

REPUBLIC OF CAMEROON  
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REPUBLIQUE DU CAMEROUN  
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MINISTRY OF DECENTRALIZATION AND LOCAL DEVELOPMENT  
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**BAMENDA CITY COUNCIL**  
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INTERNAL TENDERS BOARD

PROJECT OWNER: THE CITY MAYOR OF BAMENDA CITY COUNCIL

CONTRACTING AUTHORITY: THE CITY MAYOR OF BAMENDA CITY COUNCIL

TENDERS BOARD: BAMENDA CITY COUNCIL INTERNAL TENDERS

**REQUEST FOR QUOTATION N°002  
/RQ/BCCITB/2025 of 01/10/2025 FOR THE  
MAINTENANCE OF SOME TARRED ROADS IN  
BAMENDA I SUB-DIVISION**

FINANCING: BAMENDA CITY COUNCIL 2025 BUDGET

Budget head: 23511

FINANCIAL YEAR 2025

REQUEST FOR QUOTATION

SEPTEMBRE 2025

Re 17/10/25-

## *Summary*

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Documentn°0: Letter of  
invitation to  
tender

*(Not relevant)*

Document n° 1: Notice of  
consultation of  
the Request for  
quotation



MINISTRY OF TERRITORIAL ADMINISTRATION & DECENTRALISATION

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**BAMENDA CITY COUNCIL**

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**INTERNAL TENDERS BOARD**

**INVITATION TO TENDER**

**Request for Quotation N°002/RQ/BCC/ITB/2025 of 05/09/2025 for the maintenance of some tarred roads in Bamenda I Sub-Division**

**1. Subject of the invitation to quote:**

In order to improve on the state of tarred roads in Bamenda I Sub-Division, the City Mayor of Bamenda City Council hereby launches a **Request for Quotation** for the maintenance of some tarred roads in Bamenda I Sub-Division.

**2. Nature and composition of works:**

The maintenance shall include: Site Installation, Stripping of existing roadway, Preparation of the plat-form, Base course in laterite, Impregnation, Maintenance of potholes with double coat surface dressing, and Cleaning of ditches in concrete or masonry.

**3. Execution deadline**

The maximum duration of execution provided for by the Contracting Authority shall be two calendar (02) months, as from the date of notification of the Service Order to start work.

**4. Number of lots**

The works in this tender are regrouped in a unique lot. The roads to be maintained include;

N°	ROADS
1	Finance Junction – Custom Junction
2	Army Camp - Ecole de Champion

**5. Submission method:**

The submission method retained for this Request for Quotation is **online**.

**6. Estimated cost**

The estimated cost of the works following prior studies stands at **twenty million four hundred and ninety-nine thousand seven hundred and forty three (20,499,743) Francs CFA** inclusive of all taxes.

**7. Participation and origin**

Participation to this consultation is open to all registered and categorized enterprises with proven experience in building construction and public works.

**8. Financing**

The works to be executed in this Request for Quotation shall be financed by the Investment Budget of the Bamenda City Council for 2025 financial year, Head 23511

**9. Consultation of consultation file:**

The file may be consulted during working hours at the SIGAMP Service Bamenda City Council, Tel: 233 36 12 67 and COLEPS Platform [www.publiccontracts.cm](http://www.publiccontracts.cm) or [www.marchespubliques.cm](http://www.marchespubliques.cm), upon publication of the Tender Notice

**10. Acquisition of consultation file:**

The file may be obtained from the office of the SIGAMP Service of Bamenda City Council, Tel: 233 36 12 67 as soon as this notice is published against payment of a non-refundable sum of **thirty four thousand eight hundred (34,800) CFA francs** payable at the Bamenda City Council Treasury under the budgetary head 712 101.

**11. Submission of Quotations:**

*Each quotation shall be drafted in English or French.*

The quotation shall be forwarded by the bidder on the COLEPS platform [www.publiccontracts.cm](http://www.publiccontracts.cm) or [www.marchespubliques.cm](http://www.marchespubliques.cm) latest the **02/10/2025 at 10am Server time**. A back up copy of the quotation recorded on a USB key or CD/DVD shall be forwarded in a sealed envelope with the clear and readable inscription "backup copy", in addition to the inscription above within the deadline set.

**12. Bid bond**

Each bidder must include in his administrative documents, a bid bond or its equivalent issued by a first rate-bank or insurance company accompanied by a CDEC receipt approved by the Ministry in charge of Finance featuring in Request for Quotation of the amount of **four hundred and ten thousand (410,000) Francs CFA** and valid for thirty (30) days beyond the original date of validity of the bids. Bid bonds for unsuccessful bidders shall be withdrawn not later than fifteen

(15) days after the award of the contract and that of successful bidder shall be retained until the required performance guarantee for good execution is provided. Bearing a fiscal stamp

### 13. Admissibility of bids

For fear of being rejected, only scanned originals or true copies certified by the issuing service or administrative authorities must imperatively be produced in accordance with the Special Regulations of the invitation to tender.

They must obligatorily be not older than three (3) months preceding the date of submission of bids or may be established after the signature of the tender notice except CNPS with a validity of one month.

Any bid not in compliance with the prescriptions of the Tender File shall be declared inadmissible. This refers especially to the absence of a bid bond issued by a first-rate bank approved by the Minister in charge of Finance.

### 14. Opening of bids:

The opening of the bids in one phase shall be done on the **23/10/2025 at 11.00 am** prompt in the Conference Hall of the Bamenda City Council Internal Tender Board by the board members. Only bidders may attend or be duly represented by a person of their choice, who has full knowledge of the file and mandated in that capacity. The bidder is expected to submit a back-up copy of the bids in a USB key sealed in an envelope.

### 15. Evaluation criteria

#### 15.1 Eliminary criteria

These criteria fix the minimum conditions to be met to qualify for evaluation according to the essential criteria. They should not be the subject of scoring. The non-respect of these criteria shall lead to the rejection of the bid by the Internal Tenders' Board of the Bamenda City Council. They include:

1. Failure to produce within 48 hours after bids opening of an administrative document deemed non-compliant or absent other than the bid bond;
2. Absence or insufficient bid bond at bid opening;
3. Forged, falsified or fake document;
4. Execution deadline more than **two (02)** calendar months
5. Non respect of **two (02)** of the essential criteria;
6. Absence of a quantified unit price;
7. Absence of an element in the financial bid ( the submission letter, the UPS, BQE);
8. Non-compliance with the submission model;
9. Absence of categorization certificate or result of categorization certified;
10. Non respect of the conditions of the contract;

#### 14.1 Essential criteria

The essential criteria are key points used to judge the technical and financial capacity of candidates to execute the works which are the subject of the invitation to tender. The criteria relating to the qualification of candidates could indicatively be on the following:

- Presentation of bid;
- Reference of the company;
- Access to a credit line or other financial resources;
- Qualification and experience of the Personnel of the company;
- Proof of acceptance of conditions of the contract;
- The methodology;
- The execution deadline;

### 16. Award

The contracts shall be awarded to the bidder whose bids shall be judged technically qualified in compliance with the request for quotation file and is evaluated as the lowest, following article 99 of public contract code.

### 17. Validity of bids

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

### 18. Complementary information

Complementary technical information may be obtained during working hours from SIGAMP Service at the Bamenda City Council, Tel: 233 36 12 67 and COLEPS Platform [www.publiccontracts.cm](http://www.publiccontracts.cm) or [www.marchespubliques.cm](http://www.marchespubliques.cm), upon publication of the tender.

#### Copies:

- MINMAP
- PCRA
- SIGAMP Service- BCC
- Notice Boards
- Chairperson of ITB

Bamenda, the 4 1 111 201  
The City Mayor Bamenda City Council  
(Contracting Authority)

  
Achobong Tambeng Paul



MINISTRY OF DECENTRALIZATION & LOCAL DEVELOPMENT

**BAMENDA CITY COUNCIL**

INTERNAL TENDERS BOARD

**AVIS D'APPEL D'OFFRES**

Demande de Cotation N°002/DC/CUB/CIPM/2025 of 01/10/2025 pour l'entretien de certaines routes goudronnées dans l'arrondissement de Bamenda I

**1. Objet de la consultation**

Afin d'améliorer l'état des routes goudronnées dans l'arrondissement de Bamenda I, le Maire de la Ville de Bamenda City Council lance par la présente une Demande de Devis pour l'entretien de certaines routes goudronnées dans l'arrondissement de Bamenda I.

**2. Nature et Consistance de la rénovation**

L'entretien comprendra : l'installation du chantier, le décapage de la chaussée existante, la préparation de la plate-forme, la couche de base en latérite, l'imprégnation, l'entretien des nids-de-poule avec un enduit superficiel double couche et le nettoyage des fossés en béton ou en maçonnerie.

**3. Délais d'exécution**

La durée maximale d'exécution prévue par le Maître d'Ouvrage est de deux (02) mois calendaires, à compter de la date de notification de l'Ordre de Service de démarrage des travaux.

**4. Allotissement:**

Les routes comme indiqué dans le tableau ci-dessous sont regroupés dans un unique lot

N°	Route
1	Finance Junction – Custom Junction
2	Army Camp - Ecole de Champion

**5. Mode de soumission**

Le mode de soumission retenu pour cette Demande de Cotation est en ligne.

**6. Coût prévisionnel**

Le coût estimé des travaux suite aux études préliminaires est de vingt millions quatre cent quatre-vingt-dix-neuf mille sept cent quarante-trois (20,499,743) Francs CFA tout taxes comprises.

**7. Participation et origine**

La participation à cette consultation est ouverte à toutes les entreprises enregistrées et catégorisées ayant une expérience avérée dans la construction de bâtiments et de travaux publics.

**8. Financement**

Les travaux, objet du présent appel d'offres sont financés par les Budgets d'Investissement de la Communauté Urbaine de Bamenda au titre de l'exercice 2025, imputation 23511

**9. Consultation du Dossier d'Appel d'Offres**

Le dossier peut être consulté aux heures ouvrables à la Direction des Services SIGAMP, Communauté Urbaine de Bamenda Tel : 677 85 03 32 et COLEPS Platform [www.publiccontracts.cm](http://www.publiccontracts.cm) or [www.marchespubliques.cm](http://www.marchespubliques.cm), dès publication du présent avis.

**10. Acquisition du Dossier d'Appel d'Offres**

Le dossier peut être obtenu au bureau du Directeur des Services SIGAMP, Communauté Urbaine de Bamenda dès publication du présent avis, contre versement d'une somme non remboursable de trente-quatre mille huit cents (34,800) Francs CFA payable à la Recette Municipale de la Communauté Urbaine de Bamenda sur la ligne d'imputation budgétaire n° 712 101.

**11. Remise des offres:**

Chaque cotation est rédigée en français ou en anglais.

La cotation devra être transmise par le soumissionnaire sur la plateforme COLEPS au plus tard le 23/10/2025 à 10 :00am. heure du serveur. Une copie de sauvegarde de la cotation enregistrée sur clé USB ou CD/DVD devra être transmise sous pli scellé avec l'indication claire et lisible « copie de sauvegarde », en plus de la mention ci-dessus dans les délais impartis.

**12. Caution de soumission**

Chaque soumissionnaire devra joindre à ses pièces administratives une cautionnement provisoire (garantie bancaire de soumission) ou son équivalence établie, selon le modèle indiqué dans le dossier d'Appel d'Offres, par un établissement bancaire accompagné d'un reçu CDEC agréé par le Ministère des Finances et d'un montant de quatre cent neuf mille neuf cent quatre-vingt-quinze (409,995) Francs CFA valable trente (30) jours après l'expiration de la validité des offres.

Le cautionnement provisoire sera libéré d'office au plus tard trente (30) jours après l'expiration de la validité des offres pour les soumissionnaires n'ayant pas été retenus. Dans le cas où le soumissionnaire est attributaire de la lettre commande, le cautionnement provisoire sera libéré après constitution du cautionnement définitif.

**13. Recevabilité des offres**

Sous peine de rejet, les pièces du dossier administratif requises doivent être produites en originaux numérisés ou copies certifiées conformes par le service émetteur ou une autorité administrative (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 exception du document CNPS dont la validité est d'un mois.

Toute offre incomplète conformément aux prescriptions du Dossier d'Appel d'Offres sera déclarée irrecevable.

#### 14. Ouverture des plis

L'ouverture des offres aura lieu en un temps le 23/10/2025 à 11 heures précises dans la salle de Conférence de la Communauté Urbaine de Bamenda par la Commission Interne de Passation de Marché.

Seuls les soumissionnaires peuvent assister à cette séance d'ouverture ou s'y faire représenter par une personne de leur choix ayant une parfaite connaissance du dossier et mandater à cet effet.

Le soumissionnaire doit soumettre une copie sauvegarde des offres dans une clé USB scellée dans une enveloppe.

#### 15. Critères d'évaluation

Les critères d'évaluation sont constitués de deux types : les critères éliminatoires et les critères essentiels. Ces critères ont pour objet d'identifier et de rejeter les offres incomplètes ou non conformes pour l'essentiel aux conditions fixées dans le Dossier d'Appel d'Offres relatives notamment à la recevabilité des pièces administratives, à la conformité de l'offre technique aux spécifications techniques du DAO et à la qualification des candidats.

##### 15.1 Critères éliminatoires

Ces critères ont pour objet d'identifier et de rejeter les offres incomplètes ou non conformes pour l'essentiel aux conditions fixées dans le Dossier d'Appel d'Offres relatives notamment à la recevabilité des pièces administratives et à la qualification technique des candidats.

Ces critères sont les suivants :

- la non-production dans un délai de 48h après l'ouverture des plis, d'une pièce du dossier administratif;
- Absence de la caution de soumission ou son équivalence;
- Fausse déclaration ou pièce falsifiée ;
- L'absence d'un prix unitaire quantifié;
- L'absence d'un élément de l'offre financière (la soumission, les BPU, le DQE) ;
- Non-respect du modèle d'appel d'offres;
- Délai d'exécution au-delà de celui prescrit.
- Le non-respect de 2 de critères essentiels;
- Acceptation sous conditions du contrat ;
- Absence de certificat de catégorisation ou de résultat de catégorisation certifié ;
- Non-respect des conditions du contrat

##### 15.2. Critères de qualification

Les critères relatifs à la qualification des candidates porteront sur:

- la présentation de l'offre;
- les références du soumissionnaire ;
- la capacité financière (l'accès à une ligne de crédit ou autres ressources financières)
- la qualification et l'expérience du personnel
- la méthodologie
- le délai d'exécution

#### 16. Attribution

Le contrat sera attribué au soumissionnaire dont l'offre est conforme pour l'essentiel aux dispositions du demande de devis, et qui a présenté l'offre évaluée la moins-disant et techniquement qualifiée, conformément à l'article 99 du Code des lettres commandes Publiques.

#### 17. Durée de validité des offres

Les soumissionnaires restent engagés par leurs offres pendant une période de quatre -vingt -dix (90) jours, à compter de la date limite fixée pour la remise des offres.

#### 18. Renseignements complémentaires

Les renseignements complémentaires peuvent être obtenus aux heures ouvrables auprès de la Direction des Services SIGAMP de la Communauté Urbaine de Bamenda Tel: 677 85 03 32 et COLEPS Platform [www.publiccontracts.cm](http://www.publiccontracts.cm) or [www.marchespubliques.cm](http://www.marchespubliques.cm).

#### Copies:

- MINMAP,
- ARMP,
- Présidents CPM,
- SIGAMP Service- CUB,
- Affichage

Fait à Bamenda, le.....

**Le Maire de la ville**

**Communauté Urbaine de Bamenda**  
(Autorité Contractant)

  
**Achobong Tambeng Paul**

Document n° 2: Rules of the  
consultation

## 2.1 CONSULTATION FILE

### Article 1: Contents of the consultation file

- 1.1 The consultation file describes the works which are subject to a certain category of jobbing order, lay down in the consultation procedure and conditions of the jobbing order.
- 1.2 The consultation file shall comprise the following documents:
  - a. the notice of consultation of the Request for quotation;
  - b. the technical specifications;
  - c. the description of prices;
  - d. the unit price schedule;
  - e. the cost estimate;
  - f. the sub-detail of unit prices;
  - g. the model tender;
  - h. the draft jobbing order;
  - i. the model bid comparison table;
  - j. The model documents or forms to be used by bidders:
    - The model bidding letter;
    - The model bid bond, where necessary;
    - The model final bid bond;
    - The model start-off advance bond;
  - k. The model performance bond in replacement of the guarantee retention, where necessary
  - l. List of banking establishments and financial institutions authorised to issue bonds for Public Contracts.
- 1.3 The Contractor shall study the instructions, models, conditions and specifications contained in the consultation file.

## 2.2 BID PREPARATION

### Article 2: Language

The bid as well as any correspondence comprising the bid shall be written in English or French.

### Article 3: Documents comprising the bid

The bid presented by the Contractor shall comprise the following documents duly filled and grouped a single (1):

- (a) **Volume 1 or Part A: comprising the following administrative documents:**
  - i) A letter of intention to bid; signed and stamped with a fiscal stamp;
  - ii) Certificate of Non-bankruptcy issued by the Court of First Instance or the chamber of commerce in the head office enterprise;
  - iii) Attestation of fiscal conformity less than 3 month old;
  - iv) An attestation of non-exclusion from public contracts issued by the body in charge of regulating public contracts;
  - v) A clearance certificate of less than one months old, issued by the National Social Insurance Fund testifying that the bidder has fulfilled all his obligations vis-à-vis-the said Institution;
  - vi) The bid bond (following the attached model) of an amount of **four hundred and ten thousand (410,000) Francs CFA** and valid for thirty (30) days beyond the original date of validity of the bids, issued by a first-rate financial institution approved by the Cameroon Ministry of Finance to issue bonds for public contracts or any other form provided by the regulation in force (certified cheque, bank cheque, legal mortgage) and accompanied by a CDEC receipt;
  - vii) The bidder's bank attestation issued by a banking establishment authorised by the Cameroon Ministry in charge of Finance;

- viii) The group agreement if applicable;
- ix) The power of attorney, if applicable;
- x) The Request for Quotation purchase receipt of a non-refundable sum of **thirty four thousand eight hundred (34,800) CFA francs** payable at the Bamenda City Council Treasury under the budgetary head 712 101.
- xi) The categorisation certificate or results of categorization certificate by Regional or Divisional Delegate of MINMAP.

**(b) Volume 2 or Part B: comprising the following technical justifications:**

- i) The tender letter of the technical proposal less than or equal to 3 years;
- ii) **The bidder references form** with the justifications;
- iii) **The key personnel form** with certificates and CV;
- A list of qualified key personnel for the execution of works following the model attached to the Request for Quotation

**NB:** Require, for the personnel proposed, a copy of the certificate and experience supporting documents, namely:

- Certified true copy of the certificate of less than three (3) months old;
- An attestation of membership in national orders/professional associations, as the case may be;
- Expert's dated and signed Curriculum Vitae;
- Expert's dated and signed attestation of availability;
- Work attestation or contract, as the case may be.

**NB: All the documents mentioned above should be certified true copies, signed and dated of less than three months from the original date limit for the submission of bids.**

iv) **The form of equipment to be mobilised** with justifications, where necessary;

a list of equipment to be mobilised shall comprise at least: (to be specified)

**NB :** Attach the certified copies of registration documents for rolling stock certified by the relevant issuing services, or the purchase invoice(s) for those certified by a relevant authority and mentioning the seller's taxpayer's number, along with a commitment for hiring the equipment signed by both parties, if applicable,

v) **Technical proposal or execution methodology**

The bidder shall provide a descriptive or methodological note presenting in a detailed manner the constituent elements of his technical proposal,

Namely, where applicable:

- a) The organisation as well as the mechanism he intends to put in place to efficiently execute the works to which is attached the site visit report or the sworn statement;
- b) the schedule, planning and deadline to complete works;
- c) the arrangement envisaged to use local manpower (HIMO approach);
- d) The provisions regarding compliance with environmental measures, where applicable;

vi) ***The bidder shall fill and subscribe the following forms:***

- The integrity charter;
- The commitment statement to comply with social and environmental clauses.

vii) ***The proofs of having accepted the conditions of the contract***

The bidder shall submit copies duly initialled on each page and signed on the last preceded by the indication « read and approved », of the following documents:

- The draft jobbing order with all the pages initialled, stamped, dated and signed on the last page.;
- The special technical clauses or the ToR if applicable.

**NB:** not accepting the contract clauses shall lead to the elimination of the bidder.

viii) ***The financial capacity;***

Bidders shall present, namely:

- The attestation of financial capacity of an amount of 75% of the project cost issued by an authorised first-rate bank,

**(c) Volume 3 or Part C Comprising the following financial justifications:**

- i) The stamped bidding letter prepared according to the model, dated and signed;
- ii) The Descriptive Unit Price Schedule duly filled, dated and signed;
- iii) The quantity and cost estimate filled, duly dated and signed.
- iv) The sub detail of unit prices.

NB: The various parts of the same file shall be separated by colour dividers other than the white colour in the original as well as the copies, so as to facilitate its examination.

**Article 4: Indication of prices**

4.1 The bidder shall specify in the bidding letter the place of execution and the nature of prices;

- a. Excluded of taxes on the added value (EVAT)  
**and**
- b. all taxes inclusive (ATI),

4.2 The bidder shall fill in the descriptive and quantity framework schedule provided for in the Request for Quotation file indicating the unit prices, the total price for each task in execution of the jobbing order to be drafted after this request for quotation.

**Article 5: Quotation currencies**

Prices shall be written in CFA Francs.

**Article 6: Quotation validity time-limit**

Quotations shall be valid for the period stated in the Request for quotation notice.

The period of the validity of bids shall be ninety (90) days from the date limit for the submission of offers.

**2.3 SUBMISSION OF QUOTATION**

**Article 7: Submission method**

The submission method retained for this Request for Quotation is online.

**Article 8: Preparation and submission of quotations**

Files size and format:

**For online bidding**, the maximum sizes of documents that will transit on the platform and representing the bidder's quotation are the following:

- 5 MB for the Administrative Quotation;
- 15 MB for the Technical Quotation;
- 5 MB for the Financial Quotation

The authorised formats are the following:

- PDF format for all text documents;
- JPEG for images.

The candidate shall ensure to use compression software in order to eventually reduce the size of files to be forwarded].

**For the submission of bids electronically**, the quotation shall be forwarded by the bidder on the COLEPS platform. A back up copy of the quotation recorded on a USB key or CD/DVD shall be submitted at the office of the Project Owner or Delegated Project Owner concerned in a sealed envelope bearing the clear

and readable inscription “backup copy” and the references of the request for quotation within the indicated time-limit]

*[For online bidding, they shall be forwarded electronically through the COLEPS platform available at the address <http://www.marchespublics.cm> or <http://www.publiccontracts.cm>]*

## **2.4 OPENING AND EVALUATION OF QUOTATIONS.**

### **Article 10: Opening of bids by the Tenders Board**

10.1 The Bamenda City Council Internal Tenders Board shall open the bids in the presence of representatives of Contractors wishing to attend the bid-opening session holding on the same day as the day of submission of bids and within one hour following the submission of bids.

Only bidders may attend this opening session or be represented by a person of their choice duly authorized even in case of group undertakings.

**Fore fear of being rejected, only originals or true copies certified by the issuing service or competent administrative authorities for the administrative documents required shall be produced in accordance with the provisions of the Special Regulations of the invitation to tender. They must not be older than three (3) months from the original date limit for the opening of bids or shall be signed before the date of signature of the Request for Quotation notice.**

In case of absence or non-conformity of a document in the administrative file during the opening of bids, the bidders concerned shall be granted a 48(forty-eight) hours deadline to submit or replace the document in question.

10.2 The Tenders Board shall draft the minutes of the bids opening session, which can be a bidder on request.

### **Article 11: Evaluation and comparison of quotations**

The Tenders Board shall evaluate the quotations in the following order:

11.1- Verification of the compliance of offers on the basis of the following.

It should be understood that no criteria shall be eliminatory and essential at the same time

#### **11.1 a. Eliminatory criteria**

These criteria fix the minimum conditions to be met to qualify for evaluation according to the essential criteria. They should not be the subject of scoring. The non-respect of these criteria shall lead to the rejection of the bid by the Internal Tenders' Board of the Bamenda City Council. They include:

1. Failure to produce within 48 hours after bids opening of an administrative document deemed non-compliant or absent other than the bid bond;
2. Absence or insufficient bid bond at bid opening;
3. Forged, falsified or fake document;
4. Execution deadline more than two (02) calendar months
5. Non respect of two (02) of the essential criteria;
6. Absence of a quantified unit price;
7. Absence of an element in the financial bid (the submission letter, the UPS, BQE);
8. Non-compliance with the submission model;
9. Absence of categorization certificate or result of categorization certified;
10. Absence of CDEC receipt;
11. Non respect of the conditions of the contract

#### **11.1-b- Essential criteria**

The essential criteria are key points used to judge the technical and financial capacity of candidates to execute the works which are the subject of the invitation to tender. The criteria relating to the qualification of candidates could indicatively be on the following:

- Presentation of bid;
- Reference of the company;
- Access to a credit line or other financial resources;

- Qualification and experience of the Personnel of the company;
- Proof of acceptance of conditions of the contract;
- The methodology;
- The execution deadline

NB: The bids submitted electronically shall be evaluated after downloading them in the same conditions as hard copy offers.

#### 11.1-c Criteria and sub criteria for detailed evaluation

- **Eliminatory criteria**

Eliminatory criteria shall be for information purpose evaluated depending on the following sub criteria:

	Heading	Yes/No
<b>I- Eliminatory criteria relating to the administrative file</b>		
	Absence or insufficient bid bond at the opening of bids issued by a first category financial body authorised by the Ministry in charge of Finance to issue bonds for public contracts and accompanied by a CDEC receipt  <b>NB:</b> A bid bond submitted but not relating to the consultation concerned shall be considered as absent. A bid bond presented by a bidder during the bid opening session shall not be accepted.	Yes/No
	Failure to submit, beyond the 48 (forty-eight) hours deadline, a document of the administrative file deemed non-compliant or absent during the opening of bids (other than the bid bond)	Yes/No
<b>II- Eliminatory criteria relating to the technical offer</b>		
	Execution deadline more than <b>two (02)</b> calendar months	Yes/No
<b>III- Eliminatory criteria relating to the financial offer</b>		
	Absence of a quantified unit price in the financial offer	Yes/No
	Absence of an element of the financial offer (the tender, the UPS, the BOQ)	Yes/No
<b>IV- Eliminatory criteria in general</b>		
	False declarations, fraudulent schemes or forged documents	Yes/No
	Failure to comply with at least 20 essential criteria out of 24;	Yes/No
	Failure to comply with the bid file format; in case of online bidding ;	Yes/No
	Failure to comply with the tender model	Yes/No
	Non respect of <b>two (02)</b> of the essential criteria	Yes/No
	Forged, falsified or fake document	Yes/No
	None acceptance of the conditions of the contract	
	Absence of certified copy of categorization certificate or result of categorization by MINMAP	

- Essential criteria

MAINTENANCE OF SOME TARRED ROADS IN BAMENDA I SUB-DIVISION				
Bidder:				
N°	Criteria and sub criteria of evaluation (*)	Binary notation		Observations
		YES	NO	
1	<b>EXPERIENCE OF THE COMPANY IN SIMILAR WORKS</b>	/2	/2	
1.1	Experience in public contracts of at least 10 000 000 FCFA IAT ≥ 01 project			
1.2	Experience in road constructions in public contracts of at least 10,000,000 FCFA IAT ≥ 01 project			
2	<b>HUMAN RESOURCES</b>	/5	/5	
2.1	<b>Work Supervisor</b>	/3	/3	
	Civil Engineer registered in the order ≥ A level+3 ≥ 5 years of general experience			
	Experience as a supervisor of building construction and public project works ≥20,000,000 FCFA ≥ 01 Project			
	Participation in works including Civil engineering structures (road works) ≥50,000,000 FCFA ≥ 01 Project			
2.2	<b>Site Foreman</b>	/2	/2	
	Senior Civil Engineering Technician ≥ A level+2 ≥ 3 years of general experience			
	Experience in building construction and public works of at least 15,000,000 CFA francs ≥ 01 Project			
3	<b>PRESENTATION OF THE QUOTATION</b>	/2	/2	
	Orderly assembled and bind			
	Pages numbered and sections separated by colour papers			
4	<b>EQUIPMENT (validate if 2 yes / 5)</b>	/8	/8	
4.1	Proof of ownership or hired a trucks ≥ 10m3 ≥ 01			
4.2	Proof of ownership or hired of a pick-up ≥ 01			
4.3	Proof of ownership of a manual compactor ≥ 01			
4.4	Proof of ownership or hired of a water tanker ≥ 01			
4.5	Proof of ownership or hired of a grader ≥ 01			
4.6	Proof of ownership or hired of a front end loader ≥ 01			
4.7	Proof of ownership or hired of an asphalt paver ≥ 01			
4.8	Sufficient small tools: Shovels, wheelbarrows, Pickaxes, tar cutter etc			
5	<b>METHODOLOGY (validate if 4yes /6) Obligatorily sub-criterion 4.6</b>	/6	/6	
5.1	Site visit report (photos, investigation on the availability of resources, accessibility of the site, ...) and relevant suggestions on the Technical Specifications, Unit Price Schedule and quantitative and cost estimate Pertinent			
5.2	Organization of the site (organizational design per, division of tasks and roles,). Pertinent			
5.3	Planning of the execution of works "bar chart" per working week. Pertinent and consistent			
5.4	Integrity charter duly filled, signed and dated			
5.5	Commitment statement to comply with environmental and social clauses duly filled, signed and dated			

5.6	HIMO methodology used during the construction site (employment of the local labour force, method of remuneration, social support, ...)	Pertinent			
-----	--	-----------	--	--	--

This evaluation will be done in a purely positive way (yes) or negative (no) with an acceptable minimum from at least **21/28 (75%)** of the essential criteria taken in account.

The Contract will be awarded to the bidder who would have proposed the offer with the lowest amount, in conformity with the regulations of the Tender Documents and having satisfied 100% of the eliminatory criteria and at least **21/28 (75%)** of the essential criteria.

## 2.5 AWARD OF THE JOBBING ORDER

### Article 12: Award of the jobbing order

The Tenders Board shall propose the award of the jobbing order to the bidder whose quotation was deemed essentially in conformity with the provisions of the Request for Quotation File and has the required technical and financial capacities to successfully execute the jobbing order and whose offer was evaluated as the lowest one after application of the rebates proposed, if applicable.

### Article 13: Publication of the result of the Request for Quotation

The Project Owner shall decide of the award and publish the result of the Request for Quotation in the Contracts Logbook edited by the Body in charge of the Regulation, through the newspapers and/or by posting and/or online on the COLEPS platform at the following addresses:

<http://www.marchespublics.cm> and <http://www.publiccontracts.cm>, by communicating notably:

- a) The name of the successful bidder;
- b) The subject of the Request for Quotation;
- c) The amount of the jobbing order and that of each lot (if it is a consultation which gave rise to an allotment);
- d) The execution or delivery deadline.

### Article 14: Signing of the jobbing order

Within the fifteen (15) days following the award, the jobbing order earlier subscribed by the successful bidder shall be signed by the Project Owner and shall be notified to the said successful bidder in view of registering it according to the procedure in force.

### Article 15: Corruption and fraudulent practices

The Chairpersons and members of the Tenders Board as well as the Contractor should at all times comply with the strictest rules of professional ethics. More especially, they should refrain from corruption or any fraudulent practices. By virtue of this principle, the expressions hereunder shall be defined as follows:

- a) Whoever offers, gives, solicits or accepts any benefit whatever to influence the action of a public official during the award or execution of the jobbing order shall be guilty of "corruption" and
- b) Whoever provide, solicits or accepts several quotations tendered by the same Contractor under different corporate names and/or under different registration numbers shall be guilty of "corruption";
- c) Whoever deforms or distorts facts in order to influence the award or execution of a jobbing order in a manner prejudicial to the Contracting Authority indulges in "fraudulent practices"

"Fraudulent practices" shall comprise any understanding or collusion of bidders (before or after submission of bids) seeking to artificially keep the bid prices at levels not corresponding to those resulting from free and open competition, thus depriving the Contracting Authority of the benefits of competition.

Documentn°3:  
**MODEL DOCUMENTS AND FORMS**

## TABLE OF MODEL DOCUMENTS AND FORMS

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ANNEX No.1 : MODEL TENDER

I, the undersigned \_\_\_\_\_ [indicate name and capacity of signatory] representing the company, enterprise or group of enterprises<sup>(8)</sup> ....with head office at ..... registered in the trade register of ..... under the number No. ....

Having taken cognisance of all the documents contained or mentioned in the Request for Quotation, including the addenda, No. .... [recall the subject of the Invitation to tender].

I hereby submit and commit myself to deliver the supplies or perform the services in accordance with the Request for Quotation, in return for the prices that I have established myself on the basis of the price and quantity schedule, which prices give the amount of the offer for lot No..... at ..... [in figures and words] CFA francs exclusive of VAT, and at.....

..... CFA Francs All taxes inclusive. [in figures and words].

- I pledge to perform the services within a deadline of ..... months
- In addition, I undertake to maintain my offer within ..... days [indicate the period of validity, in principle 90 days] from the deadline for submission of offers;
- I fully adhere to the Integrity Charter and the Environmental and Social Commitment Statement attached to this Request for Quotation.

The rebates offered and modalities of application of the said rebates are as follows:

.....  
.....

The Project Owner shall pay the sums due for this contract by crediting account No. .... opened the name of ..... in..... Bank ..... Banch .....

Prior to the signing of the contract, this tender accepted by you shall constitute an agreement between us.

Done at ..... on .....  
Signature .....  
Name of signatory.....  
In the capacity as.....  
duly authorised to sign bids for and on behalf of(9) .....

(8)Delete as appropriate

(9)Attach power of attorney

## ANNEX No.2 : MODEL BID BOND

Financial institution : \_\_\_\_\_

Reference of the bond: No. \_\_\_\_\_

Addressed to [indicate Project Owner or Delegated Project Owner and his address] Cameroon, hereinafter referred to as "the Project Owner"

Whereas the Supplier or Service Provider \_\_\_\_\_, hereinafter referred to as "the Bidder", has submitted his offer on \_\_\_\_\_ for [recall the subject of the invitation to tender], hereinafter referred to as: "the tender") and to which must be attached a provisional bond equivalent to [indicate the amount in CFA francs]

We, \_\_\_\_\_ [name and address of bank] \_\_\_\_\_ represented by \_\_\_\_\_ of [names of signatories] hereinafter referred to as "the bank" hereby declare to guarantee payment to the Project Owner or Delegated Project Owner of the maximum sum of [indicate the amount] CFA Francs that the bank pledges to pay in full to the Project Owner or Delegated Project Owner, binding itself, its successors and assignees

The conditions of this obligation are as follows:

If the Bidder withdraws his offer during the validity period specified in the Request for Quotation;

Or

If the Bidder, having been notified of the award of the contract by the Project Owner or Delegated Project Owner during the validity period.

- Fails or refuses to sign the contract though required to do so,
- Fails or refuses to provide the final bond as provided for in the said contract.

We commit ourselves to pay to the Project Owner or Delegated Project Owner an amount up to the maximum of the sum referred to above, upon reception of his first written request, without the Project Owner or Delegated Project Owner being required to justify his request, given, however, that in his request, the Project Owner or Delegated Project Owner shall note that he is due the amount he is claiming because one or the other or both of the above condition(s) has(have) been met and he shall specify which condition(s) took effect.

This bond shall enter into force from the date limit set by the Project Owner or Delegated Project Owner for the submission of bids. It shall remain valid up till the thirtieth day inclusive following the end of the deadline for the validity of tenders. Any request by the Project Owner or Delegated Project Owner to cause it to take effect should reach the bank by register mail with acknowledgement of receipt before the end of this validity period.

This bond shall, for the purposes of its interpretation and execution be subject to Cameroon law. Cameroon courts shall be the only jurisdictions to rule on this commitment and its consequences.

Signed and authenticated by the bank.

At \_\_\_\_\_ on \_\_\_\_\_

[Bank's signature]

[NB: This bond should be hand-endorsed by the bank]

### ANNEX No.3 : MODEL FINAL BOND

Financial institution : \_\_\_\_\_

Reference of the bond: No. \_\_\_\_\_.

Addressed to [indicate the **Project Owner or Delegated Project Owner** and his address]  
Cameroon, hereinafter referred to as "**the Project Owner**"

Whereas \_\_\_\_\_, [Name and address of the Supplier or Service provider], hereinafter referred to as "the Supplier or Service provider", has undertaken, in execution of the contract referred to as "the contract", to execute [indicate the nature of the supplies and ancillary services] \_\_\_\_\_.

Whereas it is stated in the contract that the Supplier shall entrust to **the Project Owner or Delegated Project Owner** a final bond, on an amount equal to [indicate the percentage between 2 and 5%] of the amount of the corresponding contract tranche, as guarantee of the performance of his full obligations in accordance with the terms of the contract,  
Whereas we have agreed to give the Supplier this bond,

We, \_\_\_\_\_ [name and address of the bank] \_\_\_\_\_  
[names of signatories], hereinafter referred to as "the bank", undertake to pay the Project Owner within a maximum deadline of eight (8) weeks, upon simple written request from the latter stating that the Supplier has not met his contractual commitments under the contract, without being able to defer the payment nor raise any contests for whatever reason, any sum up to the amount of \_\_\_\_\_ [in figures and words].

We agree that no change or addendum or any other amendment to the Contract shall free us of any obligation incumbent on us by virtue of this final Bond and we hereby incline to any notification of amendment, addendum or change.

This Final Bond shall enter into force upon signature and upon notification of the contract. The bond shall be released within [indicate the deadline] from the date of provisional acceptance of the supplies.

After the deadline referred to above, the bond shall become void and should be automatically returned to us without further procedure.

Any request for payment made by the Project Owner under this guarantee should be done by registered mail with acknowledgement of receipt to reach the bank during the period of validity of this commitment.

This final bond shall, for the purposes of its interpretation and execution be subject to Cameroon law. Cameroon courts shall be the only jurisdictions to rule on this commitment and its consequences.

*Signed and authenticated by the financial institution.*

at \_\_\_\_\_, on \_\_\_\_\_

ANNEX No.4 : MODEL START-OFF ADVANCE BOND

Financial institution: .....  
Reference of the bond: No. ....  
Addressed to *[Indicate the Project Owner]*  
*[Address of the Project Owner]*  
Hereinafter referred to as "the Project Owner"

We, the undersigned (financial body, address), hereby declare, to guarantee, on behalf of:  
..... *[the contract holder]*,

For -----the Project Owner *[Address of the Project Owner]* ("the beneficiary")

The payment without contest and upon receipt of the first written request by the beneficiary, declaring that  
..... *[the holder]* did not fulfil his obligations relating to the reimbursement of the  
start-off advance in accordance with the terms of Contract ..... of  
..... relating to the supplies and ancillary services *[indicate the subject of  
the invitation to tender and references and the lot, if possible]*, of the maximum total sum corresponding to  
the advance *[forty percent (40%)]* of the amount all taxes inclusive of Contract No.  
....., payable upon notification of the corresponding Administrative Order, that  
is:..... CFA francs

This guarantee shall enter into force and take effect upon reception of the respective parts of this advance on  
the accounts of .....*[the contract holder]* open in the  
bank..... under No. ....

It shall remain in force up to the reimbursement of the advance in accordance with the procedure set in the  
Special Administrative Conditions. However, the amount of the bond shall be reduced proportionally to the  
reimbursement of the advance and as it is reimbursed.

The law and jurisdiction applicable on the guarantee shall be those of the Republic of Cameroon.

*Signed and authenticated by the financial body*

at ....., on .....

*[signature of the financial body]*

## ANNEX No. 5: MODEL PERFORMANCE BOND IN REPLACEMENT OF THE RETENTION BOND

Financial body: .....

Reference of the guarantee: No. ....

Addressed to *[Indicate the Project Owner]*

*[Address of the Project Owner]*

Hereinafter referred to as "the Project Owner"

Whereas .....name and *address of the supplier or service provider*], hereinafter referred to as "the Supplier", pledges, in execution of the Contract, to deliver the supplies of *[indicate the subject of the services]*

Whereas it is stipulated in the contract that the retention bond set at *[percentage below 10% to be specified]* of the amount of the contract all taxes inclusive may be replaced by a several guarantee,

Whereas we have agreed to provide the Supplier with this guarantee,

We, ..... *address of the financial body*], represented by .....*names of the signatories*], and hereinafter referred to as "financial body"

Hence, we hereby affirm that on behalf of the Supplier or Service Provider, we guarantee and are responsible to the Project Owner for a maximum amount of ..... *[in figures and in words]*, corresponding to *[percentage below 10% to be specified]* of the contract price<sup>(10)</sup>

And we commit ourselves to pay the Project Owner within a maximum deadline of eight (8) weeks upon his simple written request declaring that the supplier did not fulfil his contractual obligations or is indebted to the Project Owner within the contract amended if applicable by its additional clauses, without being able to differ the payment nor raise any contest for whatever reason, any sum (s) within the limits of the amount equal to *[percentage below 10% to be specified]* of the total amount of works featuring in the final detailed account), without the Project Owner prove or give the reasons nor the reason for his request of the amount of the sum indicated above.

We hereby agree that no change or addendum or any other amendment to the contract shall release us of any obligation incumbent on us by virtue of this guarantee and we hereby incline to the notification of any modification, addendum or change.

This guarantee shall enter into force upon signature. It shall be released within thirty (30) days from the date of the final acceptance of the services and upon release order issued by the Project Owner.

Any request for payment formulated by the Project Owner by virtue of this guarantee should be done by registered mail with acknowledgement of receipt to reach the bank during the validity period of this commitment.

This guarantee shall, for purposes of interpretation and execution, be subject to Cameroon law. Cameroon courts shall be the only jurisdictions competent to rule on this commitment and its consequences.

*Signed and authenticated by the financial body*

*at.....,on .....*

*.[signature of the financial body]*

(10) Case where the surety is established once works start and covers the total guarantee, that is 10% of the contract.

## ANNEX No.6 : TENDER LETTER OF THE TECHNICAL PROPOSAL

*[Place, date]*

To : *[Name and address of the Project Owner]*

Madam/Sir,

We, the undersigned, [function to be specified], in accordance with your RQ No. ....of.....relating to....., wish to submit here attached, our technical proposal for the supply subject of the said RQ.

In case this proposal is selected, we are entirely ready, based on the personnel proposed, to begin negotiations to successfully carry out the project.

Thus, we fully commit ourselves to scrupulously comply with the content of the said technical proposal, subject to the possible modifications that may stem from the negotiations under the contract.

Kindly accept, Madam/Sir....., the expression of my distinguished consideration./-

Signature of the authorised representative:

Name and function of the signatory :

Name of candidate : Address

:

# ANNEX No.7: PROPOSED SPECIALISED PERSONNEL MODEL CURRICULUM VITAE (CV)

Position : .....

Name of candidate : .....  
.Name of employee : .....

Occupation : .....

Certificates : .....

Date of birth : .....

Number of years of employment by the candidate :..... Nationality : .....  
..... Affiliation to associations/professional groups : .....

.....

Specific duties: .....

### Main qualifications:

*[In about half page, give an overview of the employee's training aspects and experience most useful to his duties within the framework of the mission. Indicate the level of responsibilities he/she executed during the previous missions, by specifying the date and place .]*

.....

.....

**Training:**

[In about one quarter page, summarise university studies and other specialised studies of the employee, indicating the names and addresses of schools or universities attended, with dates of attendance as well as the certificates obtained.]

**Annex documents :**

- Certified true copy of the highest certificate and eventually an attestation of professional trade
- Attestation of availability

.....  
.....

**Professional experience:**

[In about two pages, list the jobs executed by the employee since the end of studies by inversed chronological order, beginning by the present position. For each, indicate the dates, name of employer, title of the position occupied and the place of work . For the last ten years, specify in addition, the type of activity carried out, and, if applicable, the name of customers likely to provide references.]

.....  
.....

**Computer knowledge:**

*[Indicate, knowledge level]*

.....  
.....

**Languages :**

*[Indicate, for each, knowledge level : poor/average/ good/excellent, with regard to the language read/written/ spoken.]*

.....

.....

**Attestation :**

I, the undersigned, faithfully certify that the information below clearly give account of my situation, qualifications and experience.

.....

..... Date : .....

*[Signature of the employee and of the consultant's authorised representative]*

*Day/month/year*

Name of employee : .....

.....

Name of the authosised representative: .....

.....

## ANNEX No.8 : DECLARATION OF INTENTION TO BID

*To be inserted in annex to*

I, the undersigned,

Nationality :

Residence :

Function :

By virtue of my powers of general Manager, after taking cognisance of the National Request for Quotation No.  
*[indicate the nature of the service].*

Hereby declare, the intention to bid for this invitation to tender.

Done at \_\_\_\_\_ on \_\_\_\_\_

Bidder's signature, name and stamp

## ANNEX No.9 :. CANDITATE'S REFERENCES

Services rendered during the last [indicate the number from 1 to 5] years that better illustrate your qualifications

Using the form below, indicate the information requested for each pertinent mission that your company /institution has got by contract, as a company alone, or as one of the main partners of a group.

Name of Mission:	Country :
Place:	Specialised personnel provided by your company /institution (profiles) :
Name of Client:	Number of employees having participated in the Mission :
Address :	Number of months of work;
	Duration of the Mission :
Start-off date :    Date of completion:	Approximate value of services
Name of associated/possible partner service providers :	Number of months of work of specialists provided by the associated service providers :
Name and functions of officials (Project Director /Coordinator, Team Official) :	
Description of the project :	
Description of the services effectively rendered by your personnel :	

Name of candidate:

## ANNEX No.10. DESCRIPTION OF THE METHODOLOGY AND WORK PLAN PROPOSED TO ACCOMPLISH THE MISSION

The technical design, the methodology and the work plan are key elements of the technical proposal. It is suggested to present the technical proposal (10 pages maximum, including tables and diagrams) divided into three chapters :

- a) *Technical design and methodology,*
- b) *Work plan, and*
- c) *Organisation and personnel*

a) Technical design and methodology. In this chapter, it suggest that you should explain how you dont vous envisage the objectives of the mission, the design of the services, the methodology to carry out the activities and to obtain the results expected and the related detail. You should highlight the problems to be solved and their importance and explain the technical design you will adopt to this effect. In addition, you should explain the methodology you intend to adopt and its compatibility with the design proposed.

b) Work plan. In this chapter, you should propose the main activities that the mission includes, their nature and duration, spreading out and interrelations, the markers (including intermediary approvals of the contracting authority) and the dates for the presentation of reports. The work plan proposed should be compatible with the technical design and the methodology, show that the Terms of Reference were understood and can be materialised into a practical work plan. A list of final documents, including reports, sketches and tables that constitute the final product should be included in this chapter. The personnel schedule (4G) should be compatible with the work programme (4H)

d) Organisation and personnel. In this chapter, you should propose a structure and the composition of your team. You shall give the list of the main disciplines represented, the name of the official expert and a list of the proposed key and support staff

**ANNEX No.11 MODEL INFORMATION SHEET RELATING TO ESSENTIAL  
EQUIPMENT, IF APPLICABLE**

No.	Description and characteristics of equipment	Age / Condition	Minimum number required	Owner/hiring	Year of obtention	Justification
1						
2						
...						
N						

*[Insert in the table below: (i) the list of material and tools required for the execution of services (ii) minimum number required for each type of equipment (iii) it may be envisaged, the provision of equipment by hiring, in which case, you should present a hiring commitment of the the equipment signed and legalised by the relevant government services.]*

Note : For each equipment, attach the certified copy of the bill or registration document , if applicable

### **3.1 SPECIAL TECHNICAL SPECIFICATIONS**

#### **ARTICLE B 100 – GENERALITIES**

- Article B 101 - Purpose of this technical specifications
- Article B 102 - Abbreviations
- Article B 103 - Standards and regulations
- Article B 104 - Study descriptions
- Article B 105 - Description of work

#### **ARTICLE B 200 - QUALITIES AND PREPARATIONS OF THE MATERIALS TO BE USED**

- Article B 201 - Aggregates for mortar and concrete
- Article B 202 - Hydraulic binders
- Article B 203 - Admixtures
- Article B 204 - Curing products
- Article B 205 - Composition of concretes and mortars
- Article B 207 - Compaction and mixing water
- Article B 207 - Steels for reinforced concrete reinforcement
- Article B 208 - Various sections and steels
- Article B 209 - Formwork
- Article B 210 - Concrete blocks
- Article B 211 - Shaping of reinforcements for reinforced concrete
- Article B 212 - Materials for backfill
- Article B 213 - Materials for subbase and base
- Article B 214 - Materials for impregnation of base layer, tack coat and pavement coatings
- Article B 215 - Materials for backfill under foundation
- Article B 216 - Materials for filtering devices
- Article B 217 – Sealing devices
- Article B 218 – Concrete pipes
- Article B 219 - Pvc pipes
- Article B 220 - Fonts
- Article B 221 - Rock fill
- Article B 222 - Road paint
- Article B 223 - Water repellents

#### **ARTICLE B300 - METHOD WORK EXECUTION**

##### **PRELIMINARY WORKS - EARTHWORKS - ROADS**

- Article B301 - General provisions
- Article B302 - General layout

##### **ARTICLE B310 - PRELIMINARY WORK**

- Article B311 - Brush clearing
- Article B312 - Voids
- Article B313 - Scarification of existing pavements
- Article B314 - Demolition
- Article B315 – Discharges

##### **ARTICLE B 320 - EARTHWORKS**

- Article B321 - Topsoil stripping
- Article B322 - Land movements
- Article B323 - Purging of bad land
- Article B324 - Requirements applicable to excavated earthworks
- Article B325 - Careers and loans
- Article B326 - Requirements applicable to earthworks in embankments
- Article B327 - Tolerance on earthworks
- Article B328 - Compaction

Article B329 - Adjustment of platforms  
Article B330 - Roads  
Article B331 - Finishing of platform  
Article B332 - Execution of the subgrade  
Article B333 - Execution of the base layer  
Article B334 - Control tests for the implementation of the subgrade and the base course

#### **ARTICLE B340 - PAVEMENT AND SIDEWALKS COVERINGS**

Article B341 - Method of execution of multi-layer coatings  
Article B342 - Dense asphalt pavements  
Article B343 - Control of profiling and thicknesses  
Article B344 - Methods of control  
Article B345 - Obligation of the co-contracting party with regard to the control.  
Article B346 - Possible losses for non-compliance with technical clauses

#### **ARTICLE B400 - EXECUTION DRAINAGE WORK**

**Article B401 - General indications**

#### **ARTICLE B410 - EARTHWORKS**

Article B411 - Execution of trenches and excavations  
Article B412 - Execution of trenches using mechanical devices  
Article B413 - Shoring and shielding  
Article B414 - Drainage under pipeline and structure  
Article B415 - Backfilling of trenches  
Article B416 - Impoundment of works  
Article B417 - Installation of filter devices

#### **ARTICLE B420 - DRAINAGE NETWORKS**

Article B421 - Laying of pipes and their accessories  
Article B422 - Inspection manholes and drains  
Article B423 - Pipe tests  
Article B424 - General test of underground sewerage networks  
Article B425 - Construction of gutters and scuppers  
Article B426 - Maintenance during the warranty period

#### **ARTICLE B500 - EXECUTION OF HYDRAULIC STRUCTURES**

Article B501 - Earthworks  
Article B502 - Manufacture and transport of concrete  
Article B503 - Implementation and hardening of concrete  
Article B504 - Siding  
Article B505 - Reinforced concrete structures

#### **ARTICLE B600 - METHOD OF EXECUTION OF SPECIAL FITTINGS**

Article B601 - Safety device for pedestrians  
Article B602 - Anti-parking device  
Article B603 - Guardrail  
Article B604 - Guardrails  
Article B605 - Slices for cables and sleeves  
Article B607 - Sleeves - flexible sleeves  
Article B607 - Warning mesh  
Article B608 - Draft chamber

#### **ARTICLE B609 - ANCHOR MASSIVE**

Article B610 - Kerbs

#### **ARTICLE B700 - HORIZONTAL SIGNALIZATION**

Article B701 - Qualities and tests of constituent materials  
Article B702 - General provisions on supplies  
Article B703 - Manufacturing processes and control  
Article B704 - Testing of structures  
Article B705 - Consistency of the work  
Article B707 - Products used  
Article B707 - Guarantee period  
Article B708 - Pavement markings  
Article B709 - Cleaning work  
Article B710 - Method of carrying out the work  
Article B711 - Conditions of execution

#### **ARTICLE B800 - EXECUTION OF NETWORK DISPLACEMENT**

Article B802 - Reconnaissance trenches  
Article B803 - Execution of works

#### **ARTICLE B900 - MODES OF PLANTATION EXECUTION**

Article B901 - Origin and quality of trees and shrubs  
Article B902 - Method of carrying out the work  
Article B903 - Grassing  
Item B904 - Cleaning  
Article B905 - Warranty and maintenance  
Article B907 - Paving  
Article B907 - Development of the existing box culvert  
Article B908 - Signalling  
Article B909 - Concrete blocks.  
Article B1000 - Environmental directives.

## **ARTICLE B 100 - GENERALITIES**

### **ARTICLE B 101 - SUBJECT OF THE PRESENT SPECIFIC TECHNICAL CLAUSES**

The purpose of this Book of Special Technical Clauses is to specify the standards applicable to equipment and materials incorporated in the maintenance of potholes on some roads in Bamenda I Mezam Division.

### **ARTICLE B 102 - ABBREVIATIONS**

The abbreviations used in this Technical Prescription Book have the following meanings:

- C.C.A. P. Book of Special Administrative Clauses
- C.C.T.P. Book of Particular Technical Clauses
- or C.C.T.G. General Technical Clauses Book
- A.S.T.M. American Society for Testing and Materials
- A.A.S.H.T.O. American Association of States Highway and Transportation Officials
- I.S.O. International Organization for Standardization
- A.W.W.A. American Water Work Association
- O.P.M. Optimum Proctor Modified
- LABOGENIE National Laboratory of Civil Engineering of CAMEROON
- C.A.M.WATER : Cameroon Water Utilities Corporation
- E.N.E.O The Cameroon Electricity Supplier
- CAMTEL CAMEROON Telephone Network

### **ARTICLE B 103 - STANDARDS AND REGULATIONS**

The applicable standards are those in force in the Republic of Cameroon or failing that, the French standards in force in the construction industry.

Other standards will be accepted if their quality is equal to or better than the specified standard after submission for approval by the Inspection Engineer.

The sources, qualities, types, dimensions, weight, and characteristics, as well as the methods of testing, marking, checking and acceptance of materials and supplies, must meet the standards in force at the time of signing the Contract.

The Co-contractor is deemed to be familiar with these standards and in particular the following documents:

#### **B103.1 Technical Clauses Book (C.C.T. ex-C.P.C)**

- Booklet N ° 1: General provisions common to the various types of work
- Fascicle N ° 2: General earthworks
- Fascicle N ° 3: Supply of hydraulic binders
- Fascicle N ° 4 (Title 1): Steel for reinforced concrete
- Booklet N ° 7: Soil recognition
- Fascicle N ° 23: Road aggregates
- Fascicule N ° 24: Supply of hydrocarbon binders used in the construction and maintenance of pavements
- Fascicle N ° 26: Execution of surface plasters
- Fascicule N ° 31: Borders and gutters in natural stone or concrete and concrete retaining devices
- Fascicle N ° 32: Construction of sidewalks.
- Fascicule N ° 35: Works of green spaces, sports and leisure areas
- Fascicle N ° 50: Topographic works, large-scale plans
- Booklet N ° 61:

Title 4:

Title 5:

#### **Climatic actions**

Design and calculations of bridges and metal constructions

- Booklet N ° 62

(Title 1 - Section 2): Technical rules for the design and calculations of reinforced concrete structures and structures according to the limit states method

- Fascicle N ° 63: Execution and implementation of unreinforced concrete, preparation of mortars
- Fascicle N ° 64: Masonry work for civil engineering structures

- Fascicle N ° 65: Execution of civil engineering works in reinforced or prestressed concrete
- Fascicle N ° 66: Execution of bridges and other metal frames of similar techniques
- Booklet N ° 67: Waterproofing of engineering structures
- Fascicle N ° 68:

Title 1:

Execution of foundation works

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#### **Climatic actions**

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- Fascicle N ° 65: Execution of civil engineering works in reinforced or prestressed concrete
- Fascicle N ° 66: Execution of bridges and other metal frames of similar techniques
- Booklet N ° 67: Waterproofing of engineering structures
- Fascicle N ° 68:

Title 1:

#### **Execution of foundation works**

- Fascicle N ° 70: Sewerage pipes and ancillary works
- Fascicule N ° 71: Supply and installation of water pipes, accessories and connection

The Common Prescriptions applicable to the construction of a public lighting network from March 1974.

All the technical rules published by the UTE in their up-to-date edition for electrical installations.

## **ARTICLE B104 - STUDY DESCRIPTIONS**

Within thirty days from the date of the start of the works, the Co-contractor will delimit the right-of-way of the works and undertake the delimitation of the constructions within these rights-of-way after agreement or according to the instructions of the Project Manager. Then, he will establish from the plans and tender documents the complete execution project defining the adaptation of the works to the actual execution conditions.

The execution plan will include all the modifications or variants proposed by the Co-contractor as well as the calculation notes and drawings referred to in article A 327.3 of the Special Prescriptions Specifications.

The execution plan must be submitted to the Market Engineer within thirty days before the start date of the corresponding part of the work.

The Project Manager will have a period of fifteen days to approve the execution plan or to make known his observations under the conditions defined in the Special Prescriptions Book. The execution project will include:

- Situation plans at 1 / 500th
- Layout of the rights-of-way at 1 / 500th
- Layout plans at 1 / 500th of tracks and structures with storm water purification,
- Projects and plans for network movements (CAMWATER, ENEO, CAMTEL) at 1 / 500th,
- Notebook of cross sections at 1 / 100th (one profile every 10 m),
- Typical cross sections at 1 / 50th,
- Plans of crossroads at 1 / 200th with sanitation,
- Formwork and reinforcement plans for sanitation structures at 1 / 20th (scuppers, manholes, heads of structures, etc.),
- Detail plans at 1: 50th (curbs of sidewalks, etc.),
- All calculation notes for sanitation works,
- Calculation notes for sanitation and outlet of structures,
- Program, plan and results of geotechnical tests (foundation soils, cuttings reusable as backfill, purges, groundwater level, deflection tests, etc.),
- Detailed pre-survey by section and structures.

## **ARTICLE B105 - DESCRIPTION OF THE WORK**

- Site installation
- Bringing and withdrawal of equipment form site
- Stripping of existing roadway
- Base course in laterite th=15cm
- Impregnation
- Maintenance of potholes with double coat surface dressing
- Cleaning of ditches in concrete or masonry Priming

## **GENERAL**

The control tests and execution studies prescribed in this CCTP will be the responsibility of the Co-contractor who is required to submit the results for the approval of the Project Manager. Samples of the materials and equipment that will have been retained by the Project Manager will be kept in the premises of the Project Manager on the site.

## **ARTICLE B212 - FILL MATERIALS**

### **B212.1 - General indications**

The materials used in backfill must have the following characteristics:

- Plant element content less than 1%;
- Granulometry: no elements greater than 100 mm;
- Plasticity index: less than or equal to 40;
- Lift: the immediate CBR bearing index (natural W) must be greater than or equal to 10 for compaction at 95% O.P.M. The index bearing CBR is measured after 04 days of imbibition;
- Linear swelling: less than 3%.

It is the responsibility of the Co-contractor to carry out all the geotechnical studies on the soils in place and on the borrow sites for which they have researched the sites, at their own expense. The studies

Geotechnical techniques that may be made available to the Co-contractor by the project manager are given for information only.

With regard to soils whose water content, at the time of installation is too high to allow obtaining the minimum acceptable compactness indicated in article B328 of this CCTP, the Co-contractor will take all the necessary measures to aerate and reduce the water content to a value close to the optimum.

In addition, in flood-prone areas, the base of the embankments will be made up to the height of the highest water levels with sand or any other equivalent material in order to accelerate the consolidation of the soils in place and to constitute a draining layer allowing the water circulation. The draining material should not contain more than 10% fine elements. This provision is not valid for embankments serving as dykes for whom the materials must be submitted to the approval of the Inspection Engineer.

#### **B212.2 - Materials for backfill bodies**

The backfill bodies will be made with materials from the cuttings (topsoil and micaceous earth excluded). In the event of poor quality or insufficiency, materials from the best borrowings approved by the Project Manager will be used, in accordance with articles B212.1, B325 and B326 of this document.

#### **B212.3 – Sub grade course**

The subgrade is defined as the part of the structure on which the roadway is placed. This is either the shape resulting from the compacted cuttings or the existing road surface.

The thickness of the form base is considered to be equal to 30 cm. The materials constituting this backing must meet the following characteristics, unless an exemption is granted by the Project Manager:

Organic content :	< 2 %
Granulometry :	150 mm maximum
Percentages of fines :	< 40 %
Limites d'Atterberg :	limite de liquidity < 60 plasticity index < 40
Indice CBR (measured after 4 days of immersion) :	CBR > 15 for dry density at 95 % de l'O.P.M.
Gonflement linéaire :	tolerance 2 % maximum

In the event that the natural terrain does not have these characteristics, the Co-contractor would be required to provide a top layer meeting these standards.

The remuneration for the presentation of the fund is not specified separately in the price schedule, but is considered to be included in the other unit prices.

#### **ARTICLE B213 - MATERIALS FOR FOUNDATION AND BASE LAYER**

The definition of the pavement body structures will be finalized in agreement with the Project Manager before the start of works.

The foundation layer will be executed:

- lateritic gravel with an I.P. less than 35 and a CBR greater than 40
- in natural gravel reconstituted according to proposals allowing to obtain an I.P. less than 30 and a CBR greater than 35.

The base layer will be executed:

- gravelly lateritic or lateritic T.V. reconstituted according to the characteristics defined above, improved to 4% cement,
- in crushed gravel 0 / 31.5.

The pavement layers in gravel bitumen will be carried out in accordance with the Directives of the SETRA-LCPC "for the realization of the pavement foundations in gravel bitumen and sand-bitumen of September 1972".

The quarries from which the materials will come must be approved by the Project Manager.

The materials for the foundation and base layer must meet the specifications indicated in the table below with the exception of asphalt gravel which will be considered as dense asphalt (see article B214 below).

	FONDATIONS	BASE	BASE				TESTS	
Parameters density	Laterite	Crushed aggregates 0/31,5	Stabilis laterite ciment 4%				Quantity	
CBR after 4 days of immersion at 95 % OPM	≥ 30	≥ 150	≥ 160				1/1000 m <sup>2</sup>	
Percentage of fines (elements at 0,08 mm)	≤ 35	≤ 35	≤ 30				1/1000 m <sup>2</sup>	
Plasticity index	≤ 30	≤ 6	≤ 25				1/500 m <sup>2</sup>	
Gonflement	≤ 2 %	≤ 1 %	≤ 2 %				1/1000 m <sup>2</sup>	
Proctor density	≥ 1,9	> 2.20 T/m <sup>3</sup>	≥ 1,9				1/500 m <sup>2</sup>	
Organic content	≤ 2 %	≤ 1 %	≤ 1 %				1/2000 m <sup>2</sup>	
Simple compression resistance - Rc (3 days curing with air, 4 days immersion) - Rc (7j air curing)			T1	T2	T3	T4	1/2000 m <sup>2</sup> 1/2000 m <sup>2</sup>	
			5	5	7	7		
			5	15	20	20		
Traction Resistance (days air curing)	/		1	1	15	15	1/1000 m <sup>2</sup>	
Granulometry Tamis – % passant	0,08 mm 35 % maxi	0,08 mm	2 – 10	(voir LADN 1987) 0,08 mm 35 % maxi				1/1000 m <sup>2</sup>
		0,2 mm	8 – 20					
		0,5 mm	17 – 32					
		2 mm	30 – 50					
		6,3 mm	45 – 70					
		10 mm	55 – 82					
		20 mm	75 – 100					
		31,5 mm	95 – 100					
40 mm	100							
Forme – Angularity % éléments tels que G/E < 1,58	/	≤ 30	/				1/2000 m <sup>2</sup>	
Sand equivalent		30 T1 & T2 40 T3 & T2					1/1000 m <sup>2</sup> 1/1000 m <sup>2</sup>	

#### ARTICLE B214 - MATERIALS FOR IMPREGNATION OF BASE LAYER, TACK COATING AND WEARING COURSE

##### - Base coat impregnation, tack coat

The binders used will comply with the requirements of fascicle N-24 of the C.C.T.G. "Supply of hydrocarbon binders used in the construction and maintenance of pavements. The aggregates used will comply with the prescriptions of the N-23 of the C.C.T.G." Road aggregates".

- Impregnation of the Base Layer = Cut-back Fluid of class 0/1 for the Stabilized Grave or 10/15 for the 0 / 31.5.

- Tack coat = Cut-back 400/600

- Pavement coating

They will be made up of surface plasters or dense mixes.

##### A) Surface dressing

The characteristics to which surface plasters must meet are defined below:

## Aggregates

Granularity	Single layer	Double layer	Triple layer
1 <sup>st</sup> coat	6/10 ou 8/12	10/14 ou 8/15	10/14 ou 12/18
2 <sup>nd</sup> coat	-	6/10 ou 4/8	6/10 ou 8/12
3 <sup>rd</sup> coat	-	-	4/6 ou 4/8

- **Hardness:** Los Angeles << 40 (preferential << 35%) or wet Micro-Deval << 25 (preferential << 20)
- Shape: % of element such that  $G/E < 1.56$  will be less than or equal 25
- Angularity: % crushed elements >> 50
- Cleanliness: % elements < 1 mm: < 4: T1 and T2  
2: T3 and T4
- Adhesiveness: % fixed aggregates >> 90 vialit 20 ° C and >> 75 vialit 60 ° C
- Granulometry: class 4/8 - 8/12 - 12/18
- Accelerated polishing coefficient >> 40%

### Binders:

We will use either:

- a cutback bitumen 150/250
- a 400/600 fluidized bitumen or cationic emulsion containing 65 - 70% bitumen 80/100 or 60/70 class T2, T3, T4.

## A) Dense mixes

### 1) Aggregates:

The granulation of the construction material will fall within the following reference range: (given as an indication)

Sieve (mm)	0,08	0,20	0,315	1	2	4	6	10
% Sieved	5 – 9	8 – 14	10 – 18	20 – 32	30 – 45	50 – 60	65 – 75	90 – 100

The aggregates must have excellent granularity and a crushing index equal to 90.

The equivalent of sand measured on the 0 / 6.3 fraction of the reconstituted mixture will be at least equal to 60, on the 0/4 fraction of the sand; the equivalent of sand will be greater than 40.

The hardness by the Los Angeles test on class 6/10 will be less than 35.

The binder content should be in the range 5.5 to 6.5 for bituminous concrete and 3.5 to 4.5 for serious bitumen.

Filler: The filler water content will be between 5 and 9%. The filler / bitumen ratio will be between 1.1 and 1.4.

### 1) Bitumen:

The binder will be pure bitumen with a 60/70 or 80/100 penetration.

Bitumen with hardness greater than 150 or less than 50 are not recommended.

### 2) Typical formulas for dense bituminous concrete:

The Contractor will formulate the composition of the dense asphalt that he plans to use. This composition must correspond to the requirements of the table below: (given as an indication)

1. GRANNULATS	COMPOSITIONS RANGE	FORME – TYPE RANGE
Proportion of 6/10 or 8/12 %	30 – 35	30
Proportion of 4/6 ou de 4/8 %	15 – 20	20
Proportion d'apport %	48 – 55	48
Filler %	1 – 3	2
Granulometry % passant		
Sieve 10 mm	95 – 100	97
6 mm	62 – 74	70
4 mm	48 – 58	49
2 mm	30 – 45	33
1 mm	20 – 28	23
0,315	10 – 19	14

0.2	6 – 15	10
0.08	5 – 9	7
Specific surface m <sup>2</sup> /Kg	8,7 – 14,7	11,8
Sand equivalent of fraction 0/6	> 60	> 6
Los Angeles	<< 35	<< 35
Flakiness index	Satisfactory	
Adhésivity VIALIT	Satisfactory	< 25
<b>2. BITUMEN</b>		
Hardness	60/70	60/70
<b>3. Mixture</b>		
% B.B.	2,3 – 3,0	2,6
Module de richesse % G.B.	3,0 – 3,9	3,75
Bitumen content % B.B.	5,5 – 6,5	6,2
Ratio filler/bitumen %	1,1 – 1,4	1,2
Bitumen content G.B.	3,2 – 4,2	3,7
<b>4. PERFORMANCE ANTICIPABLES</b>		
<b>4.1 – DURIEZ ou (LCPC)</b>		
Rc DURIEZ at 18 °C 1+7 days air (bars) G.B.	50 – 100	65
B.B.	60 – 110	80
Ration Rc/Rc% G.B. – B.B.	0,65 – 0,85	0,70
Apparent density T/m <sup>3</sup> G.B. – B.B.	2,25 – 2,45	2,30
Compacity % G.B.	88 – 94	> 90
BB	90 – 96	>> 92
<b>4.2. MARSHALL</b>		
Stability at 60° Kg/cm <sup>2</sup> G.B.	700 – 1000	>> 850
B.B.	800 – 1200	1000
Fluage en 1/10 mmG.B.	2,20 – 2,35	< 2,30
B.B.	2,25 – 2,45	< 2,35
Apparent density T/m <sup>3</sup> G.B. – B.B.	2,20 – 2,50	>> 2,35
Compacity % G.B.	91 – 95	> 93
B.B.	92 – 96	> 94
Residual voids % G.B. – B.B.	12 – 4	8

#### ARTICLE B215 - MATERIALS FOR BACKFILLS

The materials for backfill under the foundation of structures or canals must come from a loan approved by the Control Engineer.

The materials must be clean and sound and will meet the following characteristics:

- Plant element content less than 1%;
- Granulometry: no elements greater than 100 mm;
- Plasticity index: less than or equal to 40;
- Lift: the immediate CBR bearing index (natural W) must be greater than or equal to 10 for compaction at 95% O.P.M. ;
- Linear swelling less than 3%.

#### ARTICLE B216 - MATERIALS FOR FILTERING DEVICES

The materials of the filtering layers offered under the canals and structures will be made up of all-round materials screened from rivers or approved quarries. The materials will be cleared of elements with a diameter greater than the maximum grain diameter allowed for the constitution of the filter or the foundation layer.

The vertical filters may be made of ENKADRAIN SK 20 type filter materials or similar.

##### B216.1 - Sand

The sands constituting the filter must be clean, healthy and durable and contain no significant quantities of platelets or needles. Their particle size curve must correspond to the following table:

SIEVE (mm)	SIEVED	
	Max	Min
4,000	8	0
2,000	10	0
1,000	20	3
0,500	50	10
0,250	90	50
0,125	100	85
0,063	100	96

#### **B216.2 - Gravel**

The gravel used in the filters should be clean, healthy and durable. The grain size depends on the sand used for the filter and must comply with the following characteristics:

(D 50 gravel / D 50 sand) including 12 and 58

(D 15 gravel / D 85 sand) including 5 and 10

(D 50 gravel D 15 sand) including 12 and 40.

The Contractor will present to the Project Manager a sample of the gravel + that he proposes to use for the filter.

#### **B216.3 - Geotextile**

The geotextile must meet the following specifications:

- Weight greater than 200 grams per square meter
- Tensile strength greater than 100N / cm
- D / 90 less than 200 microns.

#### **B216.4 Barbican**

The barbicans are in P.V.C. of diameter 25.4 mm. They will be applied for the drainage of filters (rectangular channels and scuppers). The length of the pipes is equal to the wall thickness plus half the thickness of the filter layer.

### **ARTICLE B300 - PERFORMANCE METHOD OF PRELIMINARY WORKS - EARTHWORKS - PAVEMENTS**

#### **ARTICLE B301 - GENERAL PROVISIONS**

##### **B301.1 General**

The Co-contractor will take all the necessary measures to avoid accidents of any kind that could occur as a result of the work.

Access to the site must be strictly prohibited to the public or to any person outside the site. Signs with large print will be placed at the main entrances to the site.

The Co-contractor must also submit to all regulatory safety measures. He will be responsible for all accidents occurring on the site and caused by the work to third parties, to his staff and to civil servants of the administration.

All precautions will be taken by the Co-contractor and at its expense to maintain safe traffic on the routes covered by the works. He will submit for the approval of the Project Manager the arrangements he intends to take for the establishment of detours and the maintenance of all the routes used to ensure traffic during the work.

##### **B301.2 - Water drainage**

The Co-contractor must, under its responsibility, organize its site in such a way as to get rid of all kinds of water, to maintain the flows and to take all the necessary measures so that these are not prejudicial to the temporary works necessary for the evacuation. Run off or infiltration water.

The Co-contractor is required to have sufficient number and power of exhaust pumps on site.

The project manager may limit or prohibit exhaustion if it is likely to cause damage to neighbouring installations.

##### **B301.3 - Presence of public interest network**

When work must take place, in whole or in part, in the vicinity of existing networks, the Co-contractor will notify the concessionaire companies and services concerned in order to examine with them in good time the conditions for moving or protecting the structures.

The client will provide all the information in his possession but will not be held responsible for errors, omissions, modifications, concerning the presence and installation of existing networks. Execution studies and network travel costs are the responsibility of the Co-contractor.

The route of the existing networks and structures will be recognized by the Co-contractor before the start of the works. During the duration of these, the Co-contractor will take all measures to ensure the protection of these structures, and ensure the connection of local residents.

#### **ARTICLE B302 - GENERAL SETTING OUT**

Before any work begins, the Co-contractor will mark the axes of the tracks and delimit the rights-of-way in order to proceed with the demolition of the existing structures after the agreement of the Project Manager.

##### **B303.2 - Basic Pegging**

After preparation of the platform and before any start of earthworks, the Co-contractor will set up the base points of the main picket line (layout of axes) from the data from the layout plan of the tender and construction documents. the polygonal, which he will have previously checked.

It will then be contradictory to the verification of this solidly founded implantation in the form of a truncated pyramid at the square base 0.50 m high, carrying at their axis a rod of sealed concrete reinforcement. Each terminal will bear the characteristic number of the point it materializes.

The Co-contractor remains responsible for this installation and will bear all the unnecessary work which would result from a bad installation, before as after verification thereof.

##### **B302.3 – survey of natural ground - Additional pegging**

When the main picketing is accepted, the Co-contractor will carry out at its own expense a contradictory survey of the natural terrain (TN) along the axes of the tracks on all the cross sections and wherever the works forming part of its services must be carried out. The survey shall include side points every 5 m at most on the cross sections, spaced no more than thirty (30) meters apart.

In addition, the stake of the axis of the tracks must be moved and marked by solid markers on a line parallel to the axis on one side only at a fixed distance and out of the right-of-way of the earthworks.

After the execution of the general picketing, the Co-contractor will carry out the levelling of these points, attached to the general leveling of Cameroon. He will have to fix along the outline of the solid side marks and as many as will be necessary for the good execution of the work.

The Co-contractor must agree to any verification that the Project Manager decides to have carried out. He will keep the equipment, devices and personnel authorized to carry out these control operations at the disposal of the Project Manager.

##### **B302.3 – conservation of pegging**

The Co-contractor is required to ensure the conservation of the picketing and levelling points, to restore or replace them if necessary either in their original location, or by moving them if the progress of the work requires it, but in giving all references to the modifications thus made.

#### **ARTICLE B310 - PRELIMINARY WORK**

##### **ARTICLE B311 – BUSH CLEARING**

The Co-contractor will carry out the general clearing of the land, the felling of trees and their stump removal, as well as the evacuation of all the corresponding elements outside the site, in a place approved by the Project Manager. On the instructions of the inspection engineer, certain trees may be preserved as long as they do not constitute an obstacle to the execution of the work.

##### **ARTICLE B312 - VOID**

All natural or artificial cavities such as wells, sumps, septic tanks, location of stumps located in the right-of-way of the works will be emptied and backfilled with compacted sand after the agreement of the Project Manager.

Only the floor areas of cavities more than 1 meter deep to be treated will be taken into account in the attachments.

##### **ARTICLE B313 - SCARIFICATION OF EXISTING PAVEMENTS**

In some areas, scarification of existing pavements may be necessary. These areas as well as the depth of scarification will be fixed by the Project Manager. The possible use of scarified materials can only be done after agreement of the Project Manager.

#### **ARTICLE B314 - DEMOLITION**

The contractor must demolish constructions, hedges, fences, etc. existing in the right-of-way of the work to be carried out. The masonry encountered will be levelled 0.50 meters below the level of the excavations to be opened.

The demolition of constructions of all kinds can only be undertaken after delimitation of the rights-of-way and the establishment of an inventory report, specifying the constructions or portions of construction to be demolished before starting the demolition work, quantities will be established by a joint mission of the contractor and the Project Manager. All costs of establishing quantities such as additional excavation etc. will be included in the unit prices for this work.

Demolitions made before this mission will not be remunerated.

Demolitions and restorations not envisaged by the project will be the responsibility of the contractor in accordance with article A 305 of the CPS.

Incineration of materials is prohibited on the site.

The use of explosives to demolish the structures is strictly prohibited.

All water, electricity and telephone connections must be disconnected before demolition, in agreement with the concessionaire services and at the contractor's expense.

#### **ARTICLE B315 – DUMPING SITE**

All products and materials to be removed from the site may be deposited at the expense of the Co-contractor:

- At the public landfill in agreement with the Project Manager and the Town Hall,
- In a place specified by the Project Manager on the municipal territory,
- In a place proposed by the Co-contractor with the agreement of the Project Manager

The excavated material placed in permanent storage will be levelled and levelled according to the instructions of the Project Manager.

#### **ARTICLE B320 - EARTHWORKS**

##### **ARTICLE B321 – TOP SOIL SCRAPPING**

In the event of the expenditure of topsoil, the stripping will be on the right-of-way of the earthworks and on a thickness defined in agreement with the Project Manager. The topsoil thus extracted will be transported to places approved by the Project Manager and placed in geometric mass storage. It will be reused for the development of green spaces.

##### **ARTICLE B322 - MOVEMENTS OF SOIL**

The Co-contractor shall submit for the approval of the Project Manager within fifteen (15) days from the date of the start of the works, a land movement project.

This project must indicate in particular the deposit areas, the transport distances, the volumes of soil transported and the quality of the materials, defined by geotechnical tests at the expense of the Co-contractor.

##### **ARTICLE B323 - PURGE OF BAD SOIL**

In areas where the need will be recognized by the Project Manager, the contractor will remove poor soil.

The zones and the depth will be established on site contradictorily between the contractor and the Project Manager. The soil will be removed from the site under the same conditions as the demolition products.

##### **ARTICLE B324 - REQUIREMENTS APPLICABLE TO EXCAVATED EARTHWORKS**

###### **B324.1 - General indications**

The excavation will be done in accordance with the execution plans, established by the Co-contractor and approved by the Project Manager, for the construction of the platforms and collections.

The final profile will be produced in a single continuous operation up to the level of the level of the earthworks. The embankments will be adjusted to their final profile.

The Co-contractor must maintain a sufficient slope on the surface of the excavated parts and carry out in good time the slits, channels and temporary works.

Rainwater or runoff will be directed away from the site by measures not causing any disturbance to local residents or existing installations.

The Co-contractor must have the Project Manager approve the procedure guaranteeing the preparation of excavation bottoms under backfill according to article B326. The attachment of the cuttings will only be carried out after perfect completion of the fill.

The excavated material not reused as backfill due to its poor quality will be evacuated to the public landfill or to places approved by the Project Manager.

#### **B324.2 - Different categories of cuttings**

The excavated material is classified into five categories:

1 <sup>st</sup> catégorie : Cut for purges	This category is made up with materials with $I_p > 10$ et un CBR $> 10$
2 <sup>nd</sup> Catégorie : Cut use as fill	This category is made up with materials with $I_p < 40$ et un CBR $< 10$
3 <sup>rd</sup> catégorie : Cut and throw	This category is made up with materials with $I_p > 40$ et un CBR $< 10$
4 <sup>ème</sup> catégorie : Déblais réutilisables en corps de chaussée	This category is made up with materials with $I_p < 35$ et un CBR $< 40$ (foundation)
5 <sup>th</sup> catégorie : Cut on rocky soil	This category is made using a tractor of 270CV.

Note:

The Co-contractor may only excavate rocky terrain with the prior consent of the Project Manager. The neighboring unconsolidated land will then be sufficiently cleared to allow a precise assessment of the volumes of rock cuttings to be taken into account. A contradictory attachment must be drawn up before any start of execution.

#### **B324.3 - Execution method of cuttings**

Excavation in soft ground

The excavations in soft ground corresponding to the first four categories designated above will be carried out using mechanical devices. They will be sorted and deposited near their place of reuse or evacuated to the landfill if they are not reusable. Compaction of the form must be carried out so as to obtain, over a thickness of 30 cm, a density equal to 95% of the O.P.M.

If purges are necessary, the excavations will be carried out to the depth fixed by the Project Manager. The theoretical dimension of the cuttings will be made up by adding good soil which will be put in place as described in article B326 below for the embankments.

Excavation in rocky terrain

Close to the buildings, the excavation in rocky terrain will be carried out with a pneumatic hammer. The theoretical side slope will be caught up by adding fine rock cuttings.

#### **ARTICLE B325- BORROW PIT**

In the only case where the Co-contractor would be obliged to resort to borrowing materials, due to a lack of reusable cuttings as backfill, the exploitation of quarries and borrow pits can only begin after written authorization. of the Master of Work. This authorization may be withdrawn at any time if the Project Manager considers that the exploited deposit no longer yields materials of satisfactory quality.

The Co-contractor may not claim any compensation on this account. It is specified that, if the careers and loans prove to be insufficient or if the quality of the materials is such that the Project Manager has to refuse them, the Co-contractor will do his business to find new careers.

The materials from these new quarries will be subject to the approval of the Project Manager in the event of non-acceptance, the Co-contractor will be required to resume the search for quarries or deposits of materials meeting the requirements set and the necessary quantities.

The Co-contractor will bear all the operating costs of the borrow pits and quarries and in particular:

- the opening and development of access tracks;
- clearing and deforestation, removal of plant soil or unwanted cover materials and their storage outside the limits of the loan;
- restoration of the site after quarry operation.

The drainage of the borrow rooms must be done efficiently.  
All measures must be taken so that runoff water can flow normally outside the limits of the borrow areas.

## ARTICLE B 326 - REQUIREMENTS APPLICABLE TO FILL

### B 326.1 - Different categories of backfill

Embankments are classified into four categories:

- Category 1 :	Compacted fill (IP < 40 et CBR > 10)
- Category 2 :	Fill in swampy areas (IP < 40 et CBR > 10)
- Category 3 :	Fill for platform (IP < 40 et CBR > 15)
- Category 4 :	Remblais mis en dépôt (IP > 40 et CBR < 5).

### B 326.2 - Origin of materials

The materials used in the constitution of the backfill will come either from the excavations or from the quarries or from the borrow pits proposed by the Co-contractor and approved by the Project Manager.

### B 326.3 - Preparation of the platform under fills

The additional compaction preparation is carried out, if necessary, over the entire width of the embankment right-of-way.

Compaction will be carried out so as to obtain a dry density of the compacted soil at least equal to 90% of the dry density of the Optimum Proctor modified over a thickness of at least 25 cm.

Under the embankments, picking and ploughing over a maximum thickness of 0.10 m will be compulsory as soon as the transverse slope of the land is greater than 10%. If this slope exceeds 20%, it would be practiced rigging steps arranged in accordance with the opinion of the Inspection Engineer.

Preparation of land under backfill will be received before backfilling. In the event of water coming under the influence of the embankments, the Co-contractor will carry out any necessary drains; the method of execution and the type of drains to be used will be subject to the approval of the Inspection Engineer.

### B326.4 - Mode of execution of fills

The backfill in ordinary terrain must comply with the specifications of article B212.1. They will be levelled over their entire width for the execution of embankments (or by half if necessary), in layers having a slope of 2%, on which the earthmoving and transport machines having been assigned to their execution will circulate in such a way as to exert on them a compression distributed as uniformly as possible.

The materials will be used in layers of maximum thickness, measured after compaction, of 20 cm over the entire width of the backfill up to the dimensions provided by the plans and profiles.

The profile of the embankments will be obtained by the excess backfill method, the dressing must be careful so that neither shanks nor irregularities appear. The embankments must be compacted to 90% of the O.P.N. (Optimum Proctor Normal).

The work must be carried out in such a way that after settling or compression, the profiles indicated are carried out to the tolerances fixed by article B 327 below.

It is expressly specified that the earthworks will be restarted each time the degree of compaction required in article B328 of this C.P.T. could not be obtained. The materials will be used with a water content greater than 1% than the optimum content and with a tolerance of plus or minus 3%.

The embankments will be protected against erosion until they are received.

### B 326.5 - Tests on fill

	Categories 1 and 2	Category 3
Granulometry, proctor, plasticity index, in-situ density and water content	1 for 500 m <sup>3</sup>	1 for 250 m <sup>3</sup>

Identification of CBR	1 for 1 000 m <sup>3</sup>	1 for 500 m <sup>3</sup>
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## ARTICLE B 327 – TOLERANCES ON EARTHWORKS

Les tolérances d'exécution des terrassements sont ainsi fixées :

Terrassements	Profils de la forme	Talus	Profil sous couche de forme
Cuts on normal	+ ou - 2 cm	+ ou - 10 cm	+ ou - 5 cm
Cut on rocky soil	+ ou - 4 cm	+ ou - 20 cm	+ ou - 10 cm
Fill	+ ou - 2 cm	+ ou - 5 cm	+ ou - 5 cm

The theoretical slopes of the embankments are as follows:

- in 1/3 cuttings (1 of the base for 3 of height);
- 2/3 embankments (2 from the base for 3 in height).

However, these slopes may be modified at the request of the Project Manager depending on the characteristics of the materials encountered or used, and in view of the results of soil tests.

## ARTICLE B 328 - COMPACTION

Unless there is a specific exemption granted or prescribed by the Project Manager, the backfill will be methodically compacted by layers of maximum thickness, measured after compaction, 25 cm thick. Each layer will be received before the execution of the next. The method of performing the compaction will be subject to the approval of the Project Manager.

All the equipment that the Co-contractor proposes to use will appear on the list of equipment that will be attached to the offer. This list will mention the technical characteristics of the machines. Before any execution begins, the Co-contractor will calibrate its compaction equipment, the Project Manager will check the results of this operation.

The water content of the soils before implementation on the site must be able to be recognized on a regular, continuous and safe basis. The compaction will be checked daily and at any request from the Project Manager.

The approved materials which constitute the layers leveled on unloading must be homogenized and scarified. If necessary, with the motor grader and the harrow. The materials will be brought into the range of water content necessary to obtain the prescribed dry density taking into account the compaction energy required (site test diagram), if they are too dry, the materials will be sprayed with water. regularly before and during compaction operations. On the contrary, if the materials turn out to be too wet, the Co-contractor may bring them back to an acceptable level by prior drying activated by mechanical ventilation, harrowing or ploughing.

Otherwise, the site will be stopped if the company fails to accept the subjection to open a new loan deemed satisfactory. In any event, these soils will only be implemented with the agreement of the Project Manager, who may prescribe their assessment outside the site and who remains the sole judge of the duration of the site shutdown. This will be extended until the soils to be used are in the conditions necessary to obtain satisfactory compaction without the Co-contractor being able to consider itself entitled to claim any compensation whatsoever for fixed assets.

It is expressly specified that the earthworks will be interrupted whenever the degree of compaction required in this article cannot be ensured. The materials will be used at a water content close to the optimum water content to within plus or minus 2%. Evaporation must be taken into account, which in the dry season is important.

The different minimum degrees of compaction to be achieved will be for 90% of measurements in all cases greater than the following values:

	Mini	Tolérance (10 % de mesure)
- Soilreceivingfills	90 % OPM	88 % OPM
- Corps de remblais	90 % OPM	88 % OPM
- last coat of fill (	95 % OPM	92 % OPM
- foundation	90 % OPM	95 % OPM
- base course	95 % OPM	96 % OPM

In the event of deterioration due to the settling of the embankments or to the insufficiency of their characteristics, the Co-contractor may in no way be turned against the Client and must take over the damaged areas at its expense.

## **ARTICLE B 329 – GRADING OF THE PLATFORMS**

After earthworks, the platforms and embankments must be adjusted and cleaned in the right-of-way of the works. All measures will be taken to ensure the evacuation of runoff water without gullyng and without harming riparian properties.

## **ARTICLE B 330 - (PLATFORM)**

### **ARTICLE B 331 - FINISHING OF FORM BEDS**

After compaction, the profile of the platform, shoulders and approaches will be adjusted so as not to reveal a difference greater than 2 cm below the four-meter rule.

The Contractor will request in writing to the Employer the reception of the platforms. He must provide a register of density checks on the section considered: two checks every 50 m or one check per profile alternating the measurements.

### **ARTICLE B 332 - EXECUTION OF THE FOUNDATION LAYER**

The foundation layers will comply with the requirements of article B213. It is specified that the thicknesses will be given for information only. It is the Co-contracting party's responsibility to have all the necessary tests carried out at its own expense on the materials it proposes to use. In view of the results of these tests, the Project Manager may possibly prescribe other thicknesses.

After approval by the Earthworks Platform Inspection Engineer, the Co-contractor will apply the layer of materials over the entire width of the platform and to the minimum thickness required, in layers of 15 cm of minimum thickness and 25 cm maximum thickness depending on the grain size.

The in situ compaction water content should not exceed by two points the optimum water content given by the modified proctor test.

Compaction will be carried out so as to obtain a dry density in situ at least equal to 97% of the maximum density given by the modified proctor test. It will be performed with a tire roller, tamper or vibrating feet.

The Project Manager will also check the prescribed minimum thicknesses. These checks may be carried out at the locations of the density measurements in place or at different locations designated by the Project Manager.

The minimum layer thicknesses must be respected at all points; the altimetry tolerance is plus or minus 2cm from the project coast. If these minimum thicknesses and the prescribed altimetry tolerance were not respected, the Co-contractor would be required to take over the section concerned at its own expense, either by supplying materials or by removing the material from excavation. In both cases, he will have to scarify the layer and recompact it.

The Co-contractor will take all necessary steps to avoid leafing.

### **ARTICLE B 333 - EXECUTION OF THE BASE COURSE**

#### **B 333.1 - Base layer of selected laterite improved with cement**

Not applicable

#### **B 333. 2 - Base layer in crushed gravel 0 / 31.5**

After receipt of the foundation layer by the Project Manager, the Co-contractor will apply the base layer in layers of minimum 10cm and maximum 15cm after compaction.

The materials used will be fully crushed 0 / 31.5 crushed gravel, the characteristics of which are defined in clause B334.

The rate of compaction in place must be greater than or equal to 98% of the O.P.M. for 90% of the measurements. The remainder will in any case be greater than 97% of the OPM.

The Project Manager will check the thickness of the base layer. These checks may be carried out at the locations of the density measurements in place or at other locations designated by the latter.

The minimum thickness of the base layer must be respected at all points. The altimetry tolerance is plus or minus 1 cm from the project coast. If the minimum thickness and the prescribed altimetry tolerance were not respected, the Co-contractor would be required to take back the section concerned at its expense. In both cases he will have to scarify the base layer and recompact it.

The Co-contractor will determine, from test boards, the water content which will allow it to obtain a dry density in situ greater than 98% of the OPM, taking into account the means of compaction that it must use, and the characteristics of the base coat materials.

Whatever the water content obtained, the Co-contractor will take all measures to avoid any segregation of materials during the supply, placement and compaction of the latter. To this end, the Co-contractor must ensure that the height of the storage of aggregates in quarries does not exceed 6 m and that the materials are transported with a certain initial water content.

### **B333.3 - Base layer in gravel-bitumen**

Not applicable

B 333.4 - Base layer in selected lateritic gravel, improved with crushed 0 / 31.5

After receipt of the foundation layer by the Project Manager, the Co-contractor will proceed with the implementation of the base layer in layers of one thickness after compacting of 10cm minimum and 20cm maximum, in accordance with the prescriptions of article B213.

The Project Manager will check the prescribed minimum thickness of the base coat. These checks may be carried out at the locations of the density measurements in place or at other locations designated by the latter. The minimum thickness of the base layer must be respected at all points.

The altimetry tolerance is plus or minus 2 cm from the project coast. If this minimum thickness and the prescribed altimetry tolerances are not respected, the Co-contractor will be required to take back the section concerned at its own expense. The same applies in the event of non-compliance with the prescriptions in terms of dosage, CBR, compactness, lamination or cracking other than shrinkage. In these cases, he will have to scarify the base layer, add cement, mix and compact it.

The Co-contractor must take all measures to ensure the good bond between the base layer and the foundation layer. In case of in situ mixing, it will ensure to penetrate the underlying layer by 1 to 2 cm.

All protective measures must be taken by the Co-contractor and at its expense, to take into account the curing constraints of the selected natural materials, improved with cement and the maintenance of circulation.

Transport and spreading of material

The material can be transported and spread by means of trucks or scrapers followed by the grader which must give the layer to stabilize the geometric characteristics of the project, taking into account the reduction in thickness deriving from compaction.

### **Preliminary compaction**

The layer of material thus spread will receive a preliminary compaction or pre-compaction intended to allow the circulation of the machines.

### **Compaction**

It is specifically recalled that all compaction operations must be started immediately after mixing and finished before the cement sets, in any case, within three hours of mixing. For this purpose, the Co-contractor must have sufficient number and type of compaction equipment available to obtain, within the aforementioned times, the prescribed dry density of the mixture. If, for whatever reasons, the compaction operations are not completed in time or the prescribed density has not been met, the Co-contractor must, at its expense, remove the stabilized layer over the entire section in question and deposit the material outside, of the right-of-way in places approved by the Control Engineer.

### **Finishing**

Before the binder has started setting, the Co-contractor must carry out the finishing operations to give the stabilized layer the profile of the project, both longitudinal and transverse, as indicated on the plans.

If necessary, after the passage of the grader which gives the final profile, a compaction of the closures of the superficial parts will be carried out, preferably this operation will be done with a tire roller.

Repetition of construction

Whenever the stabilization operation is resumed after the end of the setting time (therefore at least each time the working day is restarted), the mixing operations must be preceded by a picking of the terminal part already carried out, until the elimination of any material which, by the very nature of the work, does not have the characteristics of homogeneity and hardness proper to the soil - cement. All arrangements will be made to avoid lamination.

#### Tack layer

Immediately after the completion of the compaction of the stabilized material, the tie coat will be spread in accordance with article B 214 of this C.P.T.

#### Installation schedule and traffic opening

Traffic will be prohibited on the compacted layer for approximately seven (07) days. The precise times for compaction and opening to traffic will be determined in the laboratory.

Dosage distribution:

Grave lateritic: 75%  
Crushed 0/315: 25%.

### ARTICLE B 334 - TESTS OF IMPLEMENTATION OF THE FOUNDATION COAT AND THE BASE COAT

The pavement body installation control tests are listed in the table below:

Nature des travaux	Nature de l'essai	Résultatsexigés	Nombred'essai à réaliser
Compactage de la couche de fondation	Compacité en place	Supérieure ou égale à 97 % de la densité sèche de l'O.P.M*.	1 tous les 250 m <sup>2</sup>
Compactage sur emprise de trottoirs	Compacité en place	≥ à 97 % de la densité sèche de l'OPM*	1 tous les 500 m <sup>2</sup>
Compactage de la couche de base	Compacité en place	Supérieure ou égale à 98 % de la densité sèche de l'OPM*	1 tous les 250 m <sup>2</sup>
Contrôle de la quantité des matériaux pour couche de base	Epaisseur	Epaisseur mise en place ne doit pas être inférieure de plus de 1 cm par rapport à épaisseur théorique indiquée sur plans ou définie par l'Ingénieur	1 tous les 250 m <sup>2</sup>
Mise en œuvre de la couche d'imprégnation ou de la couche d'accrochage	Dosage du liant	Ecart autorisé par rapport au dosage théorique ne doit pas excéder plus ou moins 0,05 kg/m <sup>2</sup>	
Toléranced'exécution	Viagrape	80 % des valeurs 10mm de pénétration	1 longitudinale par voie

\* for at least 90% of the measurements taken.

For the cases of base layers in gravel-bitumen, the tests and controls will be identical to those carried out on dense mixes (see article B342 below).

### ARTICLE B 340 - PAVEMENT AND SIDEWALKS

#### ARTICLE B 341 - METHOD OF EXECUTION OF MULTI-LAYER COATINGS

The characteristics to which surface plasters must meet are defined below:

Aggregates

Class	Single layer	Double layer	Triple layer
1 <sup>st</sup> layer	6/10 ou 8/12	10/14 ou 8/15	10/14 ou 12/18
2 <sup>nd</sup> layer	-	6/10 ou 4/8	6/10 ou 8/12
3 <sup>rd</sup> layer	-	-	4/6 ou 4/8

Hardness: Los Angeles << 40 (preferential << 35%) or wet Micro-Deval << 25 (preferential << 20)

- Shape: % of element such that  $G/E < 1.56$  will be less than or equal 25

- Angularity: % crushed elements >> 50

- Cleanliness: % elements < 1 mm: < 4: T1 and T2

2: T3 and T4

- Adhesiveness: % fixed aggregates >> 90 vialit 20 ° C and >> 75 vialit 60 ° C

- Granulometry: class 4/8 - 8/12 - 12/18

- Accelerated polishing coefficient >> 40%

**Binders:**

We will use either:

- a cutback bitumen 150/250

- a 400/600 fluidized bitumen or cationic emulsion containing 65 - 70% bitumen 80/100 or 60/70 class T2, T3, T4.

**ARTICLE B342 - DENSE COATINGS**

**Aggregates:**

The granulation of the construction material will fall within the following reference range: (given as an indication)

Sieve (mm)	0,08	0,20	0,315	1	2	4	6	10
% Passing	5 - 9	8 - 14	10 - 18	20 - 32	30 - 45	50 - 60	65 - 75	90 - 100

The aggregates must have excellent granularity and a crushing index equal to 90.

The equivalent of sand measured on the 0 / 6.3 fraction of the reconstituted mixture will be at least equal to 60, on the 0/4 fraction of the sand; the equivalent of sand will be greater than 40.

The hardness by the Los Angeles test on the 6/10 class will be less than 35.

The binder content should be in the range 5.5 to 6.5 for bituminous concrete and 3.5 to 4.5 for serious bitumen.

Filler: The filler water content will be between 5 and 9%. The filler / bitumen ratio will be between 1.1 and 1.4.

**Bitumen:**

The binder will be pure bitumen with a 60/70 or 80/100 penetration.

Bitumens with a hardness greater than 150 or less than 50 are not recommended.

**Typical formulas for dense bituminous concrete:**

The Contractor will formulate the composition of the dense asphalt that he plans to use. This composition must correspond to the requirements of the table below: (given as an indication)

GRANNULATS	COMPOSITIONS ENVELOPPES	FORME - TYPE MOYENNE
Proportion of 6/10 ou 8/12 %	30 - 35	30
Proportion of 4/6 ou de 4/8 %	15 - 20	20
Proportion d'apport %	48 - 55	48
Filler d'apport %	1 - 3	2
Granulométry % passant		
Tamis 10 mm	95 - 100	97
6 mm	62 - 74	70
4 mm	48 - 58	49
2 mm	30 - 45	33
1 mm	20 - 28	23

0,315	10 – 19	14
0,2	6 – 15	10
0,08	5 – 9	7
Specific surface m <sup>2</sup> /Kg	8,7 – 14,7	11,8
Sand equivalent of fraction 0/6	> 60	> 6
Los Angeles	<< 35	<< 35
Flakiness index	Satisfactory	
Adhesivity VIALIT	Satisfactory	< 25
BITUMEN		
Hardness	60/70	60/70
MIXTURE		
% B.B.	2,3 – 3,0	2,6
Module de richesse % G.B.	3,0 – 3,9	3,75
Bitumen content % B.B.	5,5 – 6,5	6,2
Ratio filler/bitume %	1,1 – 1,4	1,2
Bitumen content G.B.	3,2 – 4,2	3,7
PERFORMANCE ANTICIPABLES		
4.1 – DURIEZ ou (LCPC)		
Rc DURIEZ à 18 °C 1+7 jrs air (bars) G.B.	50 – 100	65
B.B.	60 – 110	80
Ration Rc/Rc% G.B. – B.B.	0,65 – 0,85	0,70
Apparent density T/m <sup>3</sup> G.B. – B.B.	2,25 – 2,45	2,30
Compacity % G.B.	88 – 94	> 90
BB	90 – 96	>> 92
4.2. MARSHALL		
Stability at 60° Kg/cm <sup>2</sup> G.B.	700 – 1000	>> 850
B.B	800 – 1200	1000
Fluage en 1/10 mmG.B.	2,20 – 2,35	< 2,30
B.B.	2,25 – 2,45	< 2,35
Apparent density T/m <sup>3</sup> G.B. – B.B.	2,20 – 2,50	>> 2,35
Compacity % G.B.	91 – 95	> 93
B.B.	92 – 96	> 94
Residual void % G.B. – B.B.	12 – 4	8

#### ARTICLE B343 - CHECKING THE PROFILING AND THICKNESSES

These checks will be carried out in the presence of the Co-contractor and the representative of the Project Manager. These points will be materialized by metal spikes leveled at the level of the roadway and indicated by a circular mark of white paint 0.10 m in diameter with the profile number corresponding to the project.

##### a) Long profile

No point on the axis of the finished roadway shall deviate by more than 1cm more or less compared to the longitudinal profile of the approved project. These checks will be made every 200 m. The frequency can be increased at the request of the Project Manager

##### b) Cross section

For streets where the width does not exceed 7 m, a circle with the theoretical profile of the roadway, applied in a plane perpendicular to the axis, must not highlight points located more than 2 cm below the edge of the road the circle.

It is specified that this check will be carried out only once over the entire width of the roadway by means of a complete hoop and not by means of a semi-circle applied successively to the right part and the left part.

When the width of the road will no longer allow the use of the template, the check will be carried out using a level. As a general rule, no point on the roadway should be more or less 2 cm from the theoretical side.

### **c) Thickness**

This check will be carried out by three soundings in the different layers on the same cross section, a sounding in the axis of the roadway at 1 m from the edge of the sidewalk.

The profiles will be spaced 100 m from each other unless otherwise prescribed by the Project Manager. In any case, the thickness produced may not be less than the thickness prescribed or defined by the Project Manager.

If the average section thickness is more than 0.25cm lower and less than 1cm, price refraction will be applied.

Beyond that, the Co-contractor must implement an additional at least compensating layer, the thickness of which may not be less than 3 cm.

#### **ARTICLE B344 - CONTROL PROCEDURES**

The checks referred to in the table of article B341.1 may be prescribed by the Project Manager. The control referred to in article B342.2 will in principle be carried out before the placement of the surface layer.

The Project Manager may however prescribe it, even after the execution of the latter if there is reason to fear an insufficiency of the lower layers and in particular if the pavement shows signs of failure.

#### **ARTICLE B345 - OBLIGATION OF THE CO-CONTRACTOR WITH RESPECT TO CONTROL**

During the duration of the work, the Co-contractor must permanently have on the site the equipment necessary for the checks (in particular: control room, hoop, mason's level, slope indicator). He must also have the necessary personnel for the handling of these instruments.

#### **ARTICLE B346 - POSSIBLE LESS VALUES FOR NON-COMPLIANCE WITH THE TECHNICAL CLAUSES**

When the tolerances on the averages are exceeded, the Project Manager may order the Co-contractor to carry out a new adjustment of the manufacturing plant.

If, after giving the order to carry out a new adjustment, the Project Manager finds, at the end of the fixed period, that the tolerances on the averages are still exceeded, the following losses will be applied to the entire production: made between the time when new adjustments have been prescribed and the time of the previous sample which gave satisfactory results:

- by 0.1% difference in the dosage of the binder, 1% reduction on the price per m<sup>2</sup> installed with a maximum of 5%,
- by 0.1% difference in the amount of sand filler, 1% reduction with a maximum of 5% for the total of the two reductions for filler and sand,
- by 0.1% difference in the dosage of aggregates, 1% reduction with a maximum of 5% for the total reductions on the aggregates.

#### **ARTICLE B1000 - ENVIRONMENTAL DIRECTIVES**

##### **Context**

Road maintenance works and those for the construction of new roads have been carried out in the past without taking into account considerations relating to environmental protection or those inherent in mitigating impacts on the environment, due to the fact that the markets did not include clauses relating to environmental protection.

In response to the commitments made with the international community for the protection of the environment, the Cameroonian Government in 1996 drafted Law No. 96/12 of August 5, 1996 on the framework law on environmental management. This law establishes the general legal framework for environmental management in Cameroon and specifies in its 2nd chapter, the measures to be taken to avoid, mitigate and / or eliminate negative impacts on the environment, during the execution of certain projects and works.

In order to preserve the natural environment in relation to the major modifications that construction work and maintenance of urban roads are likely to produce, the Ministry of Housing and Urban Development has drawn up specific environmental clauses to be implemented. implemented during project execution respond to calls for tenders falling within its competence.

In this perspective, companies which, through the maintenance of urban roads launched by MINH DU, must now comply with the clauses published below if they are retained.

## 1) SITE INSTALLATION

The provisions mentioned below must be observed, as the case may be.

The Co-contractor must, for the protection of the environment, develop a site protection plan and submit to the project manager for approval.

Choose the installation site outside sensitive areas (lowlands, coastal areas, watersheds) at a distance of at least:

- 30 m from the road;
- 100 m from a watercourse;
- 100 m from the houses.

The internal site regulations must specifically mention:

- Safety rules;
- The ban on the consumption of alcohol during working hours;
- Staff awareness of the danger of STD / AIDS;
- Respect for the habits and customs of neighbouring populations;

Information and awareness sessions must be held regularly and the rules must be displayed visibly in the various facilities.

Choose the location of its deposits (quarries, borrowings) and material deposits so as not to cause disturbances damaging to the environment,

Take all the necessary measures to avoid accidental pollution of water or soil during the work.

Receptacles for receiving waste are to be installed near the various facilities. These receptacles are to be emptied periodically and the waste deposited in a dump. Toxic waste must be recovered separately and treated separately according to established standards.

The equipment washing areas must be concreted in the same way, a sump for recovering oils and greases. This maintenance area must have a slope towards the sump and towards the interior of the platform in order to prevent the flow of pollutants towards unpaved floors.

The storage areas for hydrocarbons for refuelling, the storage area for binders and hydrocarbons for the coating must be concreted and include protective devices in order to prevent accidental spillage of these products and soil contamination. Absorbent products should be stored nearby and all safety equipment and measures in place.

Used oils should be stored in drums to be stored in a secure place pending their recovery for recycling; batteries and oil filters must be stored in sealed containers ultimately intended for a recycling center,

The site should provide adequate water drainage over its entire area.

At the end of the work, the Co-contractor will carry out all the work necessary for the repair of the premises.

After the equipment has been withdrawn, a report recording the restoration of the site must be drawn up and attached to the Work acceptance report.

### INSTALLATIONS CARRIED OUT BY THE CONTRACTOR

Installations carried out by the Contractor and made available to the Client:

- Meeting room equipped with:
  - table and chairs to accommodate 20 people
  - billboard
  - an office each equipped with a desk + 1 armchair + 2 chairs
- A sanitary unit connected to the external network (WC and showers).

These facilities will also be equipped with:

- an electrical energy connection,
- a running water supply,
- a drinking water dispenser

The Contractor will ensure that the Client or his assistant can access the site anywhere and at all times.

During the entire duration of the contract, the Contractor will bear the building maintenance costs and in particular the costs of security, cleaning, electricity, water, telephone, internet, office supplies, ink cartridges for printers and office supplies.

Fire extinguishers are part of the equipment supplied by the Contractor.

## **2. CLEARING OF RIGHT OF WAY**

Brush clearing consists of cutting, without uprooting, any vegetation (grasses, trees, shrubs) growing on the immediate surroundings of the walk able surface: shoulders, ditches and ridges of embankments;

All trees and branches overhanging the surroundings and threatening to fall on the road will be cut down.

All vegetation at the entrance and exit of the structures will be cut, unless it serves to stabilize an embankment slope and does not constitute a threat to the foundation of the structure. Trees and shrubs are uprooted to facilitate water flow and allow regular inspections of the structure.

All plant waste will be carefully removed from shoulders, ditches or structures and evacuated to designated areas where it can be burned safely. Burning on site is strictly prohibited.

The Co-contractor must take all necessary precautions to avoid causing any damage to residents, water pipes, telephone lines, electricity etc.

## **3. BORROWS PITS AND DUMPING SITES**

The following criteria must be met for opening a career:

- Distance from the site at least 30 m from the road;
- Distance from the site to at least 100 m from a body of water;
- Distance from the site to at least 100 m from the dwellings;
- Preference to be given to uncultivated and non-forested areas;
- Preference to be given to areas with low slopes.

The Co-contractor must submit to the project manager the list of sites it intends to operate as well as a redevelopment plan for each site, indicating the work to be carried out for the rehabilitation of the sites operated.

He can only start working on the borrowings and quarries after having received the written authorization of the project manager.

During the execution of the work, the Co-contractor will ensure:

- That the areas for depositing roofing materials that cannot be used for the work are chosen so as not to interfere with the normal flow of water;
- The conservation of the plantations delimiting the quarry;
- Maintenance of access roads;
- Sound attenuation, protection vis-à-vis neighboring dwellings;
- The installation of all signs necessary for the smooth running of the work;
- Regular cleaning of the pavement of paved roads in the absence of a cleaning device for the wheels of trucks and machinery;
- That all measures are taken so that runoff can flow normally outside the right-of-way of the proposed road without causing damage to riparian properties;
- That the access and service roads are regularly watered and compacted in order to avoid the raising of dust during transport, loading and unloading of materials;
- That when operating quarries for maintenance work on paved roads, a device for cleaning the wheels of trucks and machinery is installed in order to prevent soiling of the pavement.

The works to be carried out for the rehabilitation of the above-mentioned sites will include, among others:

- The leveling of the roofing materials and then the levelling of the topsoil to facilitate the percolation of water and prevent erosion;
- The restoration of previous natural flows;
- Removal of the dilapidated appearance of the site by distributing and concealing large blocks;
- The development of guard ditches to prevent erosion of the regaled land;
- The withdrawal of all equipment, machinery and materials, the demolition of any installation and the removal of all waste and rubble and their deposit at an approved location.

After the sites have been repaired in accordance with the requirements, a report will be drawn up and attached to the reception report.

As soon as a loan or a deposit is abandoned, the area will be redeveloped in accordance with the proposed plans. Once the redevelopment is completed, the Co-contractor will inform the project manager so that an inventory can be drawn up.

#### **4. LOADING AND TRANSPORTATION OF MATERIALS AND EQUIPMENT**

For all transport of materials and equipment, whatever they are, the Co-contractor must comply with the regulations in force, concerning the restrictions imposed on the weights and sizes of vehicles and convoys using the public network and in particular:

Environmental protection measures (loss of materials during transport, dust, etc.) Take all the necessary measures to limit the speed of vehicles on the site;  
Installation of signs and flag carriers.  
Regularly water the traffic routes in inhabited areas;  
Plan deviations from existing tracks and roads.

#### **5. DEPOSITS AND MAINTENANCE OF THE WEARING COURSE**

The Co-contractor must deposit the materials to be used at regular intervals in areas that do not prevent the normal flow of water.

In order to ensure safe movement, the company must deposit only the quantities that can be used the same day (all the piles should be levelled at the end of the day).

The Co-contractor must, after scarifying the pavement, supplying materials and reshaping the materials to the grader:

- Water and compact the road;
- Organize the distribution of piles on one side of the road at a time over restricted distances;
- Carry out the adjustment as you go;
- Set up adequate mobile signage;
- Regulate transit traffic by flag bearers;
- Avoid the accumulation of lateral bulges on the aisles and ditches;
- Restore the drainage system and access to waterfront homes;
- Remove excess soil from ditches, deposit and level the land outside the right-of-way in places that do not obstruct the normal flow of water.

#### **6. MISCELLANEOUS REPROFILING**

The Co-contractor must, after scarifying the pavement and reshaping the materials with a grader, watering and compacting the pavement. He must :

- Avoid the accumulation of side bulges on the aisles and in ditches;
- Restore the drainage system and access to waterfront homes;
- Make passes with a grader until the corrugated sheet disappears;
- Make passes with a grader avoiding the creation of cords;
- Remove loose stones and place them outside the road right-of-way in places that do not obstruct the normal flow of water;
- Install signage on machinery, flag, flashing light;
- Install adequate mobile signage before the site;
- Regulate traffic by flag bearers.

#### **7 MAINTENANCE OF PEDESTRIAN TRACK OF TARRIED ROADS**

The Co-contractor must:

- Plan an installation in relation to the volume of work (see site installation);
- Work on unpaved shoulders as soon as the degradation reaches more than 3 cm;
- Bring the materials needed for recharging, spread them out and compact them after watering;
- Organize the distribution of piles on one side of the road over restricted distances;
- Carry out the adjustment as you go;
- Restore the platform water drainage system by adjusting the shoulders;

- Remove excess material in ditches, deposit and level the land outside the right-of-way in places that do not obstruct the normal flow of water;
- Put in place adequate signage;
- Regulate transit traffic by flag bearers;
- Avoid the accumulation of side cushions on the aisles and ditches.

## **8. PARTIAL JOBS USING VARIOUS MATERIALS**

The Co-contractor must make the same arrangements as in the site installation chapter. He must :

- Determine the locations of material deposits taking into account a minimum of brush clearing;
- Take drainage measures to prevent the aggregate from being washed away;
- Regularly remove loose chippings;
- Put in place adequate signage;
- Take safety measures for asphaltting installations. (bitumen heating, bitumen storage);
- Have absorbent products on site in the event of toxic product spills;
- Avoid carrying out work on days of popular demonstration;
- At the end of the work, the Co-contractor will do what is necessary for the restoration of the premises (withdrawal of all its equipment, machinery and materials), in order to restore the site as it was to its initial state;
- After the equipment has been withdrawn, a report noting the restoration of the site must be drawn up and attached to the work acceptance report.

## **9. VEGETATION CONTROL AT THE LEVEL OF SLOPES, ACCESSIBILITIES, PIT WALLS.**

Brush clearing consists of cutting without uprooting any vegetation (grasses, trees, shrubs) growing on the immediate surroundings of the walkable surface: shoulders, ditches, embankments and crests of embankments; the cut will be made at ground level, between 5 and 10 cm.

All waste will be carefully removed from shoulders, ditches or structures and evacuated to designated areas in a suitable location away from any dwelling. It is strictly forbidden to burn cut waste on site.

If the burning of waste is authorized at this location, the Co-contractor must have a tank of at least 10,000 liters and a sprinkler pump to prevent any possible spread of fire in the vicinity of the site.

It is forbidden to use the grader to clear the shoulders. The execution of brush cutting must be done manually. This task is labour intensive.

## **10. MANUAL OR MECHANICAL MAINTENANCE OF GUTTERS.**

The Co-contractor must:

- Clear the ditch manually or mechanically to restore the initial template;
- Leave the roots of the vegetation intact unless they present a threat to the structure;
- Carry out divergent ditches according to the instructions of the project manager if the section of the ditch is insufficient. Cleaning products should be set to a low thickness and in areas that do not require brush clearing and outside residential areas.

## **11. FIGHT AGAINST PIT EROSION**

The Co-contractor must:

- Carry out work to re-stabilize ditches and shoulders as well as the water speed limitation device according to the instructions of the project manager;
- Ensure site safety and report the work properly;
- Ensure that the materials deposited do not hinder the normal circulation of water;
- Clear the roadway of ditches repairs materials to avoid congestion;
- Restore the shoulders;
- Improve soil resistance by masonry or coated ditches following the instructions of the project manager;
- Ensure that all surplus materials are evacuated and leveled in a suitable place without hindering the normal flow of water.

## **12. MAINTENANCE OF DRAINAGE WORKS (Fight against silting up and erosion)**

Storage of materials and equipment required for the work should be done in areas outside of homes. The Co-contractor must:

- Clear all solid products obstructing the structures;
- Install gabions in areas with strong current;
- Reinforce the banks with riprap, gabions, masonry rip-rap;
- Reinforce the embankment soil of the banks;
- Adequately mark the work near the edge of the road;
- Carry out the work preferably before the rainy season.
- At the end of the work, remove all rubble and waste outside the right-of-way and to a place authorized by the project manager.

### 13. MAINTAINING TRAFFIC

- a) During the work, the Co-contractor is required to ensure traffic in sufficient safety conditions, and to take into account environmental protection measures (dust, noise, etc.).
- b) The routes of deviations from public traffic must be submitted to the project manager for approval before any work is carried out. If there is destruction of any property, the company must compensate the persons concerned.
- c) After the work, the company must restore the route of the deviations to its original state as much as possible, and in particular scarify the route in order to compact the soil and restore the vegetation.

### 14. SITE VISIT AND START OF WORK

All parties involved must be present. The authorities and the local population must be informed of the work to be carried out and whether any observations need to be made from them. The project manager will be able with the help of a local NGO to sensitize the populations on environmental aspects, and human relations between them and the site staff.

### 15. SANCTIONS AND PENALTIES

Law No. 96/12 of August 5, 1969 provides respectively in its articles 79, 82, 84 and 88 as follows:

- i) Is punished by a fine of two million (2,000,000) to five million (5,000,000) CFA francs and a prison sentence of six (06) months to (01) year or one only, anyone with:
  - carried out, without an impact study, a project requiring an impact study;
  - carried out a project that did not comply with the criteria, standards and measures set out for the impact study;
  - prevented the completion of the checks and analyzes provided for by said law and / or by its implementing texts;
- ii) Is punished by a fine of one million (1,000,000) to five million (5,000,000) CFA francs and a prison sentence of (06) months to (01) year or one of these two penalties only, any person who pollutes, degrades soils and subsoil, alters the quality of the air or water, in violation of the provisions of the said law. In the event of a repeat offense, the maximum amount of penalties is doubled;
- i) Is punished by a fine of five hundred thousand (500,000) to two million (2,000,000) CFA francs and a prison sentence of six (06) months to one (01) year or one of the only two, any person who operates an installation or uses a movable object in violation of the provisions of the said law. In the event of a repeat offense, the maximum amount of penalties is doubled;
- ii) Without prejudice to the prerogatives recognized to the public prosecutor, to judicial police officers with general competence, the sworn officers of the administration in charge of the environment or of other administrations concerned are responsible for the search, the observation and the prosecution in repression of infringements of the provisions of this law and its implementing texts.
- iii) A company violating or having violated the law raised during road works will be excluded for a period of one year from the right to tender.
- iv) Any breach of the requirements duly notified to the company by the project manager must be rectified. The resumption of work or additional work resulting from non-compliance with the clauses is the responsibility of the Co-contractor.

**3.2 - UNIT PRICE SCHEDULE FOR THE MAINTENANCE OF SOME TARRED ROADS IN  
BAMENDA I SUB-DIVISION.**

NO	DESIGNATION	UNIT	UNIT PRICE IN WORDS (FCFA)	UNIT PRICE IN FIGURES (FCFA)
<b>000</b>	<b>SITE INSTALLATION</b>			
001	Site installation	ff		
002	Bringing and withdrawal of equipment form site	ff		
	<b>Sub-total 000</b>			
<b>100</b>	<b>PREPARATION OF THE SITE</b>			
102	Cleaning and clearing of the right of way	m2		
	<b>Sub-total 100</b>			
<b>200</b>	<b>CARRIAGE WAY/EARTHWORK</b>			
201	Excavation for purge of carriageway	m3		
202	Stripping of existing roadway	m2		
203	Cut put in deposit	m3		
204	Fill from borrow pit	m3		
205	Molding of the plat form	m1		
206	Grading	m1		
207	Preparation of the plat-form	m2		
209a	Subgrade in laterite th=30	m3		
210b	Base course in laterite th=15cm	m3		
210c	Base course crushed gravel 0/31.5 th=15cm	m3		
214	Impregnation	m2		
217	Sanding	m2		
219	Maintenance of potholes with double coat surface dressing	m2		
219	Treatment of pot holes in asphalt th=5cm	m2		
	<b>Sub-total 200</b>			
<b>300</b>	<b>DRAINAGE</b>			
307	Cleaning of ditches in concrete or masonry	m1		
323	Reinforced concrete dosed at 400kg/m3 for stabilizing beam/ditches of 60x60cm	m3		
324	Slabs on ditches of 120x60cm th=15cm	m1		
	<b>Sub-total 300</b>			
<b>400</b>	<b>SIGNALISATION</b>			
401a	Horizontal signalization in white reflective paint l=12cm	m1		
	<b>Sub-total 400</b>			

### 3.3- COST ESTIMATE

(To be completed by the candidate)

COST ESTIMATE FOR THE MAINTENANCE OF SOME TARRED ROADS IN BAMBENDA CITY							
NO	DESIGNATION	UNIT	UNIT PRICE	QUANTITIES		TOTAL QUANTITY	AMOUNT
				Jua Hotel - Governor Junction	Army Camp - Ecole de Champion		
<b>000</b>	<b>SITE INSTALLATION</b>						
001	Site installation	ff				1.00	
002	Bringing and withdrawal of equipment form site	ff				1.00	
	<b>Sub-total 000</b>						
<b>100</b>	<b>PREPARATION OF THE SITE</b>						
102	Cleaning and clearing of the right of way	m2				0.00	
	<b>Sub-total 100</b>					0.00	
<b>200</b>	<b>CARRIAGE WAY/EARTHWORK</b>						
201	Excavation for purge of carriageway	m3				0.00	
202	Stripping of existing roadway	m2		625.00	484.00	1109.00	
203	Cut put in deposit	m3				0.00	
204	Fill from borrow pit	m3				0.00	
205	Molding of the plat form	ml				0.00	
206	Grading	ml				0.00	
207	Preparation of the plat-form	m2		625.00	484.00	1109.00	
209a	Subgrade in laterite th=30	m3				0.00	
210b	Base course in laterite th=15cm	m3		93.75	72.60	166.35	
210c	Base course crushed gravel 0/31.5 th=15cm	m3				0.00	
214	Impregnation	m2		760.00	484.00	1244.00	
217	Sanding	m2				0.00	
219	Maintenance of potholes with double coat surface dressing	m2		760.00	484.00	1244.00	
219	Treatment of pot holes in asphalt th=5cm	m2					
	<b>Sub-total 200</b>						
<b>300</b>	<b>DRAINAGE</b>						
307	Cleaning of ditches in concrete or masonry	ml		0.00	105.00	105.00	
323	Reinforced concrete dosed at 400kg/m3 for stabilizing beam/ditches of 60x60cm	m3				0.00	
324	Slabs on ditches of 120x60cm th=15cm	ml				0.00	
	<b>Sub-total 300</b>						
<b>400</b>	<b>SIGNALISATION</b>						
401a	Horizontal signalization in white reflective paint l=12cm	ml					
	<b>Sub-total 400</b>						
	<b>TOTAL (EAT)</b>						
	VAT (19.25 %)						
	IR (1.1%)						
	<b>TOTAL IAT</b>						
	<b>NET PAYMENT</b>						
THE PRESENT COST ESTIMATE IS FIXED AT: inclusive of taxes.							

### 3.4 – SUB-DETAILS OF PRICES

Price N° .....  
 Designation of work.....  
 Unit .....  
 Quantity .....  
 Daily output .....  
 Duration of execution .....

SUB-DETAIL OF UNIT PRICE					
<b>Designation of the Price:</b>					
N° Price	Daily output	Total quantity		unit	Duration (days)
<b>LABOUR</b>					
	CATEGORY	Number	Daily salary	Dayspaid	Amount
	<b>Total A</b>				
<b>MACHINES OR EQUIPMENT</b>					
	TYPE	Quantity	Daily rate	Dayspaid	Amount
	<b>Total B</b>				
<b>MATERIALS and miscellaneous</b>					
	TYPE	unit	Unit Price	Consumpt.	Amount
	<b>Total C</b>				
<b>D</b>	<b>TOTAL DRY PRICE A+B+C</b>			<b>A+B+C</b>	
<b>E</b>	Site expenses		%	<b>D*X%</b>	
<b>F</b>	Running expenses		%	<b>D*Y%</b>	
<b>G</b>	<b>COST PRICE</b>			<b>D+E+F</b>	
<b>H</b>	Risks + benefits		%	<b>G*Z%</b>	
<b>P</b>	<b>SELLING PRICE WITHOUT TAXES</b>			<b>G+H</b>	
<b>V</b>	<b>UNIT SELLING PRICE WITHOUT TAXES</b>			<b>P/QTE</b>	