



THE UNITED REPUBLIC OF TANZANIA
ENGINEERS REGISTRATION BOARD



FORM OF AGREEMENT
TERMS AND CONDITIONS FOR THE APPOINTMENT OF A
CONSULTING ENGINEER

Engineers Registration Board
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FORM OF AGREEMENT
BETWEEN CLIENT AND CONSULTING ENGINEER
FOR
ENGINEERING SERVICES

CONTRACT OF AGREEMENT made this day of 20.....

BETWEEN

.....
..... of
..... (hereinafter called "The Client") of the one
part

AND

..... of
..... hereinafter
called "The Consulting Engineer") of the other part

WHEREAS the Client has considered and approved the appointment of the Consulting Engineer to provide professional services in connection with
.....
.....
..... (referred to in this Agreement as the Project or Works)

NOW IT IS HEREBY AGREED as follows:

1. The Client agrees to engage the Consulting Engineer to provide the professional services as described in this Agreement and the Consulting Engineer agrees to provide such Services.
2. This Agreement comprises this Form of Agreement together with the following documents which shall be deemed to form and be read and construed as part of this Agreement.
 - (1) Conditions of Engagement for Professional Engineering Services
 - (2) Appendix A: Services of the Consulting Engineer
 - (3) Appendix B: Remuneration and Payment of the Consulting Engineer
 - (4) Appendix C: Scope of Services and Remuneration Structure

3. In consideration of the payment to be made by the Client to the Consulting Engineer as hereinafter mentioned the Consulting Engineer hereby agrees to perform the Services in conformity with the provisions of this Agreement.

4. The Client hereby agrees to pay a fee of TSHS/USD
.....(TSHS/USD.....
.....) and the reimbursable expenses of TSHS/USD
.....
.....(TSHS/USD.....) to the Consulting Engineer in consideration of the performance of the Services under the provisions of this Agreement at the times and in the manner prescribed by the Agreement, Appendix B Clause 2.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed on the day, month and year first before written in accordance with the laws of the United Republic of Tanzania.

FOR AND ON BEHALF OF THE CLIENT

Signature _____
Name _____
Designation _____
In the presence of
Name _____
Designation _____
Signature _____
Address _____

FOR AND ON BEHALF OF THE CONSULTING ENGINEER

Signature _____
Name _____
Designation _____
In the presence of
Name _____
Designation _____
Signature _____
Address _____

CONDITIONS OF ENGAGEMENT FOR ENGINEERING SERVICES

1 DEFINITIONS

In this Agreement the following terms shall have the meanings hereby assigned to them except where the context otherwise requires:

- “The Client” means the person, firm or organization named in the Memorandum of Agreement, who has engaged the services of the Consulting Engineer.
- “The Consulting Engineer” means the person or firm named in the Memorandum of Agreement and shall include any other person or persons taken into partnership by such person or firm during the currency of this Agreement and the surviving member or members of any such partnership.
- “The Project” means the project with which the Client is proceeding and of which the Works form a part.
- “The Works” means the Works in connection with which the Client has engaged the Consulting Engineer to perform professional services.
- “The Services” means the professional services performed by the Consulting Engineer in respect of the Project or Works and shall comprise Normal Services and Additional Services so prescribed in Appendix A.
- “Contractor” means any person or persons, firm or company under contract to the Client to perform work and/or supply goods in connection with the Works
- “Sub-Contractor” means a person or firm appointed by or on behalf of the Contractor to execute part of the project or of the Works or to manufacture or supply material for incorporation therein.
- “Other Consultants” means Consultants other than the Consulting Engineer appointed by the Client to perform professional services in relation to the Project or Works.

Words importing the singular include the plural and vice versa where the context requires.

2 OBLIGATIONS OF THE CONSULTING ENGINEER

2.1 Performance of Services

The Consulting Engineer shall perform the Normal Services, as so prescribed in Appendix A, and such Additional Services so prescribed in Appendix A and as may be requested or consented to by the Client.

2.2 Skill and Care

The Consulting Engineer shall exercise reasonable skill, care and diligence in the performance of the Services.

2.3 Assignment

The Consulting Engineer shall not, without the written consent of the Client which consent shall not unreasonably be delayed or withheld, assign or transfer any benefit or obligation under this Agreement.

2.4 Acting as Lead Consultant

The Consulting Engineer shall if so indicated by the Client prior to the execution of this Agreement act as the Lead Consultant, in which capacity he shall coordinate and integrate the services of such Other Consultants as the Client may appoint. The Consulting Engineer will not be responsible for the detailed designs of any Other Consultant or liable for defects in or omissions from them.

2.5 Working with Specialists Sub-Consultants

The Consulting Engineer may recommend to the Client that the Consulting Engineer sub-lets to a specialist sub-consultant the performance of any of the Services.

The Client shall not unreasonably withhold consent to such recommendation and the Consulting Engineer shall integrate such sub-consultant's services with his own. The Consulting Engineer shall be responsible for the performance and the payment of any sub-consultant.

2.6 Design by Contractors or Sub-Contractors

The Consulting Engineer may recommend to the Client that the detailed design of any part of the Project or the Works should be carried out by a Contractor or Sub-Contractor.

The Client shall not unreasonably withhold consent to such recommendation and the Consulting Engineer shall integrate that detailed design into his own design. The Consulting Engineer will not be responsible for the detailed designs of any Contractor or liable for defects in or omissions from them.

2.7 Appointing a Project Leader

The Consulting Engineer shall designate his Project Leader approved by the Client who shall be deemed to have authority to make decisions on behalf of the Consulting Engineer under this Agreement. The Project Leader shall not be replaced without the consent of the Client, which consent shall not unreasonably be delayed or withheld.

2.8 Limit of Authority

The Consulting Engineer shall not without the further approval of the Client alter the design once approved by the Client.

Save in the event of any emergency, the Consulting Engineer shall not without the approval of the Client issue instructions to any Contractor the effect of which would be to alter any design already approved by the Client or to incur additional costs to the Client beyond whatever limits may have been agreed for such additional costs.

3 OBLIGATIONS OF THE CLIENT

3.1 Payment for Services

The Client shall pay the Consulting Engineer fees and disbursements for the performance of the Services as set out in Clause 6 of these Conditions.

3.2 Provision of Information

The Client shall supply to the Consulting Engineer, without charge and in such time so as not to delay or disrupt the performance by the Consulting Engineer of the Services, all necessary and relevant data and information (including details of the services to be performed by any Other Consultants) in the possession of the Client, his agents, servants, Other Consultants or Contractors.

3.3 Providing Assistance

The Client shall give, and shall ensure that his agents, servants, Other Consultants and Contractors give, such assistance as shall reasonably be required by the Consulting Engineer in the performance of the Services.

3.4 Making Decisions

The Client shall ensure that his decisions, instructions, consents or approvals on or to all matters properly referred to him shall be given in such reasonable time so as not to delay or disrupt the performance of the Services by the Consulting Engineer.

3.5 Assignment

The Client shall not, without the written consent of the Consulting Engineer which consent shall not unreasonably be delayed or withheld, assign or transfer any benefit or obligation under this Agreement.

3.6 Appointing Client's Representative

The Client shall designate a Client's Representative who shall be deemed to have authority to make decisions on behalf of the Client under this Agreement. The Client shall notify the Consulting Engineer immediately if the Client's Representative is replaced.

3.7 Appointing Contractors

The Client shall appoint Contractors to execute and/or to manage the execution of the Project and the Works. The Client shall require that the Contractors execute the Project and the Works in accordance with the terms of the relevant contracts.

Neither the provision of Site Staff nor periodic visits by the Consulting Engineer or his staff to the site shall in any way diminish the responsibilities of the Contractors or any

Sub-Contractors for executing the Project and the Works in compliance with the relevant contract documents and any instructions issued by the Consulting Engineer.

4 SITE STAFF

- 4.1 If in the opinion of the Consulting Engineer the execution of the Project or the Works including any investigations warrants full time or part time Site Staff to be deployed at any stage, the Client shall not unreasonably withhold consent to the employment and/or deployment of such suitably qualified technical and clerical Site Staff as the Consulting Engineer shall consider necessary.
- 4.2 The Client and the Consulting Engineer shall discuss, agree and confirm in writing in advance of such deployment, the number and levels of staff to be deployed to site, the duration of such deployments, the frequency of occasional visits and the duties to be performed by Site Staff.
- 4.3 Site Staff shall be employed either by the Consulting Engineer or by the Client directly.
- 4.4 The terms of service of all Site Staff to be employed by the Consulting Engineer shall be subject to the approval of the Client, which approval shall not unreasonably be delayed or withheld.
- 4.5 The Client shall ensure that the contracts of employment of Site Staff employed by the Client empower the Consulting Engineer to issue instructions to such staff in relation to the Project or the Works and shall stipulate that staff so employed shall in no circumstances take or act upon instructions in connection with the Project or the Works other than those given by the Consulting Engineer.
- 4.6 Where duties are performed by Site Staff employed other than by the Consulting Engineer, the Consulting Engineer shall not be responsible for any failure on the part of such staff to properly comply with any instructions given by the Consulting Engineer.

4.7 Facilities and Arrangements for Site Staff

The Client shall be responsible for the cost and provision of such local office accommodation, furniture, telephones and facsimile apparatus and other office equipment, protective clothing and transport as shall reasonably be required for the use of Site Staff and for the reasonable running costs of such necessary local office accommodation and other facilities, including those of stationery, telephone and facsimile charges, and postage.

Unless agreed between the Client and the Consulting Engineer that the Client shall arrange for such facilities, the Consulting Engineer shall arrange, whether through Contractors or otherwise, for the provision of such local office accommodation and other facilities.

5 COMMENCEMENT, DETERMINATION, POSTPONEMENT, DISRUPTION AND DELAY

5.1 Duration of Appointment

Notwithstanding the date stated in the Form of Agreement, the effective date of the appointment of the Consulting Engineer shall be the date upon which the Form of Agreement was executed by the parties or the date when the Consulting Engineer shall have first commenced performance of the Services, whichever is the earlier.

Unless terminated, the appointment of the Consulting Engineer shall be concluded when the Consulting Engineer has performed the Services required under this Agreement.

5.2 Determination by the Client

The Client may determine the appointment of the Consulting Engineer at any time by Notice in respect of all or any part of the Services.

5.3 Postponement by the Client

The Client may at any time by Notice require the Consulting Engineer to postpone the performance of all or any part of the Services.

On Notice of postponement of all or any part of the Services the Consulting Engineer shall cease such postponed Services in an orderly and economical manner compatible with a possible order to restart.

If the postponement of the performance of all or any part of the Services exceeds twelve months in aggregate the Consulting Engineer may by giving four weeks Notice treat the Project or the Works or that part of the Project or the Works as having been abandoned and the appointment of the Consulting Engineer in respect of all or any part of the Services affected shall be automatically terminated.

5.4 Determination by the Client following Breach of this Agreement by the Consulting Engineer

In the event of a breach of this Agreement by the Consulting Engineer the Client may give two weeks Notice of his intention to determine the appointment of the Consulting Engineer setting out the acts or omissions of the Consulting Engineer relied upon as evidence of such breach. If the Consulting Engineer does not, to the reasonable satisfaction of the Client, take expeditious steps to repair the breach during the notice period the Client may forthwith on the expiry of the notice period determine the appointment of the Consulting Engineer.

5.5 Suspension or Determination by the Consulting Engineer

Upon the occurrence of any circumstance beyond the control of the Consulting Engineer which is such as to prevent or significantly impede the performance by the Consulting Engineer of the Services under this Agreement, the Consulting Engineer may without prejudice to any other remedy and upon not less than four weeks Notice suspend for a period of up to twenty-six weeks the performance of the Services under this Agreement in respect of all or such part or parts of the Project or the Works as are affected and at the expiry of the said period of suspension either continue with the performance of the Services under this Agreement or if he is still prevented from performing such Services for reasons beyond his control determine his appointment forthwith by a further Notice of four weeks in respect of all or any part of the Services affected.

In the event of a breach of this Agreement by the Client the Consulting Engineer may give two weeks Notice of his intention to determine the appointment of the Consulting Engineer setting out the acts or omissions of the Client relied upon as evidence of such breach. If the Client does not, to the reasonable satisfaction of the Consulting Engineer, take expeditious steps to repair the breach during the notice period the Consulting Engineer may forthwith on the expiry of the notice period determine the appointment of the Consulting Engineer by a further two weeks Notice.

Notwithstanding the foregoing, in the event of the failure of the Client to make any payment properly due to the Consulting Engineer in accordance with the provisions of Clause 6 of these Conditions, the Consulting Engineer may, upon not less than two weeks Notice, determine his appointment.

5.6 Insolvency

The appointment of the Consulting Engineer may be determined in the event of the Insolvency of either party. Notice of determination must be given to the party which is insolvent by the other party.

5.7 Accrued Rights

Termination of the Consulting Engineer's appointment under this Agreement shall not prejudice or affect the accrued rights or claims of either party to this Agreement.

5.8 Delay caused by Client or his Contractor

In the event of delays caused by the client or his contractor so as to increase the amount of services, then:

- (a) The Consultant shall inform the Client of the circumstances and probable effects
- (b) The increase shall be regarded as Additional Services and charged accordingly
- (c) The time for completion of the Services shall be increased accordingly and charged either in man-hours or lump sum rate.

6 PAYMENTS

6.1 Alternative Methods of Payment

In respect of Normal Services provided by the Consulting Engineer under Clause 2.1 of these Conditions, the Client shall pay the Consulting Engineer according to one or more of the following methods as specified in Appendix B.

- (a) Time based fees
- (b) Lump Sum fees
- (c) Ad-valorem (percentage) fees

6.1.1. Time Charges

When the Project cost cannot be estimated in advance, the Client shall remunerate the Consulting Engineer on the basis of time charge for staff actually employed on the Project. Unless otherwise agreed between the Client and Consulting Engineer the applicable rates are those given in the scale of charges set by the Engineers Registration Board.

6.1.2. Lump Sum Fees

The sum payable by the Client to the Consulting Engineer shall be the Lump Sum to be decided and confirmed in advance by negotiation or tender between the two parties, depending on the nature of the Project. Lump Sums may be broken down into components applicable to particular duties or stages of work.

6.1.3. Percentage Fees

The fees payable by the Client to the Consulting Engineer shall be calculated as agreed percentages of the cost of the Project or cost of the Works and the amount payable, therefore, shall vary with changes in the construction cost. Unless otherwise agreed between the Client and Consulting Engineer, the standardized Percentage Fee rates given in the scale of charges set by the Engineers Registration Board shall apply.

6.2 Payment for Additional Services

In respect of Additional Services provided by the Consulting Engineer under Clause 2.1 of these Conditions, the Client shall pay the Consulting Engineer on the basis of time charges as set out in Clause 6.1.1 of these Conditions or as otherwise agreed between the Client and Consulting Engineer.

6.3 Payment for the Use of Special Equipment

Where the Client has agreed to pay the Consulting Engineer for his Services and the Consulting Engineer decides to use special equipment in carrying out any additional services or is expressly required by the Client to use special equipment in the carrying out of his Services, the Client shall, unless otherwise agreed between the Client and the Consulting Engineer, pay the Consulting Engineer:-

- a) for the time spent in connection with the use of special equipment, including the development and writing of programmes and the operation of the equipment in trial and final runs, in accordance with scale of charges set by the Engineers Registration Board, or as otherwise agreed between the Client and the Consulting Engineer, and

- b) a reasonable charge for the use of equipment, which charge shall be agreed between the Client and the Consulting Engineer before the work is put in hand.

6.4 Payment for Site Supervision

- 6.4.1 In addition to any other payment to be made by the Client to the Consulting Engineer under this Agreement the Client shall pay the Consulting Engineer for all Site Staff employed by the Consulting Engineer pursuant to Clause 4 of these Conditions.

Unless otherwise agreed, payment for Site Staff shall be on a time basis and at the rate or rates for technical staff seconded to site in accordance with the scale of charges set by the Engineers Registration Board. Where Site Staff are employed on site on a part time basis or full time for a period of less than nine weeks' duration, the rates for office based technical staff given in the scale of charges set by the Engineers Registration Board shall apply.

Notwithstanding the foregoing, the Client and the Consulting Engineer may agree upon inclusive monthly or other rates to be paid by the Client to the Consulting Engineer for each member of site staff employed by the Consulting Engineer.

6.5 Reimbursable Expenses

- 6.5.1 The Client shall in all cases reimburse the Consulting Engineer in respect of all the Consulting Engineer's disbursements properly made in connection with:-

- a) Printing, reproduction and purchase of all documents, drawings, maps, records and photographs.
- b) Communication (fax, telephone calls, e-mails, etc)
- c) Postage and similar delivery charges
- d) Traveling, hotel expenses and other similar disbursements.
- e) Advertising for tenders and site staff.

- 6.5.2 The Client, by agreement with the Consulting Engineer and in satisfaction of his liability to the Consulting Engineer in respect of these disbursements, may make to the Consulting Engineer a lump sum payment or a sum calculated as a percentage of the fees and charges falling due under Clause 6.1 and 6.2 to be specified in Appendix B.

6.6 Payment for Variation or Disruption of Consulting Engineer's Work

- 6.6.1 If the Consulting Engineer has to carry out additional work and/or suffers disruption in the performance of the Services because the Project or Works or Brief is or are varied by the Client, or because of any delay by the Client in fulfilling his obligations under Clause 3.2, 3.3 or 3.4 of these Conditions, or in taking any other step necessary for the execution of the Project or the Works, or because the Consulting Engineer is delayed by others (or by particular events which were not reasonably foreseeable), or because the Project or the Works is damaged or destroyed, or for other reasons beyond the control of the Consulting Engineer, the Client shall make an additional payment to the Consulting

Engineer in respect of the additional work carried out and additional resources employed (unless and to the extent that the additional work has been occasioned by the failure of the Consulting Engineer to exercise reasonable skill, care and diligence) and/or the disruption suffered. Unless otherwise agreed between the Client and Consulting Engineer, this additional payment shall be on the basis of time based fees in accordance with the scale of charges set by the Engineers Registration Board.

The Consulting Engineer shall advise the Client when he becomes aware that any such additional work will be required and shall, if so requested by the Client, give an initial estimate of the additional payment likely to be incurred. Where the Client requests that payment for such additional work is to be in the form of lump sums, these lump sums should be agreed by the parties prior to the additional work being commenced.

For the avoidance of doubt, it is hereby agreed that if the Consulting Engineer carries out any work which subsequently becomes nugatory, the Client shall (unless otherwise agreed) pay the Consulting Engineer therefore on the basis of time based fees in accordance with the scale of charges set by the Engineers Registration Board.

- 6.6.2 Where in the Consulting Engineer's opinion the Client's instruction necessitates a fundamental redesign of the part or parts of the Works affected by the instruction such that designs, specifications, drawings and other documents prepared by the Consulting Engineer cannot be modified or revised to take account thereof or where the modification or revision instructed by the Client results in a reduction in the cost of the part or parts of the Works affected thereby as contained in the Consulting Engineer's most recent estimate by 10% or more, then such part or parts shall be deemed to have been abandoned and the Consulting Engineer shall be paid therefore in accordance with Clause 6.1 of these Conditions and this payment shall also include any appropriate reimbursements in accordance with Clause 6.5 of these Conditions.
- 6.6.3 The Consulting Engineer shall carry out such further work and shall produce such further designs, specifications, drawings and other documents as may be necessary to comply with the Client's instructions and the Consulting Engineer shall be paid therefore in accordance with the Provisions of this Agreement.
- 6.6.4 Should there be a need to redesign part or parts of the project or Works due to a fault or negligence of the Consulting Engineer, he shall perform extra services to remedy the fault at his own expense.

6.7 Effect of Determination or Postponement

In the event of any determination by the Client in accordance with Clause 5.2 of these Conditions or any postponement or determination by the Client in accordance with Clause 5.3 or Clause 5.4 of these Conditions or any suspension by the Consulting Engineer in accordance with Clause 5.5 of these Conditions or any determination by the Consulting Engineer in accordance with Clause 5.5 or 5.6 of these Conditions, the Client shall pay the Consulting Engineer a fair and reasonable amount on account of the fees due under Clause 6.1 of these Conditions commensurate with the Services performed to the date of such determination, postponement or suspension and any outstanding disbursements together with a sum for loss and costs of disruption (calculated on the basis of the loss to the Consulting Engineer and costs to which the Consulting Engineer is committed in respect of planned future work on the Project or the Works).

In the event of any determination by the Client in accordance with Clause 5.4 or 5.6 of these Conditions the Client shall pay the Consulting Engineer a fair and reasonable amount on account of the fees due under Clause 6.1 of these Conditions commensurate with the Services performed to the date of determination and any outstanding disbursements.

6.8 Contested Invoices

If any part of any invoice submitted by the Consulting Engineer is contested, payment shall be made in full of all that is not contested.

6.9 Time for Payment

All amounts due to the Consulting Engineer in accordance with this Agreement shall be paid within 28 days of the date of the Consulting Engineer's invoice. Interest shall be added to all amounts remaining unpaid thereafter (including any amounts of any contested invoices remaining unpaid under Clause 6.8 of these Conditions to the extent that they or it shall subsequently be agreed or determined to have been due to the Consulting Engineer). Interest shall be charged at the prevailing mean annual commercial rate of lending plus one percent on all overdue payments.

7 OWNERSHIP OF DOCUMENTS AND COPYRIGHT

7.1 Copyright

The copyright in all drawings, report, specifications, bills of quantities, calculations and other documents and information prepared by or on behalf of the Consulting Engineer in connection with the Project or the Works for delivery to the Client shall remain vested in Consulting Engineer but, subject to the Consulting Engineer having received payment of all fees and disbursements agreed as due under this Agreement, the Client shall have a license to copy and use such drawings and other documents and information for any purpose related to the Project or the Works including, but without limitation, the construction, completion, maintenance, letting, promotion, advertisement, refurbishment and repair of the Project or the Works as the case may be. Such licence shall enable the Client to copy and use the drawings and other documents and information for the extension of the Project or the Works but such use shall not include a license to reproduce the designs contained therein for any extension of the Project or the Works. Save as above, the Client shall not make copies of such drawings or other documents or information nor shall he use the same in connection with any other works without the prior written approval of the Consulting Engineer, which shall not unreasonably be withheld, and upon such terms as may be agreed between the Client and the Consulting Engineer.

The Consulting Engineer shall not be liable for use by any person of any drawings, reports, specifications, or other documents or information for any purpose other than that for which the same were prepared by or on behalf of the Consulting Engineer.

7.2 Publication by the Consulting Engineer

The Consulting Engineer shall not, without the written consent of the Client, publish alone or in conjunction with any other person any articles, photographs or other illustrations relating to the Project.

The Consulting Engineer shall not disclose to any person any information provided by the Client unless so authorized by the Client.

8. LIABILITY, INSURANCE AND WARRANTIES

8.1 Unless notice to the contrary is given in writing by the Client, the Consulting Engineer shall, at the Client's expense, take out and maintain, on terms and conditions approved by the Client, insurance against loss or damage to equipment being used by the Consulting Engineer for the project or the Works.

8.2 Notwithstanding anything to the contrary contained elsewhere in these Conditions the total liability of the Consulting Engineer, whether in contract or in tort, in negligence or for breach of statutory duty or otherwise for any claim shall be limited to the total fees received. The Consulting Engineer has no liability whatsoever for any part of the Works not designed by him nor for any damage resulting from any act of the Client, the Contractors or the suppliers which is not covered by the scope of services of the Consulting Engineer.

8.3 Professional Indemnity Insurance

The Consulting Engineer shall maintain, at his own cost, reasonable professional liability coverage for any one occurrence or series of occurrences arising out of this consultancy engagement for the entire duration of the Project or Works, provided always that such insurance is available at commercially reasonable rates. The Consulting Engineer shall immediately inform the Client if such insurance ceases to be available on the terms required by this Condition at commercially reasonable rates in order that the Client and the Consulting Engineer can discuss means of best protecting the respective positions of the Client and the Consulting Engineer in the absence of such insurance.

8.4 Public Liability Insurance

The Consulting Engineer shall maintain public liability insurance covering the Consulting Engineer, his employees, agents and sub-contractors from the effective date of this consultancy engagement until the completion of the Services, provided always that such insurance is available at commercially reasonable rates.

9. DISPUTES AND DIFFERENCES

Mediation or Conciliation

- 9.1** The relationship between the parties to this Agreement is that of client and professional adviser in which both parties recognize that the Project and the Works are most likely to be successfully achieved if the Client and the Consulting Engineer co-operate fully. Every effort shall be made by both parties to resolve any difference between them amicably but if this appears impossible the parties shall seek the assistance of a Mediator or Conciliator to attempt to resolve such difference as quickly and amicably as possible.

The parties shall not resort to adjudication or arbitration (save in the case where arbitration arises out of the dissatisfaction of either party with any decision of an Adjudicator) in accordance with these Conditions unless informal attempts to reach a settlement by way of mediation under these Conditions have been unsuccessful.

- 9.2** If no settlement has been reached within six weeks of the first appointment of or attempt to appoint a Mediator the mediation shall be deemed to have been unsuccessful.

If a difference should arise between the Consulting Engineer and the Client in connection with or arising out of this Agreement and the mediation required under the terms of these Conditions shall have been unsuccessful, it shall be deemed a dispute. Should such a dispute arise prior to completion or alleged completion or abandonment of the Project or the Works or determination of the appointment of the Consulting Engineer it shall be settled in accordance with Clauses 9.4 and 9.5 of these Conditions.

Adjudication

- 9.3** The parties shall refer the dispute to an Adjudicator who shall be an independent person to be agreed between the parties or, failing agreement, appointed at the request of either party by the Executive Secretary of the National Construction Council. The Adjudicator shall act as an expert and be entitled to request either party to provide oral or written statements, documents and information and shall fix the timetable for the provision of such statements, documents and information and for the adjudication. He shall give written notice of his decision to both parties within such period as may be agreed or, failing agreement, as determined by the Adjudicator.
- 9.4** The decision of the Adjudicator shall be final and binding on both parties until completion or alleged completion or abandonment of the Project or the Works or the determination of the appointment of the Consulting Engineer as the case may be.

Arbitration

9.5 If a dispute should arise between the Consulting Engineer and the Client following completion or alleged completion or abandonment of the Project or the Works or the determination of the appointment of the Consulting Engineer or out of any contested invoice or any determination of the appointment of the Consulting Engineer under Clauses 5.4 or 5.5 of these Conditions or should either party be dissatisfied with any decision of an Adjudicator, the dispute shall be referred to the arbitration of a person to be agreed between the parties to act as arbitrator, or failing agreement within one month of a Notice by either party to the other requesting agreement to an arbitrator appointed by the Executive Secretary of the National Construction Council.

Subsequent Proceedings

- 9.6 Records of evidence given and opinions expressed in mediation and adjudication proceedings in respect of any difference or dispute in connection with the Project or the Works shall not be admissible as evidence in any subsequent proceedings solely on the grounds that they were included in such records. Nevertheless, facts once established and agreed upon by the parties may be recorded and then accepted in later proceedings.

No person appointed as Mediator or Adjudicator in respect of any difference or dispute in connection with the Project or the Works may be called to give witness thereon in any subsequent proceedings.

10 NOTICES

Any Notice to be given by the Client under this Agreement shall be deemed to be duly given if it is in writing and delivered by hand at or sent by courier to the Consulting Engineer at the address of the Consulting Engineer as shown on the Memorandum of Agreement. Any Notice to be given by the Consulting Engineer shall be deemed to be duly given if it is in writing and delivered by hand at or sent by courier to the Client at the address of the Client as shown on the Memorandum of Agreement.

APPENDICES

APPENDIX A

SERVICES OF THE CONSULTING ENGINEER

This Appendix describes broadly the services to be performed by the Consulting Engineer at all stages of the Project or Works. These services shall comprise Normal Services and, as required, Additional Services as described below:

1 NORMAL SERVICES

The Normal Services to be provided by the Consulting Engineer at each stage shall comprise all or any of the following as may be necessary in the particular case:-

1.1 *Design Stage 1 (Preliminary or Sketch Plan Stage)*

- a) Visiting the site and investigating any reasonably accessible data and information relevant to the Project and particular Works, and considering any reports relating to the Project or Works;
- b) Advising the Client on the need to carry out any further investigations and surveys under the Consulting Engineer's direction which may be necessary to supplement the information already available and arranging for such investigations and surveys after authorization by the Client.
- c) Advising the Client on the need for arrangements to be made for the carrying out of special surveys, special investigations or model tests, and advising the Client of the results of any such surveys, investigations or tests carried out.
- d) Consulting any local or other approving authorities on matters of principle in connection with design of the Project or Works.
- e) Analyzing and evaluating alternative design concepts, project location, methods of operations, socio-economic conditions and similar matters in order to establish principal features that determine design requirements and specifications.
- f) Preparing such reports and documents (including sketch drawings, outline calculations and specification notes, where necessary) as are reasonably necessary to enable the Client to consider and approve the Consulting Engineer's design proposals in the light of the investigations carried out at this stage.
- g) Advising the Client on the financial aspect of the Project or Works.

1.2 *Design Stage II (Detail Design and Tender Documentation Stage)*

- a) Developing detail design of the approved scheme design of the Works and preparing calculations, drawings, and any specifications needed for submission to appropriate approving authorities.

- b) Advising on the conditions of contract relevant to the Works and forms of tender and invitations to tender as they relate to the Works.
- c) Preparing tender documents, including conditions of contract, drawings, specifications, schedules and bills of quantities, that are necessary to enable the Client to obtain tenders or otherwise award a contract for carrying out the works.
- d) Preparing any further designs, specifications and production drawings necessary for the information of the Contractor to enable him to carry out the Works.
- e) Examining shop fabrication drawings prepared by Contractors or his sub-contractors or suppliers for the Works, or any part thereof, in respect of general dimensions and structural adequacy of members and connections.

1.3 *Tender Stage*

- (a) Advising the Client on the technical suitability for carrying out the Works of persons and firms tendering for the main contract and for any specialist sub-contract involving the supply and/or installation of parts of the Works.
- (b) Advising the Client on the relative merits of tenders, prices and estimates received for carrying out the Works.
- (c) Advising on and preparing the formal contract documents relating to accepted tenders for carrying out the Works or any part thereof.

1.4 *Construction Or Installation Stage*

The Consulting Engineer shall not accept any tender in respect of the Works unless the Client gives him instructions in writing to do so, and any acceptance so made by the Consulting Engineer on the instructions of the Client shall be on behalf of the Client. After the award of the Works contract by the Client, the Consulting Engineer shall then proceed to render his services as follows:-

- a) Inspecting and testing during manufacture and installation of electrical and mechanical materials, machinery and plant supplied for incorporation in the Works and arranging and witnessing acceptance tests.
- b) Advising the Client on the need for special inspection or testing in addition to or other than that referred to in Clause 1.4 (a) above.
- c) Advising the Client on the appointment of site supervisory staff
- d) Examining and approving the Contractor's construction proposals, working drawings and programmes relating to the works.
- e) Preparing additional or revised designs and drawings for the works as may be necessary.
- f) Attending relevant site meetings and making such other periodic visits to the site as the Consulting Engineer shall consider necessary to ensure that the Works are being executed generally in accordance with the contract drawings and specifications and otherwise in accordance with good engineering practice. The

frequency of site visits shall depend on the performance of the Contractor and the site staff, if any, appointed by the Consulting Engineer. It is recommended that such visits be held at least once a month. The presence of the Consulting Engineer, his employees, agents or any site staff appointed pursuant to Clause 4 of the Conditions of Contract, on site shall not relieve the Contractor of his responsibility for the correctness of the materials and methods used by the Contractor, nor for the safety of the Works or any temporary works during the course of the construction.

- g) Giving all necessary instructions to the contractor, provided that the Consulting Engineer shall not without the prior approval of the Client give any instructions which in the opinion of the Consulting Engineer are likely substantially to increase the cost of the Works unless it is not in the circumstances practicable for the Consulting Engineer to obtain such prior approval.
- h) Preparing interim valuations and issuing certificates for payment to the Contractor as are required in the construction contract.
- i) Approving and supervising the Contractor's commissioning procedures and performance tests, and inspecting the Works on completion.
- j) Performing services that may be required to approve the contractor's work during defects liability period.
- k) Performing any other services which the Consulting Engineer may be required to carry out under the contract for the execution of the Works.
- l) Delivering to the Client on completion of the Works copies of design and construction drawings, as-build drawings, Contractor's operating instructions, manufacturer's manuals, certificate of works tests and any other documents supplied to the Contractor for the purpose of constructing the Works and all records as are reasonably necessary to enable the Client to operate and maintain the Works.
- m) Deciding any dispute or difference which may arise between the Client and the Contractor in connection with the works and submitted to the Consulting Engineer for his decision, provided that this professional service shall not extend to advising the Client following the taking of any step in or towards any arbitration or litigation in connection with the Works.

1.4 General

Without prejudice to the preceding provisions of this clause, the Consulting Engineer shall from time to time as may be necessary advise the Client as to the need for the Client to be provided with additional services in accordance with Clause 2 of this Appendix.

2 ADDITIONAL SERVICES

2.1 As services additional to those specified in Clause 1 of this Appendix the Consulting Engineer shall, if agreed with the Client, provide any of the services specified in Clause 2.2 of this Appendix and provide or take all reasonable steps to arrange for the provision by others of any of the services specified in Clause 2.3 of this Appendix.

2.2 Additional services provided by the Consulting Engineer

- a) Preparing any report or additional contract documents required for consideration of proposals for the carrying out of alternative Works.
- b) Carrying out work in connection with any application by the Client for any order, sanction, license, permit or other consent, approval or authorization necessary to enable the Works to proceed.
- c) Carrying out work arising from the failure of the Client to award a contract in due time.
- d) Providing or carrying out special cost investigations, detailed valuations or cost analyses for cost planning purposes.
- e) Preparing details of shop fabrication of structural steelwork, ductwork, metal, timber or plastic frameworks or other specialist supplied components.
- f) Carrying out surveys of existing works or installations or checking and advising upon any other part of the Project not designed by the Consulting Engineer.
- g) Carrying out work consequent upon any assignment of a contract by the Contractor or upon the failure of the Contractor properly to perform any contract or upon delay by the Client in fulfilling his obligation or in taking any other step necessary for the due performance of the Works.
- h) Making visits to the site in addition to those needed for basic representation of the Client on site as provided for in Clause 1.4 of this Appendix.
- i) Advising the Client and carrying out work following the taking of any step in or towards any litigation or arbitration relating to the Works.

2.3 Services provided by Other Specialists

- a) Specialist technical advice on any aspect of the Works.
- b) Architectural, legal, financial and other professional services.
- c) Services in connection with the funding, valuation, purchase, sale, leasing or letting of the Project or lands including all necessary liaison with legal and financial advisors, consultants, surveyors etc. including the obtaining of way-leaves.
- d) Investigation of the nature and strength of existing works and the making of model tests or special investigations.
- e) Any other specialist services that may be required

2.4 The Consulting Engineer shall obtain the prior agreement of the Client to the arrangements which he proposes to make as agent for the Client for the provision of any of the services specified in Clause 2.3 of this Appendix. The Client shall be responsible to any person or persons providing such services for cost thereof. The Consulting Engineer shall have no liability whatsoever for such services.

3. APPLICATION OF SERVICES OF THE CONSULTING ENGINEER

This appendix in conjunction with Appendix A will form the basis for preparation of Appendix C to determine the particular scope of works for the project, the fee and the reimbursable expenses.

APPENDIX B

APPENDIX B

ERB SCALE OF FEES FOR CONSULTING ENGINEERS

1. BASIS OF FEE CALCULATIONS

1.1 Time Charges

When the project cost cannot be estimated in advance, a suitable charging mechanism is a time charge for staff actually employed on the project. The standardized rates are tabulated in Table 1 titled ***Rates for Payment on Time Basis***. This table shall be subject to revision from time to time subject to changes in consumer price index, inflation and currency devaluation.

The rates have been most conveniently calculated by applying a multiplier, which covers overheads and profit, to the remuneration cost and then adding the net amount of other payroll costs.

The major part of the multiplier is attributable to the Consulting Engineer's overheads, which may include, among other things the following indirect costs and expenses:

- a. Rent and other expenses of upkeep of his office, its furnishing, equipment and supplies;
- b. Insurance premiums other than those recovered in the payroll costs;
- c. Administrative, accounting, secretarial and financing costs;
- d. The expense of keeping abreast of advances in engineering and continuing professional development;
- e. The expense of preliminary arrangements for new or prospective projects;
- f. Loss of productive time of technical staff between assignments.
- g. When calculating amount chargeable on a time basis, a Consulting Engineer is entitled to include recoverable expenses plus 10% top up for all expenses incurred by the firm, on behalf of the Client, in rendering their services in connection with the performance of the services. The Consulting Engineer shall also recover the following expenses:
- h. Traveling expenses for the conveyance of the Consulting Engineer or his staff member;
- i. Traveling time on the basis of rate set out in Table 1 for all hours spent on traveling. The maximum chargeable time shall be 8 hours a day.
- j. Accommodation and subsistence allowance incurred by the Consulting Engineer or his staff member
- k. Agreed cost of lithography when preparing the project documents such as drawings, contract documents, reports tender documents and manuals, excluding general correspondences and contractual reports
- l. Alternatively, a lump sum or percentage of cost of works may be agreed upon for any or all of the above expenses.

The time spent by secretarial staff or by staff engaged on general accountancy or administration duties in the Consulting Engineer's office is not chargeable unless otherwise agreed.

The Board recommends the use of time-based charges for studies, advisory services, consultations, and the Additional Services described in Appendix A of the Conditions of Engagement.

Table 1 – Rates for Payment on Time-Basis

POSITION	RATES IN (US \$)		
	HOURLY	DAILY	MONTHLY
Level A - (Specialist)	120-150	600-750	12,000-15,000
Level B – (Principal)	90-120	450-600	9,000-12,000
Level C – (Senior Engineer)	75-90	375-450	7,500–9,000
Level D – (Engineer)	60-75	300-375	6,000–7,500
Level E – (Graduate Engineer)	45-60	225-300	4,500–6,000
Level F – (Senior Technician)	30-45	150-225	3,000–4,500
Level G – (Technician)	20-30	100-150	2,000–3,000
Level H – (Technical Assistant)	15-20	75-100	1,500–2,000

Notes for Table 1:

- i) These rates shall be reviewed from time to time depending on the behavior of the consumer index, inflation rate and currency devaluation.
- ii) The daily rates are based on hourly rates multiplied by 5 Working Hours, while the monthly rates are based on the daily rate multiplied by 20 Working Days.
- iii) **Specialist** shall mean a Consulting Practitioner/Engineer with specific skills, whose expertise and relevant experience is considered to be exceptional and is nationally and internationally recognized as that of an expert, in a particular field.
- iv) **Principal** shall mean a Director, an Associate or a Senior Engineer in the firm registered by ERB as a Consulting Engineer.
- v) **Senior Engineer** shall be a professional engineer registered as such by ERB, and having a minimum experience of ten (10) years from the date of graduation.
- vi) **Engineer** shall be a professional engineer registered as such by ERB, and having less than 10 years experience from the date of graduation, or any Technician Engineer registered by ERB.

- vii) **Graduate Engineer (including Graduate Technician Engineer)** shall be a Graduate Engineer/Graduate Technician Engineer registered as such by ERB.
- viii) **Senior Technician** shall be an FTC holder from a recognized College with a minimum experience of ten years from the date of graduation.
- ix) **Technician** shall be an FTC holder from a recognized College whose experience is less than ten years from the date of graduation.
- x) **Technical Assistant** shall be a person such as craftsperson, artisan with technical know-how whose experience is more than five years from the date of engagement in the engineering services.
- xi) The rates are applicable for the infrastructure works, building works or any other works.
- xii) The rates are exclusive of Value Added Tax.

1.2 Lump Sum Fees

Lump sums, which may be broken down into components applicable to particular duties or stages of work, have the advantage that they are decided in advance by negotiation or tender and are then firm. It is not possible to provide guidance for Clients on likely lump sums, but comparison with fees calculated by the percentage method will give an indication of appropriate levels. Lump sums will inevitably incorporate an allowance for the additional risk involved in making such arrangements.

As mentioned above, lump sum fees may be arrived at after going through the whole process of normal competitive bidding, and finally agreeing on a firm figure, that has taken into account all the cost elements of the project. This is suitable where the full extent of the services can be determined, and it enables the client to know his budgetary commitments in advance.

1.3 Percentage Fees

These fees are calculated as agreed percentages of the cost of the project or cost of the works, and apply to the Normal Services described in Appendix A of the Conditions of Engagement. The amount paid therefore varies with changes in the construction cost. There are different ways of arranging fees and interim payments. The most usual is to base the fee on the final cost of the project or works, and to invoice interim accounts on estimates of what that cost will be. Sometimes, however, it is decided to have different percentages of the estimated or actual costs at different stages of work. The Conditions of Engagement should include provisions for variations of such methods.

The standardized Percentage Fees rates are tabulated in Tables 2 - 3 below. These tables shall be subject to revision from time to time based on changes in consumer price index, inflation and currency devaluation.

The rates in Table 2 are applicable for the infrastructure works, building works or any other works while those in Table 3 are applicable for works in buildings only.

Table 2: Percentage charges on the basis of cost of works for Civil, Electrical, Mechanical, Engineering Systems and ICT

Cost of Works in USD	Fee as % of Cost of Works	
	Minimum	Maximum
250,000 and below	10.00	10.00
500,000	9.10	9.75
1,000,000	7.60	8.75
2,000,000	6.70	7.75
3,000,000	6.10	7.10
4,000,000	5.70	6.60
5,000,000	5.40	6.20
6,000,000	5.15	5.90
8,000,000	4.75	5.50
10,000,000	4.60	5.20
15,000,000	4.55	5.10
20,000,000	4.50	5.05
25,000,000 and above	4.45	5.00

Notes for Table 2

- i) These rates have been set on the basis of current practices in other countries, as depicted in Figure 1 herein.
- ii) The fee for any project cost not listed above may be obtained by interpolation.
- iii) The preparation of bills of quantities is normally excluded, and an additional 2½% of the cost of works will be charged for preparation of bills of quantities.
- iv) The traveling time charge is exclusive of this fee.
- v) Cost of works means the cost of that particular element (field) of the project.
- vi) The rates are applicable for either the infrastructure works, building works or any other works.
- vii) The rates are exclusive of Value Added Tax and Withholding Tax.

Table 3: Percentage Charges on the Basis of Cost of Project for Engineering Fields in Buildings

SERVICE	% CHARGE ON COST OF PROJECT
CIVIL	0.5% to 1.0%
STRUCTURAL	3.0% to 4.5%
ELECTRICAL	1.5% to 2.0%
MECHANICAL	1.5% to 2.0%
ENGINEERING SYSTEMS	0.5% to 1.0%

Notes for Table 3

- i) This table applies to building projects for which normally the team leader is an Architect and not an Engineer. The Consulting Engineer is thus a member of the project team.
- ii) Lower range should be applied for projects with value of more than USD 20 million and the higher range of projects of less than USD 20 million. However, where the work is complex, the higher rate should apply irrespective of the cost of the project.
- iii) Engineering Systems refers to any engineering services, which are outside the direct ambit of the conventional civil, mechanical, and electrical services, such services as security systems, fire detection systems, air cleaners, telecommunication and other ICT systems.
- iv) Repetition Works (Design only) on same location:

First unit	100%
Subsequent units	50%
Supervision (full)	(100%)
- v) The preparation of bills of quantities is excluded. Addition 2½% of the cost of works will be charged for preparation of bills of quantities.
- vi) The traveling time charge is exclusive of this fee.
- vii) Cost of project means all costs involving cost of all elements (fields) of the project.
- viii) The rates are applicable for works in buildings only.
- ix) The rates are exclusive of Value Added Tax.

2. STAGES OF PAYMENT OF FEES

The proportions of the total fees for the works to be paid to the consulting engineer against the relevant stages of professional services shall be as shown in Table 4.

Unless otherwise specified or mutually agreed beforehand between the client and the consulting engineer, the fee apportioned to each stage shall be paid in full.

Table 4: Stages of Payment of Fees

Item	Stage of Work	Fee Payable
1	Design Stage (Preliminary & Sketch Design)	30%
2	Design Stage (Detailed Design)	40%
3	Tender Stage	5%
4	Construction Stage / Installation	25%

3. APPLICATION OF THE SCALE OF FEES

This appendix in conjunction with Appendix B will form the basis for preparation of Appendix C to determine the fee and the reimbursable expenses and the particular scope of works for the project