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REPUBLIQUE DU CAMEROUN

PAIX-TRAVAIL-PATRIE

SOCIÉTÉ DE DÉVELOPPEMENT DE LA HAUTE VALLÉE DE NOUN



SOCIETE D'ETAT



# REPUBLIC OF CAMEROON

PEACE WORK-FATHERLAND

UPPER NUN VALLEY DEVELOPMENT AUTHORITY

UNVDA

STATE CORPORATION

PROJECT OWNER

**CONTRACTING AUTHORITY** 

INTERNAL TENDERS BOARD
OF THE UPPER NUN VALLEY DEVELOPMENT AUTHORITY

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# OPEN NATIONAL INVITATION TO TENDER IN EMERGENCY PROCEDURE

== - Nº 0 0 3/ONIT/UNVDA/ITB/2025 OF 0 9 AVR 2025

FOR THE CONSTRUCTION OF 15 LM OF RETAINING WALL AND OPENING OF 1.5KM OF RIVER COURSE IN BABUNGO FARM OF UNVDA NDOP

FINANCING: PUBLIC INVESTMENT BUDGET (PIB) MINADER

IMPUTATION:

FINANCIAL YEAR: 2025

# **TENDER DOCUMENT**

Re 10:04:25

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#### REPUBLIQUE DU CAMEROUN

Paix-Travail-Patrie

Société de Développement de la Haute Vallée du Noun

#### UNVDA

**Etablissement Public** 



#### REPUBLIC OF CAMEROON

Peace - Work - Fatherland

Upper Nun Valley Development Authority

#### UNVDA

Public Establishment

# OPEN NATIONAL INVITATION TO TENDER IN EMERGENCY PROCEDURE

FOR THE CONSTRUCTION OF 15 LM OF RETAINING WALL AND OPENING OF 1.5KM OF RIVER COURSE IN BABUNGO FARM OFUNVDA NDOP

## 1. Subject of the invitation to tender

Within the framework of providing security measures within the staff residence the General Manager of the Upper Nun Valley Development Authority (UNVDA), Contracting Authority, hereby launches an Open National Invitation to Tender for the construction of 15 lm of retaining wall and opening of 1.5km of river course in Babungo Farm of UNVDA Ndop

#### 2. Consistency of the Works

The nature of works to be carried out within the framework of this tender includes:

- Preliminary works;
- Earth works;
- Concrete and masonry works.

#### 3. Execution deadline

The maximum execution deadline provided for by the Contracting Authority for the execution of the works forming the subject of this invitation to tender is **Three (03) months**.

## 4. Allotment

The works are made up of a single lot:

 Construction of 15 lm of retaining wall and opening of 1.5km of river course in Babungo Farm.

#### 5. Estimated cost

The estimated cost of the operation following prior studies stands at: Fifty One Million (51 000 000) CFA Francs Tax Inclusive.

#### 6. Participation and origin

Participation in this invitation to tender is open to bidders, justifying a proven and verifiable experience in the domain.

## 7. Financing

Works which form the subject of this invitation to tender shall be financed by the Public Investment Budget MINADER, Imputation: \_\_\_\_\_\_\_.

8. Consultation of the Tender Documents

The Tender file may be consulted during working hours at the Service of Public Contracts UNVDA, P.O. Box 25 Ndop, Email: unvdandop@ymail.com, Tel: (237) 691 79 83 72/672 86 14 16, as soon as this notice is published.

9. Acquisition of the Tender File

Bidders can obtain complete tender documents at the Service of Public Contracts UNVDA, P.O. Box 25 Ndop, Email: <u>unvdandop@ymail.com</u>, Tel: (237) 691 79 83 72/672 86 14 16 during working hours, Mondays to Fridays as soon as this notice is published upon the payment of a nonrefundable sum of 65 000 (Sixty Five Thousand) CFA francs, payable at BICEC, account CAS ARMP N° 97568660001-28.

9. Consultation of the Tender Documents

The Tender file may be consulted during working hours at the Service of Public Contracts UNVDA, P.O. Box 25 Ndop, Email: unvdandop@ymail.com, Tel: (237) 691 79 83 72/672 86 14 16. as soon as this notice is published.

10. Submission of Bids

Each bid drafted in English or French in seven (07) copies including the original and six (06) copies marked as such and sealed in an envelope shall be deposited at the General Secretariat UNVDA at 10 o'clock local time. The sealed envelope should carry not later than the the inscription:

OPEN NATIONAL INVITATION TO TENDER 2025

FOR THE CONSTRUCTION OF 15 LM OF RETAINING WALL AND OPENING OF 1.5KM OF RIVER COURSE IN BABUNGO FARM OF UNVDA NDOP

"To be opened only during the bids analysis session"

11. Bid bond

Each bidder must include in his administrative documents, a bid bond issued by a first rate-banking establishment approved by the Ministry in charge of finance and whose list is found in document No. 12 of the Tender File, of an amount of Seven Hundred and Sixty Five Thousand (765 000) CFA francs and valid for thirty (30) days beyond the original date set for the validity of bids (90

N.B: Certified checks will not be accepted.

12. Admissibility of Tenders

Under pain of rejection, the administrative documents required, must be produced in originals or true copies certified by the issuing service or the competent authority (Senior Divisional Officer, Divisional Officer, services of taxation...) in accordance with the Special Conditions of the tender. They must not be older than three (03) months preceding the original date of submission of bids or must not have been established after the signing of the tender notice.

Any incomplete offer in accordance with the prescriptions of this notice and tender file shall be declared inadmissible, especially the absence of a bid bond issued by a first-rate bank approved by

the Ministry in charge of Finance.

13. Opening of Bids

The opening of the bids will be in a single phase.

The opening of the Administrative documents and the technical and financial offers shall take place on the 4 MA | 2023, at 11:00 am, local time in the Conference Hall of the UNVDA - Ndop. Only bidders or their duly authorized representatives who have a perfect knowledge of the documents may attend the opening session. Tenderers should note that they remain bound by their tenders for a period of ninety (90) days from the dead line for submission of bids.

#### 14. Qualification criteria

#### 14.1 Eliminatory criteria

#### **Administrative Documents:**

- a) Absence of a bid bond issued by a first-rate bank approved by the Ministry in charge of Finance;
- b) False declaration or falsified documents;
- c) Absence or non-conformity of an element in the administrative file non-regularized within 48 hours after opening of bids.

# Technical bids:

- a) Falsified declaration or falsified documents;
- b) Non obtaining 06 out of 07 essential criteria (except the criterion of references of Contractor);
- c) Have less than 75% of technical points.

#### Financial bids:

- a) Non conformity of tender submission;
- b) Absence of quantified price.

#### 14.2 Essential criteria

The criteria relating to the qualification of bidders could indicatively be on the following:

_	References of the Contractor (02 sub criteria)	YES/NO;
	The availability of materials and essential equipment (5 sub criteria)	YES/NO;
	Experience of supervisory staff (11 sub criteria)	YES/NO;
	Methodology (06 sub criteria)	YES/NO;
	Execution planning and schedule (02 sub criteria)	YES/NO;
	Mastery of site (02 sub criteria)	YES/NO;
	Proof of acceptance of contract conditions (02 sub criteria)	YES/NO
	Presentation of the offer (03 sub criteria)	YES/NO.

Only tenders will at least 75% of technical points shall be retained for financial evaluation.

#### 15. Award of the contract

The Contracting Authority shall award the contract to the bidder whose bid is deemed to be in compliance essentially with the Tender File and has the required technical and financial capacities to execute the contract satisfactorily, and whose bid will have been evaluated as the lowest.

#### 16. Validity of offers

Bidders will remain committed to their bids for a maximum period of ninety (90) days from the deadline set for the submission of bids.

#### 17. Complementary information

Complementary technical information may be obtained during working hours in the Service of Public Contracts UNVDA, P.O. Box 25 Ndop, Email: <u>unvdandop@ymail.com</u>, Tel: (237) 691 79 83 72/672 86 14 16.

#### Copy:

- ARMP/Bamenda (for publication and filings)
- DDMINMAP/Ngoketunjia (For information)
- Chairperson of Internal Tenders Board/UNVDA
- Notice boards



## REPUBLIQUE DU CAMEROUN

Paix-Travail-Patrie

Société de Développement de la Haute Vallée du Noun

# UNVDA

Etablissement Public



## REPUBLIC OF CAMEROON

Peace - Work - Fatherland

Upper Nun Valley Development Authority

# UNVDA

Public Establishment

# AVIS D'APPEL D'OFFRES NATIONAL OUVERT EN PROCEDURE D'URGENCE

RELATIF AUX TRAVAUX DE CONSTRUCTION DE 15 ML MUR DE SOUTENEMENT ET D'OUVERTURE DE 1.5KM DE COURS D'EAU DANS LE CHAMP DE BABUNGO DE L'UNVDA NDOP.

# 1- Objet de l'appel d'offres

Dans le cadre d'effectivement offrir des mesures de sécurité dans l'enceinte de la résidence du personnel, le Directeur Général de la Société de Développement de la Haute Vallée de Noun (UNVDA), Autorité Contractante, lance un Appel d'Offres National Ouvert pour les travaux de Construction de 15ml de mur de soutènement et d'ouverture de 1.5km de cours d'eau dans le champ de Babungo de l'UNVDA Ndop.

# 2- Consistance des prestations

Les prestations, objet du présent Appel d'Offres comprennent:

- Travaux préliminaires;
- Travaux en terre:
- Béton et maçonnerie.

# 3- Délais d'exécution

Le délai maximum prévu par le Maître d'ouvrage pour l'exécution des travaux, objet du présent appel d'offres est de **Trois (03) mois**.

#### 4- Allotissement

Les prestations, objet du présent Appel d'Offres, sont regroupées en **un seul lot:** Construction de 15ml de mur de soutènement et d'ouverture de 1.5km de cours d'eau dans le champ de Babungo.

#### 5- Coût prévisionnel

Le coût prévisionnel de l'opération à l'issue des études est de: Cinquante Un Million (51 000 000) Francs CFA TTC.

# 6-Participation et origine

La participation au présent Appel d'Offres est ouverte aux soumissionnaires intéressés, justifiant d'une expérience avérée et vérifiable dans le domaine.

#### 7-Financement

Les travaux, objet du présent Appel d'Offres National Ouvert sont financés par le Budget d'Investissement Public MINADER, Imputation:

8- Consultation du Dossier d'Appel d'Offres

Le Dossier d'appel d'offres peut être consulté aux heures ouvrables au Service des Marchés Publics de l'UNVDA, BP 25 Ndop, téléphone 237 691 798 318/672 86 14 16, dès publication du présent avis.

9- Acquisition du Dossier d'Appel d'Offres

Le Dossier d'appel d'offres peut être retiré aux heures ouvrables au Service des Marchés Publics de l'UNVDA, BP 25 Ndop, téléphone 237 691 798 318/672 86 14 16 dès publication du présent avis contre versement d'une somme non remboursable de 65 000 (Soixante Cinq Mille) Francs CFA payable à la BICEC sur le compte CAS ARMP N° 97568660001-28.

10- Remise des offres

Chaque offre, rédigée en anglais ou en français, en sept (07) exemplaires dont un (01) original et six (06) copies marqués comme tels, devront parvenir au Secrétariat Général de l'UNVDA au plus tard le MA 2023 10 heures, heure locale avec la mention:

APPEL D'OFFRES NATIONAL OUVERTUR 2025
RELATIF AUX TRAVAUX DE CONSTRUCTION DE 1508

RELATIF AUX TRAVAUX DE CONSTRUCTION DE 15ML DE MUR DE SOUTENEMENT ET D'OUVERTURE DE 1.5KM DE COURS D'EAU DANS LE CHAMP DE BABUNGO DE L'UNVDA NDOP.

«A n'ouvrir qu'en séance de dépouillement»

11-Cautionnement provisoire

Chaque soumissionnaire doit joindre à ses pièces administratives, une caution de soumission établie par une banque de premier ordre agréée par le Ministère chargé des finances et dont la liste figure dans la pièce 11 du DAO valable pendant trente (30) jours au-delà de la date limite de validité des offres d'un montant de 765 000 (Sept Cent Soixante Cinq Mille) francs CFA.

La caution doit être valable pendant trente (30) jours au-delà de la date de validité des offres qui est de quatre-vingt-dix (90) jours.

N.B: Les chèques certifiés ne seront pas acceptés.

12- Recevabilité des offres

Sous peine de rejet, les pièces du dossier administratif requises doivent être produites en originaux ou en copies certifiées conformes par le service émetteur ou une autorité compétente (Préfet, Sous-préfet,...), conformément aux stipulations du Règlement Particulier de l'Appel d'Offres.

Elles doivent dater de moins de trois (03) mois précédant la date originale de dépôt des offres ou avoir été établies postérieurement à la date de signature de l'Avis d'Appel d'Offres.

Toute offre incomplète conformément aux prescriptions du Dossier d'Appel d'Offres sera déclarée irrecevable. Notamment l'absence de la caution de soumission délivrée par une banque de premier ordre agréée par le Ministère chargé des Finances.

13- Ouverture des plis

L'ouverture des offres se fera en un temps.

L'ouverture des pièces Administratives et des offres techniques et financières aura lieu le 14 MAI 2025 à 11 heures, heure locale à la salle de conférences de l'UNVDA-Ndop par la Commission Interne de Passation des Marchés.

Seuls les soumissionnaires peuvent assister à cette séance d'ouverture ou s'y faire représenter par une personne de leur choix dûment mandatée.

## 14. Critères d'évaluation

# 14.1- Critères éliminatoires

# Pièces administratives:

- a) Absence de la caution de soumission délivrée par une banque de premier ordre agréée par le Ministère chargé des Finances;
- b) Pièce falsifiée ou non authentique;
- c) Absence ou non-conformité d'une pièce dans le dossier administratif non régularisée dans les 48 heures après l'ouverture des offres.

## Offre technique:

- a) Fausse déclaration, documents falsifiées;
- b) Non obtention de 06 critères essentiels sur 07;
- c) Note technique inférieure à 75%.

# Offre financière:

- a) Soumission non conforme;
- b) Absence de prix quantifié.

# 14.2- Critères essentiels

L'évaluation des offres techniques sera faite suivant le système binaire (OUI/NON) sur la base des critères essentiels ci-dessous :

_	Références de l'autonia	
	Références de l'entrepreneur (02 sous-critères)	OUI/NON;
_	Disponibilité des matériels des équipements essentiels (05 sous-critères)	,
_	Expérience du personnel (11 sous-critères)	OUI/NON;
_	Méthodologie (OC	OUI/NON;
172-111-17	Méthodologie (06 sous-critères)	OUI/NON;
_	Planning d'exécution et ordonnancement (02 sous-critères)	
_	Connaissance du site (02 sous-critères)	OUI/NON;
	Described du site (02 sous-criteres)	OUI/NON:
_	Preuve d'approbation des conditions du marché (02 sous-critères)	OUI/NON:
_	Présentation générale de l'offre (03 sous-critères)	
MT T	generale de l'offic (03 sous-enteres)	OUI/NON

N.B: Seules les soumissions qui auront obtenu au moins 75% de la note technique, seront admises à l'analyse financière.

# 15- Attribution

Le Maître d'Ouvrage attribuera le Marché au Soumissionnaire dont l'offre a été reconnue conforme pour l'essentiel au Dossier d'Appel d'Offres et qui dispose des capacités techniques et financières requises pour exécuter la prestation de façon satisfaisante et dont l'offre a été évaluée la moins-disante en incluant le cas échéant les rabais proposés.

# 16- Durée de Validité des Offres

Les soumissionnaires restent engagés par leur offre pendant une période maximale de quatre-vingt-dix (90) jours à compter de la date limite de dépôt des offres.

# 17- Renseignements complémentaires

Les renseignements complémentaires d'ordre technique peuvent être obtenus aux heures ouvrables au Service des Marchés Publics de l'UNVDA, BP 25 Ndop, téléphone 237 691 798 318/672 86 14 16.

#### Ampliations:

- ARMP/Bamenda (pour publication et archivages)
- DDMINMAP/Ngoketunjia (Pour information)
- Président CIPM—UNVDA
- Affichages

Fait à Ndop, le 0 9 AVR 2025

GENERAL MANAGER PAR 2025

PROPRIÉT DE LA MANAGER PAR 2025

PROPRIÉT D

Document N° 2: General Regulations of the Invitation to Tender

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#### GENERAL RULES OF THE INVITATION TO TENDER

#### A. General

## Article 1: Scope of the tender

1.1 The Contracting Authority as defined in the Special Regulations of the invitation to tender hereby launches an invitation to tender for the construction of 15 lm of retaining wall and opening of 1.5km of river course in Babungo Farm described in the Tender File and briefly described in the Special Regulations.

The name, identification number and number of lots which form the subject of the invitation to

tender feature in the Special Regulations of the invitation to tender.

- 1.2 The bidder retained or the preferred bidder must complete the works within the time-limit indicated in the Special Regulations and which time-limit runs from the date of notification of the Administrative Order or that indicated in the said Administrative Order.
- 1.3 In this Tender File, the term "day" means a calendar day.

#### **Article 2: Financing**

The source of financing of the works forming the subject of this invitation to tender shall be specified in the Special Regulations.

#### Article 3: Fraud and corruption

- 3.1 The Contracting Authority requires of bidders and contractors the strict respect of rules of professional ethics during the award and execution of public contracts. By virtue of this principle:
  - a) The following definitions shall be admitted:
    - i) Shall be guilty of "corruption" whoever offers, gives, requests or accepts any advantage in view of influencing the action of a public official during the award or execution of a contract;
    - ii) Is involved in "fraudulent manoeuvres" whoever deforms or distorts facts in order to influence the award or execution of a contract;
    - iii) "Collusive practices" shall mean any form of agreement between two or among several bidders (whether the Contracting Authority is aware or not) aimed at artificially maintaining the prices of bids at levels not corresponding to those resulting from competition;
    - iv) "Coercive practices" shall mean any form of harm against persons or their property or threats against them in order to influence their action during the award or execution of a contract.
    - b) Any proposed award shall be rejected if it is proved that the proposed preferred bidder is directly or through an intermediary, guilty of corruption or is involved in fraudulent manoeuvres, collusive or coercive practices for the award of this contract.
- 3.2 The Minister Delegate at the Presidency in charge of public contracts may, as a precaution, take a decision of exclusion from bidding for a period not exceeding two (2) years against any bidder found guilty of influence peddling, of conflicts of interest, insider trading, fraud, corruption or production of non-genuine documents in the bid, without prejudice to criminal proceedings that may be brought against him

#### Article 4: Candidates allowed to compete

- 4.1 If the invitation to tender is restricted, consultation is addressed to all candidates retained after a pre-qualification procedure.
- 4.2 Generally, the invitation to tender is addressed to all entrepreneurs, subject to the following provisions:

- (a) a bidder (including all members of a group of enterprises and all sub-contractors to the bidder) must be from an eligible country, in accordance with the funding agreement.
- (b) a bidder (including all members of a group of enterprises and all sub-contractors to the bidder) must not be in a situation of conflict of interest, subject to disqualification. A bidder shall be judged to be in a situation of conflict of interest if he:
  - i) is or was associated in the past with an enterprise (or a subsidiary of this enterprise) which provided consultancy services for the conception, preparation of specifications and other documents used within the scope of contracts awarded for this invitation to tender; or
  - ii) presents more than one bid within the context of invitation to tender, except authorised variants according to article 17, where need be; meanwhile, this does not prevent the participation of sub-contractors in more than one bid.
  - iii) The Contracting Authority or Project Owner has financial interests in the capital in a way as to compromise the transparency of the procedures of award of public contracts.
- (c) The bidder must not have been excluded from bidding for public contracts.
- (d) A Cameroonian public enterprise may participate in the consultation if it can demonstrate that it is (i) legally and financially autonomous, (ii) managed according to commercial laws and (iii) not under the direct supervisory authority of the Contracting Authority or Project Owner.

Article 5: Building materials, materials, supplies, equipment and authorised services

- Building materials, the contractor's materials, supplies, equipment and services forming the subject of this contract must originate from countries meeting the criteria of origin defined in the Special Regulations of the invitation to tender and all expenditure done within the context of the contract shall be limited to the said building materials, materials, supplies, equipment and services.
- 5.2 Within the meaning of this 5.1 above, the term "originate" shall designate the place where the goods are extracted, cultivated, produced, manufactured and from where the services originate.

# Article 6: Qualification of bidder

- 6.1 As an integral part of their bid, bidders must:
  - (a) submit a power of attorney making the signatory of the bid bound by the bid; and
  - (b) Provide all information (complete or update information included in their request for prequalification which may have changed in the case where the candidates took part in prequalification) requested of bidders in the Special Regulations of the invitation to tender, in order to establish their qualification to execute the contract.

Where necessary, bidders should provide information relating to the following points:

- (i) The production of certified balance sheets and recent turnovers;
- (ii) Access to a line of credit or availability of other financial resources;
- (iii) Orders acquired and contracts awarded;
- (iv) Pending litigations; and
- (v) Availability of indispensable equipment.
- 6.2 Bids presented by two or more associated undertakings (joint-contracting) must satisfy the following conditions:
  - (a) The bid must include all the information listed in article 6(1) above. The Special Regulations must indicate the information to be furnished by the group and that to be furnished by each member of the group;
  - (b) The bid and the contract must be signed in a way that is binding on all members of the group;
  - (c) The nature of the group (joint or several) must be specified in the Special Regulations and justified with the production of a joint venture agreement in due form;

- (d) The member of the group designated as the representative will represent all the undertakings vis à vis the Project Owner and Contracting Authority with regard to the execution of the Contract;
- (e) In case of joint co-contracting, the co-contractors shall share the sums which are paid by the Project Owner into a single account. On the other hand, each undertaking is paid into its own account by the Project Owner where it is joint co-contracting.
- 6.3 Bidders must equally present sufficiently detailed proposals to demonstrate that they comply with the technical specifications and execution time-limits set in the Special Regulations of the invitation to tender.
- 6.4 Bidders requesting to benefit from the margin of preference must furnish all the necessary information to prove that they satisfy the eligibility criteria set in article 33 of the General Regulations of the invitation to tender.

#### Article 7: Visit of works site

- 7.1 The bidder is advised to visit and inspect the site and its environs and obtain by himself and under his own responsibility, all the information which may be necessary for the preparation of the bid and the execution of the works. The related cost of the visit of the site shall be borne by the bidder.
- 7.2 The Project Owner shall authorise the bidder and his employees or agents to enter the premises and the land for the said visit but only on the express condition that the bidder, his employees and agents free the Project Owner, his employees and agents of any responsibility that may ensue and indemnify them if necessary and that they shall remain responsible for any deadly or corporal accident, loss or material damages, costs and fees incurred from this visit.
- 7.3 The Project Owner may organise a visit of the site of the works during the preparatory meeting to establishing the bids mentioned in article 19 of the General Regulations of the invitation to tender.

#### B. Tender File

#### **Article 8: Content of Tender File**

- 8.1 The Tender File describes the works forming the subject of the contract, sets the consultation procedure of contractors and specifies the terms of the contract. Besides the addendum (addenda) published in accordance with article 10 of the General Regulations of the invitation to tender, it includes the following documents:
  - Document No. 1. The tender notice;
  - Document No. 2. The General Regulations of the invitation to tender;
  - Document No. 3. The Special Regulations of the invitation to tender;
  - Document No. 4. The Special Administrative Conditions;
  - Document No. 5. The Special Technical Conditions;
  - Document No. 6. The schedule of unit prices:
  - Document No. 7. The bill of quantities and estimates;
  - Document No. 8. The sub details of unit prices;
  - Document No. 9. Model documents of the contract:
    - a. The execution schedule:
    - b. Model of forms presenting the equipment, personnel and references;
    - c. Model bidding letter;
    - d. Model bid bond:
    - e. Model final bond;
    - f. Model of bond of start-off advance;
    - g. Model of guarantee in replacement of the retention fund;

h. Model contract:

Document No. 10. Models to be used by bidders;

a. Model contract;

Document No. 11. Justifications of preliminary studies; to be filled by the Project Owner or Delegated Project Owner;

Document No. 12. List of first grade banking establishments or financial institutions approved by the Minister in charge of Finance authorised to issue bonds for public contracts to be inserted by the Contracting Authority.

8.2 The bidder must examine all the regulations, forms, conditions and specifications contained in the Tender File. It is up to him to furnish all the information requested and prepare a bid in compliance with all aspects of the said file.

Article 9: Clarifications on the Tender File and complaints

- 9.1 Any bidder who wants to obtain clarifications on the Tender File may request for it from the Contracting Authority in writing or by electronic mail (fax or e-mail) at the Contracting Authority's address indicated in the Special Regulations of the invitation to tender and send a copy to the Project Owner. The Contracting Authority replies in writing to any request for clarification received at least fourteen (14) days prior to the deadline for the submission of bids. A copy of the Contracting Authority's response, indicating the question posed but not mentioning the author, is addressed to all bidders who bought the Tender File.
- 9.2 Between the publication of the tender notice including the pre-qualification phase of candidates and the opening of bids, any bidder who feels aggrieved in the public contracts award procedure may lodge a complaint to the Minister in charge of Public Contracts.
- 9.3 A copy of the complaint should be addressed to the Contracting Authority and to the body in charge of the regulation of public contracts and the chairperson of the Tenders Board.
- 9.4 The Contracting Authority has five (5) days to react. A copy of the reaction shall be forwarded to MINMAP and the body in charge of the regulation of public contracts.

#### Article 10: Amendment of the Tender File

- 10.1 The Contracting Authority may at any moment, prior to the deadline for the submission of bids and for any reason, be it at his initiative or in reply to a request for clarification formulated by a bidder, amend the Tender File by publishing an addendum.
- 10.2 Any published addendum shall be an integral part of the Tender File, in accordance with article 8.1 of the General Regulations of the invitation to tender and must be communicated in writing or made known by a traceable means to all bidders who bought the Tender File.
- 10.3 In order to give bidders sufficient time to take account of the addendum in the preparation of their bids, the Contracting Authority may postpone as deemed necessary, the deadline for the submission of bids, in accordance with provisions of article 22 of the General Regulations of the invitation to tender.

# C Preparation of bids

#### **Article 11: Tender costs**

The candidate shall bear the costs related to the preparation and presentation of his bid and the Contracting Authority and the Project Owner shall in no case be responsible for these costs nor pay for them whatever the evolution or outcome of the invitation to tender procedure.

#### Article 12: Language of bid

The bid as well as any correspondence and any document exchanged between the bidder and the Contracting Authority shall be written in English or French. Complementary documents and the

forms provided by the bidder may be written in another language on condition that a precise translation into either English or French of the passages concerning the bid is included; in which case for reasons of interpretation, the translation shall be considered to be authentic.

#### Article 13: Constituent documents of the bid

13.1 The bid presented by the bidder shall include the documents detailed in the Special Regulations of the invitation to tender, duly filled and put together in three volumes:

#### a. Volume 1: Administrative file

#### It includes:

- i) all documents attesting that the bidder:
  - has subscribed to all declarations provided for by the laws and regulations in force;
  - paid all taxes, duties, contributions, fees or deductions of whatever nature;
  - is not winding up or bankrupt;
  - is not the subject of an exclusion order or forfeiture provided for by the law in force;
- ii) The bid bond established in accordance with the provisions of article 17 of the General Regulations of the invitation to tender;
- iii) the written confirmation empowering the signatory of the bid to commit the bidder, in accordance with the provisions of article 6(1) the General Regulations of invitation to tender.

## b. Volume 2: Technical bid

## b.1 Information on qualifications

The Special Regulations list the documents to be furnished by bidders to justify the qualification criteria mentioned in article 6(1) of the Special Regulations of the invitation to tender.

#### b.2 Methodology

The Special Conditions of the invitation to tender specifies the constituent elements of the technical bid of the bidders especially: a methodological statement on an analysis of the works and specifying the organisation and programme which the bidder intends to put in place or use to execute the works (installations, schedule, Quality Assurance Plan (QAP), sub-contracting, attestation of visit of the site, where necessary, etc).

#### b.3 Proof of acceptance of conditions of the contract

The bidder shall submit duly initialled copies of the administrative and technical documents relating to the contract, namely:

- 1. The Special Administrative Conditions (SAC);
- 2. The Special Technical Conditions (STC).

#### b.4 Commentaries (optional)

A commentary on the technical choices of the project and possible proposals.

#### c. Volume 3: Financial bid

The Special Regulations specify the elements that will help in justifying the cost of the works, namely:

- 1. The signed and dated original bid prepared according to the attached model, stamped at the prevailing rate;
- 2. The duly filled Unit Price Schedule;
- 3. The duly filled detailed estimates:
- 4. The sub-details of prices and/or breakdown of all-in prices;
- 5. The projected schedule of payments, where need be.

- (a) The prices of inputs necessary for works which bidder intends to procure out of the Contracting Authority's country shall be in the currency of the country of origin of the bidder or of the currency of an eligible member country widely used in international trade.
- 15.4 The Contracting Authority may request the bidders to explain the needs in national and foreign currencies and to justify that the amounts included in the unit and total prices and indicated in annex to the bids are reasonable; to this end, a detailed statement of their needs in foreign currencies shall be furnished by the bidder.
- During the execution of the works, most of the foreign currency to be paid as part of contract may be revised by mutual agreement between the Contracting Authority and the entrepreneur in a way as to take account of any modification in the foreign currency needs within the context of the contract.

#### Article 16: Validity of bids

- 16.1 Bids must remain valid during the period stated in the Special Regulations from the date of submission of the bids fixed by the Contracting Authority, in application of article 22 of the Special Regulations. A bid valid for a shorter period shall be rejected by the Contracting Authority or Delegated Contracting Authority as not being in compliance.
- 16.2 Under exceptional circumstances, the Contracting Authority may seek the approval of bidders to extend the validity time-limit. The request and the responses that will be given shall be in writing (or by fax). The validity of the bid bond provided for in article 17 of the General Regulations shall equally be extended for a corresponding duration. A bidder may refuse to extend the validity of his bid without losing his bid bond. A bidder who consents to an extension shall not be asked to modify his bid nor shall he be authorised to do so.
- 16.3 Where the contract does not include a price revision clause and that the period of validity of bids is extended by more than sixty (60) days, the amounts payable to the bidder retained shall be updated by application of the related formula featuring in the request for extension that the Contracting Authority addressed to bidders.

The updating period shall run from the date of overrun of sixty (60) days to the date of notification of the contract or the Administrative Order for start of execution of works by the retained bidder, as specified in the Special Administrative Conditions. The effect of updating shall not be taken into account for purposes of evaluation of bids.

#### Article 17: Bid bond

- 17.1 In application of article 13 of the General Regulations, the bidder shall furnish a bid bond of the amount specified in the Special Regulations and which bid bond shall be a full part of his bid.
- 17.2 The bid bond must conform to the model presented in the Tender File; other models may be authorised subject to the prior approval of the Contracting Authority. The bid bond will remain valid for thirty (30) days beyond the original date set for the validity of bids or any other validity time-limit requested by the Contracting Authority and accepted by the bidder, in accordance with the provisions of article 16 (2) of the General Regulations.
- 17.3 Any bid without an acceptable bid bond shall be rejected by the Tenders Board as not in conformity. The bid bond of associated enterprises must be established in the name of the group submitting the bid and mention each member of the associated grouping.
- 17.4 The bid bonds of bidders who are not retained shall be returned within fifteen (15) days after publication of the award result.
- 17.5 The bid bond of the successful bidder shall be released as soon as the latter would have signed the contract and furnished the required final bond.
- 17.6 The bid bond may be seized:
  - (a) if the bidder withdraws his bid during the period of validity;

- sign on behalf of the bidder, in accordance with article 6(1a) or 6(2c) of the General Regulations, as the case may be. All the pages of the bid containing alterations or changes must be initialled by the signatory (ies) of the bid.
- 20.3 The bid shall bear no modification, suppression or alteration unless such corrections are initialled by the signatory(ies) of the bid.

#### D. SUBMISSION OF BIDS

#### Article 21: Sealing and marking of bids

- 21.1 The bidder shall seal the original and each copy of the bid in separate envelopes (internal envelopes) by marking on these envelopes "ORIGINAL" and "COPY", as the case may be. The envelopes shall then be placed in another envelope which will equally be sealed but which will not give any indication regarding the identity of the bidder.
- 21.2 The external and internal envelopes:
  - a) should be addressed to the Contracting Authority at the address indicated in the Special Regulations;
  - b) should bear the name and identification number of the project as indicated in the Special Regulations and bear the inscription "TO BE OPENED ONLY DURING THE BID-OPENING SESSION" as specified in the Special Regulations.
- 21.3 The internal envelopes should equally carry the name and address of the bidder in a way as to enable the Contracting Authority return the sealed bid if it is late in accordance with article 23 and 24 of the General Regulations.
- 21.4 If the external envelope is not sealed and marked as indicated in paragraphs 21(1) and 21(2) above, the Contracting Authority shall not be responsible if the bid is misplaced or opened prematurely.

## Article 22: Date and time-limit for submission of bids

- 22.1 The bids must be received by the Contracting Authority at the address specified in article 21(2) of the Special Regulations not later than the date and time stated in the Special Regulations.
- 22.2 The Contracting Authority may, at his discretion, postpone the deadline set for the submission of the bids by publishing an addendum in accordance with the provisions of article 10 of the General Regulations. In this case, all the rights and obligations of the Contracting Authority and bidders previously governed by the initial date will henceforth be governed by the new date.

#### Article 23: Late bids

Any bid received by the Contracting Authority beyond the deadline for the submission of bids in accordance with article 22 of the General Regulations shall be declared late and consequently rejected.

#### Article 24: Modification, substitution and withdrawal of bids

- A bidder may modify or withdraw his bid after submitting it, on condition that the written notification of the modification or withdrawal is received by the Contracting Authority prior to the end of the time-limit prescribed for the submission of the bids. The said notification must be signed by an authorised representative in application of article 20(2) of the General Regulations. The modification or the corresponding replacement bid must be attached to the written notification. As the case may be, the envelopes must bear the inscription "WITHDRAWAL", and "REPLACEMENT BID" or "MODIFICATION".
- 24.2 Notification of modification, replacement or withdrawal of the bid by the bidder should be prepared, sealed, marked and forwarded in accordance with the provisions of article 21 of the General Regulations. Withdrawal may equally be notified by telex but should in this case be confirmed by a duly signed written notification whose date, post mark being authentic, shall not be posterior to the time-limit set for the submission of bids.

- 24.3 In application of article 24(1), bids being requested to be withdrawn by bidders shall be returned to them unopened.
- 24.4 No bid may be withdrawn during the interval between the submission of bids and the expiry of the validity of bids specified by the model tender. The withdrawal of a bid by a bidder during this interval may lead to the confiscation of the bid bond in accordance with the provisions of article 17(6) of the General Regulations.

# E. Opening of envelopes and evaluation of bids

# Article 25: Opening of envelopes and petitions

- 25.1 The competent Tenders Board shall open the envelopes in single or double phases and in the presence of the representatives of bidders who wish to attend at the date, time and address specified in the Special Regulations. Representatives of bidders shall sign a register attesting to their presence.
- 25.2 Firstly, envelopes marked "withdrawal" shall be opened and the contents announced to the hearing of everyone, while the envelope containing the corresponding bid shall be returned to the bidder unopened. Withdrawal shall be allowed only if the corresponding notification contains a valid empowerment of the signatory to request this withdrawal and if this notification is read to the hearing of everyone. Then the envelopes marked "Replacement bid" are opened and announced to the hearing of everyone and the new corresponding bid substituted for the preceding one which will be sent to the bidder concerned unopened. The replacement of the bid shall only be allowed if the corresponding notification contains a valid empowerment of the signatory requesting the replacement and read to the hearing of everyone. Lastly, the envelopes marked "modification" shall be opened and their contents read to the hearing of everyone with the corresponding bid. The modification of the bid shall only be allowed if the corresponding notification contains a valid empowerment of the signatory requesting the modification and read to the hearing of everyone. Only bids which were opened and announced to the hearing of everyone during the opening of bids shall then be evaluated.
- 25.3 All envelopes shall be opened successively and the name of the bidder announced aloud as well as the possible modification mentioned, the price offered, including any rebates [in case of opening of financial bids] and any variant, where necessary, the existence of a guarantee of the bid if it is required and any other details which the Contracting Authority deems useful to be mentioned. Only rebates and variants of bids announced to the hearing of everyone during the opening of bids shall be submitted for evaluation.
- 25.4 Bids (and modifications received in accordance with the provisions of article 24 of the General Regulations) which were not opened and read to the hearing of everyone during the bid-opening session for whatever reason, shall not be submitted for evaluation.
- 25.5 Bid-opening minutes are recorded on the spot mentioning the admissibility of bids, their administrative regularity, prices, rebates and time-limits as well as the composition of the Evaluation sub-committee. A copy of the said minutes to which is attached the attendance sheet is handed over to all the participants at the end of the session.
- 25.6 At the end of each bid-opening session, the chairperson of the Tenders Board immediately hands over to the focal point designated by the body in charge of regulation of public contract an initialled copy of the bids presented by bidders.
- 25.7 In case of petition as provided for by the Public Contracts Code, it should be addressed to the Minister Delegate in charge of Public Contracts with a copy to the body in charge of the regulation of public contracts, the head of structure to which is attached the Tenders Board concerned.
- 25.8 It must reach within a maximum deadline of three (3) working days after the opening of bids in the form of a letter to which is obligatorily attached a sheet of the petition form duly signed by the petitioner and possibly by the chairperson of the Tenders Board.

25.9 The Independent Observer attaches to his report the sheet that was handed to him, including any related commentaries or observations.

Article 26: Confidential nature of the procedure

26.1 No information relating to the examination, clarification, evaluation and comparison of bids and verification of the qualification of the bidders and the recommendation for the award shall be given to bidders or to any person not concerned with the said procedure as long as the preferred bidder has not been made public, subject to the disqualification of the bid of the bidder and suspension of the authors from all activities in the domain of public contracts.

26.2 Any attempt by a bidder to influence the Tenders Board or the Evaluation sub-committee of bids or the Contracting Authority in its award decision may lead to the rejection of his bid.

26.3 Notwithstanding the provisions of paragraph 26.2 above, between the opening of bids and the award of the contract, if a bidder wishes to enter into contact with the Contracting Authority for reasons having to do with his bid may do so in writing.

Article 27: Clarifications on the bids and contact with the Contracting Authority

27.1 To ease the examination, evaluation and comparison of bids, the Tenders Board may, if it so desires, request any bidder to give clarifications on his bid. This request for clarification and the response thereto are formulated in writing but no change on the amount or content of the bid is sought, offered or authorised, except it is necessary to confirm the correction of calculation errors discovered by the Evaluation Sub-committee during the evaluation in accordance with the provisions of article 30 of the General Regulations.

27.2 Subject to the provisions of paragraph 1 above, bidders shall not contact members of the Tenders Board and the Evaluation Sub-committee for questions related to their bids, between

the opening of envelopes and the award of the contract.

Article 28: Determination of compliance of bids

28.1 The Evaluation sub-committee shall carry out a detailed examination of bids to determine if they are complete, if the required guarantees are furnished, if the documents were correctly signed and if generally the bids are in proper order.

28.2 The Evaluation sub-committee shall determine if the bid is essentially in compliance with the conditions fixed in the Tender File based on the content without recourse to external elements

of proof.

28.3 A bid that complies with the Tender File shall essentially be a bid that respects all the terms, conditions and specifications of the Tender File, without substantial divergence or reservation. A substantial divergence or reservation is that:

which substantially limits the scope, quality or realisation of the works;

which substantially limits, contrary to the Tender File, the rights of the Contracting ii) Authority or his obligations in relation to the contract;

whose correction would unjustly affect the competitiveness of the other bidders who presented bids that essentially complied with the Tender File.

28.4 If a bid is essentially not in compliance, it shall be rejected by the competent Tenders Board and shall not subsequently be rendered in compliance.

28.5 The Contracting Authority reserves the right to accept or reject any modification, divergence or reservation. Modifications, divergences, variants and other factors which are beyond the requirements of the Tender File shall not be considered during the evaluation of bids.

# Article 29: Qualification of the bidder

The Evaluation sub-committee shall ensure that the successful bidder retained for having submitted a bid substantially in compliance with the provisions of the Tender File, fulfils the qualification criteria stipulated in article 6 of the Special Regulations. It is essential to avoid any arbitrariness in determining qualification.

#### **Article 30: Correction of errors**

- 30.1 The Evaluation sub-committee shall verify bids considered essentially in compliance with the Tender File to correct the possible calculation errors. The Evaluation sub-committee shall correct the errors in the following manner:
  - (a) where there is an incoherence between the unit price and the total obtained by multiplying the unit price by the quantity, the unit price being authentic, the total price shall be corrected, unless the Evaluation sub-committee judges that it is a gross error of decimal point in the unit price in which case the total price as presented shall be authentic and the unit price corrected.
  - (b) if the total obtained by addition or subtraction of the totals is not exact, the sub totals shall be considered authentic and the total corrected.
  - (c) where there is a difference between the price indicated in letters and in figures, the amount in letters shall be considered authentic, unless the amount is linked to an arithmetical error confirmed by the sub-detail of the said price, in which case the amount in figures shall prevail subject to paragraphs (a) and (b) above.
- 30.2 The amount featuring in the bid shall be corrected by the Evaluation sub-committee, in accordance with the error correction procedure above and with confirmation by the bidder, the said amount shall be deemed to commit him.
- 30.3 If the bidder who presented the bid evaluated as the lowest refuses the correction thus carried out, his bid shall be rejected and the bid bond may be seized.

# Article 31: Conversion into a single currency

- 31.1 To facilitate the evaluation and comparison of bids, the Evaluation sub-committee shall convert the prices of bids expressed in various currencies into those in which the bid is payable in CFA francs.
- 31.2 The conversion shall be done using the selling rate fixed by the Bank of Central African States (BEAC) under the conditions defined by the Special Regulations.

# Article 32: Evaluation and comparison of financial bids

- 32.1 Only bids considered as being in compliance, as per the provisions of article 28 of the General Regulations, shall be evaluated and compared by the Evaluation sub-committee.
- 32.2 By evaluating the bids, the Evaluation Sub-committee shall determine for each bid the evaluated amount of the bid by rectifying the amount as follows:
  - (a) By correcting any possible error in accordance with the provisions of article 30.2 of the General Regulations;
  - (b) By excluding projected sums and where necessary provisions for unforeseen occurrences featuring in the bill of quantities and estimates but by adding the amount of works done under State supervision where they are costed in a competitive manner as specified in the Special Regulations.
  - (c) By converting into a single currency, the amount resulting from the rectifications (a) and (b) above, in accordance with the provisions of article 31(2) of the General Regulations;
  - (d) By appropriately adjusting any other modification, divergence or quantifiable reservation on technical or financial basis.
  - (e) By taking into consideration the various execution time-limits proposed by the bidders, if they are authorised by the Special Regulations;
  - (f) If need be, in accordance with the provisions of article 13(2) of the General Regulations and the Special Regulations by applying the rebates offered by the bidder for the award of more than one lot, if this invitation to tender is launched simultaneously for several lots.
  - (g) If need be, in accordance with the provisions of article 18(3) of the Special Regulations and the Technical Specifications, the proposed technical variants, if they are permitted, shall be evaluated on their own merit and independently of the fact that the bidder offered or not a price for the technical solution specified by the Contracting Authority in the Special Regulations.

- 32.3 The estimated effect of price revision formulae featuring in the GAC and SAC applied during the period of execution of the contract shall not be considered during the evaluation of bids.
- 32.4 If the bid judged the lowest bid is considered abnormally low or strongly unbalanced in relation to the estimates of the Project Owner for the works to be executed in this contract, the Tenders Board may, from the sub-details of prices furnished by the bidder for any element or all the elements of the bill of quantities and estimates, verify if these prices are compatible with the construction methods and proposed calendar. In the case where the justifications presented by the bidder are not satisfactory, the Contracting Authority may reject the bid after the technical opinion of the Public Contracts Regulatory Agency.

#### Article 33: Preference granted national bidders

National contractors shall benefit from a margin of national preference during the evaluation of bids as provided for in the Public Contracts Code.

#### Article 34: Award

- 34.1 The Contracting Authority shall award the contract to the bidder whose bid was judged essentially in compliance with the Tender File and who has the required technical and financial capacities to execute the contract satisfactorily and whose bid was evaluated as the lowest by including, where necessary, proposed rebates
- 34.2 If, according to article 13(2) of the General Regulations, the invitation to tender comprises several lots, the lowest bid shall be determined by evaluating this contract with other lots to be awarded concurrently, by taking into account the rebates offered by the bidders in the case of more than one lot.
- 34.3 Any award of contract shall be made to the bidder fulfilling the technical and financial capacities required resulting from the evaluation criteria and presenting the bid evaluated as the lowest.

# Article 35: The right by the Contracting Authority to declare an invitation to tender unsuccessful or cancel a procedure

The Contracting Authority reserves the right to cancel a procedure of invitation to tender after the authorisation of the Minister Delegate at the Presidency in charge of Public Contracts where the bids have been opened or to declare an invitation to tender unsuccessful after the advice of the competent Tenders Board, without any claims being entertained.

#### Article 36: Notification of award of the contract

Before the expiry of the validity of the bids set in the Special Regulations, the Contracting Authority shall notify the preferred bidder by telecopy confirmed by registered mail or by any other means that his bid was retained. This letter will indicate the amount the Project Owner will pay the contractor to execute the works and the execution time-limit.

## Article 37: Publication of results of award and petitions

- 37.1 The Contracting Authority shall communicate to any bidder or administration concerned, upon request addressed to it within a maximum deadline of five (5) days after publication of the award results, the Independent Observer's report as well as the minutes of the award session of the related contract to which shall be attached the evaluation report of the bids.
- 37.2 The Contracting Authority is bound to communicate the reasons for the rejection of bids of the bidders concerned who so request.
- 37.3 After publication of the award results, bids that are not withdrawn within fifteen (15) days shall be destroyed, without any claims for compensation being entertained. Only the copy destined for the body in charge of regulation shall be kept.
- 37.4 In case of petition, it should be addressed to the Public Contracts Authority, with copies to the body in charge of the regulation of public contracts, the Contracting Authority and the chairperson of the Tenders Board concerned.

#### Financial bids:

- a) Absence of an attestation of financial capacity of at least 50% of the amount of the project defined in the Tender
- b) Non conformity of tender submission;
- c) Absence of quantified price.

#### Essential criteria

The criteria relating to the qualification of bidders could indicatively be on the following:

-	References of the Contractor (02 sub criteria)	YES/NO;
_	The availability of materials and essential equipment (05 sub criteria)	YES/NO;
_	Experience of supervisory staff (11 sub criteria)	YES/NO;
-	Methodology (06 sub criteria)	YES/NO;
_	Execution planning and schedule (02 sub criteria)	YES/NO;
_	Mastery of site (02 sub criteria)	YES/NO;
_	Proof of acceptance of contract conditions (02 sub criteria)	YES/NO
-	Presentation of the offer (03 sub criteria)	YES/NO.

Only tenders will have at least 75% of technical points shall be retained for financial evaluation

In case of ambiguity in the schedule of Unit Prices, Only the price (s) in letters shall prevail.

- 12 **LANGUAGE:** Offers shall be written either in English or French
- 7.3 Visit of site of works and preparatory meeting: (None)

# 3

#### PRESENTATION OF OFFERS

The bids prepared in English or French and in **seven (07) copies** with one (01) original and six (06) copies marked thus, shall be presented in three (03) volumes as follows:

- 1) Administrative Documents
- 2) Technical Documents
- 3) Financial Documents

# **ENVELOPE A - VOLUME 1: ADMINISTRATIVE DOCUMENTS**

DOCUMENT N°	DESCRIPTION
A.1	Declaration of intention to tender stamped with the tariff in force (written by the bidder)
A.2	Certificate of non-bankruptcy established by the Court of 1st instance of the place of residence of the bidder
A.3	Attestation of bank account of the bidder, issued by a first rate-bank approved by the Ministry in charge of Finance
A.4	Purchase receipt of tender file
A.5	A bid bond of as stated above issued by a first rate-bank approved by the Ministry in charge of Finance in conformity with COBAC conditions
A.6	An attestation of non-exclusion from Public Contracts issued by the Public contract Regulatory Board (ARMP)
A.7	An Attestation of the National Social Insurance Fund stating that the bidder has met all his obligations vis à vis the Fund
A.8	Tax Compliance Attestation (from Taxation)

A.9

Attestation of Taxpayers' Registration

NB: All administrative documents must be less than three months from the date of issue or certification.

# ENVELOPE B – VOLUME II: TECHNICAL OFFER

Nº	DOCUMENTS	OPERATION A REALISER	AUTHENTIFICATION
B1	Financial capacity	Justification of a financial capacity of at least 50% of the amount of the project defined in the Tender	Issued by a first rate- bank approved by the Ministry in charge of Finance in conformity with COBAC conditions
		At least one (01) reference of the company in similar public works as an entrepreneur during the last five (05) years, with amounts of the said contracts, contacts of officials of the projects  Having effectively executed	Justified by signed contracts (first and last pages) and minutes of reception or attestation of clearances of works executed.
B2	References of the Contractor	satisfactorily and completely for the most part as an entrepreneur or subcontractor at least two (02) similar contracts of the projected works during the last five (05) years with a minimum value of about 30% of the estimated value of the contract, in a rounded amount. The similarity will be on the physical size, complexity, methods/technologies or other characteristics, with amounts of the said contracts, contacts of officials of the projects	Justified by signed contracts (first and last pages) and minutes of reception or attestation of clearances of works executed.
В3	Materials and essential equipment	Availability of equipment that will be mobilized for the realization of these works (Pick-up or van, dump truck, , concrete mixer, masonry kit, small tools (wheel barrows, spades, etc)	Certified true copies of receipts or purchase certificates signed by a competent authority (Governor, DO and SDO) or Attestation of leasing from a renowned structure.
B4	Experience of supervisory staff	The list should contain at least the minimum personnel as shown below:  -Site Supervisor: A Rural or Civil Engineer having at least ten (10) years of work experience and at least five (05) years in projects involving Agricultural Hydraulics and Irrigation Infrastructures. He or she should have managed at least a similar project of same nature, subject of present Tender; -Site Foreman: A higher technician	Attach signed and dated CVs of each personnel accompanied by a certified true copy of their certificates signed by a competent authority (Governor, DO or SDO)

		in Rural or Civil Engineering having at least seven (07) years of work experience and at least three (03) years in projects involving Agricultural Hydraulics and Irrigation Infrastructures. He or she should have managed or participated in at least a similar project of same nature, subject of present Tender;	
В5	Technical proposals	It should contain:  - Brief summary of the project analysis and techniques of execution;  - Work organization;  - Internal control organization;  - Disposition foreseen for the protection of environment;  - Hygiene and sanitation;  - Use of local labour (HIMO)	Date, signature and stamp of bidder at the end of the document
В6	Planning and scheduling	<ul> <li>Execution deadline;</li> <li>Planning in conformity with the foreseen deadlines and coherent sequencing of tasks.</li> </ul>	Date, signature and stamp of bidder at the end of the document
В7	Mastery of the site	-Site visit attestation signed by the tenderer; -Site report including photos of the site	Date, signature and stamp of bidder at the end of each document
В8	Proof of acceptance of the contract conditions	<ul> <li>Special Technical Clauses initialed in all the pages</li> <li>Special Administrative Clauses completed and initialed in all the pages</li> </ul>	Signature and stamp at the last pages

# ENVELOPE C – VOLUME III: FINANCIAL OFFER

No.	DESIGNATION.	
C1	C1 Declaration of intention to tender, signed, dated with a 1500fcfa fiscal stamp.	
C2	C2 Completed and signed mail enclosure of unit prices (initial each page)	
C3	Signed Bills of quantities and cost estimates indicating the total amount without taxes	
CS	(HT) and with taxes (TTC) (initial each page)	
C4	Sub details of unit prices (initial each page)	

In the event of error between the prices in figures and letters, the latter will precede and be used as a basis of calculation of the amount of the offer.

*NB:* the different parts of a particular document must be separated using a different colour paper both in the original documents and their copies so as to facilitate their exploitation.

	PRICE AND CURRENCY OF OFFER
14.3.	The prices in the contract shall be inclusive of all relevant taxes in forced in Cameroon.
14.4.	The prices of the contract cannot be revised.
15.2/ 15.3	The currency shall be <b>Franc CFA</b> and the prices shall be inclusive of all relevant taxes
	Preparation and submission of bids
16.1	Period of validity of bids: Bidders will remain committed to their tenders for a maximum period of ninety (90) days from the deadline set for the submission of tenders
17.1	Amount of the bid bond: Each bidder must include in his administrative documents, a bid bond issued by a first rate-banking establishment approved by the Ministry in charge of finance and whose list is found in document No. 12 of the Tender File, of an amount of 765 000 (Seven Hundred and Sixty Five Thousand) CFA francs and valid for thirty (30) days beyond the original date set for the validity of bids (90 days).  N.B: Certified checks will not be accepted.
18.1	Bids shall be evaluated on the basis of an execution deadline of works between a minimum and maximum of ninety (90) days. The evaluation method features in article 32(2e) of the General Regulations. The execution deadline proposed by the preferred bidder shall become the contractual execution deadline.
18.3	Technical variants on part(s) of works specified below are permitted within the framework of the provisions laid down in the Technical Specifications: <i>Not applicable</i>
19.1	Venue, date and time of preparatory meeting to the establishment of bids:  There will be no meeting scheduled for the establishment of bids
20.1	Number of copies of the bid which must be filled and sent: The number of copies of the offer shall be seven (7), (one original and Six copies marked as such) and sealed in an envelope
21.2	Name and address of the Project Owner: The General Manager of the Upper Nun Valley Development Authority (UNVDA).
	Name and address of the Contracting Authority: The General Manager of the Upper Nun Valley Development Authority (UNVDA).
	P.O. Box 25 Ndop, Email: <u>unvdandop@ymail.com</u> , Tel: (237) 691 79 83 72/672 86 14 16.
	OPEN NATIONAL INVITATION TO TENDER IN EMERGENCY PROCEDURE  N°/ONIT/UNVDA/ITB/2025 OF
22.1	Date and time-limit for submission of bids:  at 10 o'clock local time
25.1	Venue, date and time of opening of bids:  The opening of the bids will be in a single phase.  This will include the opening of Administrative, technical and financial documents which shall take place on the, at 11:00 am, local time in the Conference Hall of the UNVDA - Ndop.
100	Only bidders or their duly authorized representatives who have a perfect knowledge of the documents may attend the opening session. Tenderers should note that they remain bound by their tenders for a period of ninety (90) days from the dead line for submission of bids.
1.0	Evaluation and comparison of bids
31.2	Currency retained for the conversion into a single currency: the CFA franc

	Source of exchange rate: Bank of Central African States
	Date of exchange rate:
32.2	The method of evaluation of technical variants shall be following: <i>Not applicable</i>
33.1	National bidders shall not benefit from a margin of preference during evaluation
	Award of contract
The Contracting Authority shall award the contract to the bidder whose bit essentially in compliance with the Tender File and who has the required financial capacities to execute the contract satisfactorily and whose bid was evoluted by including, where necessary, proposed rebates  If, according to article 13(2) of the General Regulations, the invitation to tenseveral lots, the lowest bid shall be determined by evaluating this contract with awarded concurrently, by taking into account the rebates offered by the bidders more than one lot.	
	Final Bond
39.1	Within twenty (20) days of the notification by the Contracting Authority, the contractor shall
39.2	furnish the Project Owner with a final bond, to guarantee the complete execution of the works.
	The bond whose rate varies between 2 and 5 percent of the amount of the contract inclusive of all taxes, may be replaced by a guarantee from a banking establishment approved according to the instruments in force with the Project Owner as beneficiary or by a joint or several guarantee.

Document N°4: Special Administrative Conditions (SAC)

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#### **CHAPTER I: GENERAL PROVISIONS**

# ARTICLE 1: SUBJECT OF THE CONTRACT

The subject of the present contract is the construction of 15 lm of retaining wall and opening of 1.5km of river course in Babungo farm of UNVDA Ndop.

<b>ARTICLE 2:</b>	<b>CONTRACT</b>	<b>AWARD</b>	<b>PROCEDURE</b>
-------------------	-----------------	--------------	------------------

The	Procedure	of	Award	of	this	Contract	is	by	Open	National	Invitation	to	Tender
N°_	/ONI	T/U	NVDA/I	TB/2	2025	of			•			•••	render

#### **ARTICLE 3: DEFINITIONS AND DUTIES**

#### 1. General Definitions

- The Contracting Authority: General Manager, UNVDA Ndop. He awards and signs the contract and in case of need any additional clauses to the contract; he ensures the preservation of originals of said contract documents and the transmission of copies to the Ministry in charge of Public Contracts and to the body in charge of regulation; he oversees the execution of the contract, signs service orders for work to commence and any other service orders of formal notice as concerns the contract.
- The Control Authority: The authority in charge of the effective execution of the works as concern contractual deadlines, etc.: The Divisional Delegate of Public Contracts for the Ngoketunjia Division.
- The Project Owner: **The General Manager of UNVDA**. He represents the beneficiary administration of the works.
- The Contract Manager: **The Director of Administration and Financial Affairs, UNVDA.** He ensures the general supervision of the execution of works and respect of the administrative and financial conditions of the contract. He organizes periodic meeting for the follow-up of the execution of the contract.
- The Contract Engineer: **The Director of Rural Engineering, UNVDA**, hereinafter referred to as the Engineer. He ensures the functionality of the execution of the project and the objectives defined by the Project Owner. He approves the Execution project drafted by the Contractor including subsequent modifications and the as-realized-plans. He validates and co-signs quantities of works done by the Contractor. He approves bills of works executed. He coordinates the activities of the contract, sees to the proper execution of the project with respect to the technical prescriptions, etc.
- The Project Engineer (Maître d'oeuvre): The Chief of Service for Land Development and Construction, UNVDA. He carries out the day-to-day follow up of the execution of the contract and routine site visits for control of good quality works. He prepares progress reports of work advancement and establish work planning in collaboration with the Contractor. He establishes attachment journals of works executed and corresponding bills to be paid. sees to the respect of quality of materials to be used by the contractor, etc.
- The Contractor: [to be precised]: He ensures the proper execution of works as defined in the Contract. He elaborates jointly with the Project Engineer, the execution and asrealized-plans. He also elaborates jointly with the Project Engineer attachments journals and signs corresponding bills of the contract. He countersigns with the Project Engineer, site meetings books and other reports.

#### 2. Duties

- The authority in charge of ordering payment shall be: The General Manager, UNVDA Ndop;

- The authority in charge of the clearance of expenditures shall be: The Specialized Financial Controller, UNVDA Ndop;
- The body or official in charge of payment shall be: The Accounting Officer, UNVDA Ndop;
- The official competent to furnish information within the context of execution of this contract shall be: The Director of Rural Engineering, UNVDA.

#### ARTICLE 4: LANGUAGE APPLICABLE LAW AND REGULATION

The Language to be used be either English or French.

The contractor shall be bound to observe the law, regulations and ordinances in force in Cameroon and these both within his own organization and in the execution of the contract.

If in Cameroon the regulations, laws and administrative and fiscal measures in force at the date of signature of this contract are amended after the signature of the contract, the possible direct resulting costs shall be taken into account without gain or loss for either party.

#### **ARTICLE 5: STANDARDS**

The works of the present contract shall be executed in conformity to the standard provided for in the special Technical Conditions. Where the Special Technical Condition is silent on the standard, the applicable standard in Cameroon shall be that which is recently approved by the Competent Authority.

The contractor shall study, execute and guarantee that the works of this present contract are realized using the best practices in Cameroon for similar operations.

#### ARTICLE 6: DOCUMENTS OF THE CONTRACT

The documents of this contract in order of priority are:

- 1. Bid Letter
- 2. The bidder's tender and its annexes in all provisions not contrary to the Special Administrative Conditions (SAC) and the Special Technical Conditions (STC).
- 3. The Special Administrative Conditions (SAC).
- 4. The Special Technical Conditions (STC).
- 5. The particular elements necessary for the determination of the contract price, such as, in order of priority: the unit price schedule, the statement of all-in prices, detailed estimates, the breakdown of all-in prices and the sub-details of unit prices.
- 6. The General Administrative Conditions applicable on public works contracts that went into effect by Order No. 033/CAB/PM of 13 February 2007.
- 7. The General Technical Condition(s) applicable to the services forming the subject of the contract.

#### ARTICLE 7: GENERAL INSTRUMENTS IN FORCE

This contract shall be governed by the following general instruments:

- 1. Law N°. 2018/011 of 11 July 2018 on the code of transparency and good governance in public finance management in Cameroon;
- 2. Law N°. 2018/012 of 11 July 2018 on financial regime of the State of Cameroon and other Public Entities;
- 3. Law N°. 96/12 of 5th August, 1996 on the management of the environment;
- 4. Law N°. 98/013 of 14 July, 1998 on competition;
- 5. Law No. 2006/12 of December 9, 2006 establishing the general regime for partnership contracts and its implementing texts;
- 6. Decree N°. 2011/408 of 09 December 2011 on the organization of the Government;
- 7. Decree N° 2011/410 of 09 December 2011 on the formation of the Government;

8. Decree N°. 2012/076 of 08 March 2012 amending and supplementing some provisions of Decree N°. 2001 /048 of 23 February 2001 on the creation, the organization and functioning of the Public Contracts Regulatory Agency;

9. Decree N° 2003/651/PM of 16 April 2003 laying down the procedures for the application of tax and

customs regime of public contracts:

10. Decree N° 2015/434 of 02 October 2015 on Government reshuffle;

11. Decree N° 2018/4992 of 18 January 2018 laying down the rules governing the maturation process of public investment projects;

12. Decree N° 2018/366 of 20 June 2018 on Public Contracts Code;

13. Decree N° 2018/355 of 12 June 2018 laying down the common rules applicable to Public Enterprises;

14. Ministerial Order N° 0206/A/MINMAP of 3<sup>rd</sup> July 2018 on the creation Internal Tenders Boards in

State Corporations;

15. Ministerial Order No 403/MINMAP/CAB of 21/10/2019 fixing the ceiling of allowances served by Project Owners or Delegated Project Owners to Presidents, Members and Secretaries of Reception Commissions, Follow up and revenue Committees;

16. Circular Letter N° 00001/LC/MINMAP/CAB of 15 January 2021 relating to the issuance of purchase

receipts for tender documents and their availability to bidders;

17. Circular Letter N° 001/CAB/PR of 12 June 2012 on the award and the control of the execution of Public Contracts;

18. Circular Letter N° 003/CAB/PM of 14 May 2014 on the enforcement of rules governing the procurement, execution and control of Public Contracts:

19. Circular Letter N° 0001/CAB/PR of 19 June 2012 on the procurement and control of the execution of public contracts;

20. Circular letter N° 002/CAB/PM of 31 January 2011 on the improvement of the performance of the Public Contract system;

21. Circular N° 00013995/C/MINFI of 31<sup>st</sup> December 2024 on the Instructions to the Execution of Financial Laws, the Follow up and the Control of the Execution of the State Budget and Other Public Entities for 2021 financial year;

22. Circular letter N°. 004/LC/MINMAP/CAB of 26th August, 2013 defining modalities for prior visa to

the signing of certain contracts;

23. Circular letter N°. 00006/LC/MINMAP/CAB of 17<sup>th</sup> August, 2021 clarifying the control of public procurement and the modalities of its exercise with Project Owners/Delegated Project Owners;

24. Applicable Standards;

25. Others showing specific domains concern.

## **ARTICLE 8: COMMUNICATION**

8.1 All communications within the framework of this contract shall be written and notifications sent to the following address:

a) In the case where the contractor is the addressee: Beyond the time-limit of 15 days fixed in Article 6(1) of the GAC fails to make his domicile known to the Contract Manager and immediately after completion of the works, correspondences shall be validly addressed to the Registered mail and shall be considered to have been served on to the contractor.

b) In the case where the Project Owner is the addressee: **The General Manager of UNVDA**; with a copy addressed to the Contracting Authority, Contract Manager, Contract Engineer, Project Manager and where need be, within the same deadline.

- c) In the case where the Contracting Authority is the addressee: **The General Manager of UNVDA**; with a copy addressed within the same deadline to the Project Owner, Contract Manager, Contract Engineer and Project Manager, where applicable.
- 8.2 The contractor shall address all written notifications or correspondences to the General Manager.

# **ARTICLE 9: ADMINISTRATIVE ORDERS**

The various Administrative Orders shall be established and notified as follows:

- The Administrative Order to start execution shall be signed by The General Manager of UNVDA Ndop, and notified by The Contract Manager of UNVDA Ndop;
- Administrative Orders with financial incidence likely to modify the time-limits shall be signed by **The General Manager of UNVDA Ndop**, and notified by the Contract Manager;
- The Administrative Orders with technical incidence relating of the execution of the works and without financial incidence shall be signed by the General Manager and notified by the Contract Engineer;
- Administrative Orders serving as warnings shall be signed by the **The General Manager of UNVDA**, and notified by the Contract Manager.
- The contractor has a time-limit of fifteen (15) days to issue reservations on any Administrative Order received. Having reservations shall not free the enterprise of executing the Administrative Orders received.

# ARTICLE 10: CONTRACTS WITH CONDITIONAL PHASES

This Contract is made up of a single phase.

At the end of the phase, the Project Owner shall carry out the acceptance of the works and issue an attestation of proper execution to the contractor.

# ARTICLE 11: CONTRACTOR'S EQUIPMENT AND PERSONNEL

- Any modification, even partial, made to the technical offer shall only occur after the written approval of the Contract Manager. In case of modification, the contractor shall have himself replaced by a member of staff of equal competence (qualifications and experiences).
- In any case, the lists of supervisory staff to be used shall be subject to the approval of the Contract Manager within fifteen (15) days of the notification of the Administrative Order to start execution. The Contract Engineer has eight (8) days to notify his opinion in writing with a copy being sent to the Contract Manager. Beyond this time-limit, the staff list shall be considered as approved.
- Any unilateral modification on the supervisory staff made in the technical bid prior to and during the works shall be a reason for termination of the contract as mentioned in article 45 below or the application of penalties

# **CHAPTER II: FINANCIAL PROVISIONS**

# ARTICLE 12: GUARANTEES AND BONDS 12.1 Final Bond

The final bond shall be set at 2% of the amount of the contract, inclusive of all taxes.

It is constituted and transmitted to the Contract Manager within a maximum deadline of twenty (20) days of the notification of the contract.

The bond shall be returned or the guarantee released within one month following the date of provisional acceptance of the works, following a release issued by the Contracting Authority upon request by the contractor

# 12.2 Performance bond: Not applicable

#### 12.3 Guarantee of start-off advance:

The start-off advance shall be guaranteed at 100% by a first rank bank or any authorized Insurance company.

ARTICLE 13: The amount of the	AMOUNT OF THE CONTRACT as contract as indicated by the attached estimate (in letters) CFA francs Inclusive of All Taxes	
- Amount ex	cclusive of VAT: () CFA F	

_	Amount of VAT: () CFA F.	
_	Amount of TSR and/or AIR () CFA F	
-	Net to be paid= EVAT-TSR and/or AIR(	) CFA F

## ARTICLE 14: METHOD AND PLACE OF PAYMENT

Only the detailed account exclusive of VAT shall be paid to the contractor.

The Contract Manager has a time-limit of seven (7) days to forward to the Contracting Authority the detailed accounts he has approved.

The Contract Manager and Contract Engineer have a maximum time-limit of twenty-one (21) days to sign the detailed accounts and forward them to the accountant in charge of payment.

A copy of the corrected detailed account is returned to the contractor, if need be.

#### ARTICLE 15: PRICE VARIATION

The prices are fixed and non-revisable

# ARTICLE 16: WORKS UNDER STATE SUPERVISION

Not applicable

# **ARTICLE 17: EVALUATION OF WORKS**

This contract is at unit price and all-in price

## ARTICLE 18: ADVANCE PAYMENT

- 18.1 The Project Owner may grant a start-off advance equal to 20% of the amount of the contract.
- 18.2 This advance whose value cannot exceed twenty (20) percent of the initial amount inclusive of all taxes shall be guaranteed at one hundred (100) percent by a banking establishment governed by Cameroon law or a first-rate financial institution in accordance with the instruments in force and reimbursed by deduction of the payments on accounts to be paid to the contractor during the execution of the contract according to the modalities laid down in the Special Administrative Conditions.
- 18.3 The total amount of the advance must be reimbursed not later than when the value in basic price of the works reaches eighty (80) percent of the amount of the contract.
- 18.4 As the reimbursement advances, the Project Owner shall issue the release of the corresponding part of the guarantee upon the express request by the contractor.

## **ARTICLE 19: PAYMENT FOR WORKS**

# 19.1 Establishment of works executed

Before the 30<sup>th</sup> of each month, the contractor and the Project Engineer shall jointly establish a job cost sheet which summarises and fixes the quantities executed and established for each item on the schedule during the month and capable of giving entitlement to payment.

# 19.2 Monthly detailed account

No later than the fifth (5<sup>th</sup>) of the month following the month of the services, the contractor shall hand over to the Project Manager two draft provisional monthly detailed accounts in seven copies (one detailed account exclusive of VAT and the other inclusive of taxes), according to the agreed model and establishing the total amount of the sums to which he may lay claim as a result of the execution of the contract since the start of the contract.

Only the detailed account exclusive of VAT shall be paid to the contractor. The detailed account of the amount of the taxes shall be the subject of an entry into the budgets of the Ministry in charge of Finance

Only the amount exclusive of VAT shall be paid to the contractor as follows:

- 97,8% paid directly into the contractor's account;
- 2.2% paid into the treasury.

The Project Engineer has a time-limit of seven (7) days to forward to the Contract Manager the detailed accounts he has approved.

The Contract Engineer has a maximum time-limit of seven (7) days to forward the detailed accounts he approved.

The Contract Manager has a deadline of seven (7) days maximum to sign the detailed accounts.

# **ARTICLE 20: INTEREST ON OVERDUE PAYMENTS**

Possible interests on overdue payments are paid by statement of sums due in accordance with article 167 of Decree No. 2018/366 of 20 June 2018 to institute the Public Contracts Code.

## ARTICLE 21: PENALTIES FOR LATE EXECUTION

The amount set for penalties for late execution shall be set as follows:

- a) One two thousandth (1/2000<sup>th</sup>) of the initial contract amount all taxes inclusive per calendar day of delay from the first to the 30<sup>th</sup> day beyond the contractual time-limit;
  - b) One thousandth (1/1000<sup>th</sup>)the initial amount of the contract inclusive of all taxes per calendar day beyond the 30<sup>th</sup> day.
- 21.2 The cumulated amounts of penalties for delay shall be limited to ten percent (10%) of the initial contract inclusive of all taxes.

# ARTICLE 22: FINAL DETAILED ACCOUNT

After completion of the works and within a maximum time-limit of thirty (30) days after the date of provisional acceptance, the contractor shall establish, based on joint reports, the draft final detailed account of works executed and which detailed account summarises the total sums to which the contractor may be entitled as a result of the execution of the whole contract.

- 1. The time-limit available to the Contract Manager to notify the corrected and approved draft to the Contract Engineer is fourteen (14) days.
- 2. The time-limit available to the contractor to return the signed final detailed account is fourteen (14) days.

# ARTICLE 23: GENERAL AND FINAL DETAILED ACCOUNT

23.1 The time-limit available to the Contract Manager to establish the general detailed account and forward to the contractor after final acceptance is thirty (30) days.

At the end of the guarantee period which results in the final acceptance of the works, the Contract Manager draws up the general and final detailed accounts of the contract which he has had signed jointly by the contractor and the Contracting Authority. This detailed account includes:

- the final detailed account,
- the balance
- the summary of monthly payments on account.

The signing of the general and final detailed account without reservation by the contractor definitely binds the two parties, puts an end to the contract, except with regard to interest on overdue payments.

23.2 The time-limit available to the contractor to return the signed final detailed account fourteen (14) days.

## ARTICLE 24: TAXES AND CUSTOM DUTIES

Decree No. 2003/651/PM of 16 April 2003 lays down the terms and conditions for implementing the tax regulations and customs procedures applicable to public contracts. The taxes applicable to this contract include notably:

- Taxes and dues relating to industrial and commercial profits, including the AIR which is

a deduction on company taxes;

- Registration dues in accordance with the 2012 Tax Code;

- Dues and taxes attached to the execution of services provided for in the contract;

- Duties and taxes of entry into Cameroonian territory (customs duties, VAT, computer tax);
- o Council dues and taxes.

All taxes inclusive means VAT included.

These elements must be included in the costs which the supplier imputes on its running costs and constitute one of the elements of the sub-details of prices exclusive of taxes.

## ARTICLE 25: STAMP DUTY AND REGISTRATION OF CONTRACTS

Seven (7) original copies of the contract will be stamped and registered by and at the expense of the contractor at the Regional Tax Centre of the Contractor's Tax Base in accordance with the applicable regulations.

## **CHAPTER III: EXECUTION OF WORKS**

## ARTICLE 26: NATURE OF THE WORKS

The nature of the works involves the following:

- Preliminary works;
- Earth works;
- Concrete and masonry works.

#### ARTICLE 27: EXECUTION TIME-LIMIT OF THE CONTRACT

- 1. The time-limit for the execution of the works forming the subject of this contract shall be Three (03) months.
- 2. This time-limit shall run from the date of notification of the Administrative Order to commence execution of the works.

## ARTICLE 28: ROLE AND RESPONSIBILITIES OF THE PROJECT OWNER

28.1 The Project Owner shall be bound to furnish the contractor with information necessary for the execution of his mission and to guarantee, at the cost of the contractor, access to sites of projects.

28.2 The Project Owner shall ensure the contractor of protection against threats, insults, violence, assault and battery, slander or defamation of which he could be victim by reason of or during the exercise of his mission.

## ARTICLE 29: ROLE AND RESPONSIBILITIES OF THE CONTRACTOR

The detailed and general plan of progress of the works shall be communicated to the Contract Engineer in five (05) copies at the beginning of each month.

## ARTICLE 30: PROVISION OF DOCUMENTS AND SITE

A reproducible copy of the plans featuring in the Tender File shall be submitted by the Contract Manager.

The Project Owner shall make available the site and access ways to the contractor at the appropriate time as the works progress.

ARTICLE 31: DOCUMENTS TO BE FURNISHED BY THE CONTRACTOR

a) Within a maximum time limit of fifteen (15) days from the date of notification of the Administrative Order to commence execution, the contractor shall submit in five (5) copies for the approval of the Contract Engineer the execution programme of the works and his supply calendar and his draft Quality Assurance Plan and the Environment Management Plan, where applicable. Two (2) copies of these documents will be returned to him within a deadline of fifteen (15) days

from the date of reception with:
- Either the indication "GOOD FOR EXECUTION";

- Or the indication of their rejection including the reasons for the said rejection.

The contractor has eight (8) days to present a new one. The Contract Engineer then has a deadline of five (5) days to give his approval or possibly make remarks. In this case, the procedure is started all over without this affecting the contractual time-limit.

The approval given by the Contract Engineer does not in any way release the contractor of his responsibilities. Meanwhile, works executed before the approval of the programme shall neither be ascertained nor paid for. The updated and approved schedule will become the contractual schedule. The contractor will constantly update on site, a schedule that will take account of real progress of the site. Significant modifications may only be made on the contractual programme upon receiving the approval of the Contract Engineer.

- b) The contractor shall indicate in this programme the equipment and methods which he intends to use as well as the personnel he intends to employ.
- c) The approval granted by the Contract Engineer or Contract Manager shall in no way diminish the responsibility of the contractor with regard to the harmful consequences which their implementation may cause both towards third parties and the respect of clauses of the contract.

## ARTICLE 32: ORGANISATION AND SAFETY OF SITES

Signboards at the beginning and end of each section must be placed within a maximum deadline of one month after the notification of the Administrative Order to commence work.

## ARTICLE 33: IMPLANTATION OF STRUCTURES

The Contract Engineer shall notify within fourteen (14) days following the date of notification of the Administrative Order to commence work, the basic points and levels of the project.

## ARTICLE 34: SUB-CONTRACTING

The part of the works to be sub-contracted shall be at most 30% of the initial amount of the contract and its additional clauses.

#### ARTICLE 35: SITE LOGBOOK

The Site logbook must be systematically jointly signed by the Contract Engineer and the contractor's representative during site meetings and at each site visit.

It is a joint document in a single copy. Its pages must be numbered and initialled. No page should be removed. The erased or cancelled parts must be mentioned on the margin for validation.

#### **CHAPTER IV: ACCEPTANCE**

#### ARTICLE 36: PROVISIONAL ACCEPTANCE

36.1 Before the provisional acceptance of the works, the contractor shall request in writing to the Project Owner with a copy to the Contract Engineer, organization of a technical visit prior to the provisional acceptance. This visit shall include the following operations.

- Qualitative and quantitative evaluations of the different works that have been executed.
- Findings and statement of the unexecuted task envisaged in the present contract
- Findings relative to the completion of the work
- Findings on the quantity of works that have been effectively realized

These operations shall be subject to a site report drawn up on the field, signed by the Contract Engineer and countersigned by the contractor.

During this technical visit prior to the provisional acceptance, the Contract Engineer shall eventually specify the reserves to be lifted and the corresponding works to be effected before the reception. The Engineer shall fix the reception date in collaboration with the Project Owner.

- 36.2 The works shall be received by a Reception Commission made up of the following members:
  - 1- The Contracting Authority or his representative...... (President);
  - 2- The Contract Engineer.....(Secretary);
  - 3- The Contract Manager....(Member);
  - 4- The Representative, MINMAP .....(Observer);
  - 5- The Stores Accountant UNVDA....(Member);
  - 6- The Contractor....(Observer);
  - 7- Any other member designated by the project owner.......... (Member).

The contractor shall be convened to the acceptance by mail at least [10 days] prior to the acceptance. He is bound to attend or be represented.

He takes part in the acceptance as an observer. His absence is equivalent to acceptance without reservation of the conclusion of the Acceptance Commission.

After the visit of the site(s), the Commission shall examine the minutes of the preliminary operations to the acceptance and shall proceed to provisional acceptance of the works if there is need.

The visit for provisional acceptance shall be the subject of minutes of provisional acceptance signed on the spot by all the members of the Commission.

The minutes of the provisional acceptance report shall specify or set the date of completion of the works.

Only members who have signed the minutes shall be entitled to allowances.

Any partial or technical reception of a deliverable gives equally the right to the payment of the allowances.

These allowances shall be sustained by the budget of the Project Owner.

- 36.3 Partial acceptance shall not be applicable to this Contract.
- 36.4 The guarantee period of this Contract commences at the date of acceptance of the provisionary acceptance of works executed.

## **ARTICLE 37: GUARANTEE PERIOD**

The guarantee period shall be Twelve (12) months to run from the date of the provisional acceptance of the works.

#### **ARTICLE 38: FINAL ACCEPTANCE**

- 45.1 Final acceptance shall take place within a maximum deadline of fifteen (15) days from the date of expiry of the guarantee.
- 45.2 The procedure for final acceptance shall be the same as for provisional acceptance.

## CHAPTER V: SUNDRY PROVISIONS

## ARTICLE 39: TERMINATION OF THE CONTRACT

The contract may be terminated as provided for in Section IV of Decree No. 2018/366 of 20 June 2018 to institute the Public Contracts Code and equally under the conditions laid down in articles 74, 75 and 76 of the GAC especially in one of the following cases:

- Delay of more than fifteen (15) calendar days in the execution of an Administrative Order or unjustified stoppage of more than seven (7) calendar days;
- Delay in work resulting in penalties of more than 10 % of the amount of the works;
- Refusal to repeat poorly executed works;
- Default by the contractor;
- Persistent non-payment for services.

## ARTICLE 40: CASE OF FORCE MAJEURE

If the contractor were to raise the issue of force majeure, the thresholds below which claims shall not be admitted are:

- Rainfall: 200 millimetres in 24 hours;
- Wind: 40 metres per second;
- Flood: decennial flood frequency.

In the event of circumstances beyond his control, the contractor shall only be relieved of his responsibilities if he notifies the Project owner in writing of his intension to evoke these circumstances of force majeure within 15 (fifteen) days of the occurrence of the event. However, the Corporation reserves the right to appreciate the circumstances of the force majeure.

## ARTICLE 41: DISAGREEMENTS AND DISPUTES

Any disagreements and dispute arising from this contract shall be resolved amicably. Where no amicable solution can be found for a disagreement, this agreement is brought before the competent Cameroonian jurisdiction.

## ARTICLE 32: PRODUCTION AND DISSEMINATION OF THIS CONTRACT

Ten (10) copies of this contract shall be produced at the cost of the contractor and furnished to the Contract Manager.

## ARTICLE 43 AND LAST: ENTRY INTO FORCE OF THE CONTRACT

This Contract shall only be regarded as finally concluded after its signature by the Contracting Authority. It shall enter into force as soon as it is notified to the contractor by the Contracting Authority.

Document N° 5: Special Technical Conditions (STC)

## **TECHNICAL SPECIFICATION (TS) OF WORKS**

## SECTION I: INTRODUCTION & GENERAL INFORMATION

## OBJECT OF THE PRESENT TECHNICAL SPECIFICATIONS

The present Technical Specification of Works defines the extent of the works involve as well as the requirements for their proper execution. In particular they establish the link between the technical properties of the materials, their mechanical properties and the method of construction needed for an efficient implementation of the project. The Specifications must be read in conjunction with the Technical Drawings as well as the norms.

#### LOCATION AND EXTENT OF SITE

The works are situated in the Babungo main farm, Babungo Sector. The babungo main farm is one of the farms in the Babungo Sector found in the area of intervention of UNVDA Ndop, Ngoketungia Division of the North West Region of Cameroon.

#### SCOPE OF STUDIES

The studies involve the opening of a 1.50km of river course and the construction of 15.00lm of retaining wall at the Babungo main farm. The studies have been done to detailed design stage to give a complete understanding of the nature and complexity of the activities in terms of the materials to be used.

The nature of the works involves the following:

- Preliminary works;
- Earth works;
- Masonry and concrete work;

#### TECHNICAL PROGRAMME

Whereas the Contractor is called upon to use the guidelines provided by the Technical drawings and Specifications, they shall be entirely responsible for whatever options they finally choose to use to arrive at the set objectives in a cost-effective manner that does not call for a substantive modification in the operational and functional relationships herein defined.

## SITE INSTALLATION, COMPLEMENTARY STUDIES AND PREPARATORY WORKS General Site Installation

The Contractor shall ensure the bringing to site of all installations, equipment and materials necessary for the execution and internal control of the works, as well as their withdrawal from site at the end of the project.

After the Contract is placed and before work commences the Contractor shall submit to the Engineer a rented base or drawings showing the general arrangement of his Temporary Works with diagrams and descriptions showing how he proposes to execute such Temporary Works and how they fit into his Programme for the execution of the whole of the Works, all to be subject to the consent of the Engineer. The whole of the Temporary Works and the equipment and appliances used, shall be the liability of the Contractor in regard to their construction, safety, maintenance and removal on completion of the Contract and consent by the Engineer shall in no way relieve the Contractor of his duties or responsibilities under the Contract.

#### Site Identification Board

Within 10 days from the date of notification to commence the works, the Contractor shall provide, erect and maintain in a clearly legible condition and conspicuously displayed at the entrance to the site from the beginning of the work until the completion and acceptance of the project, a site

identification board in accordance with a format approved in advance by the Engineer and the Employer. The board shall contain the following information: Republic of Cameroon, Peace – Work – Fatherland (in English and in French), Title of the Project, Employer, The Funding Body, Project Engineer, Executing Contractor, Project duration and any other information as requested by the Project Engineer.

The sign shall be about two meters wide by three meters high and be constructed of wooden boards on a strong wooden framework, supported on uprights set in the ground on concrete footings with the uprights firmly secured in position by adequate bracing. All to be thoroughly painted in two coats of oil paint (white) and with the face of the sign to have a third coat of same paint upon which lettering shall appear.

A margin of 15cm shall be suitably set off on all sides of the board, while the letters shall be painted in black or blue in the best sign writing style properly proportioned to the area of the sign. The design and lettering complete shall be made on paper not less than 1/10th the size of the finished sign and shall be submitted for approval before the sign is painted. The sign shall be fixed on the framework about 1.0m above the ground.

No other sign of any nature shall be placed closer than 8.00m to this temporary sign, unless required for purposes of security, in which case it shall be placed as not to obscure this sign or part of it in anyway.

#### Other Signboards

The Contractor shall provide, erect and maintain other Signboards deemed necessary to the layout, colours and dimensions shown on the Drawings. These signboards shall be erected at locations to be instructed by the Engineer.

## Surveillance and Guarding

The Contractor shall deploy all necessary human and material means to ensure surveillance and guarding of the site by day and by night, throughout the entire duration of the project up till provisional taking-over.

#### Site Office and Meeting Room

The Contractor shall provide site office and meeting room for his own use.

## **Temporary Service Connections**

The Contractor shall make all necessary arrangements to ensure connection of the site to water, electricity, telephone and other sundry services networks required in connection with the execution of the works.

#### Water Supply

The Contractor shall provide a clean, sufficient and continuous supply of fresh water for the Works. He shall undertake all arrangements including pipelines and the provision of pumps, storage tanks or water conveyance where necessary, payment for all fees and water charges and the satisfactory removal of all such arrangements and provisions on completion of the Works.

The water shall be clear of suspended solids and free from any matter in quantities considered by the Engineer to be deleterious to the work. Water supplied to all the offices, laboratories and workshops shall be wholesome and potable to the satisfaction of the public health authorities in the area of the site.

#### Health, Safety, and Accidents

The Contractor shall ensure, in so far as is considered by the Engineer to be reasonably practicable and on the Engineer's satisfaction, the health, safety and welfare at work of his employees including those of his Subcontractors and of all other persons on the site. His responsibilities shall include:

## **Drawings**

Wherever the term "Drawings" is used in the Specifications, it shall mean the Exhibited Drawings and/or the working Drawings for Permanent works, approved by the Engineer.

Those drawings are subject to any modifications and additions that may be instructed by the Engineer from time to time, necessary for the proper execution of the works. The Contractor shall construct the works in conformity with all revised, amended, supplemental or superseding Drawings currently in force at the time of construction of such works.

## DOCUMENTS TO BE SUPPLIED BY CONTRACTOR

(1) The Contractor is obliged to supply drawings and documents for the Permanent and Temporary works as detailed under paragraph (3) of this Subsection.

(2) Two copies of the drawings and documents are to be initially supplied for the Engineer's approval or information. Another three copies and one reproducible copy are to be furnished to the Engineer for distribution after the Contractor has incorporated all corrections and alterations made by the Engineer on checking.

(3) The drawings and documents to be provided by the Contractor include, but are not limited to, the following:

Site layout and installation drawings. Detailed site layout plans are to be supplied one (01) week after receipt of the Letter of Acceptance at the latest;

- Work and construction programmes inclusive of revisions, if required;

 Drawings, records and reports on specific construction measures to be supplied by the Contractor in accordance with other provisions of the contract;

- Quantity surveys and drawings as required for the measurement and payment;

- As-built drawings, incorporating all changes or amendments made in the course of the construction works, for all Permanent Works, including those for which the Engineer has prepared the working drawings;
- As-built drawings shall be supplied to the Engineer immediately after completion of the particular part of the works;

The time limit for approval of working drawings and issuance of other clearances is 5 days. The Contractor shall therefore take all necessary pre-emptive measures when submitting documents for approval to avoid any eventual delays on the overall time schedule of the works.

Following approval, each execution document must be submitted in 3 copies.

Approvals for various samples must be obtained within the first month of operation of the site. Such samples shall be kept in the meeting room.

## AS BUILT DOCUMENTS

The Contractor shall establish as-built Drawings and plans as the work progresses. These drawings and plans shall incorporate all the changes and modifications that have been made and approved by the Engineer in the course of the project.

All the Drawings and plans shall be done either on AutoCAD or others appropriate design software. The Contractor shall hand over all the as-built Drawings and Plans to the Employer in the number of copies agreed by the Engineer and a copy of the AutoCAD or others appropriate design software.

# PROTECTIONS AND CLEANLINESS OF COMPLETED WORKS

All fragile structures or portions thereof shall be appropriately protected against shocks or dirt capable of damaging or defacing them in the course of the construction works. The price quoted for each section shall be deemed to cover all expenses connected with the institution of such protection measures and their removal at the end of the works. It shall also cover the maintenance and eventual replacement of any defaced or damaged items.

The Contractor shall at all times, maintain the site in a clean state, free from rubbish and discarded or surplus materials. This shall be done without causing any interruption of on-going works. Structures under construction whether completed or under continuing construction, shall equally be kept clean and clear of all forms of dirt (materials, etc.)

Upon partial or total completion of the works, all temporary installations no longer required shall be removed from site and the premises cleaned.

## METHOD OF CONSTRUCTION

The Contractor shall submit to the Engineer not later than 28 days from the date of award of the Contract a general description of his proposed arrangements and methods for the execution of the Works, including Contractor's Equipment, working shift arrangements, strengths of work force of skilled and unskilled labour, supervision arrangements, power supply arrangements, supply of materials, stone crushing, aggregate production and storage, cement handling, concrete mixing and handling, methods of excavation.

During the execution of the works, the Contractor shall also submit to the Engineer full and detailed particulars of any proposed amendments to the arrangements and methods submitted in accordance with the foregoing.

The Engineer's normal working hours shall be defined as 7.30 am to 5.30 pm on weekdays with Saturdays and Sundays set aside for rest. If the Contractor wishes to execute Permanent Works outside these hours, or, public holidays he shall obtain the written permission of the Administration as required, and the Engineer at least one full working day in advance to enable the Engineer to make provision for supervision of such work.

## CONSTRUCTION PHOTOGRAPHS

The Contractor shall be responsible for the production of Construction Photographs as provided herein.

Photographs of the entire site, or pertinent futures thereof, shall be taken before the commencement of works and promptly submitted to the Engineer. The same views shall be re-photographed upon completion of all the construction activities and submitted with the Contractor's application for final payment. Additional photographs shall be made each month throughout the progress of the works at such times as requested by the Engineer, and submitted with the Contractor's application for progress payment.

All photographic work shall be carried out by a qualified, photographer acceptable to the Engineer. Four prints of each photograph shall be furnished promptly to the Engineer each month. The Engineer will submit two prints of each photograph to the Employer.

## **SECTION 2:** EARTH WORKS

## **DEFINITION OF WORKS, REGULATIONS & NORMS**

#### SCOPE OF THE WORKS

The works constituting the present section include essentially:

- Excavation of foundations for structures:
- Backfilling of excavations and filling for structures;
- Opening of river course.

#### EXTENT OF RESPONSIBILITY

Foundation Soils

The Contractor shall verify and be sure of the nature of the foundation soil before posing his structure. He shall be responsible of any failure due to a weak foundation soil and will make sure that corrective measures are taken accordingly.

#### Codes

All materials and workmanship must satisfy the requirements of A.F.N.O.R codes.

#### Regulations

The following is a non-exhaustive list of technical documents to be taken into consideration:

D.T.U n° 12 Earthworks for construction of building

D.T.U. n° 13.11 Shallow foundation works D.T.U. n° 13.2 Deep foundation works

D.T.U. n° 14.1 Drilling works

## CLASSIFICATION OF EXCAVATION

Soft material is any material which can be removed by a tracked excavator complying with the following:

- In good order complete with all equipment and accessories as supplied,
- Rated 200 KW flywheel power or over,
- Of an operating mass of 40 tonnes or greater
- Equipped with a hydraulically operated rock ripping bucket, compatible with the excavator used,
- Operated by a qualified operator in accordance with the manufacturer's recommendations and to the satisfaction of the Engineer.
- Soft material shall include waterlogged and swampy material.

#### Hard material

Hard material shall be defined as solid material found in masses in its original position which cannot be removed by equipment equivalent to that described in Clause 1-2-1a and can only be fragmented by machines of increased power, barring and wedging, hydraulic breaking equipment or blasting.

Where it is impractical to remove hard material by the method described in Clause 1-2-1a the quantity of hard material, if any, shall be determined by the Engineer.

Where excavation contains individual boulders of hard material greater than 0.4 m3 each in volume then such boulders shall be classified as hard material. Solid boulders less than 0.4 m3 by volume encountered in general excavation shall be deemed not to be hard material.

The classification of materials encountered shall be agreed by the Engineer and the Contractor as the works proceed. In the event of a dispute over the classification of material the ruling of the Engineer shall be final and binding.

# EXCAVATION OF FOUNDATIONS FOR STRUCTURES

The excavation of foundation for structures and any associated drainage works shall be kept to the minimum. The sides of the excavation shall be kept vertical and shall be properly timbered or sheet piled, shored and strutted as necessary to prevent subsidence or slipping of the surrounding soil.

All excavated surfaces, in material other than hard material, on which foundations for structures are to be placed shall be compacted to 105% MDD (AASHTO T99) immediately before foundations are constructed.

Excavated surfaces in hard material shall be further excavated to achieve a minimum thickness of 50mm of blinding concrete.

Where a combination of hard and soft materials exist in the excavated surfaces then, dependent on the proportions of existing materials, the Contractor shall remove a minimum of 300mm of soft material from below the level of the underside of the foundation and replace it with lean concrete to the top of blinding level.

The Engineer's approval of any excavation shall be obtained prior to any construction thereon.

## EXCAVATIONS TO BE KEPT DRY

All excavations shall be kept dry and the Contractor shall take all necessary measures to maintain excavations free from water.

Where required by the Engineer, the sumps from which pumps operate shall be constructed outside the area of the foundation base. Excessive pumping from the excavation which is liable to cause settlement, disturbance, or washing out of fines from the adjacent ground shall not be permitted.

Where, in the opinion of the Engineer, the foundation has become soft and additional excavation is required due solely to the Contractor's method of working, the resulting backfill shall be with approved material or concrete as instructed by the Engineer. All such excavation and backfill shall be at the Contractor's expense.

# BACKFILLING OF EXCAVATIONS AND FILLING FOR STRUCTURES

Filling and backfilling operations around structures or in trenches or excavations and loading of structures shall not commence without the written approval of the Engineer.

The sequence of filling and backfilling behind and around a structure and the maximum difference in height at any time between fill levels shall be as directed by the Engineer.

All filling and backfilling shall be with selected materials approved by the Engineer, brought up in horizontal layers not exceeding 200mm compacted thickness. Each layer shall be thoroughly mixed, watered or dried as necessary, and compacted to a Maximum Dry Density of 105% MDD (AASHTO T99).

Timbering and sheeting left in for the purpose of supporting the excavation shall be eased up 200 mm at a time in step with the backfill layer. Where instructed by the Engineer, timbering or sheeting shall be left in place.

Where instructed or shown on the Drawings, selected granular fill material and/or porous filter material approved by the Engineer shall be placed. Porous drainage layers installed behind structures shall comply with the requirements. The geotechnical specifications of the acceptable materials are as follows:

Gradation:

0/2 to 0/10

passing sieve size of 80m:

less than 10%

A sliding form or other approved means shall be used during backfilling such that the porous filter is brought up and compacted at least 150mm ahead of the selected granular fill material. By similar

means, the selected granular fill shall be brought up and compacted at least 200 mm ahead of the adjacent earthworks fill.

Where no selected granular fill material is instructed the Contractor shall backfill the excavation behind and around the structure up to ground level using selected excavated material. Fill shall be raised equally on all sides around structures.

# SURPLUS EXCAVATED AND BACKFILLING MATERIALS

Surplus excavated material shall be taken to spoil areas or may be used in adjacent earthworks if considered suitable by the Engineer.

Backfilling and filling behind and around structures shall only be carried out using material, which has been approved by the Engineer.

#### DREDGING.

This exercise is done after pegging and isolation to obtain a favourable gradient to maintain the flow of water in the canals.

This task consists of removal of silt and debris that have been deposited in the canals. Silt and debris thus removed from the river course shall be discarded according to the directives of the Control engineer.

This exercise shall be done in accordance with the directives of the control engineer and to the prescriptions of the present STC and proposed technical documents.

This shall be done mechanically with use of appropriate machinery.

## SECTION 3: CONCRETE AND MASONRY

## **DEFINITION OF WORKS, REGULATIONS & NORMS**

#### SCOPE OF THE WORKS

The works constituting the present section include essentially:

- Blinding concrete;
- Reinforced concrete:

#### STRUCTURAL DESIGN

## Generally:

The structural plans provided by the Employer and included in the present dossier are sketch drawings showing the dispositions of the project and the architectural constraints of which the Contractor must take note in the preparation of his working drawings.

The Contractor shall be expected to carry out final designs for the structures to be executed at both the provisional and final phases. These design documents shall be submitted to the Engineer for approval.

#### Reference Documents

Design calculations shall be carried out in accordance with the regulations in force, notably the following regulations:

Technical rules for the design and calculation of structures and building in reinforced concrete: BAEL 91 or EUROCODE 2.

The following working stresses shall be used as basis for the calculations:

- Compressive strength of concrete at 28 days: 25 MPa.
- Steel type 1: elastic limit at 400 MPa.

Design check for fire resistance of reinforced concrete structures as recommended by DTU.

The imposed loads to be taken into consideration during the calculation shall be in conformity with the norm NF P 06-001.

Dead or permanent loads shall conform to N.F. P 06.004.

#### **Foundation Soils**

The Contractor shall verify and be sure of the nature of the foundation soil before posing his structure. He shall be responsible for any failure due to a weak foundation soil and will make sure that corrective measures are taken accordingly.

#### Codes

All materials and workmanship must satisfy the requirements of A.F.N.O.R codes.

## Regulations

The following is a non-exhaustive list of technical documents to be taken into consideration:

D.T.U. n° 13.2 Deep foundation works

D.T.U. n° 20 Masonry, Reinforced concrete,

Gypsum and additives

D.T.U. n° 21.3 Slabs and staircase walls D.T.U. n° 21.4 Use of calcium chloride

D.T.U. n° 23.1 Construction of in-situ concrete walls

## MATERIALS FOR CONCRETE

The Contractor shall submit to the Engineer full details of all materials, which he proposes to use for making concrete. Concrete shall not be placed in the works until the Engineer has approved the materials of which it is composed. Approved materials shall not thereafter be altered or substituted by other materials without the consent of the Engineer.

#### Cement

Cement shall comply with BS 12 Specification for ordinary and rapid hardening Portland cement.

Cement shall be free flowing and free of lumps. It shall be supplied in the manufacturer's sealed unbroken bags or in bulk. Bagged cement shall be transported in vehicles provided with effective means of ensuring that it is protected from the weather.

Bulk cement shall be transported in suitably equipped purpose-built vehicles or containers.

Cement in bags shall be stored in a suitable weather-proof structure whose interior shall be kept dry and well ventilated at all times. The floor shall be raised above the surrounding ground level and shall be constructed so that no moisture rises through it.

Each delivery of cement in bags shall be stacked together in one place. The bags shall be closely stacked so as to reduce air circulation but shall not be stacked against an outside wall. If pallets are used, they shall be constructed so that bags are not damaged during handling and stacking. No stack of cement bags shall exceed 3m in height. Different types of cement in bags shall be clearly distinguished by visible markings and shall be stored in separate stacks.

Cement from broken bags shall not be used in the works.

Cement in bags shall be used in the order in which it is delivered.

Bulk cement shall be stored in weather-proof silos, which shall bear a clear indication of the type of cement contained in them. Different types of cement shall not be mixed in the same silo.

The Contractor shall provide sufficient storage capacity on site to ensure that his anticipated programme of work is not disrupted as a result of lack of cement and taking due respect of factors outside the Contractor's control such as transport, weather conditions, holidays and breakdowns.

Cement, which has become hardened or lumpy or fails to comply with the Specification in any way, shall be removed from the site.

All cement for any one structure shall be from the same source.

All cement used in the works shall be tested by the manufacturer or the Contractor in a laboratory acceptable to the Engineer. The tests to be performed shall be those set by the Engineer. The Contractor shall supply two copies of each test certificate to the Engineer.

Each set of tests carried out by the manufacturer or the Contractor shall relate to not more than one day's output of each cement plant, and shall be made on samples taken from cement which is subsequently delivered to the site. Alternatively, subject to the discretion of the Engineer, the frequency of testing shall be one set or tests for every 200 tonnes of cement delivered to site from each cement plant.

Cement, which is stored on site for longer than one month, shall be re-tested in an approved laboratory as directed by the Engineer.

Cement which does not comply with this Specification shall not be used in the works and it shall be disposed of by the Contractor.

The Contractor shall keep full records of all data relevant to the manufacture; delivery, testing and use of all cement used in the works and shall provide the Engineer with two copies thereof.

## Sands - Fine Aggregate

Fine aggregate shall be clean hard and durable and shall be natural sand, crushed gravel sand or crushed rock sand complying with BS 882. All the material shall pass through a 5mm BS sieve and the grading shall be in accordance with Zones 1,2 or 3 of BS 882. In order to achieve an acceptable

grading, it may be necessary to blend materials from more than one source. Fine aggregate for mortar only shall comply with BS 1200.

The fine aggregate shall not contain iron pyrites or iron oxides. It shall not contain mica, shale, coal or other laminar, soft or porous materials or organic matter unless the Contractor can show by comparative tests, on finished concrete as set in BS 1881, that the presence of such materials does not adversely affect the properties of the concrete.

Other properties shall be as set out below:

The content passing the  $75\mu m$  ISO sieve shall not exceed 3 percent for natural or crushed gravel sand or 15 per cent for crushed rock sand.

Chlorides soluble in a 10 percent solution by weight nitric acid shall not exceed 0.05 percent by weight expressed as chloride iron when tested as set out in BS 812. The total chloride content shall comply with the requirements of Sub-Clause 1-2-1-5d of this Specification.

Sulphates soluble in a 10 percent solution by weight of hydrochloric acid shall not exceed 0.4 per cent by weight expressed as SO3. When tested as set out in BS 1377. The total sulphate content shall comply with the requirements of Sub-Clause 1-2-1-5d of this Specification.

Soundness: After five cycles of the test in AASHTO T104 the aggregate shall not show a weight loss of more than 10 percent.

If the test described in Section 2 of this Standard Specification should show that more than a trace of organic impurities is present, the fine aggregate shall not be used in the Works unless the Contractor can show by comparative tests, on finished concrete as set in BS 1881, that the presence of such materials does not adversely affect the properties of the concrete.

## Coarse Aggregate (Gravel)

Coarse aggregate shall be clean hard and durable crushed rock, crushed gravel or natural gravel complying with the requirements of BS 882. The material shall not contain any iron pyrites, iron oxides, flaky or laminated material, hollow shells, coal or other soft or porous material, or organic matter unless the Contractor can show by comparative tests on finished concrete as set out in BS 1881 that the presence of such materials does not adversely affect the properties of the Concrete. The shape of the coarse aggregate shall be angular rounded or irregular as defined in BS 812 Part 1.

Coarse aggregate shall be supplied in the nominal sizes called for in the Contract and shall be graded in accordance with BS 882 for each nominal size.

Other properties shall be as set out below:

The proportion of clay, silt and other impurities passing a  $75\mu m$  ISO sieve shall be not more than one per cent by weight.

The content of hollow and flat shells shall not be such as will adversely affect the concrete quality when tested as set out in BS 1881. The total shell content of aggregate shall not be more than the following:

- 40 mm nominal size and above 2% of dry weight
- 20 mm nominal size 5% of dry weight
- 10 mm nominal size 15% of dry weight

## Water for mixing Concrete

Water shall be clean and free from harmful matter and shall comply with the requirements of BS 3148 or norm NFP 18.303.

## Reinforcement steel

Hot – rolled steel bars for the reinforcement of concrete shall comply with BS 4449 or shall be of deformed bars EF40 for both main and secondary reinforcements. Cold-worked steel bars for the reinforcement of concrete shall comply with BS 4483.

All the steel reinforcement used must in addition to the above requirement satisfy BAEL 91, as well as other norms and identification sheets in force. The Contractor shall prepare and submit Identification sheets to the Engineer.

The elasticity limit for high yield steel shall be 400 Mpa minimum. A tensile test for each rod with diameter equal to or above 14mm shall be carried out at the Contractor's expense for each batch of steel delivered to site, with a minimum of 5 tests for the entire project. Each test shall involve 3 samples in conformity with the norms. The Contractor shall specify the type and quality of mild steel used.

TABLE 1: CONCRETE CLASSES AND STRENGTHS

STREET VOTIES					
INTENDED USE	CEMENT		MINIMUM STRENGTH AT 28 DAYS (in Mpa)		
	Nature	Dosage kg/m <sup>3</sup>	Compr.	Tensile	
B1 Blinding concrete	CEM II 42,5 N/R	150			
B2 Buried structures	CEM II 42,5 N/R	350	25	1,8	
B3 Normal structures Elevation	CEM II 42,5 N/R	350	25	1,8	

TABLE 2: CLASSES OF MORTAR

T / 1 1 2 2	Binde	Sand		
Intended Use	Designation	Dosage kg/m <sup>3</sup>	Grain size	Dosage
1 Bedding mortar	CEM II 42,5 N/R	350	0,08/5	1 000 1
2 Bonding mortar	CEM II 42,5 N/R	350	0,08/5	1 000 1
3 Cement plaster	CEM II 42,5 N/R	400	0,08/5	1 000 1
4 Lime cement plaster	CEM II 42,5 N/R	350	0,08/5	1 000 1

## THE DESIGN OF CONCRETE MIXES

## Design of proposed mixes

The Contractor shall design all the concrete mixes called for, utilizing only those ingredients which have been approved by the Engineer for use in the Works and in compliance with the following requirements:

- The aggregate portion shall be well graded from the nominal maximum size of stone down to the 150  $\mu m$  size.
- The cement content shall be such as to achieve the strengths called for in Table 1 for average conditions.
- Workability shall be consistent with ease of placing and proper compaction having regard to the presence of reinforcement and other obstructions.
- The water/cement ratio shall be the minimum consistent with adequate workability but in any case not greater than a maximum of 0,50.

## MODE OF EXECUTION OF WORKS

#### REINFORCED CONCRETE WORKS

## **Mixing Concrete**

The proposed mixes, the materials to be used and the methods of storage and mixing comply with the requirements of this Specification.

Cement and aggregates shall be batched by weight. Water may be measured by weight or volume.

The weighing and water dispensing mechanisms shall be maintained in good order. Their accuracy shall be maintained within the tolerance described in BS 1305 and checked against accurate weights and volumes when required by the Engineer.

The weight of cement and of each size of aggregate as indicated by the mechanisms employed shall be within a tolerance of plus or minus two per cent of the respective weights per batch agreed by the Engineer.

The Contractor shall provide standard test weights at least equivalent to the maximum working load used on the most heavily loaded scale and other auxiliary equipment required for checking the satisfactory operation of each scale or other measuring device.

The Contractor shall make any adjustments, repairs or replacements necessary to ensure the continuous satisfactory performance of weighing and water dispensing mechanism and their compliance with this Specification.

The nominal drum or pan capacity of the mixer shall not be exceeded. The turning speed and the mixing time shall be as recommended by the manufacturer, but in addition, when water is the last ingredient to be added, mixing shall continue for at least one minute after all the water has been added to the drum or pan.

The blades of pan mixers shall be maintained within the tolerances specified by the manufacturer of the mixer and the blades shall be replaced when it is no longer possible to maintain the tolerances by adjustment.

#### **Hand Mixed Concrete**

Concrete for structural purposes shall not be mixed by hand. Where non-structural concrete is required, hand mixing may be carried out subject to the agreement of the Engineer.

The mixing shall be done on a hard impermeable surface. The materials shall be turned over no less than three times dry, water shall then be sprayed on and the materials again turned over not less than three times in a wet condition and worked together until a mixture of uniform consistency is obtained.

For hand mixed concrete the specified quantities of cement shall be increased by 10% and not more than 0.5 cubic metres shall be mixed at one time.

During windy weather efficient precautions shall be taken to prevent cement from being blown away during the process of gauging and mixing.

## **Transport of Concrete**

Concrete shall be discharged from the mixer and transported to the works by means which shall prevent adulteration, segregation or loss of ingredients, and which shall ensure that the concrete is of the required workability at the point and time of placing. The loss of slump between discharge from the mixer and placing shall not exceed 25 mm.

The time elapsing between mixing and placing a batch of concrete shall be as short as practicable and in no case longer than shall permit completion of placing and compaction before the onset of initial set. Concrete shall not be incorporated in the Works after the onset of initial set has occurred.

## **Placing of Concrete**

(i) Consent for placing

Concrete shall not be placed in any part of the works until the Engineer's consent has been given in writing. The Contractor shall give the Engineer at least 24 hours notice of his intention to place concrete.

Concrete placing shall commence within 24 hours of the Engineer's consent. If the Contractor should fail to commence placing concrete within this period the Engineer's consent shall be deemed to be withdrawn and the Contractor shall again request consent as specified above.

# (ii) Preparation of surface to receive concrete

Excavated surfaces against which concrete is to be cast shall be prepared as set out in this Specification.

Existing concrete surfaces against which further concrete is to be cast shall be clean, hard, dry and sound.

Any flow of water into an excavation shall be diverted through proper side drains to a sump, or be removed by other suitable methods. The Contractor shall ensure that the freshly deposited concrete or any of its constituents are not washed away by any such flow. Any under-drains constructed for this purpose shall be completely grouted up when they are no longer required by a method agreed by the Engineer.

The preferred treatment for existing concrete surfaces against which fresh concrete is to be cast is that their aggregate shall be exposed whilst the existing concrete is still green by washing and brushing with a stiff bristled brush. Fresh concrete shall be cast against the un-wetted exposed aggregate surface.

Notwithstanding the preferred treatment of existing concrete surfaces, the Engineer may instruct that surfaces against which concrete is to be placed shall receive a prior coating of mortar comprised of materials in the same proportions as those of the fines portion of the concrete to be placed. The mortar shall be kept ahead of the concrete. The mortar shall be well worked into all parts of the excavated surface and shall be not less than 5mm thick.

The amount of mortar placed at any one time shall contain only half the normal quantity of coarse aggregate.

# (iii) Placing procedures

The first batch of any fresh concrete to be placed shall contain only half the normal quantity of coarse aggregate

The concrete shall be deposited as nearly as possible in its final position. It shall be placed so as to avoid segregation of the concrete and displacement of the reinforcement, other embedded items, or formwork. It shall be brought up in layers approximately parallel to the construction joint planes and not exceeding 500 mm in compacted thickness unless otherwise permitted or directed by the Engineer. Such layers shall not be thinner than four times the maximum nominal size of aggregate.

Layers shall be placed such that the formation of feather edges is avoided. Concrete shall not be placed on a previous layer, which has taken its initial set.

All the concrete in a single bay or pour shall be placed as a continuous operation. Concrete shall be carefully worked round all obstructions, irregularities in the foundations and the like such that all parts are completely full of compacted concrete with no segregation or honeycombing. Concrete shall be carefully worked round and between water stops, reinforcement, embedded steelwork and similar items which protrude above the surface of the completed pour.

All work shall be completed on each batch of concrete before its initial set commences and thereafter the concrete shall not be disturbed before it has set hard.

Concrete that has partially hardened during transit shall not be used in the works. The methods of transportation of fresh concrete from the mixer to the point of placing shall be such that this requirement can be complied with.

When concrete is discharged above its place of final deposition, segregation shall be prevented by the use of chutes, down pipes, trunking, baffles or other appropriate devices.

Forms for walls, columns and other thin sections of significant height shall be provided with openings or other devices that prevent segregation and accumulations of hardened concrete on the formwork or reinforcement above the level of the placed concrete.

When it is necessary to place concrete under water the Contractor shall submit to the Engineer his proposals for the method and equipment to be employed.

Concrete shall be deposited either by bottom-discharging watertight containers or trapdoor. Hoppers shall be continuously full of concrete up to a level above the water and shall be kept immersed in the concrete in order to reduce to a minimum the contact of the concrete with the water. Special care shall be taken to avoid segregation.

If the level of concrete in a hopper pipe should fall to such an extent that water enters the pipe, the hopper shall be removed from the pour and filled with concrete before being again lowered into the placing position. During and after concreting under water, pumping or de-watering in the immediate vicinity shall be suspended if there is any danger that such work will disturb the freshly placed concrete.

Concrete shall not be placed during rain which is sufficiently heavy or prolonged to wash mortar from coarse aggregate on the exposed faces of fresh concrete. Means shall be provided to remove any water accumulating on the surface of the placed concrete. Concrete shall not be deposited into such accumulations of water.

In drying weather all fresh concrete surfaces shall be protected with suitable covers. Water shall not be added to concrete for any reason.

## **Compaction of Concrete**

Concrete shall be fully compacted throughout the full extent of the placed layer. Concrete shall be thoroughly worked against the formwork and around any reinforcement and other embedded items, without displacing them. Particular care shall be taken as air-rises and other confined spaces. Successive layers of the same pour shall be thoroughly worked together. Concrete shall be compacted with the assistance of mechanical immersion vibrators unless the Engineer agrees another method.

Immersion vibrators shall operate at a frequency of between 7,000 and 10,000 impulses per minute. The Contractor shall ensure vibrators are operated at pressures and voltages not less than those recommended by the manufacturer in order that the compactive effort is not reduced.

A sufficient number of vibrators shall be operated to enable the quality of concrete being placed to be vibrated for the necessary period and, in addition, stand-by vibrator shall be available for instant use at each place where concrete is being placed.

Where the concrete contains aggregate with a nominal size of 75mm or more, vibrators with a diameter of 100mm or more shall be used.

Vibration shall be continued at each point until the concrete ceases to contract, a thin layer of mortar has appears on the surface and air bubbles have ceased to appear. Vibrators shall not be used to move concrete laterally and shall be withdrawn slowly to prevent the formation of voids.

Vibration shall not be applied by way of reinforcement nor shall vibrators be allowed to touch reinforcement or other embedded items. The vibrators shall be lowered vertically into the concrete such that penetration of the layer underneath is achieved. Vibration shall be carried out at a regular spacing, which shall not exceed the distance from the vibrator over which vibration is visibly effective.

The Engineer may instruct that concrete be re-vibrated to improve the surface finish of the concrete by reducing blowholes or to eliminate plastic settlement and plastic shrinking cracks. Concrete may be re-vibrated provided that it is still workable and the vibrator can penetrate the concrete under its own weight and the concrete closes on its removal.

## **Curing of Concrete**

#### General

Concrete shall be protected during hardening from loss of moisture and from the development of temperature differentials within the concrete sufficient to cause thermal cracking.

The methods used for curing shall not cause damage of any kind to the concrete. Curing shall be continued for as long as may be necessary to achieve the above objectives but in any case, for at least seven days or until the concrete is covered by later construction.

The curing process shall commence as soon as the concrete is hard enough to resist damage from the process, and in the case of large areas or continuous pours, shall commence on the completed section of the pour before the rest of the pour is finished.

Details of the Contractor's proposals for curing concrete shall be submitted to the Engineer for approval prior to any placing of concrete in the works.

#### **Protection of Fresh Concrete**

Freshly placed concrete shall be protected from rainfall and from water running over its surfaces until it is sufficiently hard to resist damage from these causes.

No traffic shall be allowed on any concrete surfaces until such time as it is hard enough to resist damage by such traffic.

Concrete placed in the works shall not be subjected to any loading until it has attained at least its nominal strength.

Where the Contractor desires to impose loads on newly placed concrete, he shall make at least three test cubes and cure them in the same conditions as the concrete they represent. Those cubes shall be tested singly at suitable intervals in order to estimate the time at which the nominal strength is reached.

## CONCRETE FOR SECONDARY PURPOSES

Non-structural concrete (NS concrete) shall be used only for non-structural purposes where shown on the Drawings.

NS concrete shall be composed of ordinary Portland cement complying with BS 12 and aggregates complying with BS 882 including all-in aggregate within the grading limit.

The weight of cement mixed with 0.3 m3 metres of combined or all-in aggregate shall not be less than 50 kg. The mix shall be proportioned by weight or by volume. The maximum aggregate size shall be 40 mm nominal.

The concrete shall be mixed by machine or by hand to a uniform colour and consistency before placing. The quantity of water used shall not exceed that required to produce a concrete with sufficient workability to be placed and compacted where required. The water/cement ratio shall not be more than 0.5.

The concrete shall be compacted by hand or by mechanical vibration.

Non-fines concrete (NF concrete) is intended for use where a porous concrete is required and shall only be used where shown on the Drawings or instructed by the Engineer.

The mix shall consist of ordinary Portland cement complying with BS 12 and aggregate complying with BS 882. The aggregate size shall be 40 mm to 10 mm only. The weight of cement mixed with 0.3 m3 metre of aggregate shall not be less than 50 kg. The quantity of water shall not exceed that required to produce a smooth cement paste, which will coat evenly the whole of the aggregate. The water/cement ratio shall not be more than 0.5.

#### FORMWORK FOR CONCRETE

**Definitions** 

Formwork means the surface against which concrete is placed to form a face, together with all the immediate supports to retain it in position while concrete is placed.

Falsework means the structural elements supporting both the formwork and the concrete until the concrete becomes self-supporting.

A formed face is one, which has been cast against formwork.

An exposed face is one, which remains visible after construction has been completed.

## CONSTRUCTION OF FORMWORK AND FALSEWORK

Formwork and falsework shall be so constructed that they will support the loads imposed on them, including but not limited to, those imposed by the fresh concrete, by the rate of placing concrete and by the methods of placing and compacting concrete such that, after the concrete has hardened, the formed faces shall be in the positions shown on the Drawings within tolerances limits.

Ground supports shall be properly founded on footings designed to prevent settlement. Due consideration shall be given to the effects on the foundation material if it should become wet.

Joints in formwork for exposed faces shall, unless otherwise specified be evenly spaced horizontally and vertically and shall be continuous or form a regular patter.

All joints in formwork, including formwork for construction joints, shall be secure against the escape of cement and fines. Where reinforcement projects through formwork, the form shall fit closely round the bars.

Formwork shall be so designed that it may be easily removed from the work without damage to the faces of the concrete. It shall also incorporate provisions for making minor adjustments in position, if required, to ensure the correct location of concrete faces. Due allowance shall be made in the position of all formwork for any movement, deflection or settlement under the weight of fresh concrete.

Where overhangs in formwork occur, means shall be provided to permit the escape of air and to ensure that the space is filled completely with fully compacted concrete.

Formwork shall be provided for concrete surfaces at slopes of 30° to the horizontal or steeper. Surfaces at slopes less than 20° may be formed by screeding. Surfaces at slopes between 20° and 30° shall generally be formed unless the Contractor can demonstrate to the satisfaction of the Engineer that such slopes can be screeded with the use of special screed boards to hold the concrete in place during vibration.

Horizontal or inclined formwork to the upper surface of concrete shall be adequately secured against uplift due to the hydraulic pressure of fresh concrete. Formwork for voids within the body of the concrete shall be secured against floatation.

Support for formwork may be bolted to previously placed concrete provided the type of bolt used is acceptable to the Engineer. If metal ties through the concrete should be used in conjunction with bolts, the metal left in place shall not be closer than 50 mm from the face of the concrete.

Formwork shall not be re-used after it has suffered damage which is sufficient to impair the finished surfaces of the concrete.

Where circumstances prevent easy access within the form for cleaning and inspection, temporary openings for this purpose shall be provided through the formwork.

Shear keys shall be provided in all construction joints of the size and shape indicated on the Drawings

Where precast concrete elements are specified or proposed by the Contractor and agreed by the Engineer for use as permanent formwork, they shall comply with the requirement of this Specification. Such elements shall be set through to line and level within the tolerances prescribed for the appropriate class of finish and fixed so that they cannot move when concrete is placed against them.

## Removal of Formwork

Formwork shall be carefully removed without shock or disturbance to the concrete. No formwork shall be removed until the concrete has gained sufficient strength to withstand safely any stresses to which it may thereby be subjected.

The minimum periods which shall elapse between completion of placing concrete and removal of forms are given in Table 3 and apply to ambient temperatures higher than 10°C. At lower temperatures or if cement other than ordinary Portland are involved, the Engineer may instruct different periods.

## REINFORCEMENT FOR CONCRETE

Reinforcement which shall comply with the following British Standards, cover plain and deformed bar reinforcement and steel fabric to be cast into concrete in any part of the Works but does not include prestressing tendons or any other embedded steel.

BS 4449 for carbon steel bars for the reinforcement of concrete

BS 4482 for cold reduced steel wire for the reinforcement of concrete

BS 4483 for steel fabric for the reinforcement of concrete

All reinforcement shall be from an approved manufacturer and, if required by the Engineer, the Contractor shall submit a test certificate from the manufacturer.

All reinforcement for use in the Works shall be tested for compliance with the appropriate British Standard in a laboratory acceptable to the Engineer and two copies of each test certificate shall be supplied to the Engineer.

The frequency of testing shall be as set out in the British Standard. In addition to the testing requirements above the Contractor shall carry out further tests as instructed by the Engineer.

Any reinforcement which does not comply with the Specification shall be removed from Site.

## Storage of Reinforcement

All reinforcement shall be delivered to Site either in straight lengths or cut and bent; Reinforcement shall be rejected if it should be delivered to Site in long lengths, which have been bent over double.

Reinforcement shall be stored on site on racks or on a hard impermeable base that it remains straight and free from contamination. Any reinforcement which is likely to remain in storage for a long period shall be protected from the weather so as to avoid corrosion and pitting. All reinforcement which has become corroded or pitted to an extent which, in the opinion of the Engineer, will affect its properties shall be removed from Site.

## **Cutting and Bending Reinforcement**

Unless otherwise shown on the drawings, bending and cutting shall comply with BS 4466.

Before the bars are cut to length the Contractor shall satisfy himself as to the accuracy of any bar bending schedules supplied and shall immediately notify the Engineer if there should be a discrepancy between the schedule and the drawing to which it relates. The Contractor shall be responsible for cutting, bending, and fixing the reinforcement in accordance with the Drawings.

Bars shall be bent by the application of slow steady pressure.

After bending, bars shall be securely tied together in bundles of groups and legibly labelled as set out in BS 4466.

Reinforcement shall be thoroughly cleaned and all dirt, scale, loose rust, oil and other contaminants removed before it is place in the Works.

#### SURFACE FINISHES AND CONSTRUCTION TOLERANCES

The classes of surface finish to be achieved on the formed concrete surfaces shall be as shown on the drawings and defined hereunder:

## Class C1 Finish (from C1 Formwork)

This finish is for surfaces against which backfill or further concrete is to be placed. Formwork may be sawn boards, sheet metal or any other suitable material capable of preventing the loss of fine material from the concrete being placed.

#### Class C2 Finish (from C2 Formwork)

This finish is for surfaces that shall not be altered after the removal of the formwork, with the exception that any accidental undesired spots shall be removed and the holes or depressions filled up. Finished surface discolouration and other minor defects shall be remedied by methods agreed by the Engineer.

#### Class C3 Finish (from C3 Formwork)

The formwork should be such that the resulting concrete surfaces are smooth, free of protrusion, depressions or other similar defects. Formwork joints should be sand papered to prevent them from being visible.

Surfaces and hips shall be perfectly finished. It is hereby specified that all concrete surface depressions which cannot be corrected by the painter's fill shall be corrected as directed by the Engineer.

The Contractor for the Building shall ensure that all surfaces to be painted are fine finished to enable painting works to be executed in accordance with the current state of art.

All parts of formed concrete surfaces shall be in the positions shown on the Drawings within the tolerances set out in Table 4 and subject to the following conditions:

- a. The tolerances shall not be cumulative and the total tolerance for any surface shall not exceed the maximum value shown in Table 4 of C1, C2, or C3 for the particular class of finish.
- b. The total tolerance permitted between the opposite faces in the least dimension of a member shall not exceed the greater of:
  - Φ 10 mm,
  - $-\Phi$  16 mm per 1000 mm between faces,
- c. The tolerance permitted on the greater dimension of a member shall not exceed  $\Phi$  10mm for each 15m length,
- d. The tolerance in respect of bowing from the intended straight line shall not exceed the following:
  - Length of member up to 5m, 4 mm deviation
  - Length of member up to 10m, 6mm deviation
  - Length member up to 15m, 8 mm deviation

In cases where the Drawings call for tolerances other than those given in Table 4, the Drawings shall take precedence.

#### Remedial Work to Defective Surfaces

If, on stripping any formwork, the concrete surface should be found to be defective in any way, the Contractor shall make no attempt to remedy such defects prior to the Engineer's inspection and the receipt of any instructions, which the Engineer may give.

Defective surfaces shall not be made good by plastering.

Areas of honeycombing which the Engineer agrees may be repaired shall be cut back to sound concrete or to 75 mm whichever is the greater distance. In the case of reinforced concrete the area shall be cut back to at least 25 mm clear distance behind the reinforcement or to 75 mm, whichever

is the greater distance. The cavity shall have sides at right angles to the face of the concrete. After cleaning out with water and compressed air the cavity shall then be filled immediately with concrete of the same class as the main body but with aggregate larger than 20 mm nominal size removed. A form shall be used against the cavity, provided with a lip to enable concrete to be placed. The form shall be filled to a point above the top edge of the cavity.

After seven days the lip of concrete shall be broken off and the surface ground smooth.

Surface irregularities which are outside the limits of tolerance shall be ground down to achieve transition slopes of less than 1 in 50 between adjacent surfaces in the manner and to the extent instructed by the Engineer. Defects other than those mentioned above shall be dealt with as instructed by the Engineer.

#### LOTS

The project is presented into one (01) single lot

#### PERSONNEL

- **Site Supervisor:** At least a seasoned higher technician in Rural Engineering or Civil Engineering having at least three (03) years of work experience.
- **Site Foreman:** At least a seasoned technician in Rural Engineering or Civil Engineering having at least three (03) years of work experience
- Unskilled labourers. They shall be in charge of clearing of the site, maintenance of traffic during work, assist the pegging, etc.

#### **EXECUTION PERIOD**

The execution period for this project is two (02) months

Document N°6: Schedule of unit prices

# SCHEDULE OF UNIT PRICES FOR THE OPENING OF A 1.50KM OF RIVER COURSE AND THE CONSTRUCTION OF 15.00LM OF RETAINING WALL AT THE BABUNGO MAIN FARM

S/N	DESCRIPTION	UNIT	UNIT PRICE IN FIGURES (FCFA)	UNIT PRICE IN WORDS (FCFA
A	PRELIMINARY WORKS		, ,	(2 0111
110	Site installation /folding up	ls		
120	Clearing, surveying and pegging	ls		
130	Setting out of structure	ls	3 - 1	
140	Signalisation	ls	Agentia of the second	
В	OPENING OF 1.5KM OF MAIN	N IRRIG	ATION CANAL	
	200: EARTH WORKS		ATTON CANAL	
210	Mechanical cleaning of dyke road (bulldozing)	km		
220	Recharging/Moulding and compaction of dyke road	m3		
230	Mechanical opening of main canal	lm		
C	CONSTRUCTION OF 15LM	I REINF	ORCED CONCRETE	C DAM WALL
	200: EARTH WORKS			DANT WALL
210	General excavation/opening of area	m3		
220	Excavation of foundation trench	m3		
230	Backfilling and compaction for up to 50m long behind Dam wall with rubble material from borrowed pit	m3		
	300: REINFORCED CONCRET	E WORK	XS .	
301	Lean concrete for the footing base (10cm thick) dosed at 150kg/m3	m3	90,000	587,700
	Construction of reinforced concrete footing of 15.0*4.10*0.45m dosed at 400kg/m3	m3	250,000	9,225,000
302	Construction of reinforced stem of 15.0*2.40*0.60m dosed at 400kg/m3	m3	250,000	5,400,000
305		1		

# **SUMMARY**

S/N	DESCRIPTION OF TASKS	AMOUNT
A	PRELIMINARY WORKS	
В	OPENING OF 1.5KM OF MAIN IRRIGATION CANAL	
С	CONSTRUCTION OF 15ML DAM WALL IN REINFORCED CONCRETE AND BACKFILLING OF THE EXISTING RIVER COURSE (50M LONG MINIMUM)	
	GRAND TOTAL EXCLUDING TAXES	
	TVA (19.25%)	
	GRAND TOTAL INCLUDING TAXES	

Signature

(Date, signature and stamp of bidder)

Document N°7: Bill of Quantities and Estimate

# BILL OF QUANTITIES AND COST ESTIMATE FOR THE OPENING OF A 1.50KM OF RIVER COURSE AND THE CONSTRUCTION OF 15.00LM OF RETAINING WALL AT THE BABUNGO MAIN FARM

110		UNIT	Q'TY	PRICE (FCFA)	AMOUN' (FCFA)
110	PRELIMINARY WORKS			(= 0111)	
	Site installation /folding up	ls	1.00		
120	Clearing, surveying and pegging	ls	1.00		
130	Setting out of structure	ls	1.00		
140		ls	1.00		
	TOTAL WITHOUT TAXES A	15	1.00		
В	OPENING OF 1 5KM OF MAN				
	OPENING OF 1.5KM OF MAIN 200: EARTH WORKS	VIRRIG	ATION CA	ANAL	
210	Machani 1 1 1	km	2.50		
220	Recharging/Moulding and compaction of dyke road	m3	1,496.78		
230	Mechanical opening of main canal	lm	1,500	- 22	
	Subtotal 200				
	TOTAL WITHOUT TAXES B				
C	CONSTRUCTION OF 15LM 200: EARTH WORKS	REINFO	RCED CO	ONCRETE DA	M WALL
210	General excavation/opening of area	m3	48		
220	Excavation of foundation trench	m3	60		
230	Backfilling and compaction for up to 50m long behind Dam wall with rubble material from borrowed pit	m3	500		
	SUBTOTAL 200				
	300: REINFORCED CONCRETE	WORK	S		
501	Lean concrete for the footing base (10cm thick) dosed at 150kg/m3	m3	6.53		
	Construction of reinforced concrete footing of 15.0*4.10*0.45m dosed at 400kg/m3	m3	36.9		
02 (	400kg/m3	m3	21.6		
05	Other related finishings	LS	1.00		
	SUBTOTAL 300 FOTAL WITHOUT TAXES C1				

**SUMMARY** 

	SCIVILIZA	
S/N	DESCRIPTION OF TASKS	AMOUNT
A	PRELIMINARY WORKS	121.20 0111
В	OPENING OF 1.5KM OF MAIN IRRIGATION CANAL	
С	CONSTRUCTION OF 15ML DAM WALL IN REINFORCED CONCRETE AND BACKFILLING OF THE EXISTING RIVER COURSE (50M LONG MINIMUM)	
	GRAND TOTAL EXCLUDING TAXES	
	TVA (19.25%)	
	GRAND TOTAL INCLUDING TAXES	

The cost estimate for this project stands at	(	,
FCFA Tax Inclusive		_

Signature (Date, signature and stamp of bidder)