be applicable to various stages of services.
- A pro-rata portion of all costs related to the Contractor general obligations and overhead (preliminary and general) items, including contractor's profit, applicable to the works (irrespective of who actually carries out the works).
- The costs of new materials, goods or equipment, or a fair evaluation, of such material, goods or equipment as if new whether supplied new or otherwise by or to the client and including the cost or a fair evaluation of the cost of installation (the sourcing, inspection and testing of such comprise additional services by the consulting engineer).

Electronic Engineering Services means services related to the provision of electronic systems and detailing the terminations, signals and interconnections of electronic components as distinct from conventional electrical HV, MV and LV systems and related reticulation.

Engineering Project means a project of which the scope comprises mainly engineering work.

Fees and/or tariff of fees means payment made to a consultant or consulting engineer in exchange for advice or services.

Normal Services means the services set out in clause 3.2.

Principal Consultant means the Professional Service Provider appointed by the client to manage and administer the services of all consultants on a multi-disciplinary project, where more than one professional service provider is appointed.

Principal Agent means the entity, person, or professional services provider named or appointed with full authority and obligation to act in terms of the contract between the client and the contractor. Depending on the form of contract applicable, the term "agent, or

employer's agent", or "engineer", or "project manager" have the same meaning as "principal agent".

Project means any total scheme envisaged by a client, including all the works and services concerned.

Quality Assurance Plan is the plan that is put in place that represents the total of the contractor's quality control processes as well as other inspections and acceptable testing processes and related activities that are associated with assuring the client that the works will meet acceptable standards.

Scope of Work means the portion of the works for which the consulting engineer is engaged.

Scope of Services and/or Services means the services contemplated in clause 3 on a project for which a consulting engineer is engaged.

Stage means a stage of normal services set out in clause 3.2.

the Act means the Engineering Profession Act, 46 of 2000.

Total Annual Cost of Employment means the total annual cost of employment as defined in clause 4.4(4).

the Agreement means the agreement signed by the client and consulting engineer that defines their relationship and obligations as well as the scope of work and services to be provided by the consulting engineer and the remuneration of the consulting engineer and related commercial terms.

Works means the activities on a project for which contractors are under contract to the client to perform or are intended to be performed, including the supply of goods and equipment.

1. PREAMBLE

This Schedule shows sets of tariffs of fees that serve as a guideline to determining fees to be paid for engineering services that are fair and equitable to all parties. This schedule allows for four different methods of remuneration namely:

(a) percentage fee based on the cost of works

(b) fees for services that are additional to those provided for in the normal percentage fee-based calculation

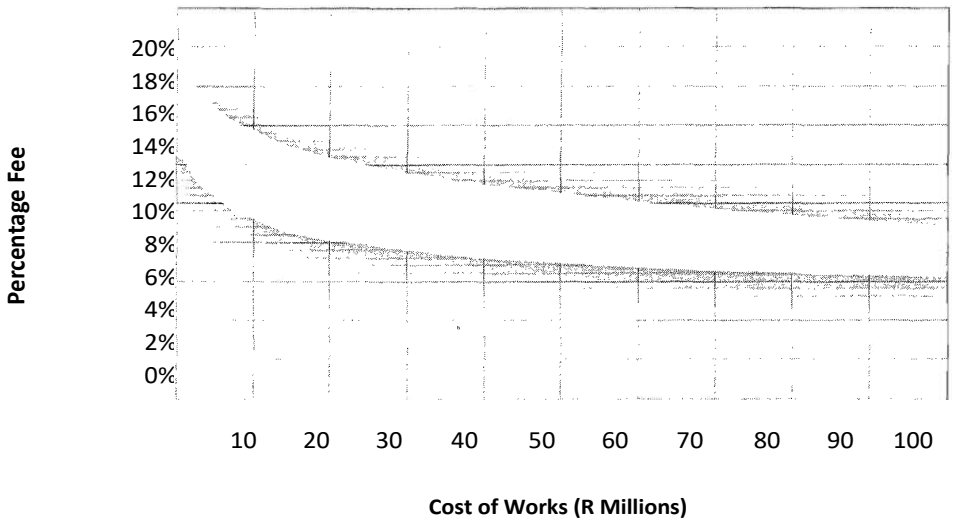
(c) Time-based fees

(d) Reimbursable expenses.

Where the scope of work is uncertain remuneration will primarily be based on time and reimbursable expenses.

Where the location, size, character, form and function of the works has been defined through previous studies and investigations that have either formed part of the client's normal business practices or have been the subject of previous separate appointments paid for on a time and cost basis, the remuneration can be determined using the guideline tariffs that are based on the cost of the works. This provides a convenient way to express the fee payable if the scope of work is somewhat uncertain. The typical range of percentage fees applicable to different size projects and services provided are shown in the graph below.

Typical % Fee



The graph shows that the fee can range from 6% for a large project up to 20% for a small project. The fee can also fall within the shadowed area on either side of the band depending on the complexity factors that are expanded upon in paragraph 4.1. These factors are normally converted into multipliers that range from 0.3 to 1.5 and that are applied to modify the overall percentage fee and agree on a fair and reasonable fee for the services to be provided.

Once the client and consulting engineer have come to a mutually acceptable agreement on the appropriate fee and the scope of services and scope of work are clearly defined, then the client and consulting engineer should agree on commercial terms that set out the timing of deliverables and related payments as well as the method of payment that seeks to balance service provider cash flow and client risk.

This guideline is not prescriptive but has been produced as an aid to assist a client and the consulting engineer in reaching an equitable agreement on fees for services offered.

2. GENERAL PROVISIONS

2.1 Repeal and transition

Subject to sub-clause (2), the Guideline Scope of Services and Tariff of Fees for Persons Registered in terms of the Engineering Profession Act, 46 of 2000, published under Government Gazette No. 39480, Board Notice 138 of 04 December 2015, is hereby repealed.

The provisions of previous Board Notices including subsequent amendments still apply in respect of services rendered during a stage, which has not yet been completed by the date of commencement of this Schedule.

2.2 Generality of terms

In this document, except where the context otherwise requires or indicates:

- the masculine includes the feminine
- the singular includes the plural
- any reference to a natural person includes a juristic person.

2.3 Short title

This Schedule is called the Guideline Scope of Services and Tariff of Fees for Registered Persons, 2021.

3. GUIDELINE SCOPE OF SERVICES

3.1 Planning, studies, investigations and assessments

These typical services relate to carrying out studies and investigations as well as the preparation and submission of reports embodying preliminary proposals or initial feasibility studies and will normally be remunerated on a time and cost basis.

1. Consultation with the client or client's authorised representative.
2. Inspection of the project site.

3. Developing and defining the scope of work where required.
4. Preliminary investigation, route location, planning and a level of design appropriate to allow decisions on feasibility.
5. Assessment of existing infrastructural elements with the view of informing the project on options of how to integrate existing works with proposed new works.
6. Consultation with authorities having rights or powers of sanction as well as consultation with the public and stakeholder groups.
7. Advice to the client as to regulatory and statutory requirements, including environmental management and the need for surveys, analysis, tests and site or other investigations, as well as approvals, where such are required for the completion of the report, and arranging for these to be carried out at the client's expense.
8. Searching for, obtaining, investigating and collating available data, drawings and plans relating to the works.
9. Investigating financial and economic implications relating to the proposals or feasibility studies.
10. Clause (9) does not normally apply to civil and structural services or on building projects, where these services are provided by a quantity surveyor, except as far as the interpretation of cost figures concerning the engineer's scope of works.
11. Assist the client to develop timeframes for next stages of the project where required.

Deliverables will typically include:

- collation of information
- reports on technical and financial feasibility and related implications
- list of consents and approval
- schedule of required surveys, tests, analyses, site and other investigations
- time frames for upcoming deliverables.

3.2 Normal Service

These services are applicable to projects where the nature, form and function of the project have been defined through previous investigations and reports and the engineering services are required to take the project through to successful completion of construction.

In the case where only a single consulting engineer is appointed on a project, the services and deliverables of the principal agent are included as normal and must be agreed between the parties to see the project through all stages.

Financial Administration Services

Unless otherwise agreed in writing prior to the commencement of any work, part of the normal services of the consulting engineer on all projects includes the provision of services related to all financial matters such as calculation of quantities, cost estimates, cost control and the procurement process.

The only exceptions, where financial services do not form part of the normal services of the consulting engineer are in the following cases:

- Structural and civil engineering services related to building and multi-disciplinary projects, and where such services form part of the quantity surveyor's scope of services. Where the civil and structural consulting engineer is required to give assistance with such services, these shall be treated as an additional service remunerated on a time and cost basis.
- In the case of building and multi-disciplinary projects where the scope of works forms part of the principal building contract (for example a domestic subcontract) and where such financial administration services form part of the quantity surveyor's scope of services.

3.2.1 Stage 1 – Inception

Defined as: Establish client requirements and preferences, assess user needs and options, appointment of necessary consultants, establish the project brief including project objectives, priorities, constraints, assumptions aspirations and strategies.

1. Assist in developing a clear project brief.
2. Attend project initiation meetings.
3. Advise on procurement policy for the project.
4. Advise on the rights, constraints, consents and approvals.
5. Define the scope of services and scope of work required.
6. Conclude the terms of the agreement with the client.
7. Inspect the site and advise on the necessary surveys, analyses, tests and site or other investigations where such information will be required for Stage 2 including the availability and location of infrastructure and services.
8. Determine the availability of data, drawings and plans relating to the project.
9. Advise on criteria that could influence the project life cycle cost significantly
10. Provide necessary information within the agreed scope of the project to other consultants involved.

Deliverables will typically include:

- agreed scope of services and scope of work
- signed agreement
- report on project, site and functional requirements
- schedule of required surveys, tests, analyses, site and other investigations
- schedule of consents and approvals and related timeframes.

3.2.2 Stage 2 – Concept and Viability (often called preliminary design)

Defined as: Prepare and finalise the project concept in accordance with the brief, including project scope, scale, character, form and function, plus preliminary programme and viability of the project.

1. Agree documentation programme with principal agent or consultant and other consultants involved.
2. Attend design and consultants' meetings.
3. Establish the concept design criteria.
4. Prepare initial concept design and related documentation.
5. Advise the client regarding further surveys, analyses, tests and investigations that may be required.
6. Establish regulatory authorities' requirements and incorporate into the design.
7. Refine and assess the concept design to ensure conformance with all regulatory requirements and consents.
8. Establish access, utilities, services and connections required for the design.
9. Participate in coordinated design interfaces with architect or other consultants involved.
10. Prepare process designs (where required), preliminary designs, and related documentation for approval by authorities and client and suitable for costing.
11. Provide cost estimates and life cycle costs, as required.
12. Liaise, co-operate and provide necessary information to the client, principal consultant and other consultants involved.

Deliverables will typically include:

- concept design
- schedule of required surveys, tests and other investigations and related reports
- process design
- preliminary design
- cost estimates, as required.

3.2.3 Stage 3 – Design Development (also termed detailed design)

Defined as: Develop the approved concept to finalise the design, outline specifications, cost plan, financial viability and programme for the project.

1. Review documentation programme with principal consultant and other consultants involved.
2. Attend design and consultants' meetings.
3. Incorporate client's and authorities' detailed requirements into the design.
4. Incorporate other consultants' designs and requirements into the design.
5. Prepare design development drawings including draft technical details and specifications.
6. Review and evaluate design and outline specification and exercise cost control.
7. Prepare detailed estimates of construction cost.
8. Liaise, co-operate and provide necessary information to the principal consultant and other consultants involved.
9. Submit the necessary design documentation to local and other authorities for approval.

Deliverables will typically include:

- design development drawings
- outline specifications
- local and other authority submission drawings and reports
- detailed estimates of construction costs.

3.2.4 Stage 4 – Documentation and Procurement

Defined as: Prepare procurement and construction documentation, confirm and implement the procurement strategies and procedures for effective and timeous procurement of necessary resources for execution of the project.

1. Attend design and consultants' meetings.
2. Prepare specifications and preambles for the works.
3. Accommodate services design.
4. Check cost estimates and adjust designs and documents, if necessary, to remain within budget.

5. Formulate the procurement strategy for contractors or assist the principal consultant where relevant.
6. Prepare documentation for contractor procurement.
7. Review designs, drawings and schedules for compliance with approved budget.
8. Call for tenders and/or negotiation of prices and/or assist the principal consultant or quantity surveyor where relevant.
9. Liaise, co-operate and provide necessary information to the principal consultant and the other consultants as required.
10. Evaluate tenders.
11. Prepare contract documentation for signature.
12. Assess samples and products for compliance and design intent.
13. Assist in pricing, documentation and tender evaluation as required when the detailed services for these activities are provided by others.

Deliverables will typically include:

- specifications
- services co-ordination
- working drawings
- budget construction cost
- tender documentation
- tender evaluation report
- tender recommendations
- priced contract documentation.

3.2.5 Stage 5 – Contract Administration and Inspection

Defined as: Manage, administer and monitor the construction contracts and processes including preparation and coordination of procedures and documentation to facilitate practical completion of the works.

1. Attend site handover.

2. Issue construction documentation in accordance with the documentation schedule including, in the case of structural engineering, reinforcing bending schedules and detailing, and specifications of structural steel sections and connections.
3. Carry out contract administration procedures in terms of the contract.
4. Prepare schedules of predicted cash flow.
5. Prepare pro-active estimates of proposed variations for client decision-making.
6. Attend regular site, technical and progress meetings.
7. Inspect the works for conformity to contract documentation as described under Clause 3.3.2.
8. Review the outputs of quality assurance procedures and advise the contractor and client on adequacy and need for additional controls, inspections and testing.
9. Adjudicate and resolve financial claims by contractors.
10. Assist in the resolution of contractual claims by the contractor.
11. Establish and maintain a financial control system.
12. Clarify details and descriptions during construction as required.
13. Prepare valuations for payment certificates to be issued by the principal agent.
14. Witness and review of all tests and mock-ups carried out on site.
15. Check and approve contractor drawings for compliance with contract documents.
16. Update and issue drawings register.
17. Issue contract instructions as and when required.
18. Review and comment on operation and maintenance manuals, guarantee certificates and warranties.
19. Inspect the works and issue practical completion and defects lists.
20. Arranging for the delivery of all test certificates, including any Certificates of Compliance, statutory and other approvals, and record drawings and operating manuals.

Deliverables will typically include:

- schedules of predicted cash flow
- construction documentation
- drawing register
- estimates for proposed variations
- contract instructions
- financial control reports
- valuations for payment certificates
- progressive and draft final accounts
- practical completion and defects list
- all statutory certification and certificates of compliance as required by the local and other statutory authorities.

3.2.6 Stage 6 – Close-Out

Defined as: Fulfil and complete the project close-out, including necessary documentation to facilitate effective completion, handover and operation of the project.

1. Inspect and verify the rectification of defects.
2. Receive, comment and approve relevant payment valuations and completion certificates.
3. Prepare and/or procure operations and maintenance manuals, guarantees and warranties.
4. Prepare and/or procure as-built drawings and documentation.
5. Conclude the final accounts where relevant.

Deliverables will typically include:

- valuations for payment certificates
- works and final completion lists
- operations and maintenance manuals, guarantees and warranties
- as-built drawings and documentation
- final accounts.

3.3 Additional services

The following services are additional to the normal services provided by the consulting engineer, unless specifically agreed otherwise between the consulting engineer and the client. The agreement on the scope of services and remuneration must be in writing and should, if at all possible, be concluded before the services are rendered.

3.3.1 Additional services pertaining to all stages of the project

1. All services related to defining the scope of work, previously carried out under Clause 3.1, planning, studies, investigations and assessments, and that are normally paid for on a time and cost basis.
2. Enquiries not directly concerned with the works and its subsequent utilisation.
3. Valuation for purchase, sale or leasing of plant, equipment, material, systems, land or buildings or arranging for such valuation.
4. Making arrangements for way leaves, servitudes or expropriations.
5. Negotiating and arranging for the provision or diversion of services and or infrastructure not forming part of the works.
6. Additional work in obtaining the formal approval of the appropriate government departments or public authorities, including the making of such revisions as may be required as a result of decisions of such departments or authorities arising out of changes in policy, undue delay, or other causes beyond the consulting engineer's control.
7. Additional work related to monitoring as required by any government departments or authorities to facilitate regulatory approvals and certification (e.g. Mines Health and Safety Act, 29 of 1996).
8. Topographical and environmental surveys, analyses, tests and site or foundation or other investigations, model tests, laboratory tests and analyses carried out on behalf of the client.
9. Setting out or staking out the works and indicating any boundary beacons and other reference marks.

10. Preparation of drawings for manufacture and installation or detailed checking of such for erection or installation fit.
11. Detailed inspection, reviewing and checking of designs and drawings not prepared by the consulting engineer and submitted by any contractor or potential contractor as alternative to those embodied in tender or similar documents prepared by the consulting engineer.
12. Inspection and testing, other than on site, of materials and plant, including inspection and testing during manufacture.
13. Preparing and setting out particulars and calculations in a form required by any relevant authority.
14. Abnormal additional services by or costs to the consulting engineer due to the failure of a contractor or others to perform their required duties adequately and on time.
15. Executing or arranging for the periodic monitoring and adjustment of the works, after final handover and completion of construction and commissioning, to optimise or maintain proper functioning of any process or system.
16. Investigating or reporting on tariffs or charges leviable by or to the client.
17. Advance ordering or reservation of materials and obtaining licences and permits.
18. Preparing detailed operating, operation and maintenance manuals.
19. Preparing record drawings on designs done by others or related to alterations to existing works.
20. Additional services, duties and/or work resulting from project scope changes, alterations and/or instructions by the client, or his duly authorised agents, requiring the consulting engineer to advice upon, review, adapt and/or alter his completed designs and/or any other documentation and/or change the scope of his services and/or duties. Such additional services are subject to agreement in writing between the consulting engineer and the client prior to the execution thereof.
21. Work and or services related to targeted procurement that could entail, but is not necessarily limited to any or all of the following:

- Incorporation of any targeted participation goals, the measuring of key participation indicators.
- The selection, appointment and administration of participation.
- Auditing compliance to the above by any contractors and/or professional consultant.

22. Exceptional arrangements, communication, facilitation and agreements with any stakeholders other than the client and contractors appointed for the works on which the consulting engineer provides services.
23. Any other additional services, of whatever nature, specifically agreed to in writing between the consulting engineer and the client.
24. Building Information Modelling (BIM) compliancy. Where BIM is a specified project requirement, the appointment a BIM manager, the preparation and approval by the client of the BIM Execution Plan and the additional effort over conventional projects to set up the project to be fully BIM compliant as required by the client.

3.3.2 Construction monitoring

Quality assurance during construction refers to the engineering activities that are implemented to demonstrate to the client that works are highly likely to meet the requirements. This is achieved through a combination of the quality control processes that are put in place by the contractor to control its outputs and the inspection and acceptance testing that is carried out by the consulting engineer to confirm conformance prior to certification. While the contractor takes the ultimate responsibility for quality and meeting the design requirements, the purpose of a quality assurance plan and related construction monitoring is to inspect and satisfy the client and the consulting engineer that the risk of these requirements not being met is acceptable.

This means that the client and consulting engineer should agree a satisfactory arrangement in respect of construction monitoring that suits the type of work, the project location and the duration of the critical aspects of the works. Disagreement regarding the required level of construction monitoring should not be taken lightly and the parties should carefully consider the consequences of non-compliance and related responsibilities, bearing in mind that the

consulting engineer has a duty of care, while the client should strive to ensure quality and minimise life-cycle costs.

The level of construction monitoring and the frequency and duration of the site visits must be agreed with the client prior to commencement of the works and should be recorded in the agreement with the client. The level of construction monitoring and activities related to the quality assurance plan may change during the course of the works to reduce quality related risks and this will require an amendment of the agreement.

Level 1 construction monitoring services may suffice for simple projects where more regular inspections are not required other than during critical stages of the works with less frequent visits once the portion of the works in which the consulting engineer is involved has largely been completed. In most situations, however, more regular construction monitoring is required for quality assurance and certification. Refer to 3.2.2 (7) below.

Aspects that need to be considered when determining the degree to which additional construction monitoring services are required are:

- the type of work
- the discipline of the work (civil, structural, mechanical, electrical etc)
- the competency of the contractor and its related quality control system
- the speed with which critical elements of the work are covered
- the consequences of non-compliance
- the timing and ease of subsequent detection and rectification of non-compliance.

Arising from the above, three levels of construction monitoring may be defined and described, as follows:

(a) **Level 1:** Periodic Construction Monitoring

The consulting engineer's staff must:

(i) visit the works at a frequency agreed with the client or at on-call basis at a notice time agreed with the contractor and the client, with extra visits for works completion

inspections, provision of design/technical clarifications and inspections for works defects lists

(ii) review random samples of material and work procedures, for conformity to contract documentation, and review random samples of important completed work prior to covering up, or on completion, as appropriate.

(b) **Level 2:** Part-time Construction Monitoring

The consulting engineer's staff, or part-time construction monitoring staff must:

(i) regularly visit the site at a frequency that may vary during the course of the project, and such visits may be daily or weekly, according to the project demands; the frequency and duration of site visits are must be agreed in writing between the client and the consulting engineer prior to commencement of the services

(ii) review regular samples of materials and work procedures, for conformity to contract documentation, provide design/ technical clarifications where required and review regular samples of important completed work prior to covering up, or on completion, as appropriate

(iii) where the consulting engineer is the sole professional service provider or principal agent, carry out such administration of the project as is necessary on behalf of the client.

(c) **Level 3:** Full-time Construction Monitoring (full-time staff resident on site for the duration of the works and paid for by the client as an additional service)

The full-time construction monitoring staff must:

(i) maintain a full-time presence on site to constantly review samples of materials and work procedures, for conformity to contract documentation, provide design/ technical clarifications and review completed work prior to covering up, or on completion, as appropriate

(ii) assist with the preparation of as-built records and drawings to the extent required in the agreement with the client

(iii) where the consulting engineer is the sole professional service provider or principal agent, carry out such administration of the project as is necessary on behalf of the client

Level 1 construction monitoring is considered to be a basic level of service and is only suitable for the most simple, routine projects. The client must be aware of the risk associated with Level 1 construction monitoring because the consulting engineer is often unable to witness or inspect work prior to its being covered up and is not liable for hidden defects. On any project where a significant portion of the work is rapidly covered, such as projects involving underground services and building projects like secondary healthcare, tourism and leisure, industrial, commercial, retail and office buildings with complex electrical and mechanical works, Level 2 or Level 3 construction monitoring is required.

Where Level 1 construction monitoring is applied on a project and, for reasons beyond the control of the consulting engineer, additional site visits in excess of the frequency initially agreed with the client or are on-call basis, these must be undertaken by the consulting engineer and will be regarded as an additional service.

Most engineering work typically requires at least Level 2 monitoring to enable the engineer to inspect work prior to its being covered up. Examples may include witnessing the position of reinforcing steel prior to pouring concrete, underground installations or installations above false ceilings. The consulting engineer may also require acceptance inspection and testing of various elements on a regular basis depending on the quality controls instituted by the contractor as part of the quality assurance plan. Level 2 construction monitoring does not allow for a full-time presence on site and so the consulting engineer and construction monitoring staff are unable to witness/inspect all work prior to its being covered up.

In the case of most civil works where all materials and elements are generally regarded as being critical and are covered on a daily basis, work is monitored on a continuous basis for the duration of the works and Level 3 monitoring usually applies. This level is also applied to the structural works that are included in such projects.

In some instances, staff members are made available by the client to assist in construction monitoring, in which cases, these persons should report to and take instructions from the

consulting engineer or an authorised representative of the consulting engineer to avoid mixed messages being passed to the contractor.

3.3.3 Occupational Health and Safety Act, 85 of 1993

Should the client require the consulting engineer to undertake duties falling under the Occupational Health and Safety Act, 85 of 1993 and the Construction Regulations in terms thereof, on behalf of the client, the additional services may include the following:

- The consulting engineer must arrange, formally and in writing, for the contractor to provide documentary evidence of compliance with all the requirements of the Occupational Health and Safety Act, 85 of 1993.
- The consulting engineer must execute the duties of the client, as his appointed agent, as contemplated in the Construction Regulations to the Occupational Health and Safety Act, 85 of 1993.

3.3.4 Quality assurance system

Where the client requires a quality management system or quality assurance services, over and above construction monitoring services, to be applied to the project, these are in addition to normal services provided by the consulting engineer and must be specifically defined and separately agreed in writing prior to commencement thereof.

3.3.5 Lead consulting engineer

Should the client require the consulting engineer to assume the leadership of a joint venture, consortium or team of consulting engineers of the same discipline, prescribed or requested by the client, the additional services may include the following:

- Responsibility for the overall administration of all sections of the services, including those portions of the services, which fall within the ambit of the other consulting engineers.
- Responsibility for the overall co-ordination, programming of design and financial control of all the works included in the services.
- Processing certificates or recommendations for payment of contractors.

3.3.6 Engineering management services (principal consultant)

Should the client require the consulting engineer to undertake duties of an engineering management nature on behalf of the client, the additional services will include the following:

Stage 1 Services – Inception

1. Facilitate development of a clear project brief.
2. Establish the procurement policy for the project.
3. Assist the client in the procurement of necessary and appropriate other consultants including the clear definition of their roles and responsibilities.
4. Establish in conjunction with the client, other consultants and all relevant authorities, the site characteristics, rights and constraints for the proper design of the intended project.
5. Define the consultant's scope of work and services.
6. Conclude the terms of the agreement with the client.
7. Facilitate a schedule of the required consents and approvals.
8. Prepare, co-ordinate and monitor a project initiation programme.
9. Facilitate client approval of all Stage 1 documentation.

Typical deliverables:

- Project brief
- Agreed scope of work
- Agreed services
- Project procurement policy
- Signed agreements
- Integrated schedule of consents and approvals
- Project initiation programme
- Record of all meetings.

Stage 2 services – Concept and Viability

1. Assist the client to procure the other consultants.

2. Advise the client on the requirement to appoint a health and safety consultant.
3. Communicate the project brief to the other consultants and monitor the development of the concept and viability.
4. Agree format and procedures for cost control and reporting by the other consultants.
5. Prepare a documentation programme and indicative construction programme
6. Manage and integrate the concept and viability documentation for presentation to the client for approval.
7. Facilitate approval of the concept and viability by the client.
8. Facilitate approval of the concept and viability by statutory authorities.

Typical deliverables:

- Signed consultant/client agreements
- Indicative documentation programme and construction programme
- Approval by the client to proceed to Stage 3.

Stage 3 Services – Design Development

1. Agree and implement communication processes and procedures for the design development of the project.
2. Assist the client to procure the necessary other consultants including the clear definition of their roles and responsibilities.
3. Prepare, co-ordinate, agree and monitor a detailed design and documentation programme.
4. Conduct and record consultants' and management meetings.
5. Facilitate input required by health and safety consultant.
6. Facilitate design reviews for compliance and cost control.
7. Facilitate timeous technical co-ordination.
8. Facilitate client approval of all Stage 3 documentation.

Typical deliverables:

- Additional signed client/consultant agreements
- Documentation programme
- Record of all meetings
- Approval by the client to proceed to Stage 4.

Stage 4 services – Documentation and Procurement

1. Recommend and agree procurement strategy for contractors, subcontractors and suppliers with the client and the other consultants.
2. Prepare and agree the procurement programme.
3. Advise the client, in conjunction with the other consultants, on the appropriate insurance.
4. Co-ordinate and monitor preparation of procurement documentation by consultants in accordance with the project procurement programme.
5. Manage procurement process and recommend contractors for approval by the client.
6. Agree the format and procedures for monitoring and control by the quantity surveyor of the cost of the works.
7. Co-ordinate and assemble the contract documentation for signature.

Typical deliverables:

- Procurement programme
- Tender/contract conditions
- Record of all meetings
- Obtain approval by the client of tender recommendation(s)
- Contract documentation for signature.

Stage 5 services – Contract Administration and Inspection

1. Arrange site handover to the contractor.
2. Establish construction documentation issue process.
3. Agree and monitor issue and distribution of construction documentation.
4. Instruct the contractor on behalf of the client to appoint subcontractors.

5. Conduct and record regular site meetings.
6. Monitor, review and approve the preparation of the construction programme by the contractor.
7. Regularly monitor performance of the contractor against the construction programme.
8. Adjudicate entitlements that arise from changes required to the construction programme.
9. Receive, co-ordinate and monitor approval of all contract documentation provided by contractors.
10. Agree quality assurance procedures and monitor implementation thereof by the other consultants and the contractors.
11. Monitor preparation and auditing of the contractor's health and safety plan and approval thereof by the health and safety consultant.
12. Monitor preparation of the environmental management plan by the consultant.
13. Establish procedures for monitoring scope and cost variations.
14. Monitor, review, approve and issue certificates.
15. Receive, review and adjudicate any contractual claims.
16. Monitor preparation of financial control reports by the other consultants.
17. Prepare and submit progress reports.
18. Co-ordinate, monitor and issue practical completion lists and the certificate of practical completion.
19. Facilitate and expedite receipt of the occupation certificate where relevant.

Typical deliverables:

- Signed contracts
- Approved construction programme
- Construction documentation
- Payment certificates
- Progress reports
- Record of meetings

- Certificates of practical completion.

Stage 6 services – Close-Out

1. Co-ordinate and monitor rectification of defects.
2. Manage procurement of operations and maintenance manuals, guarantees and warranties.
3. Manage preparation of as-built drawings and documentation.
4. Manage procurement of outstanding statutory certificates.
5. Monitor, review and issue payment certificates.
6. Issue completion certificates.
7. Manage agreement of final accounts.
8. Prepare and present the project close-out report.

Typical deliverables:

- Completion certificates
- Record of necessary meetings
- Project close-out report.

3.3.7 Mediation, arbitration and litigation proceedings and similar services

Where the client requires the consulting engineer to, on his or her behalf, perform the services listed hereunder or similar work, the extent thereof and remuneration are subject to agreement between the client and the consulting engineer:

- Dealing with matters of law, obtaining parliamentary or other statutory approval, licenses or permits.
- Assisting with or participating in contemplated or actual mediation, arbitration or litigation proceedings.
- Officiating at or attending courts and commissions of enquiry, select committees and similar bodies convened by statute, regulation or decree.

3.3.8 Principal agent of the client

When a consulting engineer is, in addition to his normal functions as consulting engineer, appointed as the client's principal agent for the purposes of procurement and construction on a project, the consulting engineer is also responsible for the following:

Stage 3 services – Design Development

1. Prepare, co-ordinate, agree and monitor a detailed design and documentation programme.

Typical deliverables:

- Detailed design and documentation programme.

Stage 4 services – Documentation and Procurement

1. Recommend and agree procurement strategy for contractors, subcontractors and suppliers with the client and the other consultants.
2. Prepare and agree the procurement programme.
3. Advise the client, in conjunction with the other consultants on appropriate insurance.
4. Manage procurement process and recommended contractors for approval by the client.
5. Agree the format and procedures for monitoring and control by the quantity surveyor of the cost of the works.
6. Co-ordinate and assemble the contract documentation for signature.

Typical deliverables:

- Procurement programme
- Tender/contract conditions
- Contract documentation for signature.

Stage 5 services – Construction Administration

1. Arrange site handover to the contractor.
2. Establish construction documentation issue process.

3. Agree and monitor issue and distribution of construction documentation.
4. Instruct the contractor on behalf of the client to appoint subcontractors.
5. Conduct and record regular site meetings.
6. Review, approve and monitor the preparation of the construction programme by the contractor.
7. Regularly monitor performance of the contractor against the construction programme.
8. Adjudicate entitlements that arise from charges required to the construction programme.
9. Receive, co-ordinate and monitor approval of all contract documentation provided by contractors.
10. Agree quality assurance procedures and monitor implementation thereof by the other consultants and the contractors
11. Monitor preparation and auditing of the contractor's health and safety plan and approval thereof by the health and safety consultant.
12. Monitor preparation of the environmental management plan by the environmental consultant.
13. Establish procedures for monitoring scope and cost variations.
14. Monitor, review, approve and issue certificates.
15. Receive, review and adjudicate any contractual claims.
16. Monitor preparation of financial control reports by the other consultants.
17. Prepare and submit progress reports.
18. Co-ordinate, monitor and issue practical completion lists and the certificate of practical completion.

Typical deliverables:

- Signed contracts
- Approved construction programme
- Construction documentation
- Payment certificates
- Progress reports

- Record of meetings
- Certificates of practical completion
- Facilitate and expedite receipt of occupation certificates.

Stage 6 services – Close-Out

1. Co-ordinate and monitor rectification of defects.
2. Manage procurement of operations and maintenance manuals, guarantees and warranties.
3. Manage preparation of as-built drawings and documentation.
4. Manage procurement of outstanding statutory certificates.
5. Monitor, review and issue payment certificates.
6. Issue completion certificates.
7. Manage agreement of final accounts.
8. Prepare and present the project close-out report.

Typical deliverables:

- Completion certificates
- Record of necessary meetings
- Project close-out report.

4. GUIDELINE TARIFF OF FEES

4.1 Application of tariff of fees

The guideline tariff of fees contained in this Schedule applies in respect of the services set out in clause 3.

The client should remunerate the consulting engineer, for the services rendered, on the basis of clauses 4.2 to 4.5. In cases where the client and consulting engineer have agreed that clauses 4.2 and 4.3 are not applicable, payment should be on the basis of clause 4.4 or as agreed according to clause 4.

The client must reimburse the consulting engineer for all expenses and costs incurred in terms of clause 4.5 in performing his or her services, irrespective of whether fees are charged in terms of clauses 4.2 and 4.3 or clause 4.4, as well as for all costs incurred on behalf, and with the approval, of the client.

While the tariff of fees contained in this Schedule can be applied to many projects, the factors that influence the fees to be paid for design services on a project are complex and depend on a number of contributing factors These contributing factors that should be taken into account may include, among others, all or any of the following:

(a) Project complexity: Projects may range from relatively simple projects where the designs are based on well established, common practices to more complex projects where the works call for the application of new, unusual or untried techniques, designs, systems or applications.

(b) Monetary value of the works: This may range from a situation where the value of the work is very high relative to the services being rendered to a project where the value of the works is abnormally low relative to the services required from the consulting engineer.

(c) Time duration: This may involve projects where the works are executed over appreciably shorter or longer periods than would normally be expected for any of the stages defined in 3.1.

(d) Level of responsibility, liability and risk: These may range from relatively low levels of responsibility and/or risks to projects with unusually high responsibilities and/or risks that are expected to be carried by the consulting engineer.

(e) Level of expertise, qualifications, skills and experience: Some works do not require a high degree of expertise while other works may require more specialised expertise or substantial skills and experience that cost more to develop and retain.

(f) Level of technology required and changes in technology that may influence the costs of the services provided.

(g) Whether aspects related to labour intensive works need to be considered in the design.

(h) Level of effort: Some projects do not call for substantial effort as the works can be designed without extensive investigations or field measurements while others may call for unusually high effort on the part of the consulting engineer because of, for example, research required or integration with existing works or repairs to existing infrastructure where the status quo needs to be investigated in considerable detail and these need to be accommodated within the design.

(i) Potential value added: In some instances, the design, no matter how sophisticated will not add much value to the overall project while in other cases greater design optimisation can lead to considerable savings in capital, maintenance or operations costs, or add value to the final project.

(j) Client requirements: Some clients have relatively few requirements and/or many standard details and the consulting engineer's designs are accepted at face value. Other clients require considerable details to be investigated during design development to satisfy their own, often complex, internal processes.

(k) Business strategy: Some firms may decide to offer a low price to enter a market segment at a low cost or to keep employees busy while waiting for economic upswings.

(l) Project definition: In some projects, the design concept and scope is self-evident and requires little further investigation or analysis of options, while in other projects, the design development requires extensive analysis and testing of various options.

Combinations of one or more of the above factors may result in a substantial adjustment of the tariff that is required to fairly compensate the consulting engineer and this adjustment factor should be negotiated in good faith by both parties.

Agreement on any adjustment of or special fees should be reached at the time of the consulting engineer's engagement or as soon after as circumstances warrant, such as is practically possible, but in all cases, prior to the consulting engineer rendering services that may be affected.

The fee is determined on the information provided at the time of procurement, particularly in respect of the scope of work, scope of services, works budget and expected project

duration. Any subsequent changes, including unforeseen changes to the project situation and engineering effort, are regarded as a trigger for an adjustment of the fee.

In certain instances, the fee may be expressed as a lump sum, in which case, the amount will be subject to change as described below.

The project budget is relied upon when determining the percentage or lump sum fee, and where the final cost of the works varies by more than 15% from the value on which the fee is determined, the fee may be adjusted.

In certain project types the scope of work may include full services for some elements of the work and limited services for other elements. For example, in some situations the consulting engineer may be asked to provide advice, design review and construction monitoring related to elements designed and detailed by others. The fees for such limited services are subject to agreement between the client and consulting engineer and may be determined on the basis of time and cost.

Where the normal services relate to more than one of the disciplines of consulting engineering contemplated in clauses 4.2.1 to 4.2.8, namely civil, structural, mechanical, electrical or electronic engineering services, a separate fee for services in each discipline should be calculated in accordance with the relevant clause.

Where at the instance and with the consent of the client, the works are undertaken on separate non-contiguous sites, continuity is interrupted or the works are unusually fragmented or constructed as separately documented phases or sections, the fee for normal services is:

(a) the sum of the fees calculated separately for each site, contract, phase or section as if they were separate works; or

(b) a fee agreed to between the client and the consulting engineer and which fee lies between the fee calculated on the total cost of the works and the sum of the fees contemplated in clause (a) above.

For the calculation of fees, "Duplication of works" is defined as the re-use of designs, drawings and details done by a consultant to duplicate a complete unit (e.g. a building or a bridge).

The fee for services provided in the report stage is calculated on a time basis.

The following fees may be claimed after each stage of services or monthly or as agreed between the consulting engineer and the client:

(a) Percentage fees determined on the basis of the cost of the works prevailing at the time of the fee calculation and pro-rata to the completed services, or a portion of the total fee based on completion of the stages along the lines indicated in 4.2.9.

(b) Time based fees applicable when the services were rendered.

Disbursements as set out in clause (3) may be claimed monthly.

4.2 Fees for normal services

In the following tables, the fee guidelines consist of the sum of a primary and secondary fee depending on the cost of the works. Alternatively, if the scope of services and scope of work are relatively well defined and a reasonable budget of the cost of works is available, then the client and consultant can agree a single percentage fee based on this budgeted cost and the overall fee is calculated using the tables below as well as any relevant complexity factors.

For example, if a civil engineering project involves alterations to a structure with complex structural engineering and a reasonable expectation of the cost of the works is R31 million, then the fee calculated using the tables would be:

- Fee from 4.2.1: = R1 857 000 + 9.5% * R11 934 000 = R2 990 730 for normal civil works. Assuming 40% of the works is reinforced concrete and structural steel amounting to R12.4 million.
- Plus, R430 000 + 5% * R3 053 000 = R582 650 additional for structures.
- Therefore, total = R3 573 380.

- Multiplied by a complexity factor for additions to existing buildings of 1.25 = R4 466 725 which is equal to a percentage fee of: R4 466 725 / R31 000 000 = 14.41%

Alternatively, consider the example of a relatively simple rural road project with a reasonable budget value of R21 000 000. Then the fee calculated using the tables would be:

- Fee from 4.2.1: = R 1 857 000 + 9.5% * R1 934 000 = R2 040 730.
- Multiplied by a complexity factor of 0.85 for rural roads = R1 734 620 which is equal to a percentage fee of: R1 734 620 / R21 000 000 = 8.26 %.

Fee negotiations would typically commence using these starting values and judgement regarding project complexity to arrive at a finally agreed percentage fee. The fee amount to be paid will generally be based upon the final cost of works or any other suitably agreed arrangement.

4.2.1 Civil and structural engineering services pertaining to engineering projects

(a) The basic fee for normal services in the disciplines of civil and structural engineering, pertaining to Engineering Projects, is determined from Table 1 below. The fee is the sum of the primary fee and the secondary fee applicable to the specific cost of the works in respect of which the services were rendered on the project excluding the report stage described in clause 3.2.1, which is normally reimbursed on a time basis in terms of clause 4.4.

Table 1: Civil and Structural Engineering Services pertaining to Engineering Projects

Cost of the Works		**Basis of Fee Calculation**	
For projects up to R850 000		**Lump Sum or Time Basis**	
Where the cost of the works:			
Exceeds	**But does not exceed**	**Primary Fee**	**Secondary Fee**
R850 000	R1 899 000	R106 300	15.0%
R1 899 000	R9 347 000	R237 400	12.0%
R9 347 000	R19 066 000	R982 400	10.5%

R19 066 000	R47 372 000	R1 857 000	9.5%
R47 372 000	R94 960 000	R4 121 400	7.0%
R94 960 000	R572 000 000	R7 065 000	6.5%
R572 000 000		R33 233 200	6.0%

The following additional fee is typically applicable to the value of the reinforced concrete and structural steel portions of the works, inclusive of the costs of concrete, reinforcing, formwork, structural steel work and any pro-rata preliminary and general amounts. Where structures of identical design are repeated on the same project, the combined cost is normally cumulated for the determination of the cost of the reinforced concrete and structural steel works. In cases where structures require individual design, a separate additional fee is normally calculated for each structure based on the cost of the reinforced concrete and/or structural steel work for that particular structure. The additional fee is the sum of the primary fee and the secondary fee applicable to the specific cost of the works in respect of which the services were rendered on the project as shown below.

Table 2: Additional design fee on reinforced concrete and structural steel

Cost of the Works		**Basis of Fee Calculation**	
For projects up to R850 000		**Lump Sum or Time Basis**	
Where the cost of the works:			
Exceeds	**But does not exceed**	**Primary Fee**	**Secondary Fee**
R850 000	R1 899 000	R42 500	6.0%
R1 899 000	R9 347 000	R95 000	5.5%
R 9 347 000	R19 066 000	R430 000	5.0%
R19 066 000	R47 372 000	R818 000	3.5%
R47 372 000	R94 960 000	R1 667 500	3.0%
R94 960 000	R572 000 000	R2 620 900	2.5%
R572 000 000		R9 781 200	2.5%

(b) To calculate the fee for railway track work in terms of this item, 50 per cent of the cost of the permanent way materials is normally excluded from the cost of the works in view of the limited design input normally required for these elements, but the full cost of ballast and equipment specially designed by the consultant is normally included in the cost of the works.

(c) For normal services relating to a description of the works mentioned in the first column of the following table, the proportion of the basic fee relating to the specific item calculated in terms of clause 4.2.1(a) and (b) is normally multiplied by the category factors mentioned against that description in the second column of the table. In cases more than one of the descriptions below applies, the effective factor will typically be the product of the factors involved. These factors do not apply when fees are a lump sum or on a time basis.

(d) In the case of road works, where the road traverses both rural and urban areas, an adjustment pro-rata to the length of road in rural and urban area is normally made.

(e) In the case of road rehabilitation, a combination of factors applies depending on the situation of the road (rural or urban) and the category factor for alterations to existing works.

Table 2A: Typical factor by which basic fee is multiplied

Description of the Works	Typical factor by which basic fee is multiplied
Single Carriageway Rural roads in flat terrain, excluding bridges	0.85
Rural freeways and dual carriageways in flat terrain, excluding bridges	0.95
Single Carriageway Rural roads in mountainous terrain, excluding bridges	1.15
Rural freeways and dual carriageways in mountainous terrain excluding bridges	1.25
Freeways, single carriageways and dual carriageways through existing peri- urban areas, excluding bridges	1.00
Single Carriageways through existing urban areas	1.15

Description of the Works	Typical factor by which basic fee is multiplied
Freeways and dual carriageways through existing urban areas	1.25
Gravel roads: Primary roads, Secondary roads, Informal roads	1.25 to 1.50 1.00 to 1.25 0.75 to 1.00
Roads maintenance and rehabilitation projects, excluding bridges	1.15
Roads upgrading (pavement and/or alignment) projects excluding bridges	1.25
Water and wastewater treatment works	1.25
Services (excluding roads) for existing informal settlements including roads and to reduced standards or supplies	1.25 to 1.50
Water and sanitation in rural areas	1.35
Alterations to existing works. (Only applicable to the fees on the portion or section of works affected.)	1.25
Mass concrete foundations, brickwork and cladding designed and detailed by the consulting engineer. (Only applicable to the design portion of the fees on such works.)	0.33
Duplication of works. (Only applicable to the design portion of the fees on duplicated works)	0.25

4.2.2 Civil engineering services pertaining to building projects

(a) The basic fee for normal services in the discipline of civil engineering pertaining to building projects is determined from Table 3 below. The fee is the sum of the primary fee and the secondary fee applicable to the specific cost of the works in respect of which the services were rendered on the project excluding the report stage described in clause 3.2.1, which is normally reimbursed on a time basis in terms of clause 4.4.

Table 3: Civil engineering services pertaining to building projects

Cost of the Works	Basis of Fee Calculation	
For projects up to R850 000	Lump Sum or Time Basis	
Where the cost of the works:	Primary Fee	Secondary

Exceeds	But does not exceed		Fee
R850 000	R1 899 000	R106 300	15.0%
R1 899 000	R9 347 000	R237 400	12.0%
R9 347 000	R19 066 000	R982 400	10.5%
R19 066 000	R47 372 000	R1 857 000	10.0%
R47 372 000	R94 960 000	R4 121 400	9.5%
R 94 960 000	R572 000 000	R7 454 400	9.0%
R572 000 000		R40 840 800	9.0%

(b) For normal services relating to a description of the works mentioned in the first column of Table 3A, the proportion of the basic fee relating to the specific item calculated in terms of clause 4.2.2(a) is normally multiplied by the category factor mentioned against that description in the second column of the table. In case more than one of the descriptions below applies, the effective factor will typically be the product of the factors involved. These factors do not apply when fees are a lump sum or on a time basis.

Table 3A: Typical factor by which basic fee is multiplied

Description of the Works	Typical factor by which basic fee is multiplied
Alterations to existing works. (Only applicable to the fees on the portion or section of works affected.)	1.25
Internal water and drainage for buildings upon specific agreement with the client to render such services.	1.25
Duplication of works. (Only applicable to the design portion of the fees on duplicated works.)	0.25

4.2.3 Structural engineering services pertaining to building projects

(a) The basic fee for normal services in the discipline of structural engineering pertaining to building projects is determined from Table 4 below. The fee is the sum of the primary fee and the secondary fee applicable to the specific cost of the works in respect of which the services were rendered on the project excluding the report stage described in clause 3.2.1 which shall be reimbursed on a time basis in terms of clause 4.4.

Table 4: Structural engineering services pertaining to building projects

Cost of the Works		Basis of Fee Calculation	
For projects up to R850 000		Lump Sum or Time Basis	
Where the cost of the works:			
Exceeds	But does not exceed	Primary Fee	Secondary Fee
R850 000	R1 899 000	R106 300	15.0%
R1 899 000	R 9 347 000	R237 400	12.0%
R9 347 000	R19 066 000	R982 400	10.5%
R19 066 000	R47 372 000	R1 857 000	10.0%
R47 372 000	R94 960 000	R4 121 400	9.5%
R94 960 000	R572 000 000	R7 454 400	9.0%
R572 000 000		R40 840 800	9.0%

(b) For normal services relating to a description of the works mentioned in the first column of Table 4A, the proportion of the basic fee relating to the specific item calculated in terms of clause 4.2.3(a) is normally multiplied by the category factor mentioned against that description in the second column of the table. In case more than one of the descriptions below applies, the effective factor will typically be the product of the factors involved. These factors do not apply when fees are a lump sum or on a time basis.

Table 4A: Typical factor by which basic fee is multiplied

Description of the Works	Typical factor by which basic fee is multiplied
Alterations to existing works. (Only applicable to the fees on the portion or section of works affected.)	1.25
Water supply and drainage systems, inside buildings.	1.25
Duplication of works. (Only applicable to the design portion of the fees on duplicated works.)	0.25

4.2.4 Mechanical engineering services pertaining to engineering projects

(a) The basic fee for normal services in the discipline of mechanical engineering, pertaining to Engineering Projects, is determined from the table below. The fee is the sum of the primary fee and the secondary fee applicable to the specific cost of the works in respect of which the services were rendered on the project excluding the report stage described in clause 3.2.1 which shall be reimbursed on a time basis in terms of clause 4.4.

Table 5: Mechanical Engineering Services pertaining to Engineering Projects

Cost of the Works		**Basis of Fee Calculation**	
For projects up to R850 000		**Lump Sum or Time Basis**	
Where the cost of the works:			
Exceeds	**But does not exceed**	**Primary Fee**	**Secondary Fee**
R850 000	R1 899 000	R106 300	15.0%
R1 899 000	R9 347 000	R237 400	12.0%
R9 347 000	R19 066 000	R982 400	9.5%
R19 066 000	R47 372 000	R1 759 800	8.5%
R47 372 000	R94 960 000	R3 742 400	7.0%
R94 960 000	R572 000 000	R6 590 200	6.5%
R572 000 000		R32 832 800	6.5%

(b) For normal services relating to a description of the works mentioned in the first column of Table 5A, the proportion of the basic fee relating to the specific item calculated in terms of clause 4.2.4(a) is normally multiplied by the category factor mentioned against that description in the second column of the table. In case more than one of the descriptions below applies, the effective factor will typically be the

product of the factors involved. These factors do not apply when fees are a lump sum or on a time basis.

Table 5A: Typical factor by which basic fee is multiplied

Description of the Works	Typical factor by which basic fee is multiplied
Alterations to existing works. (Only applicable to the fees on the portion or section of works affected.)	1.25
Water supply and drainage systems and fire water systems.	1.25
Duplication of works. (Only applicable to the design portion of the fees on duplicated works.)	0.25

4.2.5 Electrical engineering services pertaining to engineering projects

(a) The basic fee for normal services in the discipline of electrical engineering pertaining to engineering projects is determined from Table 6 below. The fee is the sum of the primary fee and the secondary fee applicable to the specific cost of the works in respect of which the services were rendered on the project excluding the report stage described in clause 3.2.1 which shall be reimbursed on a time basis in terms of clause 4.4.

Table 6: Electrical engineering services pertaining to engineering projects

Cost of the Works		Basis of Fee Calculation	
For projects up to R850 000		Lump Sum or Time Basis	
Where the cost of the works:			
Exceeds	But does not exceed	Primary Fee	Secondary Fee
R850 000	R1 899 000	R106 300	15.0%
R1 899 000	R9 347 000	R237 400	12.0%
R9 347 000	R19 066 000	R982 400	9.5%
R19 066 000	R47 372 000	R1 759 800	8.5%
R47 372 000	R94 960 000	R3 742 400	7.0%

R94 960 000	R572 000 000	R6 590 200	6.5%
R572 000 000		R32 832 800	6.5%

(b) For normal services relating to a description of the works mentioned in the first column of Table 6A, the proportion of the basic fee relating to the specific item calculated in terms of clause 4.2.5(a) is normally multiplied by the category factor mentioned against that description in the second column of the table. In case more than one of the descriptions below applies, the effective factor will typically be the product of the factors involved. These factors do not apply when fees are a lump sum or on a time basis.

Table 6A: Electrical Engineering Services pertaining to Engineering Projects

Description of the Works	Typical factor by which basic fee is multiplied
Alterations to existing works. (Only applicable to the fees on the portion or section of works affected.)	1.25
Duplication of works. (Only applicable to the design portion of the fees on duplicated works.)	0.25

4.2.6 Mechanical engineering pertaining to building projects

(a) The basic fee for normal services in the discipline of mechanical engineering or wet services pertaining to building projects is determined from Table 7 below. The fee is the sum of the primary fee and the secondary fee applicable to the specific cost of the works in respect of which the services were rendered on the project excluding the report stage described in clause 3.2.1 which shall be reimbursed on a time basis in terms of clause 4.4.

Table 7: Mechanical engineering services pertaining to building projects

Cost of the Works		Basis of Fee Calculation	
For projects up to R850 000		Lump Sum or Time Basis	
Where the cost of the works:			
Exceeds	But does not exceed	Primary Fee	Secondary Fee
R850 000	R1 899 000	R127 500	18.0%
R1 899 000	R9 347 000	R284 900	15.0%
R9 347 000	R19 066 000	R1 224 500	12.5%
R19 066 000	R47 372 000	R2 236 400	11.5%
R47 372 000	R94 960 000	R4 926 700	11.0%
R94 960 000	R572 000 000	R9 201 700	10.0%
R572 000 000		R49 764 000	10.0%

(b) For normal services relating to a description of the works mentioned in the first column of Table 7A, the proportion of the basic fee relating to the specific item calculated in terms of clause 4.2.6(a) is normally multiplied by the category factor mentioned against that description in the second column of the table. In case more than one of the descriptions below applies, the effective factor will typically be the product of the factors involved. These factors do not apply when fees are a lump sum or on a time basis.

Table 7A: Mechanical engineering services pertaining to building projects

Description of the Works	Typical factor by which basic fee is multiplied
Multi-tenant installations	1.25
Alterations to existing works. (Only applicable to the fees on the portion or section of works affected.)	1.25
Water supply and drainage systems and fire water systems.	1.25
Duplication of works. (Only applicable to the design portion of the fees on duplicated works.)	0.25

Description of the Works	Typical factor by which basic fee is multiplied
For projects where the cost of the works exceeds R300 000 and where bills of quantities are not required from the consulting engineer and all financial, tender and contractual matters are dealt with by the quantity surveyor or other parties.	0.75
As above, but bills of quantities are not required from the consulting engineer and all financial, tender and contractual matters are dealt with by the consulting engineer (e.g. lump sum, nominated or selected sub-contracts etc.)	0.90

4.2.7 Electrical engineering services pertaining to building projects

(a) The basic fee for normal services in the discipline of electrical engineering pertaining to building projects is determined from Table 8 below. The fee is the sum of the primary fee and the secondary fee applicable to the specific cost of the works in respect of which the services were rendered on the project excluding the report stage described in clause 3.2.1 which shall be reimbursed on a time basis in terms of clause 4.4.

Table 8: Electrical engineering services pertaining to building projects

Cost of the Works		Basis of Fee Calculation	
For projects up to R850 000		Lump Sum or Time Basis	
Where the cost of the works:			
Exceeds	But does not exceed	Primary Fee	Secondary Fee
R850 000	R1 899 000	R127 500	18.0%
R1 899 000	R9 347 000	R284 900	15.0%
R9 347 000	R19 066 000	R1 224 500	12.5%
R19 066 000	R47 372 000	R2 236 400	11.5%
R47 372 000	R94 960 000	R4 926 700	11.0%
R94 960 000	R572 000 000	R9 201 700	10.0%
R572 000 000		R49 764 000	10.0%

(b) For normal services relating to a description of the works mentioned in the first column of Table 8A, the proportion of the basic fee relating to the specific item calculated in terms of clause 4.2.7(a) is normally multiplied by the category factor mentioned against that description in the second column of the table. In case more than one of the descriptions below applies, the effective factor will typically be the product of the factors involved.

These factors do not apply when fees are a lump sum or on a time basis.

Table 8A: Typical factor by which basic fee is multiplied

Description of the Works	Typical factor by which basic fee is multiplied
Multi-tenant installations	1.25
Alterations to existing works. (Only applicable to the fees on the portion or section of works affected.)	1.25
Duplication of works. (Only applicable to the design portion of the fees on duplicated works.)	0.25
For projects where the cost of the works exceeds R300 000 and where bills of quantities are not required from the consulting engineer and all financial, tender and contractual matters are dealt with by the quantity surveyor or other parties.	0.75
As above, but bills of quantities are not required from the consulting engineer and all financial, tender and contractual matters are dealt with by the consulting engineer (e.g. lump sum, nominated or selected sub-contracts, etc.)	0.90

4.2.8 Electronic engineering services

(a) The basic fee for normal services in the discipline of electronic engineering, including work pertaining to building projects, is determined from Table 9 below. The fee is the sum of the primary fee and the secondary fee applicable to the specific cost of the works in respect of which the services were rendered on the project, excluding the report stage described in clause 3.2.1 which shall be reimbursed on a time basis in terms of clause 4.4.

Table 9: Electronic Engineering Services

Cost of the Works		Basis of Fee Calculation	
For projects up to R850 000		Lump Sum or Time Basis	
Where the cost of the works:			
Exceeds	But does not exceed	Primary Fee	Secondary Fee
R850 000	R1 899 000	R144 500	20.5%
R1 899 000	R9 347 000	R322 800	16.0%
R9 347 000	R19 066 000	R1 328 200	14.0%
R19 066 000	R47 372 000	R2 446 200	12.0%
R47 372 000	R94 960 000	R5 277 200	11.5%
R94 960 000	R572 000 000	R9 790 400	10.0%
R572 000 000		R50 336 000	10.0%

(b) For normal services relating to a description of the works mentioned in the first column of Table 9A the proportion of the basic fee relating to the specific item calculated in terms of clause 4.2.8(a) is normally multiplied by the category factor mentioned against that description in the second column of the table. In case more than one of the descriptions below applies, the effective factor will typically be the product of the factors involved.

These factors do not apply when fees are a lump sum or on a time basis

Table 9A: Typical factor by which basic fee is multiplied

Description of the Works	Typical factor by which basic fee is multiplied
Alterations to existing works. (Only applicable to the fees on the portion or section of works affected.)	1.25
Where equipment or systems are wholly of proprietary design or approved by a State authority. (Only applicable to the design portion of the fees.)	0.67
Duplication of works. (Only applicable to the design portion of the fees on	0.25

Description of the Works	Typical factor by which basic fee is multiplied
duplicated works.)	
For projects where the cost of the works exceeds R440 000 and where bills of quantities are not required from the consulting engineer and all financial, tender and contractual matters are dealt with by the quantity surveyor or other parties.	0.75
As above, but bills of quantities for electronic works are not required from the consulting engineer and a financial, tender and contractual matters are dealt with by the consulting engineer (e.g. lump sum, nominated or selected sub-contract, etc.)	0.90

4.2.9 Services provided partially or in stages

(a) Table 10 shows typical percentages that are typically used for proportioning the basic fee for normal services over the various stages of the services. The actual percentage used should be adjusted for individual projects through negotiation and depending on the work involved in each stage, the value that can be added in each stage and any commercial considerations that may be applicable:

Table 10: Typical percentage points for each stage

Stage of Services	Typical percentage points for each stage
Civil: Engineering Projects:	
Inception	5
Concept and Viability	25
Design Development	25
Documentation and Procurement	25
Contract Administration and Inspection	15
Close-Out	5
Structural: Engineering Projects:	
Inception	5

Stage of Services	Typical percentage points for each stage
Concept and Viability	25
Design Development	30
Documentation and Procurement	10
Contract Administration and Inspection	25
Close-Out	5
Civil: Building Projects:	
Inception	5
Concept and Viability	25
Design Development	25
Documentation and Procurement	15
Contract Administration and Inspection	25
Close-Out	5
Structural: Building Projects:	
Inception	5
Concept and Viability	20
Design Development	30
Documentation and Procurement	15
Contract Administration and Inspection	25
Close-Out	5
Mechanical, electrical and electronic projects:	
Inception	5
Concept and Viability	15
Design Development	20
Document and Procurement	20
Contract Administration and Inspection	35
Close-Out	5

(b) Where not all the stages of the normal services are provided by the consulting engineer, the fee is, subject to clause 4.2 calculated as a percentage of the total fee calculated in

terms of this clause, which percentage is the sum of the percentage points appropriate to each stage as set out in the above table against those stages of the services provided by the consulting engineer, typically plus 10 percentage points to allow the engineer to become familiar with the project.

4.2.10 Cancellation or abandonment

Should instructions have been given by the client to the consulting engineer to proceed with any of the stages of services set out in clause 3 and the whole or part of the works is cancelled or abandoned or postponed for a period of more than six months, the consulting engineer must be remunerated for services performed, plus a surcharge of one tenth of the full fee which would have been payable to the consulting engineer had his or her services been completed in terms of the engagement.

4.3 Fees for additional services

1. The fees for additional services, contemplated in clause 3.3, are agreed to between the client and the consulting engineer as described in clause 4.1 and as set out hereunder.
2. Unless otherwise agreed in writing, the fees for additional services contemplated in 3.3.1 and 3.3.7 are calculated on the basis of time as set out in 4.4 and actual costs as set out in 4.5.
3. For the provision of a construction monitoring service, as contemplated in clause 3.3.2, the consulting engineer is typically entitled to recover from the client:

(a) for monthly monitoring staff costs, the total annual cost of employment of such staff (as defined in clause 4.4(4)), divided by 12 and multiplied by one of the following:

(i) **Case 1:** Where payment is only made for actual time on site and site allowances are not paid separately: 2.1 times total cost of employment.

(ii) **Case 2:** Where payment is only made for actual time on site and site allowances are paid separately: 2.0 times total cost of employment.

(iii) **Case 3:** Where payment is made for leave and non-working days and site allowances are paid separately: 1.8 times total cost of employment.

(b) for part time monitoring staff costs, the amount payable to such staff at the hourly rates contemplated in clause 4.4.

4. For all other costs, as set out in clause 4.5 the actual expenses incurred, multiplied by 1.10.

5. For duties under the Occupational Health and Safety Act, 85 of 1993, as contemplated in clause 3.3.3, the consulting engineer shall, if so appointed by the client, be remunerated on a time and cost basis as agreed with the client.

6. For services as lead consulting engineer, as contemplated in clause 3.3.5, the lead consulting engineer is typically entitled to an additional fee of 10 percent (10%) of the total fees payable for the services.

7. For engineering management services or services as the principal consultant, as contemplated in clause 3.3.6, the consulting engineer will typically be remunerated as follows:

(a) The basic fee for services in the discipline of engineering management services, including work pertaining to Building Projects, is determined from the table below. The fee is the sum of the primary fee and the secondary fee applicable to the specific cost of the works in respect of which the services were rendered on the project.

Table 11: Engineering Management Services (Principal Consultant)

Cost of the Works	Basis of Fee Calculation
For projects up to R850 000	**Lump Sum or Time Basis**

Where the cost of the works:			
Exceeds	**But does not exceed**	**Primary Fee**	**Secondary Fee**
R850 000	R1 899 000	R38 300	4.5%
R1 899 000	R9 347 000	R85 500	3.5%
R9 347 000	R19 066 000	R345 800	3.0%
R19 066 000	R47 372 000	R636 800	2.5%
R47 372 000	R94 960 000	R1 345 400	1.5%
R94 960 000	R572 000 000	R2 060 600	1.5%
R572 000 000		R9 209 200	1.5%

(b) For normal services relating to a description of the works mentioned in the first column of Table 11A, the proportion of the basic fee relating to the specific calculated in terms of clause (a) is normally multiplied by the category factor mentioned against that description in the second column of the table. In case more than one of the descriptions below applies, the effective factor will typically be the product of the factors involved.

These factors do not apply when fees are a lump sum or on a time basis.

Table 11A: Typical factor by which basic fee is multiplied

Description of the Works	Typical factor by which basic fee is multiplied
Multi-tenant installations.	1.25
Alterations to existing works. (Only applicable to the fees on the portion or section of works affected.)	1.25

(c) Table 12 is typically used to proportion the basic fee over the various stages of the services:

Table 12: Typical percentage points for each stage

Stage of Services	Typical percentage points for each

	stage
Inception	5
Preliminary Design: Concept and Viability	20
Design Development	30
Documentation and Procurement	15
Contract Administration and Inspection	25
Close-out	5

8. For services as principal agent of the client, as contemplated in clause 3.3.8, the consulting engineer is typically entitled to an additional fee calculated at one percentage point (1%) of the total cost of the works comprising the project. The consulting engineer is not entitled to any fees for principal agent if he or she is not explicitly appointed as such.

4.4 Time-based fees

1. Time- based fees are all-inclusive fees, including allowances for overhead charges incurred by the consulting engineer as part of normal business operations, including the cost of management, as well as payments to administrative, clerical and secretarial staff used to support professional and technical staff in general and not on a specific project only.

(a) Time-based fees are calculated by multiplying the hourly rate contemplated in clause 4.4, which is applicable to the consulting engineer or any other technical staff employed by the consulting engineer, with the actual time spent by such technical staff in rendering the services required by the client.

(b) Technical staff include all staff performing work directly related to the execution of the services the consulting engineer is engaged for by the client and excludes all administrative, clerical and secretarial staff used to support professional and technical staff in general and not on a specific project only, but includes the typing of letters, minutes,

2. To determine the time-based fee rates, the persons concerned are divided into:

(a) *Category A,* in respect of a private consulting practice in engineering, means a top practitioner whose expertise and relevant experience is nationally or internationally recognised and who provides advice at a level of specialisation where such advice is recognised as that of an expert.

(b) *Category B,* in respect of a private consulting practice in engineering, means a partner, a sole proprietor, a director, or a member who, jointly or severally with other partners, co-directors or co-members, bears the risks of the business, or takes responsibility for the projects and related liabilities of such practice and where his/her level of expertise and relevant experience is commensurate with the position, performs work of a conceptual nature in engineering design and development, provides strategic guidance in planning and executing a project and/or carries responsibility for quality management pertaining to a project.

(c) *Category C,* in respect of a private consulting practice in engineering, means all salaried professional staff with adequate expertise and relevant experience performing work of an engineering nature and who carry the direct technical responsibility for one or more specific activities related to a project. A person referred to in Category B may also fall in this category if such person performs work of an engineering nature at this level.

(d) *Category D*, in respect of a private consulting practice in engineering, means all other salaried technical staff with adequate expertise and relevant experience performing work of an engineering nature with direction and control provided by any person contemplated in categories A, B or C.

3. The time-based fee rates are:

(a) Calculated for a person in category –

(i) A and B at 22.00 cents per hour

(ii) C at 17.5 cents per hour; and

(iii) D at 16.5 cents per hour for each R100 or part thereof of the total annual cost of employment of the person concerned, as contemplated in sub-clause (4); or

(b) based on such indicative time-based fee rates as are determined from time-to-time by the Engineering Council of South Africa after consultation with service providers and service users: provided that in all cases the client and consulting engineer may agree on a more appropriate fee to take account of the specific services to be rendered or expertise to be applied.

4. For the purposes of clause 4.4, the total annual cost of employment of a person means the total amount borne by an employer in respect of the employment of such a person per year, calculated at the amounts applicable to such a person at the time when the services are rendered, including:

(a) Basic salary or a nominal market-related salary, excluding profit share and asset growth.

(b) Fringe benefits not reflected in the basic salary, including:

(i) Normal annual bonus
(ii) Employer's contribution to medical aid
(iii) Group life insurance premiums borne by the employer
(iv) Employer's contribution to a pension or provident fund
(v) All other benefits or allowances payable in terms of a letter of appointment, including any transportation allowance or company vehicle benefit, telephone and/or computer allowances, etc; and

(c) Amounts payable in terms of an Act, including:

(i) Contributions to the Compensation Fund in terms of the Compensation for Occupational Injuries and Diseases Act, 130 of 1993
(ii) Contributions to unemployment insurance in terms of the Unemployment Insurance Fund Act, 63 of 2001
(iii) Levies in terms of the Skills Development Levy Act 9 of 1999
(iv) Recoverable levies to all spheres of government.

4.5 Expenses and costs

1. Subject to clause 4.3(3) a consulting engineer may recover from the client:

(a) All expenses actually incurred by the consulting engineer and members of the consulting engineer's staff in rendering their services.

(b) All other costs incurred on behalf of and with approval of the client, plus a mark-up of 10 per cent.

2. Recoverable expenses include:

(a) Travelling expenses for the conveyance of the consulting engineer or a member of the consulting engineer's staff by means of:

(i) private motor transport, including any parking charges, toll fees and related expenses
(ii) a scheduled airline or a train, bus, taxi or hired car; or
(iii) non-scheduled or privately owned air transport.

(b) Travelling time on the basis of the rate set out in clause 4.4, for all time spent in travelling by the consulting engineer or members of his or her staff is as follows:

(i) When fees are paid on a time basis, all hours spent on travelling are reimbursable.
(ii) When fees are paid on a percentage basis, reimbursement for travelling time is for all time spent in travelling minus the first hour per return journey.

(c) Accommodation and subsistence expenses incurred by the consulting engineer or a member of his staff.

(d) Agreed costs of typing, production, copying and binding of contract documents, pre-qualification documents, feasibility reports, preliminary design reports, final reports and manuals, excluding general correspondence, minor reports, contractual reports, progress reports, etc.

(e) Expenses on special reproductions, copying, printing, artwork, binding and photography, etc. requested by the client.

(f) Alternatively, a lump sum or percentage of the cost of the works may be determined and agreed between the consulting engineer and the client to cater for all or any of the above.

3. Costs that shall be recovered under clause (1)(b) above include, but are not limited to:

(a) Site traffic surveys

(b) Geotechnical investigations

(c) Sampling and Laboratory testing

(d) Topographical and land surveys

(e) Supply of specific equipment

(f) Specialist sub-consultants

(g) Environmental investigations and studies, and management plans

(h) Institutional service delivery and social consultants

(i) Land acquisitions, expropriation, way leaves and servitudes.