

BOARD NOTICE 18 OF 2003

Engineering Council of South Africa

**Guideline Scope of Services and Tariff of Fees
for Persons Registered in terms of the
Engineering Profession Act, 2000,
(Act No. 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 1 March 2003.

SCHEDULE

**Guideline Scope of Services and Tariff of Fees
for Registered Persons**

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Words or expressions in **bold font** are defined in Clause 2.

GENERAL PROVISIONS**Repeal and transition**

1. (1) Subject to clause 1(2), the tariff of fees for professional engineers published by Government Notice No R.1113 of 11 June 1982, as amended by Government Notices No's -

R.1638 of 30 July 1982, R.1497 of 8 July 1983, R.2396 of 2 November 1984, R.1737 of 22 August 1986, R.2590 of 23 December 1988, R.480 of 15 June 1990, R.2057 of 31 August 1990, R.2543 of 2 November 1990 and Board Notices 54 of 28 May 1993, 65 of 2 July 1993, 86 of 13 August 1993, 129 of 19 November 1993, 150 of 24 December 1993, 41 of 2 June 1995, 29 of 15 March 1996 and 27 and 28 of 20 March 1997, 64 of 24 April 1998, 147 of 18 September 1998, 164 of 23 October 1998, 109 of 22 December 2000, 22 of 2 February 2001, 33 of 16 February 2001, 25 and 26 of 1 March 2002,

are hereby repealed.

- (2) The provisions of Government Notice R.1113 of 11 June 1982 and subsequent amendments referred to in clause 1(1) still apply in respect of a **stage of services** rendered before the date of commencement of this Schedule.

Definitions

2. In this Schedule, any word or expression defined in **the Act**, has that meaning, and, unless the context otherwise indicates:
- (i) "**client**", means any juristic person or organ of the State engaging a **consulting engineer for services on a project**;
 - (ii) "**consulting engineer**" for purposes of these rules only, means any person registered in terms of **the Act**, or a legal person who employs such registered person, engaged by a **client on a project**;

- (iii) **"contractor"** means any person or legal 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**;
- (iv) **"cost of the works"** means the total amount, exclusive of value added tax, certified or which would be certified 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 –
 - (a) a pro-rata portion of all preliminary and general items applicable to the **works**; and
 - (b) 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 will comprise additional services by the **consulting engineer**);
- (v) **"normal services"** means the **services** set out in clauses 4 to 8 ;
- (vi) **"project"** means any total scheme envisaged by a **client**, including all the **works** and **services** concerned;
- (vii) **"services"** means the services contemplated in clauses 4 to 16 on a **project** for which a **consulting engineer** is engaged;
- (viii) **"stage"** means a stage of **normal services** set out in clauses 4 to 8;
- (ix) **"the Act"** means the Engineering Profession Act, 2000 (Act No. 46 of 2000);
- (x) **"total annual cost of employment"** means the total annual cost of employment as defined in clause 28 (4);
- (xi) **"works"** means the activities on a **project** for which **contractors** are under contract to the **client** to perform or is intended to be performed, including the supply of goods and equipment.

Short title

3. This Schedule is called the Guideline Scope of Services and Tariff of Fees for Registered Persons, 2003.

GUIDELINE SCOPE OF SERVICES

NORMAL SERVICES

Report stage

4. The preparation and submission of a report embodying preliminary proposals or feasibility studies and estimates of cost and time where appropriate for consideration by the **client**, including all or any of the following:
- (1) Consultation with the **client** or client's authorized representative.
 - (2) Inspection of the site of the **project**.

- (3) Preliminary investigation, route location, planning and a level of design appropriate to allow project decisions to be made, where any of these are required for the determination of feasibility.
- (4) Consultation with authorities having rights or powers of sanction as well as consultation with the public and stakeholder groups.
- (5) Advice to the client as to regulatory and statutory requirements, including environmental management and the need for surveys, analyses, 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.
- (6) Searching for, obtaining, investigation and collation of available data, drawings and plans relating to the works.
- (7) Investigation of financial and economic implications relating to the proposals or feasibility studies.
- (8) Clause 4(7) does not apply in respect of civil and structural services pertaining to building projects, except as far as the interpretation of cost figures for civil and structural services are concerned.

Preliminary design stage

5. Following the client's instructions to proceed, the development of preliminary proposals or the basic planning of the project, comprising all or any of the following:
 - (1) Submission of a basic planning report.
 - (2) Establishment of final design criteria.
 - (3) Advice to the client as to the regulatory and statutory requirements, including environmental management and the need for any further surveys, analyses, tests and site or other investigations, as well as approvals, which may be required and arranging for these to be carried out at the client's expense.
 - (4) Advice to the client, as may be necessary, on the engagement and delineation of the services of other consultants and advisers, arranging such engagements and consultation with them on matters pertaining to the project.
 - (5) Design of any process or system or refinement of the preliminary process design, where such process design is a prerequisite for the design of the project.
 - (6) Preparation and submission to the client of any preliminary plans, drawings and estimates required for seeking the approval of statutory authorities and the client.
 - (7) Consultation on technical matters with the client, authorities and interested parties other than those having rights or powers of sanction, and making modifications to the preliminary design of the works arising out of such consultations.
 - (8) Submission of estimates of capital and life cycle costs, financial implications and programmes for implementation of the works.
 - (9) Clause 5(5) do not apply in respect of civil and structural services pertaining to building projects.
 - (10) Clause 5(8) do not apply in respect of civil and structural services pertaining to building projects, except as far as inputs to and assessment of programmes for civil and structural services are concerned.

Design and tender stage

6. Following the **client's** instructions to proceed with the preparation of all documents necessary to enable tenders for the works to be called for or for the **works** to be otherwise placed by the **client**, including all or any of the following:
- (1) Advice to the **client** as to the necessity for further surveys, special visits, use of specialist consultants, setting out or staking out the **works**, and arranging for such to be carried out at the **client's** expense.
 - (2) Preparation of detail designs and tender drawings.
 - (3) Preparation of specifications and schedules of quantities for engineering **works**.
 - (4) Provision of information necessary for the design of other services.
 - (5) Submission of updated and revised estimates, capital and life cycle costs, financial implications and programmes for implementation of the **works** previously submitted.
 - (6) Drafting or adapting invitations to tender, tender conditions, forms of tender and conditions of contract, advising the **client** on tender strategies and suitable **contractors** and calling for tenders when instructed to do so by the **client**.
 - (7) Advice to the **client** on any alternative designs and tenders, but excluding detailed inspection, reviewing and checking of alternative designs and drawings not prepared by the **consulting engineer** and submitted by any **contractor** or potential **contractor**.
 - (8) Analyses of tenders and submission of recommendations on the acceptance of tenders and, if necessary, revising the estimates of the cost and the completion date of the **works**.
 - (9) Advice to the **client** as to the provision of a monitoring service in accordance with clause 10, over and above that provided for under clause 8(3).
 - (10) Clauses 6(3), 6(6) and 6(8) do not apply in respect of civil and structural **services** pertaining to building projects.
 - (11) Clause 6(5) do not apply in respect of civil and structural **services** pertaining to building projects, except as far as inputs to and assessment of programmes for civil and structural **services** are concerned.

Working drawings

7. Following the **client's** instructions to proceed, the preparation of any further plans, designs and drawings, excluding shop details, which may be necessary for the execution of the **works**, including bending schedules in the case of reinforced concrete work.

Construction Stage

8. The overall administration and co-ordination of the execution of the **works** in accordance with the contract, including all or any of the following:
- (1) Placing orders for the **works** on behalf of the **client**.
 - (2) Advice to the **client** as to the preparation of the contract documents, or preparation of the contract documents in consultation with the **client**.

- (3) Overall monitoring of the execution of the **works** for compliance with the contract and attending site meetings on a combined average frequency of at least one day every two weeks for the duration of the construction of the specific **works** the consulting engineer is engaged for or at such other intervals as the **consulting engineer** may deem necessary.
- (4) Directing monitoring operations, but excluding day to day monitoring of the **works** and site administration, as provided for under clause 10.
- (5) Advice to the **client** as to the provision of a monitoring service in accordance with clause 10, over and above that provided for in this clause.
- (6) Checking **contractor's** drawings of structures, plant, equipment and systems for the **works** for conformity with design requirements, but excluding detailed checking of manufacture and installation details for erection or installation fit.
- (7) Advice to the **client** on any further alternative designs, but excluding detailed inspection, reviewing and checking of alternative designs and drawings not prepared by the **consulting engineer** and submitted by any **contractor**.
- (8) Issuing instructions to **contractors** on behalf of the **client**.
- (9) Issuing certificates for payment of **contractors** and submitting regular reports regarding **works** finances and anticipated completion dates.
- (10) Deciding on or advice in regard to the solving of disputes or differences that may arise between the **client** and **contractor**, except mediation, arbitration and/or litigation.
- (11) Preparation of and issuing variation orders on behalf of and after consultation with the **client**.
- (12) General inspection of materials and equipment for compliance with the original design and tender, including checking of marks or documentation for adherence to National and International standards and advice to the **client** regarding further inspection and testing of such materials and equipment as may be necessary and arranging for such inspection and testing to be carried out on behalf of and at the **client's** expense.
- (13) Making arrangements on behalf of the **client** for the provision and reproduction at the **client's** expense of such drawings and documents as may be required by the **contractors** and site staff for the execution of the **works**.
- (14) Agreeing final quantities with **contractors**, compiling final accounts and issuing final payment certificates.
- (15) Making arrangements to provide the **client**, on completion of the **works**, with record drawings and operation and maintenance manuals, in a format as agreed to with the **client**.
- (16) Evaluating results of **contractor's** commissioning procedures and tests and witnessing final performance or acceptance tests on site, only, but excluding day-to-day routine tests.
- (17) The **consulting engineer** must arrange that the **contractor** assumes responsibility to comply with all administrative requirements and aspects of the Occupational Health and Safety Act, Act 85 of 1993.
- (18) Clauses 8(1), 8(2), 8(9), 8(10), 8(11), 8(14), 8(16) and 8(17) do not apply in respect of civil and structural **services** pertaining to building projects.

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 scope of **services** and remuneration shall be in writing and should, if at all possible, be concluded before such services are rendered.

Additional services pertaining to all stages of the project

9. (1) Enquiries not directly concerned with the **works** and its subsequent utilisation.
- (2) Valuation for purchase, sale or leasing of plant, equipment, material, systems, land or buildings or arranging for such valuation.
- (3) Making arrangements for way leaves, servitudes or expropriations.
- (4) Negotiating and arranging for the provision or diversion of services not forming part of the **works**.
- (5) 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.
- (6) Surveys, analyses, tests and site or foundation or other investigations, model tests, laboratory tests and analyses carried out on behalf of the **client**.
- (7) Setting out or staking out the **works** and indicating any boundary beacons and other reference marks.
- (8) Preparation of drawings for manufacture and installation or detailed checking of such for erection or installation fit.
- (9) 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**.
- (10) Preparing and setting out particulars and calculations in a form required by any appropriate authority.
- (11) 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 timeously.
- (12) Executing or arranging for the periodic monitoring and adjustment of the **works** in order to optimise or maintain proper functioning of any process or system after final handover and completion of construction and commissioning.
- (13) Investigating or reporting on tariffs or charges leviable by or to the client.
- (14) Advance ordering or reservation of materials, the obtaining of licenses and permits.
- (15) Preparing detailed operating and maintenance manuals.
- (16) Additional **services**, duties and/or work resulting from project scope changes, alterations and/or instructions by the **client**, or his duly authorized agents, requiring the **consulting engineer** to advise 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.

- (17) 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**.
- (18) Any other additional **services**, of whatever nature, specifically agreed to in writing between the **consulting engineer** and the **client**.

Construction monitoring

10. (1) If the monitoring, as set out in clause 8(3), is deemed to be insufficient, by either the **consulting engineer** or the **client**, the **consulting engineer** may appoint or make available such staff as are necessary to undertake additional construction monitoring to the level specifically defined and agreed with the **client**.
- (2) Alternatively, the **client** may appoint or make available such staff subject to approval by the **consulting engineer**. In either case, such staff shall only report to and take instructions from the **consulting engineer** or an authorized representative of the **consulting engineer**. The matter of vicarious liability must be specifically defined and agreed between the **consulting engineer** and the **client**.
- (3) Construction monitoring is understood to refer to independent verification, to the extent of the **consulting engineer's** engagement, 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 utilized. Construction monitoring, to whatever extent, shall not diminish the **contractor's** responsibility for executing and completing the works in accordance with his contract.
- (4) The duties of the **consulting engineer** for the following four defined levels of construction monitoring, respectively, are as follows:
 - (a) **Level 1:**

The construction monitoring staff shall:-

 - (i) Monitor the outputs from another party's quality assurance programme against the requirements of the plans and specifications.
 - (ii) Visit the **works** at a frequency agreed with the **client** to review important materials, critical work procedures and/or completed elements or components.
 - (iii) Be available to advise the **contractor** on the technical interpretation of the plans and specifications.
 - (b) **Level 2:**

The construction monitoring staff shall:-

 - (i) Review, preferably at the earliest opportunity, a sample of each important -
 - (a) Work procedure
 - (b) Construction materialfor compliance with the requirements of the plans and specifications and review representative samples of important completed work prior to enclosure or completion as appropriate.
 - (ii) Visit the **works** at a frequency agreed with the **client** to review important materials, critical work procedures and/or completed elements or components.

- (iii) Be available to provide the **contractor** with technical interpretation of the plans and specifications.

(c) **Level 3:**

The construction monitoring staff shall:

- (i) Maintain a part-time presence on site as agreed with the **client** to review random samples and review important completed work prior to enclosure or on completion as appropriate.
- (ii) Where the **consulting engineer** is the sole consultant or principal agent, carry out such administration of the **project** as is necessary on behalf of the **client**.
- (iii) Be available to provide the **contractor** with technical interpretation of the plans and specifications.

(d) **Level 4:**

The construction monitoring staff shall:-

- (i) Maintain a full time presence on site to constantly review -
 - (aa) Work procedures
 - (bb) Construction materials

for compliance with the requirements of the plans and specifications and review completed work prior to enclosure or on completion as appropriate.
- (ii) Where the **consulting engineer** is the sole consultant or principal agent, carry out such administration of the **project** as is necessary on behalf of the **client**.
- (iii) Be available to provide the **contractor** with technical interpretation of the plans and specifications.

Site staff not appointed

11. If for any reason no site staff or inadequate site staff is appointed, the **consulting engineer** shall provide additional services, including additional site visits, as required and agreed to in writing with the **client** prior to commencement thereof.

Quality assurance system

12. Where the **client** requires that a quality management system or quality assurance services, over and above monitoring services, be applied to the **project**, these are in addition to **normal services** provided by the **consulting engineer** and to be specifically defined and separately agreed.

Lead consultant

13. Should the **client** require the **consulting engineer** to assume the leadership of a joint venture or team of consulting engineers, prescribed or requested by the **client**, the additional services may include the following:
- (1) Responsibility for the overall administration of all sections of the **project**, including those **works**, which fall within the ambit of the other, consulting engineers or participants.
 - (2) Responsibility for the overall co-ordination, programming of design and financial control of all the **works** included in the **project**.

- (3) Processing certificates of payment to **contractors**, recommended by the other professional advisers in the team, or the latter's accounts for services prior to their presentation to the **client** for settlement.

Engineering management services

14. Should the **client** require the **consulting engineer** to assume the leadership of a team, which include other consulting engineers, participants or advisers and/or undertake duties of an engineering management nature on behalf of the **client**, the additional services may include the following:
 - (1) Be responsible for the overall administration of the **project** including co-ordination of the work of the team, the programming of the execution of designs and the overall financial control of the **project**.
 - (2) Instruct the other members of the team, on behalf of the **client**, in writing as to the client's total requirements in connection with the **project**, including the services required from each of the other members and make available to them all relevant information or data pertaining to the **project** which is required by them. The other members of the team shall be entitled to rely upon the accuracy and completeness of such information and data furnished by the **consulting engineer**.
 - (3) Convene and preside over regular meetings of the team and the **client** for purposes of planning the **project** including preparing and distributing agendas and minutes to all concerned.
 - (4) Co-ordinate the preparation of a budget for the **client**, together with assistance from other members of the team and update it at regular intervals as agreed with the **client**.
 - (5) Prepare a construction and procurement plan and policy according to the **client's** requirements with regard to types of contracts to be adopted, general and commercial conditions and the grouping of items and elements into various contracts.
 - (6) With assistance of the other members of the team, determine and recommend to the **client** a policy for calling for tenders and/or negotiating contracts.
 - (7) Co-ordinate reports and recommendations on tenders received, either directly or by the other members of the team, and make recommendations to the **client** on the award of contracts.
 - (8) Award all contracts on behalf of the **client** and arrange for the preparation and signing of contract documents with the assistance of the other members of the team.
 - (9) Issue all instructions to **contractors**, either directly or by delegation to the other members of the team.
 - (10) Convene and preside over regular meetings on site with **contractors**, members of the team and the **client** for the purpose of administering the contract including the preparation and distribution of agendas and minutes to all concerned.
 - (11) Process and certify all payment and valuation certificates and issue payment certificates for settlement.

Targeted procurement

15. Should the **client** during any stage of the **project**, require the **consulting engineer** to perform or render any additional work which may or may not increase the **consulting engineer's** exposure

to risk, such additional work and/or **services** or exposure must be specifically defined and agreed to in writing. Such additional work and or **services** could entail, but are not limited to, any or all of the following:

- (1) incorporation of any targeted participation goals,
- (2) the measuring of key participation indicators,
- (3) the selection, appointment and administration of participation,
- (4) compliance auditing of the above by any contractors and/or professional consultant.

Mediation, arbitration and litigation proceedings and similar services

16. Where the **client** requires the **consultant** to, on his behalf, perform the services listed hereunder or similar work, the extent thereof is subject to agreement between the **client** and **consultant**:

- (1) Dealing with matters of law, obtaining parliamentary or other statutory approval, licenses or permits.
- (2) Assisting with or participating in contemplated or actual mediation, arbitration or litigation proceedings.
- (3) Officiating at or attending courts and commissions of enquiry, select committees and similar bodies convened by statute, regulation or decree.

GUIDELINE TARIFF OF FEES

APPLICATION OF TARIFF OF FEES

17. (1) The guideline tariff of fees contained in this Schedule applies in respect of the **services** set out in clauses 4 to 16.
- (2) The **client** should remunerate the **consulting engineer**, for the **services** rendered, on the basis of clauses 18 to 29. In cases where the **client** and **consulting engineer** have agreed that clauses 18 to 27 are not applicable, payment should be on the basis of clause 28 or as agreed according to clause 17(4).
- (3) The **client** shall reimburse the **consulting engineer** for all expenses and costs incurred in terms of clause 29 in performing his **services**, irrespective of whether fees are charged in terms of clauses 18 to 27 or clause 28, as well as for all costs incurred on behalf, and with the approval, of the **client**.
- (4) Should the tariff of fees contained in this Schedule be found to be inappropriate to any **project, works, services** or part thereof, the **client** and **consulting engineer** may agree a fee deemed more appropriate. Contributing factors to be taken into account, although not limited to, may include all or any of the following:
 - (a) *Complexity*: Where the **works** call for the application of new, unusual or untried techniques or designs or application of complex control circuits, systems or processes or excessive complexity of the whole or part of the **works**.
 - (b) *Repetition*: Where the **works** are of a non-repetitive nature with individual elements each requiring original design.
 - (c) *Small projects*: Where projects are small in monetary value and the tariff of fees for normal projects does not compensate the **consulting engineer** reasonably for the services to be rendered.

- (d) **Cost of the works:** Where the **cost of the works** is abnormally low relative to the services required from the **consulting engineer**.
 - (e) **Time duration:** Where the works are executed over appreciably shorter or longer than normal or realistic time periods during any of the stages defined in clause 4 to 8.
 - (f) **Level of responsibility, liability and risk:** Where unusually high demands in respect of these factors are expected to be carried by the **consulting engineer**.
 - (g) **Level of expertise, qualifications, skills and experience** required of the **consulting engineer** for the **services**.
- (5) Agreement on any adjustment of or special fees should be reached at the time of the engagement of the **consulting engineer** or as soon after circumstances warrant such as practically possible, but in all cases prior to the **consulting engineer** rendering services which may be affected.
- (6) Where the **normal services** relate to more than one of the fields of consulting engineering contemplated in clauses 18 to 25, namely civil, structural, mechanical, wet services, electrical or electronic engineering services, a separate fee for **services** in each field should be calculated in accordance with the relevant clause.
- (7) Where at the instance or with the consent of the **client** the **works** are undertaken on separate non-contiguous sites, continuity is interrupted or are unusually fragmented or are 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) the fee agreed to between the **client** and the **consultant** and which fee lies between the fee calculated on the total **cost of the works** and the sum of the fees contemplated in clause 17(7)(a).
- (8) The fee for **services** provided in the report stage is calculated on a time basis.
- (9) 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**.
 - (b) Time based fees applicable when the **services** were rendered.
- (10) Disbursements as set out in clause 17(3) may be claimed monthly.

FEES FOR NORMAL SERVICES

Civil and structural engineering services pertaining to engineering projects

18. (1) The basic fee for **normal services** in the field of civil and structural engineering, pertaining to engineering projects, is calculated at the percentage mentioned against the **cost of the works** contained in the following table:

Cost of the Works	Percentage
For projects up to R 300 000	A Lump Sum or on a Time Basis
<u>For projects over R 300,000:</u>	
For the first R 800 000	12,5%
For the next R3 200 000	10,0%
For the next R11 000 000	8,0%
For the next R45 000 000	6,0%
For the balance	5,0%

- (2) For **normal services** relating to a description of the **works** mentioned in the first column of the following table, the basic fee calculated in terms of clause 18(1) is multiplied by the category factor mentioned against that description in the second column of the table:

Description of the Works	Factor by which basic fee is multiplied
Only one of the following factors will be applicable to any portion of work:	
Rural roads (single carriageways), excluding bridges	0,85
Rural freeways and dual carriageways, excluding bridges	0,95
Freeways and dual carriageways through existing populated (but not urban) areas, excluding bridges	1,00
Freeways and dual carriageways through existing urban areas	1,25
Gravel roads: Primary roads	1,25 to 1,50
Secondary roads	1,00 to 1,25
Informal roads	0,75 to 1,00
Water and waste water treatment works	1,25
Services for existing informal settlement and to reduced standards of supplies	1,25 to 1,50
Water and sanitation in rural areas	1,35
The following factor can be used in conjunction (multiplication) with any factor obtained above and is only applicable to the portion or section of work affected:	
Targeted procurement	1,07
Alterations to existing works .	1,25
Additional work on bridges may, alternatively, be carried out on a Time Basis	

- (3) The following additional fee shall be applicable to the value of the reinforced concrete portion of the **works**, inclusive of the costs of concrete, reinforcing, formwork and any pro-rata preliminary and general amount. Where there is repetitive design work the combined costs shall be cumulative for the determination of the cost of the reinforced concrete works. In cases where structures require individual design, a separate fee shall be calculated for each structure based on the cost of the reinforced concrete for that particular structure:

<i>Cost of the reinforced concrete works</i>		<i>Percentage</i>
For the first	R 2 750 000	5,00%
For the next	R 5 250 000	4,00%
For the next	R 19 300 000	2,65%
For the balance		1,65%

- (4) The following additional fee shall be applicable to the value of the structural steel portion of the **works**, inclusive of any pro-rata preliminary and general amount. Where there is repetitive design work the combined costs shall be cumulative for the determination of the cost of the structural steel works. In cases where structures require individual design, a separate fee shall be calculated for each structure based on the cost of the structural steelwork for that particular structure:

<i>Cost of the structural steel works</i>		<i>Percentage</i>
For the first	R 2 750 000	2,50%
For the next	R 5 250 000	2,00%
For the next	R 19 300 000	1,35%
For the balance		0,85%

- (5) 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 excluded from the **cost of the works**, but the full cost of ballast and equipment specially designed by the **consultant** is included in the **cost of the works**.

Civil engineering services pertaining to building projects

19. (1) The basic fee for **normal services** in the field of civil engineering, pertaining to building projects, is calculated at the percentage mentioned against the **cost of the works** contained in following table:

<i>Cost of the Works</i>		<i>Percentage</i>
For projects up to R 300 000		A Lump Sum or on a Time Basis
<u>For projects over R 300 000:</u>		
For the first	R 800 000	12,5%
For the next	R 2 700 000	10,0%
For the next	R 4 500 000	9,0%
For the next	R 12 000 000	7,5%
For the balance		7,0%

- (2) For **normal services** relating to a description of the **works** mentioned in the first column of the following table, the basic fee calculated in terms of clause 19(1) is multiplied by the category factor mentioned against that description in the second column of the table:

Description of the Works	Factor by which basic fee is multiplied
Alterations to existing facilities <i>(Only applicable to the portion or section of work affected)</i>	1,25
Re-use on duplicated works	0,25 <i>(The factor for re-use on a duplicated works shall only be applied to the applicable design portion of the basic fee and not to the construction stage or any new design work.)</i>

Structural engineering services pertaining to building projects

20. (1) The basic fee for **normal services** in the field of structural engineering, pertaining to building projects, is calculated at the percentage mentioned against the **cost of the works** contained in the following table:

Cost of the Works	Percentage
For projects up to R 300 000	A Lump Sum or on a Time Basis
For projects over R 300 000:	
For the first R 800 000	12,5%
For the next R 3 200 000	10,0%
For the next R 4 500 000	9,0%
For the next R 11 000 000	8,0%
For the balance	7,0%

- (2) For **normal services** relating to a description of the **works** mentioned in the first column of the following table, the basic fee calculated in terms of clause 20(1) is multiplied by the category factor mentioned against that description in the second column of the table:

Description of the Works	Factor by which basic fee is multiplied
Alterations to existing facilities <i>(Only applicable to the portion or section of work affected)</i>	1,25
Re-use on duplicated works	0,25 <i>(The factor for re-use on a duplicated works shall only be applied to the applicable design portion of the basic fee and not to the construction stage or any new design work)</i>

Mechanical engineering services pertaining to engineering projects

21. (1) The basic fee for **normal services** in the field of mechanical engineering, pertaining to engineering projects, is calculated at the percentage mentioned against the **cost of the works** contained in the following table:

<i>Cost of the Works</i>	<i>Percentage</i>
For projects up to R 250 000	A Lump Sum or on a Time Basis
<u>For projects over R 250 000:</u>	
For the first R 800 000	12,5%
For the next R 2 700 000	10,0%
For the next R 6 500 000	8,0%
For the next R 12 000 000	7,0%
For the next R 18 000 000	6,0%
For the balance	5,5%

- (2) For **normal services** relating to alterations to existing **works** the basic fee calculated in terms of clause 21(1) is multiplied by a category factor of 1,25 (only applicable to the portion or section of work affected).

Electrical engineering services pertaining to engineering projects

22. (1) The basic fee for **normal services** in the field of electrical engineering, pertaining to engineering projects, is calculated at the percentage mentioned against the **cost of the works** contained in the following table:

<i>Cost of the Works</i>	<i>Percentage</i>
For projects up to R 250 000	A Lump Sum or on a Time Basis
<u>For projects over R 250 000:</u>	
For the first R 800 000	12,5%
For the next R 1 700 000	10,0%
For the next R 5 000 000	8,0%
For the next R 10 000 000	7,0%
For the next R 14 500 000	6,0%
For the balance	5,5%

- (2) For **normal services** relating to alterations to existing **works** the basic fee calculated in terms of clause 22(1) is multiplied by a category factor of 1,25 (only applicable to the portion or section of work affected).

Mechanical engineering services or wet services pertaining to building projects

23. (1) The basic fee for **normal services** in the field of mechanical engineering or wet services, pertaining to building projects, is calculated at the percentage mentioned against the **cost of the works** contained in the following table:

Cost of the Works	Percentage
For projects up to R 250 000	A Lump Sum or on a Time Basis
<u>For projects over R 250.000:</u>	
For the first R 700 000	15,0%
For the next R 4 300 000	12,5%
For the next R 5 000 000	10,5%
For the next R 10 000 000	9,5%
For the next R 40 000 000	9,0%
For the balance	8,5%

- (2) For **normal services** relating to a description of the **works** mentioned in the first column of the following table, the basic fee calculated in terms of clause 23(1) is multiplied by the category factor mentioned against that description in the second column of the table:

Description of the Works	Factor
Multi-tenant installations	1,25
Alterations to existing facilities <i>(Only applicable to the portion or section of work affected)</i>	1,25
Wet Services	1,25
Targeted procurement	1,07
Re-use on duplicated works	0,25 <i>(The factor for re-use on a duplicated works shall only be applied to the applicable design portion of the basic fee and not to the construction stage or any new design work.)</i>
For projects where the cost of the works exceeds R 250 000 and where bills of quantities pertaining to building works are not required and all financial, tender and contractual matters are dealt with by the Quantity Surveyor or the other parties (e.g. lump sum domestic sub-contracts).	0,75
As above, but where all financial, tender and contractual matters are dealt with by the consultant (e.g. lump sum, nominated or selected sub-contracts, etc.)	0,90

Electrical engineering services pertaining to building projects

24. (1) The basic fee for **normal services** in the field of electrical engineering, pertaining to building projects, is calculated at the percentage mentioned against the **cost of the works** contained in the following table:

Cost of the Works	Percentage
For projects up to R 250 000	A Lump Sum or on a Time Basis
For projects over R 250 000:	
For the first R 500 000	15,0%
For the next R 3 500 000	12,5%
For the next R 5 000 000	10,5%
For the next R 11 000 000	9,5%
For the next R 40 000 000	9,0%
For the balance	8,5%

- (2) For **normal services** relating to a description of the **works** mentioned in the first column of the following table, the basic fee calculated in terms of clause 23(1) is multiplied by the category factor mentioned against that description in the second column of the table:

Description of the Works	Factor
Multi-tenant installations	1,25
Alterations to existing facilities <i>(Only applicable to the portion or section of work affected)</i>	1,25
Targeted procurement	1,07
Re-use on duplicated works	0,25 <i>(The factor for re-use on a duplicated works shall only be applied to the applicable design portion of the basic fee and not to the construction stage or any new design work.)</i>
For projects where the cost of the works exceeds R 250 000 and where bills of quantities pertaining to building works are not required and all financial, tender and contractual matters are dealt with by the Quantity Surveyor or the other parties (e.g. lump sum domestic sub-contracts).	0,75
As above, but where all financial, tender and contractual matters are dealt with by the consultant (e.g. lump sum, nominated or selected sub-contracts, etc.)	0,90

Electronic engineering services

25. (1) The basic fee for **normal services** in the field of electronic engineering, including work pertaining to building projects, is calculated at the percentage mentioned against the **cost of the works** contained in the following table:

Cost of the Works	Percentage
For projects up to R 250 000	A Lump Sum or on a Time Basis
For projects over R 250 000:	
For the first R 250 000	20,0%
For the next R 650 000	17,0%
For the next R3 100 000	13,5%
For the next R 8 000 000	11,5%
For the next R 18 000 000	9,5%
For the balance	8,5%

- (2) For **normal services** relating to a description of the **works** mentioned in the first column of the following table the basic fee calculated in terms of clause 25(1) is multiplied by the category factor mentioned against that description in the second column of the table:

Description of the Works	Factor
Alterations to existing works <i>(Only applicable to the portion or section of work affected)</i>	1,25
Targeted procurement	1.07
Where equipment or systems are wholly of proprietary design or approved by a State authority <i>(only for the design stage of the applicable portion of the works and not for the construction stage)</i> .	0,67
For projects where the cost of the works exceeds R 250 000 and where bills of quantities pertaining to building works are not required and all financial, tender and contractual matters are dealt with by the Quantity Surveyor or other parties (e.g. lump sum domestic sub-contracts).	0,75
As above, but where all financial, tender and contractual matters are dealt with by the consultant (e.g. lump sum, nominated or selected sub-contract, etc.)	0,90

Services provided partially or in stages

26. (1) The following table shall be used for proportioning the basic fee for **normal services** over the various **stages** of the services:

Stage of Services	Percentage points for each stage
Civil: Engineering projects: Preliminary design Design and tender Working drawings Construction Provision of record drawings and final account	30 30 15 20 5
Structural: Engineering projects: Preliminary design Design and tender Working drawings Construction Provision of record drawings and final account	30 30 20 15 5
Civil: Building projects: Preliminary design Design and tender Working drawings Construction Provision of record drawings	30 30 15 20 5
Structural: Building projects: Preliminary design Design and tender Working drawings Construction Provision of record drawings	30 30 20 15 5
Mechanical, wet services, electrical, and electronic projects: Preliminary design Design and tender, including working drawings Construction Provision of record drawings and final account	20 40 35 5

- (2) Where not all the **stages** of the **normal services** are provided by the **consulting engineer**, the fee is, subject to clause 17(7), 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**, plus 10 percentage points.

FEEs FOR ADDITIONAL SERVICES

27. (1) Subject to clauses 26(2), 27(2), 27(3), 27(4) and 27(5), the fees for additional services contemplated in clauses 9 to 16 are agreed to between the **client** and the **consulting engineer** as set out in clause 17.
- (2) (a) Should instructions having been given by the **client** to the **consulting engineer** to proceed with any of the stages of services set out in clause 26(1) 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** shall 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 **services** been completed in terms of his engagement.

- (b) For additional **services** as a result of the resumption of such services or the alteration or modification of designs on the instructions of the **client**, the **consulting engineer** is entitled to time based fees and actual costs incurred.
- (3) For the provision of a construction monitoring service, as contemplated in clause 10, the **consultant** is 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 28(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 28(3); and
- (c) for all other costs, as set out in clause 29, the actual expenses incurred, multiplied by 1,10.
- (4) For assuming the leadership of a joint venture or team of consulting engineers, as contemplated in clause 13, the **consulting engineer** is entitled to an additional fee calculated at one percentage point (1%) of the total cost of the **works** comprising the **project**.
- (5) (a) For engineering management services as contemplated in clause 14, the **consulting engineer** shall be remunerated as follows:

The basic fee for **services** in the field of engineering management services, including work pertaining to building projects, is calculated at the percentage mentioned against the **cost of the works** contained in the following table:

Cost of the Works	Percentage
For projects up to R 500 000	A Lump Sum or on a Time Basis
<u>For projects over R 500 000:</u>	
For the first R 800 000	4,5%
For the next R 4 000 000	3,5%
For the next R 13 200 000	2,5%
For the balance	1,5%

- (b) For **services** relating to alterations to existing **works** the basic fee calculated in terms of clause 27(5)(a) is multiplied by a category factor of 1,25 (only applicable to the portion or section of work affected) and for targeted procurement as contemplated in clause 15 by a category factor of 1,07.
- (c) The following table shall be used for proportioning the basic fee over the various **stages** of the **services**:

Stage of Services	Percentage points for each stage
Concept and design development	25
Design, documentation and tender	35
Construction	35
Commissioning, handover and final accounts	5

TIME BASED FEES

28. (1) (a) 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.
- (b) Time based fees are calculated by multiplying the hourly rate contemplated in clause 28(3), which is applicable to the **consulting engineer** or any other person employed by the **consulting engineer**, with the actual time spent by such person in rendering the **services** required by the **client**.
- (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, shall mean a top practitioner whose expertise and relevant experience is nationally or internationally recognized and who provides advice at a level of specialization where such advice is recognized as that of an expert.
- (b) *Category B*, in respect of a private consulting practice in engineering, shall mean 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, takes full responsibility for the liabilities of such practice, where 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, shall mean 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, shall mean 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, whichever is the lesser.

Provided that in all cases the **client** and **consulting engineer** may agree on a more appropriate fee to take account of the specific service to be rendered or expertise to be applied.

(4) For the purposes of clause 28(3)(a), the **total annual cost of employment** of a person contemplated in clause 28(2) 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; and
 - (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 a Act, including:
 - (i) contributions to the Compensation Fund in terms of the Compensation for Occupational Injuries and Diseases Act;
 - (ii) contributions to unemployment insurance in terms of the Unemployment Insurance Fund Act; and
 - (iii) recoverable levies to all spheres of government

EXPENSES AND COSTS

29. (1) Subject to clause 27(3)(c) a **consulting engineer** shall 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; and
 - (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 air line 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 28, for all time spent in travelling by the **consulting engineer** or members of his staff shall be 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 shall be 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 29(1)(b) include, but are not limited to:
- (a) site traffic surveys;
 - (b) geotechnical investigations;
 - (c) laboratory testing;
 - (d) topographical and land surveys;
 - (e) supply of specific equipment;
 - (f) specialist sub-consultants;
 - (g) environmental investigations and studies; and
 - (h) land acquisitions, expropriation, way leaves, servitudes,