



## KAVANGO EAST REGIONAL COUNCIL

# Request for Quotations for Works

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## UPGRADING OF GRAVEL ROADS TO INTERLOCKED PAVED ROADS AT NDIYONA PROPER KAVANGO EAST REGION – PHASE 2

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Procurement Reference No: **W/RFQ/KERC/RFA/25/2025/2026**

Document Issued: 20 February 2026

Non-Compulsory Site Visit: 25 February 2026 @ 09h30

Closing Date & Time: 02 March 2026 @ 12h00

Name of Bidder: \_\_\_\_\_

Contact Number of Bidder: \_\_\_\_\_

E-mail Address of Bidder: \_\_\_\_\_

Authorized Representative: \_\_\_\_\_

Bid Amount: N\$ \_\_\_\_\_

(From Summary Bill of Quantities, Inclusive of VAT)

*The Chairperson  
Procurement Management Unit  
Kavango East Regional Council  
E-mail: [jkangumber@kavangorc.gov.na](mailto:jkangumber@kavangorc.gov.na)  
Private Bag 2124, Rundu*

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Private Bag 2124  
Rundu

**Letter of Invitation**

20 February 2026

*Dear Prospective Bidders*

**Request For Quotation for The Upgrading of Gravel Roads to Interlocked Paved Roads at Ndiyona Proper, Kavango East Region - Phase 2**

The Kavango East Regional Council invites you to submit your best quote for the works described in detail hereunder.

Any resulting contract shall be subject to the terms and conditions referred to in the document.

Queries, if any, should be addressed to Kavango East Regional Council. Mr M. Siyemo: Cell: 0816598327, Tel:+264 66 266000, for administrative issues and Mr.M Mangundu: Cell: 081 142 9040, Tel: +264 66 266 000 on technical issues.

Please prepare and submit your quotation in accordance with the instructions given or inform the undersigned if you will not be submitting a quotation. Please prepare and submit your quotation by the instructions given or inform the undersigned if you will not be submitting a quotation.

Yours faithfully,

Mr. J M Kangumbe  
Head of Procurement Management Unit  
Kavango East Regional Council

20/02/2026



# BIDDING DOCUMENT

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## SECTION I: INSTRUCTIONS TO BIDDERS

### 1. Rights of Public Entity

The **Kavango East Regional Council** reserves the right:

- (a) to split the contract as per the lowest evaluated cost per lot; and
- (b) to accept or reject any quotation or to cancel the quotation process and reject all quotations at any time before the contract award.

### 2. Preparation of Quotations

You are requested to quote for the works mentioned in Section III, by completing, signing, and returning:

- (a) the Quotation Letter in Section II with its annexe for Bid Securing Declaration, where applicable;
- (b) the Priced Activity Schedule in Section IV;
- (c) the Specifications and Compliance Sheet in Section V; and
- (d) any other attachment as deemed appropriate

You are advised to carefully read the complete Request for Quotations document, including the Special Conditions of Contract in Section VII, before preparing your Quotation. The standard forms in this document may be retyped for completion but the Bidder is responsible for their accurate reproduction.

### 3. Validity of Quotations

The quotation validity period shall be **90 days** from the date of the bid submission deadline.

### 4. Eligibility Criteria

To be eligible to participate in this Quotation exercise, you should:

- (a) Have a valid company Registration Certificate;
- (b) have an original/Certified Copy valid good standing Tax Certificate;
- (c) have an original valid/Certified Copy good Standing Social Security Certificate;
- (d) have a valid certified copy of Affirmative Action Compliance Certificate, proof from Employment Equity Commissioner that bidder is not a relevant employer or exemption issued in terms of Section 42 of the Affirmative Action Act, 1998;
- (e) have a written undertaking as contemplated in section 138(2) of the Labour Act, 2007
- (f) Have a Valid Original/Certified Copy of BIPA Certificate
- (g) Submit signed bid securing declaration (Appendix to Quotation Letter – A);
- (h) Submit table of experience and reference contacts (Appendix to Quotation Letter – B)

- (i) Submit table of proposed key personnel (Appendix to Quotation Letter – C)
- (j) Submit Company Profile
- (k) Submit work Program indicating duration and deliverable milestones

## **5. Bid Security/Bid Securing Declaration**

Bidders are required to submit a Bid Securing Declaration for this procurement process.

## **6. Contractor's Project Team**

Bidders shall provide detailed CV of the contractor's project team to be appointed for this project. CV submitted must be signed by the respective owners and should be relevant for this bid (not general). Copies of qualifications should be certified by authorized entities.

*The proposed personnel to be made available for the contract by the successful bidder shall have the following minimum qualifications and experience. These personnel will be evaluated under the evaluation criteria.*

- The Contract Manager shall have passed Grade 12, as well as had some relevant tertiary qualifications in project management and at least 10 years' experience, with 5 years' experience in projects of this nature.
- The Site Agent shall have passed at least 5 years in civil works related projects with a minimum National Diploma in Construction Management, Civil Engineering, or any other related field.
- The General Foreman shall have at least 10 years' experience in civil works related projects.
- The Land Surveyor shall have a National Diploma in Surveying with at least 5 years' experience in land surveying with at least 3 years' experience in projects of this nature.

## **7. Works Completion Period**

The completion period for works shall be **3 Calendar Months** after acceptance and issue of Purchase Order. Deviation in the completion period shall not be accepted.

## **8. Sealing and Marking of Quotations**

Quotations should be sealed in a single envelope, clearly marked with the Procurement Reference Number, addressed to the Public Entity with the Bidder's name at the back of the envelope.

## **9. Submission of Quotations**

Quotations should be deposited in the Quotation/Bid Box located at **Office No 11** not later than **Monday, 02 March 2026 by 12H00**. Quotations by post or hand delivered should reach Private Bag 2124 Rundu, Maria Mwengere Street by the same date and time. Late quotations will be rejected.

Quotations received by e-mail will not be considered

## **10. Non-Compulsory Pre-Bid Meeting**

A Compulsory pre-bid meeting has been scheduled for:

Date: 25 February 2026

Time: 09h30

Venue: Ndiyona Settlement Office

Briefing will take place at the Ndiyona Settlement Office where after everyone will depart to the site.

Contractors advised to not leave the meeting without their Certificate of Attendance signed.

## **11. Opening of Quotations**

Quotations will be opened internally by the Public Entity immediately after the closing time referred to in section 8 above. A record of the Quotation Opening stating the name of the bidders, the amount quoted, the presence or absence of a Bid Securing Declaration will be posted on the website of the Public Entity and available to any bidder on request within seven calendar days of the Opening.

## **12. Evaluation of Quotations**

The Public Entity shall have the right to request clarifications in writing during evaluation. Substantially responsive offers shall be compared based on evaluated cost, subject to Margin of Preference where applicable, to determine the lowest evaluated quotation.

## **13. Technical Compliance**

Bidders shall submit along with their quotations documents, catalogues and any other literature to substantiate compliance with the required specifications and to qualify deviations if any with respect to Public Entity's requirements.

The Specifications, Performance Requirements and Compliance Sheet details the minimum specifications of the goods/items to be supplied. The specifications have to be met but no credit will be given for exceeding the specifications.

## **14. Prices and Currency of Payment**

Prices for the execution of works shall be fixed in Namibian Dollars as quoted.

Quotations shall cover all costs of labour, materials, equipment, overheads, profits, and all associated costs for performing the works, and shall include all duties. The whole cost of performing the works shall be included in the items stated, and the cost of any incidental works shall be deemed to be included in the prices quoted.

**15. Correction of Arithmetical Errors**

Provided that the bid is substantially responsive, the Employer shall correct arithmetical errors on the following basis:

- (a) only for unit price contracts, if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Employer there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected;
- (b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
- (c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above

**16. Margin of Preference**

Not Applicable

**17. Award of Contract**

The Bidder having submitted the lowest evaluated responsive quotation and qualified to perform the works shall be selected for award of contract. Award of the contract shall be by the issue of **Letter of Acceptance** by terms and conditions contained in Section VI: Contract Agreement and General Conditions of Contract.

**18. Performance Security**

- a) The successful bidder shall within thirty (30) days of the receipt of the notification of award from the Employer, submit a Performance Security as per the format contained in the Schedule for an amount of 10 % of the contract price.
- b) Failure of the successful Bidder to submit the above-mentioned Performance Security or to sign the Contract Agreement within the prescribed delay shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security

**19. Notification of Award and Debriefing**

The Public Entity shall after awarding of contract promptly inform all unsuccessful bidders in writing of the name and address of the successful bidder and the contract amount and post a notice of award on its website within 7 days. Furthermore, the Public Entity shall attend to all requests for debriefing made in writing within 7 days of the unsuccessful bidders being informed of the award.

## SECTION II: QUOTATION LETTER

(to be completed by Bidders)

*[Complete this form with all the requested details and submit it as the first page of your quotation with the Priced Activity Schedule and documents requested above. A signature and authorisation on this form will confirm that the terms and conditions of the RFQ prevail over any attachments.*

***If your quotation is not authorised, it will be rejected***

Quotation addressed to:	<b>Kavango East Regional Council</b>
Procurement Reference Number:	<b>W/RFQ/KERC/RFA/25/2025/2026</b>
The subject matter of Procurement:	<b>Upgrading of Gravel Roads to Interlocked Paved Roads at Ndiyona Settlement – Phase 2</b>

We offer to execute the Works detailed in the Statement of Requirements, by the terms and conditions stated in your Request for Sealed Quotations referenced above.

We confirm that we are eligible to participate in this Quotation exercise and meet the eligibility criteria specified in Section 1: Instructions to Bidders

We undertake to abide by the Conduct of Bidders and Suppliers as provided under the Public Procurement Act during the procurement process and the execution of any resulting contract.

We declare that the salaries and wages to be paid in respect of this quotation are compliant with the relevant Laws, Remuneration Order and Award where applicable and that we shall abide to clause 52 of the General Conditions of Contract, if we are awarded the contract or part thereof.

We have read and understood the content of the Bid Securing Declaration (BSD) attached hereto and subscribe fully to the terms and conditions contained therein. We further understand that this subscription could lead to **disqualification on the grounds mentioned in the BDS**.

The validity period of our Quotation is **ninety (90) days** from the date of the bid submission deadline.

We confirm that the prices quoted in the Priced Activity Schedule are fixed and firm and will not be subject to revision or variation if we are awarded the contract **before the expiry** date of the quotation validity.

Works will commence within **seven (7) days** from date of issue of the Letter of Acceptance.

Works will be completed within **ninety (90) calendar days** from date of issue of the Letter of acceptance.

### Quotation Authorised by:

Name of Bidder:		Company's Address and seal	
Contact Person:			
Name of Person Authorising the Quotation:		Position:	Signature:
Date		Phone No./E-mail	

**Appendix to Quotation Letter - A**

**BID SECURING DECLARATION  
(Section 45 of Act)  
(Regulation 37(1)(b) and  
37(5))**

**Date:** .....[Day|month|year].

**Procurement Ref No.:** W/RFQ/KERC/RFA/25/2025/2026

**To:** Kavango East Regional Council

I/We\* understand that in terms of section 45 of the Act a public entity must include in the bidding document the requirement for a declaration as an alternative form of bid security.

I/We\* accept that under section 45 of the Act, I/we\* may be suspended or disqualified in the event of

- (a) **a modification or withdrawal of a bid after the deadline for submission of bids during the period of validity;**
- (b) **refusal by a bidder to accept a correction of an error appearing on the face of a bid;**
- (c) **failure to sign a procurement contract by the terms and conditions outlined in the bidding document, should I/We\* be successful bidder; or**
- (d) **failure to provide security for the performance of the procurement contract if required to do so by the bidding document.**

I/We\* understand this bid securing declaration ceases to be valid if I am/We are\* not the successful Bidder

Signed: .....  
[insert signature of the person whose name and capacity are shown]

Capacity of:  
[indicate the legal capacity of the person(s) signing the Bid Securing Declaration]

Name: .....  
[insert complete name of the person signing the Bid Securing Declaration]

Duly authorized to sign the bid for and on behalf of: .....  
[insert complete name of Bidder]

Dated on \_\_\_\_\_ day of \_\_\_\_\_  
[insert date of signing]

Corporate Seal (where appropriate)  
[Note\*: In case of a joint venture, the bid securing declaration must be in the name of all partners to the joint venture that submits the bid.]

***\*delete if not applicable/appropriate***



**Republic Of Namibia**

**Ministry of Labour, Industrial Relations and Employment Creation**

**Witten undertaking in terms of section 138 of the Labour Act, 2015 and section 50(2)(D) of the Public Procurement Act, 2015**

**1. EMPLOYERS DETAILS**

Company Trade Name: .....

Registration Number:.....

Vat Number: .....

Industry/Sector: .....

Place of Business: .....

Physical Address: .....

Tell No: .....

Fax No: .....

Email Address: .....

Postal Address: .....

Full name of Owner/Accounting Officer: .....

Email Address: .....

**2. PROCUREMENT DETAILS**

Procurement Reference No: .....

Procurement Description: .....

.....

Anticipated Contract Duration: .....

The location where work will be done, goods/services will be delivered:

.....

.....

**3. UNDERTAKING**

I ....., owner/representative  
of .....

hereby undertake in writing that my company will at all relevant times comply fully with the relevant provisions of the Labour Act and the Terms and Conditions of Collective Agreements as applicable.

I am fully aware that failure to abide by such shall lead to the action as stipulated in section 138 of the Labour Act, 2007, which include but not limited to the cancellation of the contract/licence/grant/permit or concession.

**Signature:** .....

**Date:** .....

**Seal:**.....

Please take note:

1. A labour inspector may conduct unannounced inspections to assess the level of compliance
2. This undertaking must be displayed at the workplace where it will be readily accessible and visible by the employees rendering service(s) in relations to the goods and services being procured under this contract.

**Appendix to Quotation Letter - B****EXPERIENCE AND REFERENCES CONTACT DETAILS**

Number **3** of works of nature and amount similar to the Works performed as prime Contractor over the last **3 -5** years.

Project/Contract name and country	Name of Consultant, Contact Person and Contact Number	Type of work performed and year of completion	Value of contract in NAD
(a)			
(b)			
(c)			
(d)			
(e)			

**Appendix to Quotation Letter - C****QUALIFICATIONS AND EXPERIENCE OF KEY PERSONNEL PROPOSED**

Qualifications and experience of key personnel proposed for administration and execution of the Contract. *[Attach biographical data.]*

Position	Name	Years of experience (general)	Years of experience in the proposed position
(a)			
(b)			
(c)			
(d)			
(e)			
(f)			
(g)			

**Appendix to Quotation Letter - D**

**CERTIFICATE OF SITE INSPECTION ATTENDANCE**

This is to certify that I, .....

.....

representative of (tenderer) .....

.....

accompanied by (Engineer) .....

.....

visited the Site on (date) .....

Having previously studied the bidding documents, I carefully examined the site.

I have made myself familiar with all local conditions likely to influence the work and the cost thereof.

I further certify that I am satisfied with the description of the work and explanations given by the Engineer and that I understand perfectly the work to be done, as specified and implied in the execution of this contract.

.....  
**SIGNATURE OF TENDERER**

**DATE:** .....

.....  
**SIGNATURE OF ENGINEER**

**Appendix to Quotation Letter - E**

**CERTIFICATE OF AUTHORITY TO KAVANGO EAST REGIONAL COUNCIL**

I, .....

The undersigned, a director of the Board of Directors of said company or duly authorised by resolution of the Board of Directors, herewith provide authority to the Kavango East Regional Council permission to verify all information provided by the bidder in this document should the Council require to verify information during evaluation period.

Contractor : .....

Date : .....

Witness 1 : .....

Witness 2 : .....

## **SECTION III: STATEMENT OF REQUIREMENTS**

### **A. SCOPE OF WORKS, SPECIFICATIONS AND PERFORMANCE REQUIREMENTS**

#### **A.1 INTRODUCTION**

The project scope of works under this Contract comprises of the upgrading of existing gravel roads with 80mm 35MPa interlocking pavers under the Council's capital project programme in Ndiyona Proper in Kavango East Region.

The full scope of the works required to be carried out under the contract may increase or decrease depending on the budgetary constraints on the project.

#### **A.2 GENERAL DESCRIPTION OF WORKS**

The bidder should take note that the general description of the works serves to outline the extent of the works, but does not limit the amount of work, which may be required of the Contractor under this contract and in fulfilment of the project objectives. Holistic reference must be made to Section III: Statement of Requirements (including Scope of Work, Project Specifications and the Bid Drawings) and Section IV: Priced Activity Schedule for a complete description of the works.

##### **A.2.1 GENERAL**

The following activities will form part of the Contract:

- a) Site establishment
- b) Roadbed layer 150mm
- c) Subbase layer of 150mm (G5 material)
- d) 80mm 35MPa interlocking pavers
- e) Stormwater concrete drift
- f) Stormwater earth v-drains
- g) De-establishment of site

#### **A.3 CONSTRUCTION OF PAVED ROADS**

##### **A.3.1 GENERAL**

The road consists of approximately 100m. This road will be paved with 80mm 35MPa interlocking pavers with a carriageway width of 6.4m.

##### **A.3.2 BULK EARTHWORKS**

The road has been designed to closely follow the existing gravel road level with stormwater from road flowing towards the existing NGL. The road cambers with 2% from the centreline.

##### **A.3.3 A.3.4 PAVEMENT DESIGN FOR THE CONSTRUCTION OF PAVED ROADS**

The layer works to the gravel road will conform to the following minimum standards:

- a) 80 mm 35MPa interlocking pavers in herringbone pattern.
- b) 150 mm G5 Subbase with a minimum CBR of 45% at 95% of modified AASHTO maximum density compacted to a minimum of 95% of modified AASHTO maximum density.
- c) Fill material (where required) G10 with a minimum CBR of 3% at 93% of modified AASHTO maximum density compacted in layers of no more than 150 mm to a minimum of 93% of modified AASHTO maximum density for gravel material.
- d) Rip and re-compact existing in-situ material to a minimum of 95% of modified AASHTO maximum density.

#### A.3.4 PAVEMENT DESIGN FOR THE CONSTRUCTION OF PAVED SIDEWALKS

#### A.4 ROADS TO BE CONSTRUCTED

The following roads are to be constructed:

- a. A portion of Road 2 and Road 5.

#### A.5 NATURE OF GROUND AND SUBSOIL CONDITIONS

Ground water is expected at depths of 3-4m. The water table may rise during the rainy season and the **Bidder shall include in his rates for the accommodation of such ground water in any excavations required for the execution of the scope of work. No specific claims for payment for groundwater or dewatering operations will be accepted.**

The soil is a fine silt/sand and deeper excavations will have to be over excavated to avoid collapsing side walls, especially where groundwater is encountered. Alternatively, the bidder may opt to do shoring/short concreting to stabilise side walls. **The Bidder shall again allow for any dewatering or shoring requirements in his bid rates for the excavations. Bidders are to fully acquaint themselves with the subsoil conditions in this area.**

Hard rock excavations are expected. However, should it be encountered, blasting shall not be allowed without the authorisation of the Client and Engineer.

The above-mentioned information is a general guideline and will not relieve the Contractor of his responsibilities in terms of the General Conditions of Contract to satisfy himself with the conditions on site.

#### A.6 CONSTRUCTION PROGRAMME

The contract period will be **ninety (90) calendar days** and the contractor's proposed construction programme must reflect this period for construction. The contract period includes all public holidays as well as the December builder's holiday. The construction programme must include all required work tasks to carry out the works, indicate dependence between tasks as well as the critical path.

The detailed programme must be submitted to the Project Manager for approval within a maximum of 14 days from Notification of Award.

**The programme MUST indicate the critical path and any extension of time evaluation will be based on the effect on the critical path.** It remains the Contractor's responsibility to mitigate delays at all times.

#### **A.7 SITE FACILITIES AVAILABLE**

The Contractor shall make his own arrangements for the supply of water, telecommunications and power required by him for the execution of the works. The Bidder shall allow for the cost of all such arrangements in his bid rates and no additional payment claims for construction water, telecommunications, electrical supply, or sewerage arrangements will be accepted.

Cost incurred in installing water, telecommunications, or electrical supply line from the supply points to the construction camp and/or works shall be for the Contractor's account.

The Contractor will be held responsible for any damages to the supply lines and fittings for the duration of the contract.

#### **A.8 SITE FACILITIES REQUIRED**

##### **A.8.1 LABORATORY FACILITIES**

The Contractor will not be required to have a testing laboratory on site. A recognised and Project Manager approved testing laboratory will be appointed by the Contractor to carry out all acceptance control tests as required by the Project Specifications. No additional payments will be made towards the testing of work as per the project specifications and the Contractor should allow for the required testing in his bid rates.

The PM will not require any laboratory facilities. Acceptance control testing required by the PM will be carried out in special cases by an approved independent laboratory. A provisional sum has been provided in the Bill of Quantities for any tests ordered by the PM, which are in addition to the Contractor's full testing requirements as per SANS 1200 and the Particular Project Specifications. Should the PM order PM's Control Testing to be done, the Contractor will be responsible for payment of the control laboratory invoice but will claim back such cost on the first claim following payment for the control testing.

##### **A.8.2 CONTRACTOR'S SITE SANITARY FACILITIES**

The Contractor shall provide and maintain adequate and proper ablution facilities for his site personnel at all times.

Latrines shall be effectively screened from view and maintained in a clean and sanitary condition. The Contractor shall make all the necessary arrangements for the regular removal and emptying of the sanitary pails at his own cost.

If at any time the Contractor fails to observe the previously mentioned conditions and after being notified by the PM, fails to rectify conditions, the PM shall have the right to order

such materials and appoint any workers as may be seen necessary to maintain the sanitary facilities as set out above. All related costs will be for the Contractor's account.

#### **A.8.3 PROJECT MANAGER'S SITE OFFICE AND ASSOCIATED FACILITIES**

The PM will not require a site office for this contract. The Contractor will however ensure a well-built and sufficiently ventilated and cooled office is available on site in which to have the monthly progress meetings. This meeting office will have a large boardroom table with sufficient seating for 5 – 10 persons.

#### **A.9 SURVEY BEACONS, BENCHMARKS AND REFERENCE PEGS**

At the start of the project, the Contractor will appoint a registered surveyor to verify any erf pegs that are needed for the proper execution of the works. The PM will avail to the Contractor the survey performed for design purposes. The Contractor's surveyor will also conduct his own natural ground survey to compare to the design and ensure the design survey is accurate and correct. No claims resulting in negligence by the Contractor to do his own initial natural ground survey will be approved.

The Contractor is responsible for the setting out of the Works and no separate payment will be made therefore as the cost involved for the setting out of the Works is deemed to be included in the tendered sum for the item "Contractor's General Obligations" and "Survey Allowance".

The works shall be set out by a qualified surveyor. The Contractor shall also ensure that no survey beacons, erf pegs, and benchmarks are covered up or disturbed.

After the completion of the Construction and prior to the issue of the Completion Certificate, the Contractor will supply a Land Surveyor's Certificate, certifying that all pegs have been checked and re-established where necessary. The cost of such a survey will also be for the account of the Contractor.

The Contractor must take into account that the erf pegs along the construction works could and most probably will be damaged, disturbed or removed during normal construction processes and it will be for the Contractor's account to replace and certify such erf pegs as set out above.

#### **A.10 LOCATION OF SITE CAMP AND MATERIALS STORAGE AREA**

The Contractor will establish his site camp and material storage area at a location on Site which is approved by the PM and the Employer.

Before occupying the Site for the execution of this Contract, the Contractor shall submit for the PM's approval a proposal for the layout of all his camp and storage areas.

**A.11 ACCOMMODATION OF EMPLOYEES**

With the exception of a night watchman, employees may not be housed or accommodated on the site of the Works unless otherwise approved by the Employer.

**A.12 CONTRACT SIGNBOARDS**

One contract Sign Board is required to be erected for this contract. The Sign Board shall be erected to the standards of the Association of Consulting Engineers of Namibia (ACEN) which will be made available to the Contractor after appointment.

**A.13 PROVISION OF SURVEY INSTRUMENTS FOR PM'S REPRESENTATIVE**

The Contractor shall provide the PM's representative with a good quality PM's level and levelling staff and other survey equipment as may be necessary. The survey equipment shall be maintained in good order and be calibrated at all times.

The Contractor shall provide at his expense two men to assist the PM's representative when checking any section of the Works.

**A.14 SAFETY AND SECURITY ON SITE****A.14.1 SECURITY**

It shall be the responsibility of the Contractor to control access to the site during the execution of the Contract to prevent any unauthorised persons from entering the site.

The Contractor shall provide security guards for this Contract as he deems fit.

**A.14.2 SAFETY**

The Contractor shall appoint a Safety Responsible Person as well as an assistant for him/her and their names shall be forwarded to the PM in writing before any work may commence. The Responsible Person shall legally be responsible for all safety on site. No work may be executed on site if neither of these two persons are on site.

The Contractor will be responsible for the safety of his personnel and the site in general at all times. All laws, rules, and regulations including the Machinery and Occupational Safety Act shall be strictly followed in this regard and all the necessary precautions and measures shall be taken to ensure the safety of personnel, the public, and equipment.

Deep excavations shall be demarcated with at least excavated ridges as well as danger tape, to be maintained by the Contractor at all times while the trench excavations are open. The Contractor shall explicitly plan his work in such a way as to minimise the duration deep trenches remain open.

### A.14.3 SAFEGUARDING OF EXCAVATIONS

The responsibility of safeguarding of excavations lies entirely with the Contractor. No additional payment will be made for shoring or protecting trenches from collapse. These costs shall be deemed to be included in the rates tendered for excavation.

The Contractor shall further take all necessary steps to safeguard the public from open excavations. The area is built up with a lot of expected foot traffic on site. The Contractor shall allow for these safety measures in his rates and no additional payment will be made.

### A.15 OVERHAUL

All rates tendered for material or excavation shall allow for all hauling to or from the site. For this Contract “free haul” shall therefore continue indefinitely and no overhaul shall be paid, unless otherwise specified.

### A.16 FEATURES REQUIRING SPECIAL ATTENTION

#### A.16.1 EXISTING SERVICES

The Contractor shall acquaint himself with the position of all existing services before any excavation or other work likely to affect the existing services is commenced. Bidders must take note of numerous existing services as the area is a built-up area. It will be the Contractor’s responsibility to liaise with local authorities and utility companies to aim and identify as accurately as possible all existing services and accordingly plan for minimum damage. Known existing services include existing bitumen standard roads, underground water and sewer lines, underground electrical lines, streetlights, and telecom cables.

The Contractor will be held responsible for any damage to “known” existing services caused by or arising out of his operations. Existing services will be considered “known” if it is either shown on the construction drawings or shown to the Contractor on site or deemed to have been obtainable from local authorities and utilities by the reasonable Contractor. The penalty for damage to a “known” existing service will be N\$ 2,500.00 plus the cost of repairing and reinstating such service.

Excavation by hand to expose existing services will be paid under the relevant bill item. The PM to approve the intended extents and evidence of volume excavated to be provided by the Contractor to the PM for measurement, verification, and payment. No additional payment will be made for temporary protection of services, deemed to be included in the bill rates.

#### A.16.2.SITE SUPERVISION AND TESTING

The Contractor shall ensure that sufficient supervisory staff, the required transport, instruments, equipment, and tools are available to control works on site. The PM or his representative will NOT act as a supervisor, foreman or surveyor.

All construction activities shall be executed and supervised by suitably qualified and experienced personnel. The responsibility of proving quality of work lies with the Contractor. With the assistance of the PM, an acceptable quality assurance system shall be implemented. The Contractor will be required to follow the procedures set by this QA system. Failure to do so will result in the rejection of work constructed in non-compliance with the approved QA system.

#### **A.16.3 DISPOSAL OF SPOIL OR SURPLUS MATERIAL**

All costs related to the disposal of unwanted rubble and waste shall be deemed to be included in the tendered rates and no additional claims in this regard will be considered. Good quality surplus material obtained from on-site excavations and not used as selected fill upon instruction to do so, can be spread within or around the site area upon approval and instruction of the PM.

Building rubble and domestic waste shall be removed from site and be dumped at approved municipal waste disposal sites. Burning of any kind of waste on site will NOT be allowed.

#### **A.16.4 TRAFFIC CONTROL AND ACCESS TO PROPERTY**

The successful Contractor must allow for provision and erection of all necessary barricading and road traffic sign-boarding where required.

The Contractor must take cognisance of the fact that the area to be serviced is built up. All accesses to properties must be maintained. The cost of this to be allowed for in the bid rates.

#### **A.16.5 RESTORING SURFACES**

All rubbish, tools, tackle, plant, and material must be removed immediately from each section of the work as soon as it is completed. Each completed section of the work is to be left in a neat, tidy, and orderly state.

The Contractor will be held responsible for all damage to existing road surfaces, kerbs and channels outside the specified excavation dimensions, and the work has to be restored at his own expense to the satisfaction of the PM.

#### **A.16.6 ROADMARKING**

Road markings has been measured twice in the Bill of Quantities. All road markings are required to be completed and approved before issue of the Certificate of Completion. The second round of road marking will be executed by the Contractor near the end of the Defects Notification Period and shall be approved by the PM before issue of the Defects Certificate.

### **A.17 SOURCES OF MATERIALS**

#### **A.17.1 SELECTED FILL MATERIAL**

Selected fill G10 material will be sourced from borrow pits identified by the Contractor. The quality of the selected material will remain the responsibility of the Contractor.

Acceptance test will be done of the material in-situ after construction and compaction of the layer have been completed. Should the material fail the acceptance tests, it will be removed on the Contractor's account and no additional payment will be made in this regard.

#### **A.17.2 SUBBASE MATERIAL**

Subbase material shall be obtained from a commercial source. Acceptance test will be done of the material in-situ after construction and compaction of the subbase layer have been completed. Should the material fail the acceptance tests, it will be removed on the Contractor's account and no additional payment will be made in this regard.

#### **A.18 QUALITY CONTROL**

It will be the full responsibility of the Contractor to undertake appropriate quality control and quality assurance measures on site. The PM shall audit the Contractor's QA system on a regular basis to ensure that adequate independent checks and tests are being carried out and to ensure that the Contractor's own controls are sufficient to identify any possible quality problems which could cause a delay on the programme.

Quality control tests on materials and work executed will be very important on this Contract. Materials not tested and approved will not be allowed on site.

#### **A.19 COPYRIGHT**

All records connected with or referring to the contract in any way shall become the property of the Employer in whom the copyright shall rest.

## **B. PROJECT SPECIFICATIONS**

### **B.1. APPLICABLE STANDARDIZED AND GENERAL SPECIFICATIONS**

The applicable standard specifications for this Contract will be the latest versions of the "Standardized Specification for Civil Engineering Construction, SANS 1200" at the time of the bid deadline. None of the above standard specifications is included in this document and it is the Bidder's responsibility to familiarise himself with the SANS 1200 suite of specifications.

The following sections of the SANS 1200 will apply to this contract:

- SANS 1200 A GENERAL
- SANS 1200 C SITE CLEARANCE
- SANS 1200 D EARTHWORKS
- SANS 1200 DB EARTHWORKS (PIPE TRENCHES)
- SANS 1200 DM EARTHWORKS (ROADS, SUBGRADE)
- SANS 1200 GA CONCRETE (SMALLWORKS)
- SANS 1200 LC CABLE DUCTS
- SANS 1200 LE STORMWATER DRAINAGE
- SANS 1200 ME SUBBASE
- SANS 1200 MF BASE
- SANS 1200 MJ SEGMENT PAVING
- SANS 1200 MK KERBING AND CHANNELLING
- SANS 1200 MM ANCILLARY ROADWORKS

The following additional SANS codes will also apply to this Contract.

- SANS 2001-CC2 Construction works – Part CC2: Concrete works (minor works)

**B.2. PROJECT AMENDMENTS AND ADDITIONS TO THE STANDARD SPECIFICATIONS (*PREFIX PS*)**

Should any requirements of the Project Specifications conflict with any requirements of the Standardized and/or Particular Specifications in this document, the requirements of the Project Specification described herein shall prevail and take preference.

**PSA GENERAL****PSA 1 MATERIALS****PSA 1.1 Quality and Samples: (Clause 3.1)**

All materials proposed by the Contractor shall be tested. The tests, as well as the materials, shall be approved by the Engineer before any such materials being built into the Works and all costs involved shall be deemed to be included in the rates tendered.

If required by the Engineer, the Contractor shall deliver samples of materials to be tested to a laboratory indicated by the Engineer. Any materials built-in without prior approval by the Engineer may be required to be removed at the Contractor's cost.

**PSA 2 PLANT****PSA 2.1 Contractor's Offices, Stores and Services: (Clause 4.1)**

No housing is available for the Contractor's employees and the Contractor shall make his arrangements to house his employees off-site and to transport them to site. Only the required number of watchmen will be allowed on-site overnight and over weekends.

The Contractor will be required to provide his facilities, for example, a fenced in yard and a shed for storage of all material and plant. The extent of the Contractor's camp shall be restricted to the area allocated by the Engineer. The cost of providing and removal of the fence and shed etc. shall be paid for under provision of facilities on-site and removal of site establishment, respectively.

Add the following:

The Contractor's attention is drawn to the applicable regulations framed under the Machinery and Occupational Safety Act, 1983 (Act No. 6 of 1983). When working in built-up areas, the Contractor shall provide and use suitable and effective silencing devices for pneumatic tools and another plant that would otherwise cause a noise level exceeding 85 dB during excavations and other work. Alternatively, he shall use barriers, effectively isolate the source of any noise to comply with the said regulations.

The Contractor shall take all reasonable measures to minimise any dust nuisance. The Contractor is also referred to as the Environmental Management Plan in this regard.

**PSA 3 CONSTRUCTION****PSA 3.1 Protection of Overhead and Underground Services: (Clause 5.2)**

Before commencement of construction, the Contractor shall, in conjunction with the relevant authority, determine the exact position on site of all underground services. All

such services shall be deemed to be known services. No payment will be made to verify "known" services.

The Contractor shall excavate all existing services by hand to establish their exact position and level.

### **PSA 3.2 Existing Services**

#### **a) General**

The location of some existing services is indicated on the drawings, but it is, however, not guaranteed that these are all the existing services on the Site. The Contractor must have the positions of services on the drawings confirmed by the service departments. The location of all existing services obtained from the relevant municipal and other departments are shown at their approximate positions on the Drawings. It is the responsibility of the Contractor to find the exact position of existing services. If it is required to relocate or change existing services, the Contractor must inform the Engineer immediately after having determined the location of the service, to enable him to make timeous arrangements with the relevant authorities for the relocation or changes to the service in question. The Contractor shall excavate the necessary trenches to enable the relocation of services by other departments. Having located a service, it shall be considered a known service and the Contractor must keep records of co-ordinated positions of each service. A copy of these records shall be submitted to the Engineer. The Contractor shall take extreme care to avoid damage to such a service as the cost for the repair of such a service will be for the account of the Contractor. The Contractor must furthermore co-operate with the relevant Municipal departments and allow them reasonable access and sufficient space and time to carry out the required work. Sewerage lines shall where and if required, be relocated by the Contractor.

A method has to be developed by the Contractor to search for all existing services with hand excavation. It is suggested that trenches are formed at intervals across the sidewalk(s) of the street, or the street itself if necessary, to determine the positions of all the services.

The Contractor has to accept liability for the cost to repair known services damaged as a result of his operations, either by his authorised signature or by admittance to the Engineer, who will confirm such admittance in writing to the Contractor. The Engineer reserves the right to deduct the cost to have such damaged services repaired by the relevant service departments, from payments due to the Contractor. The Contractor is also responsible for the cost of temporary arrangements for water supply if the time needed for repair exceeds 12 hours.

All exposed pipes, cables and appurtenant structures shall be backfilled before nightfall, and if this is not possible, watchmen shall be placed at the exposed services to ensure that the exposed pipe, cable or other service is not damaged or stolen during the night. Should anything be stolen or damaged in this way, the Contractor is also responsible for the cost of the repair and replacement thereof.

Any damage or loss resulting from failure to comply with this Clause will be to the Contractor's account.

b) Encasing of Pipes (Clause 5.4L)

The encasing of pipes, ducts or any other services shall only be done where and when instructed by the Engineer. Class 25 MPa concrete shall be used for all encasings. Measurement and payment shall be done by Clause 8.2.12 L.

**PSA 3.3 Accommodation of Traffic (Clause 8.8.2)**

a) General

The Contractor shall ensure that all streets adjacent to or crossing the Site and which are affected by the Works and/or Temporary Works are kept in a safe condition for pedestrians and vehicular traffic.

The Contractor shall organise his work to reduce the inconvenience to traffic to a minimum, and no public road or street shall be completely closed without prior approval. If so ordered, the Contractor shall provide suitable bridges at street and driveway crossings where traffic must cross open trenches. The Contractor shall construct temporary accesses to adjacent private properties if necessary, to ensure access

The Contractor must protect the completed layer works to prevent damage thereto. Any damage caused to completed layer works shall be for the Contractor's expenses.

The Contractor shall provide and maintain in proper condition all necessary barricades, lights, warning signals and all direction signs necessary to enable traffic to follow the routes of diversion throughout their length. The Contractor shall provide flagmen at all deviations and/or obstructions were deemed necessary by the Engineer.

All signs shall be as shown on the signs and deviation drawings. All traffic signs and the control of traffic shall be by either the South African (1982) or Namibian Road Traffic Signs Manual.

The Contractor shall liaise and co-operate with the relevant Traffic Authorities and Engineers Representatives wherever the Works affect existing roads. The

Contractor shall sign an indemnity clearing the Local Authority, as applicable, from all liabilities in respect of excavations and works on or adjacent to trafficked roads.

**PSA 4 SURVEY WORK**

**PSA 4.1 Setting Out of Works (Clause 5.1.1)**

Add the following:

The Contractor shall be responsible for setting out the works. Further, the Contractor shall, before commencing with any construction activities, determine all Existing Ground Levels, left, centre and right, and at every stake value. This will be done for roads and sewer lines. Should the Contractor commence with construction without submitting any survey information and/or do not inform the Engineer of any discrepancies between the survey information provided by the Engineer and that of the Contractor, the quantities calculated by the Engineer will be accepted as correct and no claim for additional payment will be accepted due to such discrepancies

No additional payment will be made towards any setting out or survey information required by the Engineer or the Employer.

**PSA 5 MEASUREMENT AND PAYMENT**

**PSA 5.1 Payment:**

- a) Fixed-charge and Value Related Items: (Clause 8.2.1)

Replace Sub-Clause 8.2.1 with the following:

"Payment of the fixed charge and value related items will be made in three instalments, as follows:

- i) The first instalment, 50% of all items listed under 8.3, in the Schedule of Quantities, will be paid in the first payment certificate after the Contractor has met all his obligations under these items and has made a substantial start with construction by the approved programme.
- ii) The second instalment, 35% of the items stated above, will be paid when the value of the work done reaches one half of the tendered amount, excluding contingencies and price adjustments in terms of Clause 68 of the General Conditions of Contract.
- iii) The third and final instalment, 15% of the items stated above, will be paid when the works have been completed and the Contractor has fulfilled all the requirements of the Contract."

These items will be subject to the reduction of retention money as provided for in the contract.

**PSA 5.2 Sums Stated Provisionally by the Engineer: (Clause 8.5)**

a) Provisional Sum for Additional Tests Ordered by Engineer:

This provisional sum shall cover the cost of acceptance control tests specifically ordered by the Engineer and executed by an approved commercial laboratory.

**PSA 5.3 Existing Services**

The unit of measurement to expose existing services or to provide trenches for the relocation thereof, by Clause PSAA 3.1.1 shall be the cubic metre (m<sup>3</sup>) of material excavated by authorised dimensions, measured in place before excavation.

The tendered rate shall include full compensation for the detection, exposure, excavation, backfilling, watering, and compaction of the backfill to at least the same density as the in-situ material before excavation. The rate shall also include the proper documentation of the service.

In cases where an exposed service cannot be backfilled before nightfall due to delays thereof by a service department, same shall be properly secured and made safe.

**PSA 5.4 Accommodation of Traffic**

Payment for this item shall include for all work necessary to comply with this Project Specification. Subject to the provisions of Clauses 8.2.3 and 8.2.4 of SABS 1200 A, payment of incremental amounts (calculated by the division of the tendered sum by the number of months required to complete the site activities for which the relevant sum was tendered) will be authorised in each of the subsequent progress certificates until the sum tendered has been paid. An approved extension of time will qualify the Contractor to receive payment at the monthly rate determined by the above method.

**PSA 5.5 Survey**

No additional payment will be made for a survey and setting out of the Works. The cost of the survey is deemed to be included in the Contractor's rates for different activities.

On completion of the project, before the issue of the completion certificate, the contractor shall provide a Land Surveyor's certificate for the replacement of the erf pegs.

**PSC SITE CLEARANCE**

**PSC 1 MATERIALS**

**PSC 1.1 Disposal of Materials: (Clause 3.1)**

Surplus material obtained from clearing and grubbing shall be disposed of on a site to be found by the Contractor and approved by the Engineer. The site shall be left in a condition that meets with the approval of the Engineer and no material shall be disposed of on the Site of the Works.

**PSC 2 CONSTRUCTION**

**PSC 2.1 Areas to be cleared and Grubbed: (Clause 5.1)**

Where pipes are to be laid, a strip wide enough for the stockpiling of excavated material alongside the trench without the material being contaminated by plant growth, as well as sufficient space for access and delivery of material will be cleared and grubbed.

In all other areas only the actual construction area will be cleared and grubbed.

The following areas are to be cleared and grubbed:

- b) Site

**PSC 2.2 Conservation of Topsoil: (Clause 5.6)**

The topsoil shall be removed, stockpiled, and re-placed to its original state. There will be no extra payment for this item and the Contractor must allow for this activity in his clearing and grubbing rates

**PSC 3 MEASUREMENT AND PAYMENT**

**PSC 3.1 Clearing and grubbing**

- c) Clear & Grub Site ..... square meter (m<sup>2</sup>)

**PSD EARTHWORKS****PSD 1 MATERIALS****PSD 1.1 Classes of Excavation (Clause 3.1.2)**

The classification "soft", "intermediate", "boulder excavation class A" and "boulder excavation class B" shall not be applicable to this Contract. All material which does not classify as "hard rock excavation" in terms of clause 3.1.2 (c) shall be classified as "soft excavation" for this Contract.

**PSD 2 CONSTRUCTION****PSD 2.1 Safeguarding of excavations (Clause 5.1.1.2)**

The Contractor shall be responsible to ensure the safety of all excavations.

**PSD 2.2 Disposal (Clause 5.2.2.3)**

All excess material shall be disposed of at a site to be found by the Contractor and approved by the Engineer.

**PSD 2.3 Free-haul (Clause 5.2.5.1)**

The free-haul distance for all earthworks on this Contract shall be unlimited.

**PSD 2.4 Overhaul (Clause 5.2.5.2)**

No overhaul shall be paid and the transport of all material shall be deemed to be within the free-haul distance.

**PSD 3 EXISTING SERVICES (CLAUSE 5.1.2)**

Add the following to Clause 5.1.2:

**PSD 3.1 Crossing existing roads**

Where pipelines cross existing roads backfilling requirements and the reinstatement of tarred surfaces shall be carried out to specification. All kerbs, pavements and stormwater infrastructure shall be reinstated to their original condition.

**PSD 4 TOLERANCES****PSD 4.1 Positions, dimensions, levels etc. (Clause 6.1)**

All excavations shall comply with the requirements for finishing to degree 2.

**PSD 5 MEASUREMENT AND PAYMENT**

**PSD 5.1 Basic Principles (Clause 8.1)**

Free-haul shall be unlimited. No overhaul shall be paid.

**PSD 5.2 Restricted hand excavation (Clause 8.3.8)**

Excavate by hand in soft material to expose existing services and pipeline. Unit : m<sup>3</sup>

**PSD 5.3 Reinstatement of road surfaces (Clause 5.1.5)**

Payment will be measured per m<sup>2</sup> of road surface reinstated. No payment for excavations wider than the normal trench width will be made. The rate shall include all backfilling, layerworks and tarring.

**PSD 5.4 Reinstatement of kerbs, pavements and stormwater structures**

The rate shall include reinstatement of all items, including traffic signs, to their original condition. The reinstatement of kerbs and pavements shall be measured as follows:

- d) Reinstatement kerbs.....meter (m)
- e) Reinstatement surfaced roads ..... square meter (m<sup>2</sup>)
- f) Reinstatement gravel roads..... square meter (m<sup>2</sup>)
- g) Reinstatement gravel sidewalks..... square meter (m<sup>2</sup>)

**PSDB EARTHWORKS (PIPE TRENCHES)****PSDB 1 MATERIALS****PSDB 1.1 Classes of Excavation (Clause 3.1)**

The provisions of clause PSD 1.1 shall also apply to this clause.

**PSDB 1.2 Backfill Materials (Clause 3.5)**

Material excavated from trenches may be used as the main fill. However, where hard excavation is encountered, such material shall be kept separate from other excavated material and may not be used in the first 300 mm of main fill above the selected fill blanket. The first 300 mm of fill above the selected fill blanket shall meet the requirements of clause 3.5(a).

Where the pipe crosses existing roads crossing will be reinstated using the same layer works detail as specified in PS 4.2 (b).

**PSDB 2 CONSTRUCTION****PSDB 2.1 General (Clause 5.1.1)**

The Contractor shall be responsible for safeguarding all open trenches and shall indemnify the Engineer and the Client against any loss or damage suffered by any persons resulting from the presence of open trenches and other excavations.

**PSDB 2.2 Free Water (Clause 5.1.2)**

The inverts of trenches are above the water table. However, trenches may be inundated during the rainy season. No provision has been made for separate payment for dealing with water in trench excavations and this cost shall be included in the unit rate for excavation.

**PSDB 2.3 Excavation (Clause 5.4)**

The trench excavations shall be carried out to the grades and levels indicated on the drawings.

Trench excavation shall proceed progressively and shall not be carried out further ahead of pipe laying than is required for efficient working.

**PSDB 2.4 Trench Bottom (Clause 5.5)**

Trenches shall be excavated and trimmed to a depth of not less than 100 mm below the bedding level of pipes as indicated on the pipeline longitudinal sections. These depths shall be maintained for the full width and length of the trench and all stones, rocks or other projections trimmed accordingly.

**PSDB 2.5 Backfilling (Clauses 5.6.1 and 5.6.2)**

The first 300 mm of main fill above the selected fill blanket shall meet the requirements of Clause 3.5 (a). Above this level, the main fill may comprise hard material excavated from the trench.

**PSDB 2.6 Disposal of Excavated Material (Clause 5.6.3 and 5.6.4)**

Surplus material from the trench excavation shall be disposed at a site to be found by the Contractor and approved by the Engineer.

**PSDB 2.7 Deficiency of Backfill Material (Clause 5.6.5)**

The free-haul distance shall be unlimited.

**PSDB 2.8 Completion of Backfilling (Clause 5.6.6)**

The Contractor shall be responsible for settlement of backfill and erosion of the site up to the time the contract maintenance period has expired and he shall fill and level any settlement and/or erosion from time to time, as required by the Engineer and at the Contractor's expense.

The finishing-off of the pipeline surface shall be included in the price for excavation and backfill.

**PSDB 2.9 Compaction (Clause 5.7)**

- h) Areas not subject to traffic loads shall be compacted to 93% mod AASHTO. (Clause 5.7.1)
- i) Areas subject to traffic loads. (Clause 5.7.2). See PSDB 1.2 above.

**PSDB 3 TESTING (CLAUSE 7)**

The cost of all quality control tests shall be borne by the Contractor.

**PSDB 4 MEASUREMENT AND PAYMENT**

**PSDB 4.1 Basic Principles (Clause 8.1)**

The free-haul distance shall be unlimited.

## **PSDM EARTHWORKS (ROADS, SUBGRADE)**

### **PSDM 1 MATERIALS**

#### **PSDM 1.1 CLASSIFICATION FOR EXCAVATION PURPOSES (CLAUSE 3.1)**

The provisions of clause PSD 1.1 shall also apply to this clause.

### **PSDM 2 CONSTRUCTION**

#### **PSDM 2.1 USE OF MATERIAL (CLAUSE 5.2.2.3)**

##### **(a) General**

The Contractor shall programme his sequence of operations in such a way that:

- cuts are done progressively in advance in order to haul material as far as possible directly to its final position on the road subgrades or bulk fill areas on the extensions, to avoid double handling as called for in Clause 3.3.2 DM,
- heavy equipment above 3 tonnes are not allowed to drive over the completed final pavement layer, before or after surfacing, surfacing operations excluded.
- Organic material which needs to be excavated due to inadequate strength will in general be spoiled.

#### **PSDM 2.2 TREATMENT OF ROADBED (CLAUSE 5.2.3.3)**

##### **(a) Preparation and Compaction of Roadbed**

Roadbed preparation in fill areas in general shall be done by ripping the in-situ material to a depth of 150mm, watering, mixing and re-compacting to minimum of 93% Modified AASHTO maximum density for gravel and 100% Modified AASHTO maximum density for sand.

#### **PSDM 2.3 SELECTED LAYER (CLAUSE 5.2.5)**

The selected layer for material other than sand shall be compacted to at least 93% MOD AASHTO maximum density or as specified. For sands, the applicable material shall be compacted to at least 100% MOD AASHTO maximum density. The specified material shall also conform to the following requirements:

#### **PSDM 2.4 FINISHING AND TRIMMING (CLAUSE 5.2.4.3)**

Before the Works are taken over, the Site and affected areas shall be cleaned up by clearing, finishing, tidying and disposing of waste materials, clearing stormwater inlets, outlets and openings and by neatly finishing of all intersections and kerbing. Material shall only be

spoiled at approved sites. Payment shall be made as a lump sum in the Schedule of Quantities.

The tendered rate shall cover all costs to trim and finish road reserves which shall also comply with the gradients and dimensions as indicated on the Drawings.

Material dumped on the Site by parties other than the Contractor, shall be removed by the Contractor, if so instructed by the Engineer, to dump sites.

**PSDM 3 OVERHAUL (CLAUSES 5.2.8.1 AND 5.2.8.2)**

No overhaul will be paid for fill material.

**PSDM 4 TOLERANCES**

**PSDM 4.1 DIMENSIONS, LEVELS, ETC (CLAUSE 6.2).**

Degree of accuracy II shall apply.

**PSGA CONCRETE (SMALL WORKS)****PSGA-3 MATERIAL****PSGA-3.2 Cement****PSGA-3.2.1 Applicable Specifications**

- Add the following at the end of this clause:

“The SABS approved the European Prestandard (ENV) specifications for Common and Masonry cement and issued these standards as SABS ENV 197-1 and SABS ENV 413-1 respectively for general use. These standard specifications (and specifications directly related thereto) will apply to this contract and the reference to the various cement to be used will be based on the descriptions, notations and types as specified therein.

SABS 471, SABS 626, and SABS 831 have however not been withdrawn and are still applicable. SABS ENV 197-1, SABS ENV 197-2, SABS ENV 413-1, and SABS ENV 413-2 shall therefore be deemed to be included wherever reference is made to SABS standard specifications in the project document and on the drawings. In case of conflict, SABS ENV 197-1 and SABS ENV 413-1 will govern.”

**PSGA-3.2.2 Storage of cement**

- Add the following after the words “...may promote deterioration.” In the second paragraph:

“It is of prime importance that cement to be used shall always be stored in a cool environment.”

**PSGA-3.3 Water**

- Add the following to this clause:

To limit heat gain in the concrete, the temperature of mixing water must preferably be below 20 °C when added to the concrete mix.

**PSGA-3.4 Aggregates****PSGA-3.4.1 Applicable specifications**

Add the following:

The aggregates shall comply with the requirements of SABS 1083. The maximum water absorption of the coarse aggregate shall not exceed 1 % and the flakiness index shall not exceed 25 %. The maximum water demand of the fine aggregate shall be 190 l/m<sup>3</sup>.

Aggregates to be used in this contract shall be tested by subsection C-15 of SABS 1083 to determine whether they are potentially alkali-reactive. If they are alkali-reactive they shall either be replaced with non-reactive aggregates or the requirements of PSG-3.2.2.1 in respect of alkali-reactiveness shall apply.

The content of chloride ion in the aggregates shall be determined and shall be within the limits specified in SABS 1083. Test results in this regard shall be submitted to the Engineer.

At tender stage, the Contractor shall assure himself using tests and test mixes by an accredited laboratory that the fine and coarse aggregates that he intends to use comply with the specification. The tendered rates shall therefore be deemed to allow for the importation of aggregates, if necessary, that do comply with the Specification.

The Contractor shall be responsible for locating the sources of all aggregates.

#### PSGA-3.4.3 Storage of aggregates

- Add the following additional subclauses:

“(c) the aggregate to be used shall at all times be stored in a cool environment and, if, at time of mixing, the ambient temperature exceeds 30 °C, only the coarse aggregate shall be sprayed with water to assist cooling. All aggregate stockpiles should be shaded from the sun using 80% shade netting.”

The Contractor shall ensure adequate drainage of the coarse aggregate stockpile.

### **PSGA-3.5 Admixtures**

#### PSGA-3.5.1 Approval of Admixtures Required

The Contractor shall, by way of the information required in sub-clause 3.5.1, prove to the satisfaction of the Engineer that proposed admixtures are non-toxic, beneficial, and not detrimental to the durability of the concrete.

#### PSGA-3.5.2 Air-entraining Agents

Air-entraining agents shall not be used.

### **PSGA-4 PLANT**

#### **PSGA-4.5 Formwork**

##### PSGA-4.5.3 Ties

After removal of plastic spacing cones of the extended coil ties from concrete, the openings in the concrete shall be roughened with a mechanical wire brush. Thereafter the openings shall be painted with cement mortar and filled with a non-shrink grout such as "Standard Bedding Grout" by Samson or a similar approved non-toxic product compatible with the chemicals used in the water. The grout filling shall be applied in such a way as to protect the ties against corrosion.

**PSGA-5.5 Concrete**PSGA-5.5.1 QualityPSGA-5.5.1.3 Workability

The workability range for all concrete (slump) shall be between 60 and 100 mm.

PSGA-5.5.1.5 Durability

The maximum ratio of water to cementitious material shall be 0,5.

PSGA-5.5.1.7 Strength concrete

- (a) Due to the design approach and assumptions adopted for this contract, it is of the utmost importance that good strength concrete with consistent quality and composition is used throughout. All possible measures to limit shrinkage shall be applied.
- (b) In addition to the requirement that the Contractor design the mixes to the specified strengths, the cementitious material content shall be such as not to cause an alkali-aggregate reaction and shall not exceed 380 kg/m<sup>3</sup> for 30 MPa/19 mm concrete or 460 kg/m<sup>3</sup> for 40 MPa/19 mm concrete.
- (c) All concrete shall be based on designed mixes. Trial mixes shall be made by an approved laboratory with suitable experience in the design of concrete mixes and mix designs and cube results submitted to the Engineer.

PSGA-5.5.8 Curing and protection

Replace this clause with the following: Unless otherwise approved by the Engineer, curing shall be done as follows:

PSGA-5.5.9 Adverse weather conditions

PSGA-5.5.9.2 Replace the first sentence with the following:

The temperature of the concrete when deposited shall not be allowed to exceed 25 °C.

PSGA-5.5.10 Concrete Surfaces

PSGA-5.5.10.2 Add the following to subclause 5.5.10.2:

(a) Wood-floated Finish

When a wood-floated finish is specified, the surface shall first be treated as specified in subclause 5.5.10.1, and after the concrete has hardened sufficiently, it shall be floated to a uniform surface free from trowel marks with

a wood float. The levelled surface shall be wood-floated either by hand or by machine only, to remove trowel marks.

(b) Steel-floated Finish

When a steel-floated finish is specified, the surface shall be treated as specified for a wood-floated finish above, except that when the bleed water has disappeared and the concrete has hardened sufficiently to prevent the migration of concrete foam to the surface, the levelled surface shall be floated with a steel trowel on which a firm uniform pressure shall be applied to provide a dense, smooth, uniform surface free from trowel marks.

(c) Power-floated Finish

When a power-floated finish is specified, the surface shall be treated as specified for a wood-floated finish above, except that the levelled concrete surface shall be power-floated to provide a dense, smooth, uniform surface of high quality free from trowel marks.

PSGA-5.5.11 Watertight Concrete

Add the following to this clause:

All water-retaining structures and valve chambers built under this contract shall be watertight without the addition of supplementary cement plaster, coatings, or membranes. Ensuring water-tightness is the exclusive responsibility of the Contractor and he shall take all the measures deemed necessary to achieve this. All remedial work that has to be undertaken to ensure water-tightness shall be for the Contractor's account. Refer also to the relevant payment clause in this regard.

PSGA-5.5.14 Defects

PSGA-5.5.14.1 Add the following to subclause 5.5.14.1:

The method of repair of defects in the concrete shall be by first applying an approved cement-based, epoxy-modified anti-corrosion and bonding agent like SikaTop-Armatec110 EpoCem by Sika to the prepared surface, followed by an approved one-component, non-sag, cement-based patching and repair mortar-like SikaRep LW by Sika. All products shall be applied strictly by the manufacturer's specification, or such other methods as may be acceptable to the Engineer. All repair materials shall be equivalent to concrete in respect of thermal properties and structural elasticity. Such repairs will only be allowed after the defects were inspected by the Engineer and his written approval has been obtained.

PSGA-6 **TOLERANCES**

PSGA-6.2 **Permissible deviations**

PSGA-6.2.3 Specified PDs

Replace the permissible deviation for cover to reinforcement (item (a)3)) with -0 +5 mm irrespective of the Degree of Accuracy.

**PSGA-7 TESTS**

**PSGA-7.1 Facilities and frequency of sampling**

**PSGA-7.1.2 Frequency of sampling**

PSGA-7.1.2.1 Replace this clause with the following:

“Subject to the requirements of 7.1.2.4, while concrete of a particular grade and in sufficient quantity is being placed under the same conditions, sets of samples (each sample, as defined in 2.3(b), is sufficient for four cubes) shall be taken until 30 valid test results have been obtained.

The sets of samples shall be taken by SABS Method 861 as close as is practicable to the start of placing and at appropriate intervals after that, or from one particular batch and then from subsequent batches chosen at appropriate intervals.”

**PSGA-7.2 Testing**

**PSGA-7.2.1 General**

- Add the following:

The Contractor shall allow in his tendered rates for all the costs for quality or process control testing.

**PSGA-7.2.4 Early-strengths Testing**

- Add the following to this clause:

Of each sample of four cubes, one cube shall be tested at 7 days and the remaining three cubes at 28 days.

**PSLB BEDDING (PIPES)****PSLB 1 DEFINITIONS**

Main fill (Sub-clause 2.3)

Delete "150 mm" in line and substitute "300 mm:".

**PSLB 2 MATERIALS****PSLB 2.1 SELECTION (Clause 3.4.2)**

It is the Contractor's responsibility to find suitable sources of selected granular and selected fill material.

Suitable material excavated from trenches can be used for bedding material. Otherwise, bedding material shall be transported from borrow pits or commercial sources. Only one payment item has been included for selected granular material and one for selected fill material, irrespective of the source.

The free-haul distance for obtaining material for bedding shall be unlimited.

**PSLB 3 CONSTRUCTION****PSLB 3.1 DETAILS OF BEDDING (Clause 5.1.2)**

Pipe bedding shall be by the bedding for flexible pipes Drawing LB-2.

**PSLB 3.2 PLACING (Clause 5.1.3)**

Placing and compaction of the pipe bedding shall be regarded as the most critical phase of the backfilling operation. Backfilling beyond the bedding cradle and thereafter the selected fill blanket shall only proceed after approval by the Engineer.

As soon as possible after trench bottoms have been passed by the Engineer, compacted material forming the bedding cradle shall be placed and trimmed to the required grade and level over the full width of the trench. Before laying the pipe, bell-holes for the couplings shall be excavated to ensure that the pipe is supported on the trench bottom over its full length and not on the coupling. The bell-hole shall be deep enough so that the coupling is at least 50 mm from the trench bottom. Under no circumstances may bricks, stones or pieces of timber be used for supporting pipes in the trench.

Bedding material shall be placed and compacted evenly on both sides of the pipe. The method adopted shall be subject to the Engineer's approval. Whatever method is adopted and approved, great care shall be exercised at all times to prevent damage to the pipe or disturbance of the pipe level and grade. The top of the completed bedding shall form a level surface filling the space between the pipe and trench walls, including any cavities that might exist in the trench walls.

Compaction shall be in layers not exceeding 150 mm measured in the loose and watered to optimum moisture content and compacted to 93% of modified AASHTO maximum

density. Particular care shall be taken to compact the material in the "wedges" formed by the curvature of pipe bottoms.

The Contractor may use his discretion as to whether he will backfill around joints before the pipeline is hydrostatically tested. The Contractor shall be responsible for the location and repair of any leaks on the pipeline under hydrostatic test and no extra payment will be made for any re-excavation and subsequent reinstatement which may be necessary to locate and remedy leaks. Should the Contractor elect to leave joint holes open until, after the hydrostatic test, he shall provide at his own expense effective and approved barricades and fences around each hole for the protection of persons and animals? In built-up areas, barricades shall be marked at night-time with red warning lights.

**PSLB 4 TOLERANCES**

**PSLB 4.1 MOISTURE CONTENT AND DENSITY (Clause 6.1)**

Degree of accuracy II shall apply to bed material.

**PSLB 5 MEASUREMENT AND PAYMENT**

**PSLB 5.1 PRINCIPLES (Clause 8.1)**

**PSLB 5.2 Volume of Bedding Material (Clause 8.1.3)**

Add the following to Clause 8.1.3

- c) The area of the pipe will be subtracted from the area of the trench in the calculation of the volume of bedding.

**PSLB 5.3 FREE-HAUL DISTANCE (Clause 8.1.6)**

The free-haul distance for acquiring bedding material shall be unlimited.

**PSLE STORMWATER DRAINAGE****PSLE 1 CAST IN-SITU CONCRETE, FORMWORK AND REINFORCING (CLAUSE 8.2.5)**

These items will not be measured separately. The inlet and outlet structures that are to be constructed are listed separately according to size and number of barrels and all rates shall include for the complete construction (excavation, formwork reinforcing, in-situ concrete, and backfilling) as indicated on the construction drawings.

The unit of measure will be number (no) where one number will be one structure i.e. inlet or outlet structure and not both.

**PSME SUBBASE**

**PSME 1 MATERIALS**

Approved Subbase on streets will be from sources identified by the Contractor

**PSME 1.1 Classes of Excavation (Clause 3.1.2)**

Refer to PSD-1.1

**PSME 2 MEASUREMENT AND PAYMENT**

The unit of measurement for placed and compacted subbase course shall be the cubic metres of subbase course material compacted to a road width (neat finished dimensions) as per Typical Section on the drawings.

Note that the cost of transport from the borrow pit to the site must be included in the rate tendered, as no overhaul will be paid on this item.

The rate tendered will also be deemed to include all costs for the mechanical stabilisation of the material as described in PSMF-1.1.

**PSME 3 OVERHAUL**

The free-haul distance for subbase material will be unlimited.

**PSMF BASE COURSE****PSMF 1 MATERIALS**

Approved base course material on streets will be from a commercial source procured by the Contractor.

The base course shall be compacted to 98 % MOD AASHTO in layers of 150 mm thick. The base course material will have a CBR of at least 80 at 98% MOD ASSHTO density.

**PSMF 1.1 Classes of Excavation (Clause 3.1.2)**

Refer to PSD-1.1

**PSMF 2 MEASUREMENT AND PAYMENT**

The unit of measurement for placed and compacted base course shall be the cubic metres of base course material compacted to a road width (neat finished dimensions) as per Typical Section on the drawings.

Note that the cost of transport from the borrow pit to the site must be included in the rate tendered, as no overhaul will be paid on this item.

The rate tendered will also be deemed to include all costs for the mechanical stabilisation of the material as described in PSMF-1.1.

**PSMF 3 OVERHAUL**

The free-haul distance for base material will be unlimited.

**PSMJ SEGMENTED PAVING****PSMJ 1 MEASUREMENT AND PAYMENT**

Construction of paving complete Unit: m<sup>2</sup>

The rate tendered shall include all costs to supply and install the paver type, thickness, colour and class as specified in the Schedule of Quantities bedded in 20 mm cohesion less sand. The pavers will be placed at a 45 degree angle to the kerb line in a herring bone pattern. No concrete in fills will be allowed. The rate tendered will also be deemed to include all costs to cut units to fit edge restraints.

## **PSMK KERBING AND CHANNELLING**

### **PSMK 1 SCOPE**

#### **PSMK 1.1 General (Clause 1.1)**

Precast concrete barrier and mountable kerbs, in - situ concrete channels and stone pitched drainage chutes are required as specified in the Drawings.

### **PSMK 2 MATERIALS**

#### **PSMK 2.1 Kerb, Channels, Chutes (Clause 3.2)**

All kerbs shall be mountable except around bellmouths at intersections where barrier kerbs are specified in the Drawings.

Channels shall be cast in - situ between kerbs and the subbase layer as shown on the Drawings. Softboard shall be used in expansion joints at approximately ten metre intervals, at every eleventh adjacent kerb unit.

#### **PSMK 2.2 Bedding Materials (Clause 3.9)**

Bedding material for kerbs shall consist of Class 15/19 concrete.

### **PSMK 3 CONSTRUCTION**

#### **PSMK 3.1 Stone Pitched Chutes (Clause 5.3)**

The construction of chutes through or on sidewalks at surfaced drifts, low - lying street sections and on slopes of fills, if and where instructed, shall be as specified on the Drawings. If and where instructed these chutes shall also continue through the adjacent properties.

Stone pitching shall be supported by a gravel pavement layer of 150 mm thickness and CBR strength of at least 25% at 95% Mod AASHTO minimum density.

### **PSMK 4 MEASUREMENT AND PAYMENT**

#### **PSMK 4.1 Bedding Material (Clause 8.2.1)**

Full compensation for the provision of bedding material as well as backing of kerbs as specified in Clauses 5.2 MK and 5.4 MK shall be included in the rates for the supplying, laying, etc of kerbs and channels under Payment Items 10.1 and 10.2 in the Schedule of Quantities. Concrete backing for kerbs shall be provided at least two positions spaced at equal distances behind each kerb. The rates shall also cover the cost of supplying and installing the backing and bedding as specified in Clause PSMK 2.2 and on the Drawings.

#### **PSMK 4.2 Drainage Chutes (Clause PSMK 3.1)**

Kerbs and stone pitched drains shall be measured and paid separately. Tendered rates shall include full compensation for excavation, formwork, concrete, supplying and

laying of all materials, bedding, filling, provision of the supporting layer, all necessary to construct the drainage chutes as specified in Clause PSMK 3.1.

Straight and curved kerbing and chutes will not be differentiated between for measurement and payment purposes. Any extra costs involved in constructing curved sections will be deemed to be included in the tendered rates.

**PSMM ANCILLARY ROADWORKS**

**PSMM 1 SCOPE**

**PSMM 1.1 Items Covered (Clause 1.1)**

The construction of road traffic signs and road traffic markings are required.

**PSMM 2 MATERIALS**

**PSMM 2.1 Road Signs (Clause 3.2)**

Only standard stop and yield regulatory signs are required as specified on the Drawings.

**PSMM 2.2 Road Marking (Clause 3.3)**

Road marking paint shall be in accordance with Clause 3.3.1.1.

**PSMM 3 MEASUREMENT AND PAYMENT**

**PSMM 3.1 General (Clause 8.4.1 and 8.4.4)**

The unit of measurement for Road marking Payment Items 8.4.1(a) and (b) shall be amended to metre (m). The tendered rate shall in addition include full compensation for setting out and pre-marking, which would normally be paid separately under Payment Item 8.4.4.

**PSMM 3.2 Painting of Kerbs (PSMM 3.1)**

Alternate black and white paint..... Unit: m

The unit of measurement shall be the metre (m) of actual length painted with Road marking paint. The tendered rate shall cover the cost of all material, equipment and labour necessary to do the painting.

**PSMM 3.3 Traffic Signs**

The rate tendered shall include for all costs to supply and install road signs complete with sign faces, supports, excavation, backfilling etc. as per drawings.

**C. DRAWINGS****TABLE OF BID DRAWINGS**

<b>Drawing No</b>	<b>Description</b>	<b>Status</b>	<b>Rev No</b>
2105900-02/CP/SP-TD/01	Site Layout and Typical Details	BID	0
2105900/CP/LP-TD/02	Typical Details	BID	0

## SECTION IV: PRICED ACTIVITY SCHEDULE

Procurement Reference Number: W/RFQ/KERC/RFA/25/2025/2026

**Bidder to fill in and complete the given Bill of Quantities in this section.**

**Priced Activity Schedule Authorised By:**

Name:		Signature:	
Position:		Date:	
Authorised for and on behalf of:	Company		

**Bill of Quantities Notes**

1. The quantities in these Bill of Quantities are provisional and shall be measured as executed and paid for according to prices in the Bill of Quantities and any unexpended amounts shall be deducted from the amount of the contract sum.
2. The quantities in these Bill of Quantities are not to be used for ordering materials.
3. The Bill of Quantities form part of and must be read in conjunction with the specifications, which document contains the full description of the works to be done and material and equipment to be used and unless otherwise described in the Bill of Quantities, reference should be made to the specification for the full meaning or description of work to be done and materials and equipment to be used in this service.
4. No alteration, erasure or addition is to be made in the text of the Bill of Quantities.
5. Should any alteration, or erasure be made, it will not be recognized but the original wording of the Bill of Quantities will be adhered to.
6. The priced Bill of Quantities of the successful tenderer will be checked, and the Client reserves the right to call for an adjustment to any individual price and to rectify the discrepancy.
7. Variations in the scope and extent of the work included in the Bill shall be allowed to meet the employer's requirements and shall be measured and cost at rates entered in the Bill, where appropriate, and shall form additions to or deductions from the total of the Bill.
8. Any items or variations for which rates have not been included in the Bill of Quantities shall be agreed and priced as non-scheduled items by the provisions of the contract.
9. The rules covering the extent and costing of the variation shall be those provided for in the General Conditions of Contract.
10. Unless a separate rate for the supply and the installation of any item is specifically called for, the supply and installation cost of any item shall be fully included in the unit price.
11. The description of each item shall, unless otherwise stated herein, be held to include making, conveying and delivering, unloading, storing, unpacking, hoisting, waste, patterns, models and templates, plant, temporary works, return of packing, establishment charges, profit and all other obligations arising out of the conditions of the contract.
12. All fittings and accessories always include the connections thereto.

13. All measurements are nett unless otherwise stated, and Bidders must allow in their rates for wastage.
14. All provisional sums shall be expended as directed by the Engineer and any balance remaining shall be deducted from the amount of the contract sum.

**UPGRADING OF GRAVEL ROADS TO INTERLOCKED PAVED ROADS AT  
NDIYONA SETTLEMENT– KAVANGO EAST REGION -PHASE 2**

**SUMMARY OF SCHEDULE OF QUANTITIES**

PART 1: GENERAL	N\$ : _____
PART 2: ROAD WORKS	N\$ : _____
<b><u>SUB - TOTAL EXCLUDING CONTINGENCIES</u></b>	<b>N\$ : _____</b>
ADD 10% CONTINGENCIES	N\$ : _____
<b><u>SUB - TOTAL INCLUDING CONTINGENCIES</u></b>	<b>N\$ : _____</b>
ADD 15% VAT	N\$ : _____
<b><u>TOTAL CONTRACT AMOUNT(INCL. VAT)</u></b>	<b>N\$ : _____</b>

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>PART 1: GENERAL</b>						
<b>SANS 1200 A: GENERAL</b>						
<b>8.3 SCHEDULED FIXED-CHARGES AND VALUE RELATED ITEMS</b>						
1.1	8.3.1	Contractual Requirements	Sum	1		
	8.3.2	Establishment of Facilities on the Site:				
1.2	8.3.2.2	Facilities for the Contractor	Sum	1		
1.3	8.3.3	Other Fixed-charge obligations	Sum	1		
1.4	8.3.4	Removal of Site Establishment on Completion	Sum	1		
		Project Health and Safety as specified in Section 5 of Tender Document	Sum	1		
1.5	8.3.5	Contract Sign Boards	Sum	1		
<b>8.4 SCHEDULED TIME-RELATED CHARGES FOR THE DURATION OF THE PROJECT</b>						
1.6	8.4.1	Contractual Requirements	Sum	1		
	8.4.2	Operation and Maintenance of Facilities on Site for the duration of Construction:				
1.7	8.4.2.2	Facilities for Contractor	Sum	1		
1.8	8.4.3	Supervision for Duration of Construction	Sum	1		
1.9		Company and Head Office Overhead Cost for the duration of Construction	Sum	1		
1.10	8.4.5	Other Time-Related Obligations	Sum	1		
1.11		Project Health and Safety as specified in Section 5 of Tender Document	Sum	1		
<b>8.5 SUMS STATED PROVISIONALLY BY ENGINEER</b>						
1.12		Additional Control Tests ordered by the Engineer	PS	1	25 000,00	25 000,00
1.13		Overheads, Charges and Profit on 1.10 above	%	25 000,00		
<b>CARRIED FORWARD</b>						

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>BROUGHT FORWARD</b>						
	<b>8.8</b>	<b>TEMPORARY WORKS</b>				
1.14	8.8.2	Dealing and Accommodation of Traffic	Sum	1		
	8.8.4	Existing services				
1.15	c)	Excavate by hand in soft material to expose existing services	m <sup>3</sup>	10		
1.16	d)	Temporary protection of existing services	Sum	1		
1.17		Clearing of Site of all concrete and other foreign material including loading, transport and disposing material at a municipal dump site	m <sup>3</sup>	10		
1.18		Keeping Excavations free of water	Sum	1		
<b>PART 1: GENERAL : CARRIED FORWARD TO SUMMARY</b>						

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>PART 2: ROAD WORKS</b>						
<b>SECTION 2.1: SITE CLEARANCE</b>						
<b>SANS 1200 C: SITE CLEARANCE</b>						
	<b>8.2.1</b>	<b>CLEAR AND GRUB</b>				
2.1.1		Clear site of grass and vegetation	m <sup>2</sup>	220		
	<b>8.2.2</b>	<b>REMOVE AND GRUB LARGE TREE STRUMPS OF GIRTH</b>				
2.1.2		Over 1m and up to and including 2m	No.	1		
<b>SECTION 2.2: EARTHWORKS</b>						
<b>SANS 1200 DM: EARTHWORKS</b>						
	<b>8.3.3</b>	<b>TREATMENT OF ROADBED</b>				
2.2.1	(a)(2)	Rip and re-compaction of in-situ material to a minimum of 95% of modified AASHTO maximum density	m <sup>3</sup>	116		
	<b>8.3.4</b>	<b>BORROW TO FILL</b>				
2.2.2		Borrow to fill and compaction of material to minimum of 93% of modified AASHTO maximum density in layers not exceeding 300 mm with material obtained from site	m <sup>3</sup>	20		
	<b>8.3.7</b>	<b>CUT-TO-SPOIL</b>				
2.2.3		Cut to spoil or stockpile from excavation	m <sup>3</sup>	10		
<b>CARRIED FORWARD</b>						

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>BROUGHT FORWARD</b>						
<b>SECTION 2.3: SUBBASE</b>						
<b>SANS 1200 ME: SUBBASE</b>						
2.3.1		Construct 150 mm G5 gravel material sub-base course with material from commercial source compacted to 95% of modified AASHTO maximum density with a min CBR of 45% @ 95%				
		For Roads	m <sup>3</sup>	111		
2.3.2		Construct 150mm C4 sub-base layer Cement stabilised layer compacted to 98% MOD AASHTO MAX Density	m <sup>3</sup>	111		Rate Only
2.3.3		Construct 150 mm G6 gravel material sub-base course with material from commercial source compacted to 95% of modified AASHTO maximum density with a min CBR of 25% @ 95%				
		For Sidewalks	m <sup>3</sup>	0		Rate Only
<b>SECTION 2.4: SEGMENTED PAVING</b>						
<b>SANS 1200 MJ: SEGMENTED PAVING</b>						
<b>8.2.2 CONSTRUCTION OF PAVING COMPLETE</b>						
2.4.1		80mm thick Class 35 Mpa grey concrete interlocking pavers on 20mm (uncompacted thickness) on clean river sand for driveways and parking areas	m <sup>2</sup>	766		
2.4.2		60mm thick Class 35 Mpa grey concrete interlocking pavers on 20mm (uncompacted thickness) on clean river sand for driveways and parking areas	m <sup>2</sup>	0		Rate Only
2.4.3		Termite and weed poisoning on sand bedding	m <sup>2</sup>	704		
<b>CARRIED FORWARD</b>						

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>BROUGHT FORWARD</b>						
		<b>WATERPROOFING</b>				
		One layer of 250 micron Consol Plastics Gunplas Black waterproof sheeting sealed at laps with Gunplas pressure sensitive Tape:				
2.4.4		Under paving	m <sup>2</sup>	704		
<b>SECTION 2.5: KERBING AND CHANNELING</b>						
<b>SANS 1200 MK: KERBING AND CHANNELING</b>						
2.5.1		Construct [200 x 300]mm RC edge beam complete with joints at 2m intervals	m	13		
2.5.2		30 MPa Mountable kerbs with 15 MPa foundation and backing	m	210		
2.5.3		30 MPa Barrier kerbs with 15 MPa foundation and backing and SW Channel	m	44		
<b>CARRIED FORWARD</b>						

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>BROUGHT FORWARD</b>						
<b>SECTION 2.6: ANCILLARY ROADWORKS</b>						
<b>8.4 SCHEDULED ITEMS FOR PERMANENT ROAD SIGNS</b>						
8.4.1 <b>Non-reflectORIZED Paint applied at Nominal</b>						
<b>Rate of 0,42 l/m2 for:</b>						
2.6.1		100mm white lines	m	220		
2.6.2		100mm yellow lines	m	440		
2.6.3		White figures	m <sup>2</sup>	12		
<b>SECTION 2.7: STORMWATER DRAINAGE</b>						
<b>SANS 1200 LE: STORMWATER DRAINAGE</b>						
2.7.1		Storm water Chutes complete as per drawing no. 2105900-02-CP-LP-TD-02	Sum	1		
2.7.2		Stormwater Concrete Drift Provisions complete as per drawing no. 2105900-02-CP-LP-TD-02	Sum	1		
<b>PART 2: ROAD WORKS : CARRIED FORWARD TO SUMMARY</b>						

## SECTION V - EVALUATION CRITERIA

### 1.1 Adequacy of Technical Proposal

Evaluation of the Bidder's Technical Proposal will include an assessment of the Bidder's technical capacity to mobilize key equipment and personnel for the contract consistent with its proposal regarding work methods, scheduling, and material sourcing in sufficient detail and fully in accordance with the requirements stipulated in Section III (Statement of Requirements).

### 1.2 Application of Evaluation Procedures

#### 1.2.1 The following evaluation procedure shall be applied at the sole discretion of the Employer:

- (i) Bids will **first** be examined to determine whether or not they substantively comply with the Bidding Document. A substantively responsive bid is one that complies with the rules, terms and conditions of the Bidding Document, without any material deviation in the sole opinion of the Employer. **A non-complying bid will be rejected and may not subsequently be altered to comply by correction of any non-conformity.**
- (ii) Substantively responsive bids will **secondly** be examined to determine whether they have been submitted by bidders with the necessary experience and the financial, human and material resources to satisfactorily execute the Contract. For this purpose, the various forms and other information required in terms of this Bidding Document will be utilized in order to determine whether or not the Bidder has sufficient capacity to execute the Contract. **Bidders who are found to have insufficient capacity to execute the Contract shall be disqualified.**
- (iii) **Thirdly**, bid prices shall be adjusted for arithmetic errors in terms of Sub-Clause 15 of the Instructions to Bidders (ITB). *If required, the Employer shall direct that unbalanced rates be correctly balanced.*
- (iv) **Fourthly**, Bidders whose offers have been determined to be the lowest evaluated offers at an amount  $\leq 15\% \geq$  (less than or equal to or greater than or equal to 15%) of the competitive market price (cost estimate); and are substantially responsive to the Bidding Document **will be rated in ascending order** according to their respective **bid amounts** in such a way that the Bidder with the lowest evaluated responsive bid amount is rated the highest and the Bidder with the highest evaluated responsive bid amount is rated the lowest.
- (v) **Lastly**, in cases where the recommended Bidder fails to sign the Contract Agreement in terms of Sub-Clause ITB18 for whatever reason or where the Contract is terminated in terms of Clause 57 of section VI 'General Conditions of Contract', **the next highest rated Bidder will be recommended, and so on.**

### 1.3 Completion Time

Varying times of completion are **not** permitted.

## 1.4 Technical Alternatives

Technical Alternatives are not permitted.

## 2. EVALUATION SCORES:

### 2.1 Technical Score

Note: the items listed below must be cross-referenced to relevant sections and description in section 1 above.

No	Description				
<b>1</b>	<b>Relevant experience of the contractor related to the assignment</b>	<b>Number of projects successfully executed by Bidder</b>	<b>Relevant Number of Completed projects in the last 5 years</b>	<b>Scores</b>	<b>Total</b>
	Relevant Experience: Proof of experience in construction of similar works in the form of reference letters from clients or substantial completion certificates comprising fully or in part the following components:	Overall number of past similar projects (Bulk Earthworks, Roads & Stormwater) completed or at least 75% completed with cumulative value of: <b>N\$ 3 000 000.00 in the last 5 years. Proof thereof should be provided (completion certificates or reference letters)</b>	0	0	<b>25</b>
			1	10	
			2	20	
			>2	25	
<b>2</b>	<b>Relevant experience of the contractor related to the assignment</b>	<b>Experience of Key personnel clearly indicating responsibilities</b>	<b>Experience, qualifications, and registration</b>	<b>Scores</b>	<b>Total</b>
	Key personnel (Necessary staff with adequate qualifications, capability, and experience to undertake the assignment)	Project/Contract Manager:	at least Five (5) years of experience	10	<b>30</b>
		Site Agent / Site Supervisor:	at least Five (5) years of experience	10	
		Foreman:	at least ten (10) years of experience	5	
		Health and Safety Officer	at least five (5) years of experience	2	
		Land Surveyor	at least five (5) years of experience	3	
<b>3</b>	<b>Listed Tools and Equipment</b>		<b>Equipment</b>	<b>Scores</b>	<b>Total</b>
	Availability of Plant and Machinery including proof of ownership or proof of hire (lease agreement for duration of Contract) Letter of Intent is not applicable		10 Ton Roller Compactor	7	<b>40</b>
			4x4 Truck for Site Agent and Site Staff	2	

			Hydraulic Excavator	6	
			TLB	4	
			Water Browser	7	
			2 x Tipper Trucks	6	
			Grader	8	
<b>4</b>	Programs of Works (Project schedules)	Minimum bar chart program of works showing detailed key tasks and time period.		5	<b>5</b>
				<b>Total</b>	<b>100</b>

**A score of less than 70/100 (70%) will deem the Bidder to be disqualified from further Evaluation (Financial Evaluation).**

## SECTION VI: GENERAL CONDITIONS OF CONTRACT AND CONTRACT AGREEMENT

Any resulting contract shall be placed using a Letter of Acceptance and shall be subject to the General Conditions of Contract (GCC) for the Procurement of Works

## SECTION VII SPECIAL CONDITIONS OF CONTRACT

Procurement Reference Number: **W/RFQ/KERC/RFA/25/2025/2026**

The clause numbers given in the first column correspond to the relevant clause number of the General Conditions of Contract.

<b>GCC Clause Reference</b>	<b>Special Conditions</b>
<b>Employer GCC 1.1(r)</b>	The Employer is the <b>Kavango East Regional Council</b>  The name of the authorized representative is: <b>Mr. M.Mangundu</b>
<b>Intended Completion Date GCC</b>	The intended completion date is: <b>Ninety (90) calendar days after appointment</b>
<b>Project Manager GCC 1.1(y)</b>	The Project Manager is:  Name: <b>Windhoek Consulting Engineers (Pty) Ltd</b> Address: <b>North View Park 2, Ongwediva, Namibia</b> Authorized Representative: <b>Mr. Timoteus Negonga</b>
<b>Site GCC 1.1(aa)</b>	The Site is located at:  Address of Site: <b>Ndiyona Proper, Kavango East Region, Namibia</b>
<b>Start Date GCC 1.1(dd)</b>	The Start Date shall be: <b>7 days after receipt of appointment letter or as agreed between Employer and Contractor</b>
<b>The Works GCC 1.1(hh)</b>	The Works consist of: <b>Upgrading of Gravel Roads to Interlocked Paved Roads at Ndiyona Settlement – Phase 2</b>
<b>Interpretation GCC 2.2</b>	The following additional documents shall form part of the contract: <b>SANS 1200, COLTO 1300, COLTO 1500, COLTO 1700 and COLTO 3500</b>
<b>Language and Law GCC 3.1</b>	The language of the contract is English  The law that applies to the Contract is the law of Namibia.

GCC Clause Reference	Special Conditions
<b>Project Manager's Decisions 4.1</b>	The Project Manager shall obtain specific approval from the Employer before carrying out any of his duties under the Contract which in the Project Manager's opinion will cause the amount finally due under the Contract to exceed the Contract Price or will give entitlement to an extension of time. This requirement shall be waived in an emergency affecting the safety of personnel or the Works or adjacent property.
<b>Delegation GCC 5.1</b>	The Project Manager <b>may</b> delegate his duties and responsibilities.
<b>Notices GCC 6</b>	<p>Delivery address for notices is:</p> <p>Employer:</p> <p><b>Contact Mr J.M. Kangumbe</b></p> <p><b>Kavango East Regional Council</b>  <b>Private Bag 2124</b>  <b>Maria Mwangere Street,</b>  <b>Rundu</b>  <b>Namibia</b></p> <p>For Contractor, to be advised on Contract award and signing and the contact name shall be:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
<b>Insurance GCC 13.1</b>	<p>Except for the cover mentioned in (d)(i) hereunder, the other insurance covers shall be in the joint names of the Contractor and the Employer and the minimum insurance amounts shall be:</p> <p>(a) for the Works, Plant and Materials: <b><i>Contract Amount + 20%</i></b></p> <p>(b) for loss or damage to Equipment: <b><i>Replacement value of the equipment that the contractor intends to use on-site until the taking over by the Employer</i></b></p> <p>(c) for loss or damage to property (except the Works, Plant, Materials, and Equipment) in connection with Contract: <b><i>N\$ 500,000.00</i></b></p> <p>(d) for personal injury or death:</p>

GCC Clause Reference	Special Conditions
	<p>(i) of the Contractor's employees: <b>N\$ 1,000.000.00</b>  <i>[The Contractor shall take an adequate insurance cover for its employees for any claim arising in the execution of the works].</i></p> <p>(ii) of other people: <b>N\$ 1,000.000.00</b>  <i>[This cover shall be for an adequate amount for Third-Party extended to the Employer and its representatives].</i></p> <p>(e) for loss or damage to materials on-site and for which payment has been included in the Interim Payment Certificate, where applicable.  <b>N/A</b></p> <p>The Contractor shall choose to take the insurance covers indicated above as separate covers or a combination of the Contractor's All Risks coupled with the Employer's liability and First Loss Burglary, after approval of the Employer. All insurance covers shall be of nil or the minimum possible deductibles at the sole expense of the contractor.</p>
<b>Site Date</b> <b>GCC 14.1</b>	The site Data shall be: <ol style="list-style-type: none"> <li><b>1. Construction Drawings</b></li> <li><b>2. Cadastral Drawings and General Plans</b></li> </ol>
<b>Possession of the Site</b> <b>GCC 20.1</b>	The Site Possession Date shall be: 7 Days after the appointment letter
<b>Procedure for Disputes</b> <b>GCC 24</b>	No Adjudicator shall be appointed under the contract and arbitration shall not apply. If any dispute arises between the Employer and the Contractor in connection with or arising out of the Contract, the parties shall seek to resolve any such dispute by amicable agreement. If the parties fail to resolve such dispute by amicable agreement, within 14 days after one party has notified the other in writing of the dispute, then the dispute shall be referred to the court by either party.
<b>Program</b> <b>GCC 25.1</b>	The Contractor shall submit for approval a Program for the Works within 7 days from the date of the Letter of Acceptance.
<b>GCC 25.3</b>	Program updates shall be required.
<b>Defects Liability Period</b> <b>GCC 33.1</b>	The Defects Liability Period is <b>365 days</b> .
<b>Payment Certificates</b> <b>GCC 39.7</b>	Interim Payment for Plant and Material on-site is applicable.  <b>Materials on-site will be paid at 80% of the invoiced (original from supplier) amount and on proof of payment and possession of the said materials.</b>

GCC Clause Reference	Special Conditions
	<p>No payment will be made to the Contractor unless one of the following documents is provided with the Contractor's statement:</p> <ul style="list-style-type: none"> <li>• Proof of ownership of the material;</li> <li>• A written cession of ownership from the supplier to the Contractor;</li> <li>• A bank guarantee for the full amount of the claim from an approved financial institution; or</li> <li>• Written permission to the Client to pay the Supplier directly.</li> </ul>
<p><b>Payments GCC 40</b></p>	<p>The amount certified by the Project Manager shall be paid in full within 30 days of receipt by the Employer of an invoice, supported by:</p> <p>(a) the payment certificate; and</p> <p>(b) a certificate of completion of the Works.</p>
<p><b>Price Adjustment GCC 44.</b></p>	<p>The Contract <i>is not</i> subject to price adjustment by GCC Clause 44, and the following information regarding coefficients <i>does not</i> apply.</p>
<p><b>Retention GCC 45.</b></p>	<p>(i) 10% of the amount shall be retained from any payment. Half of the retention money will be released after issuing of the Certificate of Completion and formal taking over of the Works and the remaining shall be released after the Defect Liability Period subject to the Contractor making good all defects.</p>
<p><b>Liquidated Damages GCC 46.1</b></p>	<p>The liquidated damages for the whole of the Works are <b>N\$ 1,500.00</b> per day.</p> <p>The maximum amount of [liquidated damages for the whole of the Works is <b>N\$ 100,000.00</b>.</p>
<p><b>Bonus GCC 47.1</b></p>	<p>N/A</p>
<p><b>Advance Payment GCC 48.1</b></p>	<p>(i) No advance payment shall be made.</p>
<p><b>Performance Security GCC 49.1</b></p>	<p>The Performance Security amount is <b>10% of the Contract Amount inclusive of contingencies and VAT</b></p> <p>(a) Bank Guarantee: <b>10% of Contract Amount (Including Contingencies and VAT)</b></p>

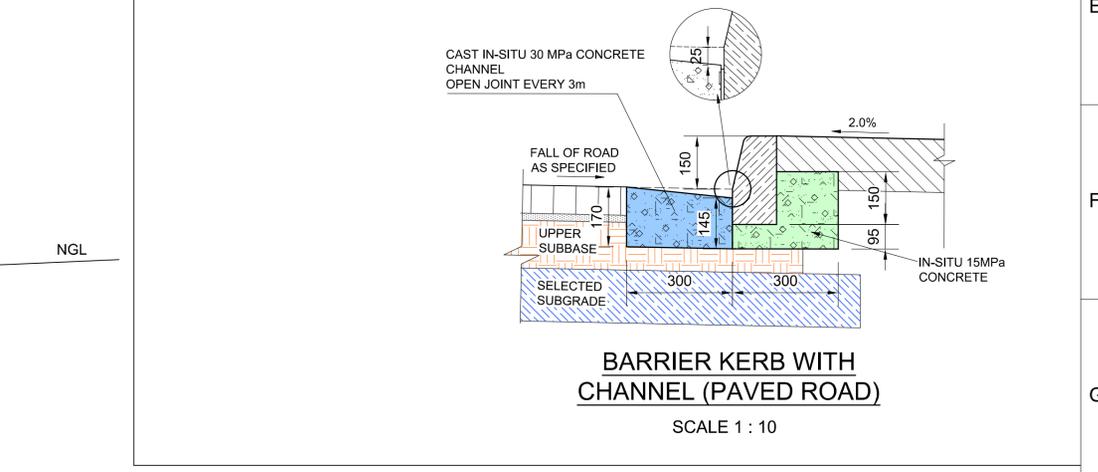
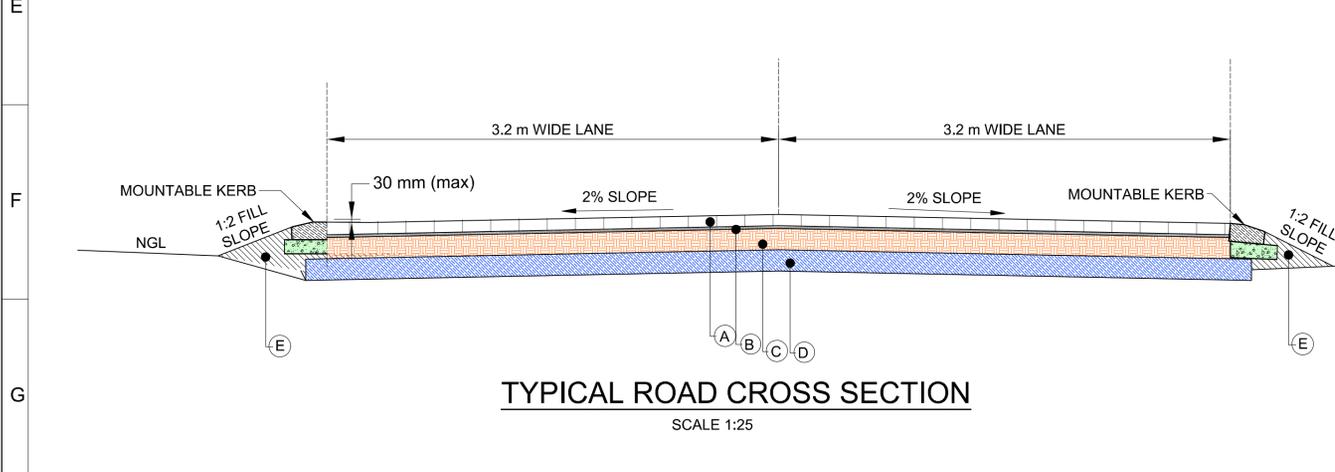
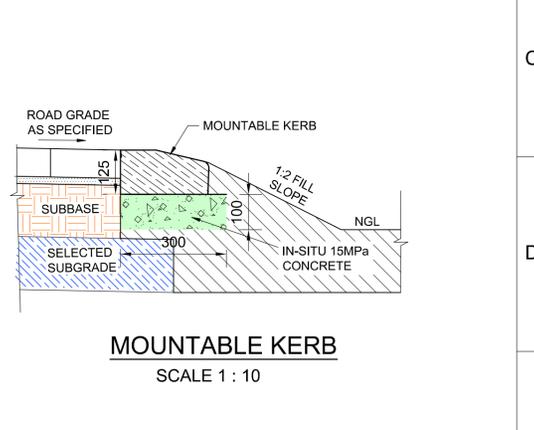
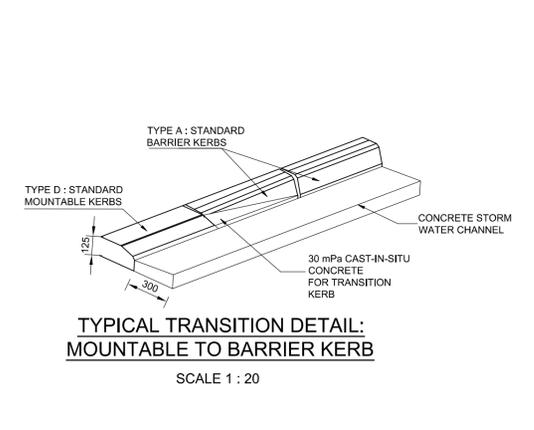
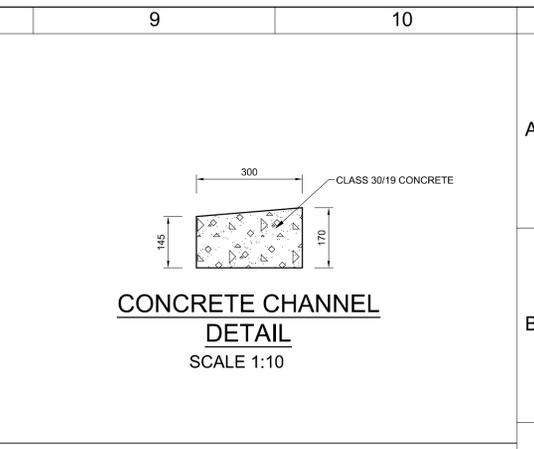
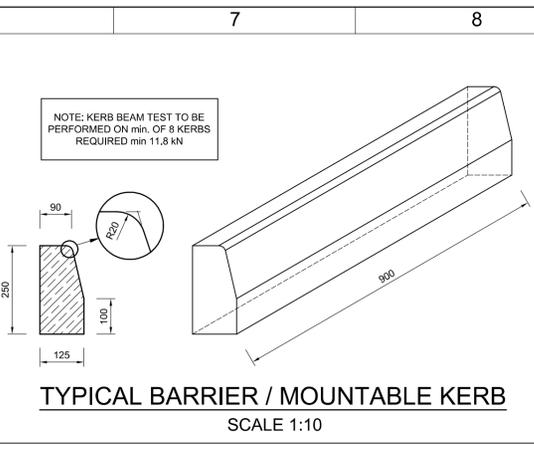
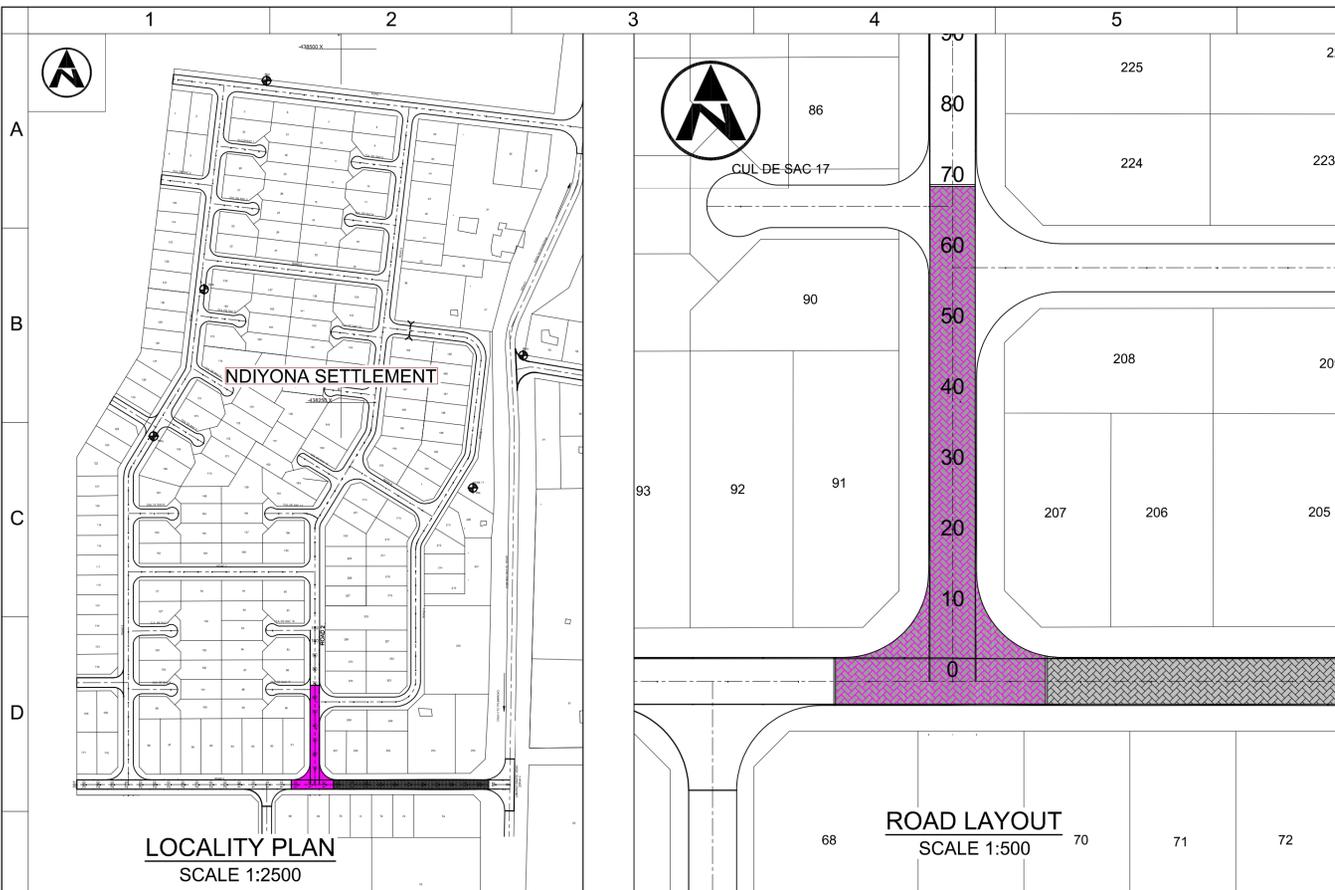
GCC Clause Reference	Special Conditions
	<i>[A <b>Bank Guarantee</b> shall be unconditional (on demand) (see Section VIII. Security Forms).</i>
GCC 56.1	“As-built” drawings or operating <i>are</i> required.
GCC 59.1	The percentage to apply to the value of the work not completed, representing the Employer’s additional cost for completing the Works, is <b>5%</b> .

## QUOTATION CHECKLIST SCHEDULE

**Procurement Reference No.: W/RFQ/KERC/RFA/25/2025/2026**

Description	Attached	Not Attached
Quotation letter with Appendices		
Completed Appendix to quotation Letters		
Priced Activity Schedule		
Signed Bid Securing Declaration		
Valid copy of Company Registration Certificate		
Original valid or certified good Standing Tax Certificate		
Original valid or certified good Standing Social Security Certificate		
Signed Bid Securing Declaration		
Valid certified copy of Affirmative Action Compliance Certificate		
Company Profile		
Valid Original/Certified Copy BIPA Certificate		
Signed Certificate of Attendance		

**Disclaimer:** *The list defined above is meant to assist the Bidder in submitting the relevant documents and shall not be a ground for the bidder to justify its non-submission of major documents for its quotation to be responsive. The onus remains on the Bidder to ascertain that it has submitted all the documents that have been requested and are needed for its submission to be complete and responsive.*



- (A) 80mm 35MPa INTERLOCK PAVING
- (B) 20mm CLEAN RIVER SAND
- (C) 150mm G5 SUBBASE COMPACTED TO 95% OF MOD.AASHTO MAX. DENSITY WITH MIN CBR OF 45% @ 95%
- (D) 150mm ROADBED PREPARATION COMPACTED TO 95% OF MOD.AASHTO MAX. DENSITY / RIP AND RE-COMPACT IN-SITU MATERIAL TO A MINIMUM OF 95% OF MODIFIED AASHTO MAXIMUM DENSITY
- (E) G9 FILL COMPACTED TO 93% OF MOD.AASHTO MAX. DENSITY WITH MIN CBR OF 3% @ 93% CONSTRUCTED IN LAYERS NOT EXCEEDING 300mm IN THICKNESS

MATERIAL REQUIREMENTS: NDIYONA PROPER														
LAYER No.	DESCRIPTION	LAYER THICKNESS	TRH14 MATERIAL TYPE	COMPACTION REQUIREMENT (% OF MOD. AASHTO)	MINIMUM CBR AT SPECIFIED DENSITY	MAXIMUM SWELL AT 100% MOD. AASHTO DENSITY	GRADING MODULUS (GM)	ATTERBERG LIMITS (MAXIMUM)						
								ALL MATERIALS EXCEPT CALCRETE			CALCRETE			SHRINKAGE PRODUCT
								PI	LL	LS	PI	LL	LS	
(A)	80mm 35MPa INTERLOCKING PAVERS	-	-	-	-	-	-	-	-	-	-	-	-	
(C)	SUBBASE	150mm	G5	95%	45 AT 95%	0.5%	1.5<GM<2.5 (SEE NOTE 2)	10	30	5%	15	30	6%	320 (SEE NOTE 3)
(D)	ROADBED	150mm	G6	95%	25 AT 95%	0.5%	1.5<GM<2.5	10	30	5%	15	30	6%	320 (SEE NOTE 3)
(E)	FILL	In Layers not exceeding 300mm	G9	93%	3 AT 93%	1.5%	0.75<GM<2.7	12 or 3GM + 10	-	-	-	-	-	-

NOTE 1: FOR GRADING REQUIREMENTS REFER TO TABLE 3402.1 OF THE COLTO SPECIFICATIONS  
 NOTE 2: THE PERCENTAGE BY MASS PASSING THE 2.00mm SIEVE SHALL NOT BE LESS THAN 20% NOR MORE THAN 70%  
 NOTE 3: THE SHRINKAGE PRODUCT IS THE (% PASSING THE 0.425mm SIEVE) x LS

ALL DIMENSIONS AND LEVELS ARE TO BE VERIFIED ON SITE BY THE CONTRACTOR BEFORE COMMENCING ANY WORK.

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**NOTES:**

- ALL MATERIALS AND WORKMANSHIP MUST COMPLY WITH THE REQUIREMENTS OF THE LATEST RELEVANT SANS/SABS STANDARDS.
- THE DEGREE OF ACCURACY IS AS PER SANS/SABS 1200
- ALL PAVING BLOCKS TO BE AS SPECIFIED IN ACCORDANCE WITH SANS 1058
- ALL KERBS TO BE DONE IN ACCORDANCE TO SANS 1200MK: AND MANUFACTURED IN ACCORDANCE WITH SANS 927.
- ALL DIMENSIONS MUST BE CHECKED AND APPROVED.

LO2221 System Ndiyona Extension 1,2,3 New Services

BENCHMARKS				
Name	Y - Coord	X - Coord	Local Height	Description
BUBTOP	+31 464.962	+37 961.992	1074.745	16mm iron peg
Office	+31 591.065	+38 568.035	1073.245	16mm iron peg inc
RM1	+31 850.833	+38 646.871	1072.181	16mm iron peg bgl
RM2	+31 711.860	+38 700.548	1073.006	16mm iron peg bgl
RM3	+31 885.204	+38 493.689	1073.107	16mm iron peg bgl
BM1	+31 150.869	+37 985.237	1075.593	12mm iron peg inc
BM2	+31 639.260	+37 943.818	1074.535	12mm iron peg inc
BM3	+31 620.935	+38 533.186	1073.357	12mm iron peg inc
BM7	+31 802.782	+38 727.400	1072.849	12mm iron peg inc
BMLN1	+32 595.475	+37 770.948	1085.162	Full standard
BMSV1	+31 487.639	+38 463.489	1074.619	Slot
BMT0804	+30 418.515	+38 103.714	1075.877	12mm iron peg inc
BMT0805	+32 391.456	+43 7 840.895	1062.646	12mm iron peg inc

**LEGEND**

- Road Edge
- Road Centre line
- New 80mm 35MPa Interlocked Paved Road
- Existing Paved Road
- Benchmark

NO	DATE	REVISION	INIT

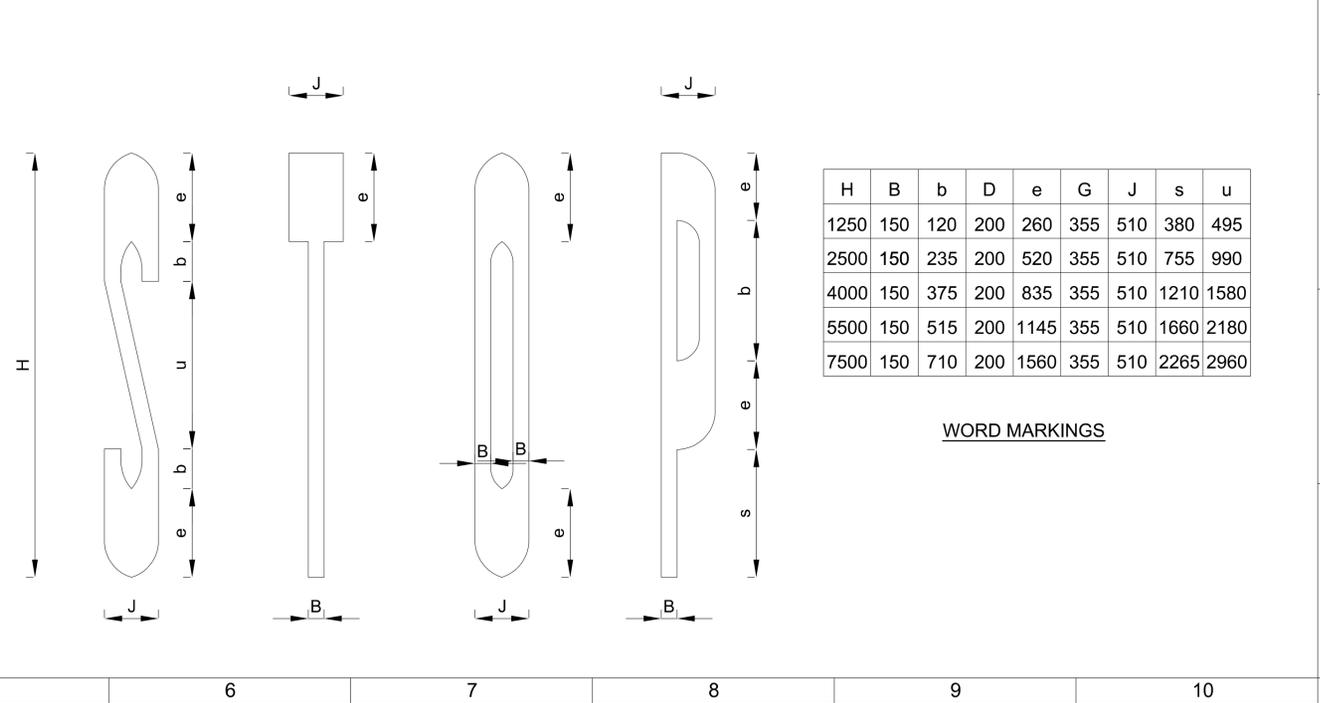
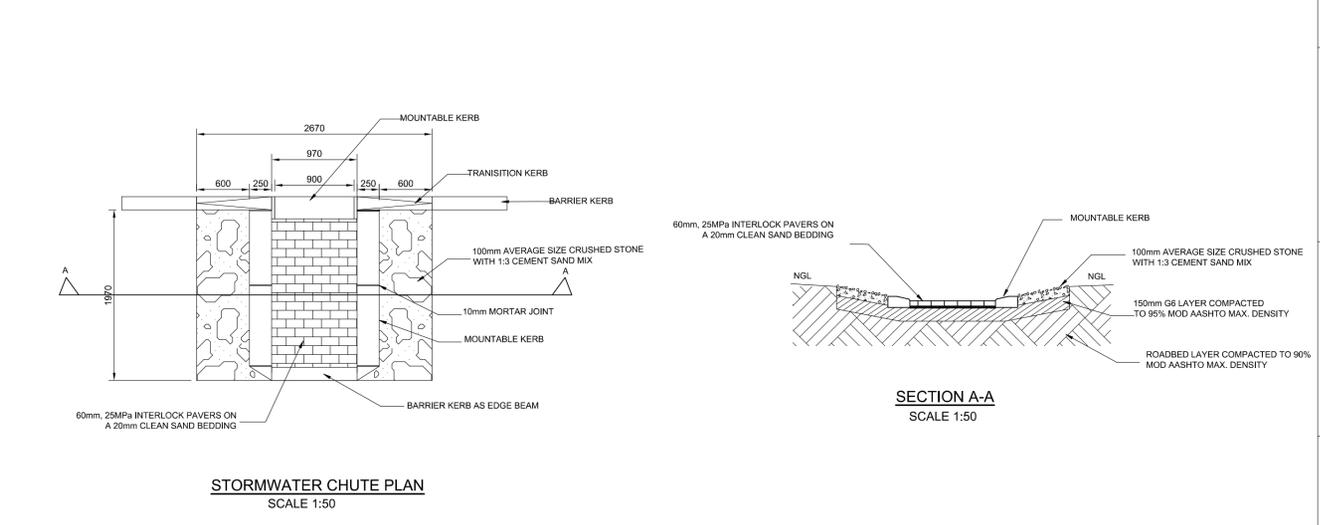
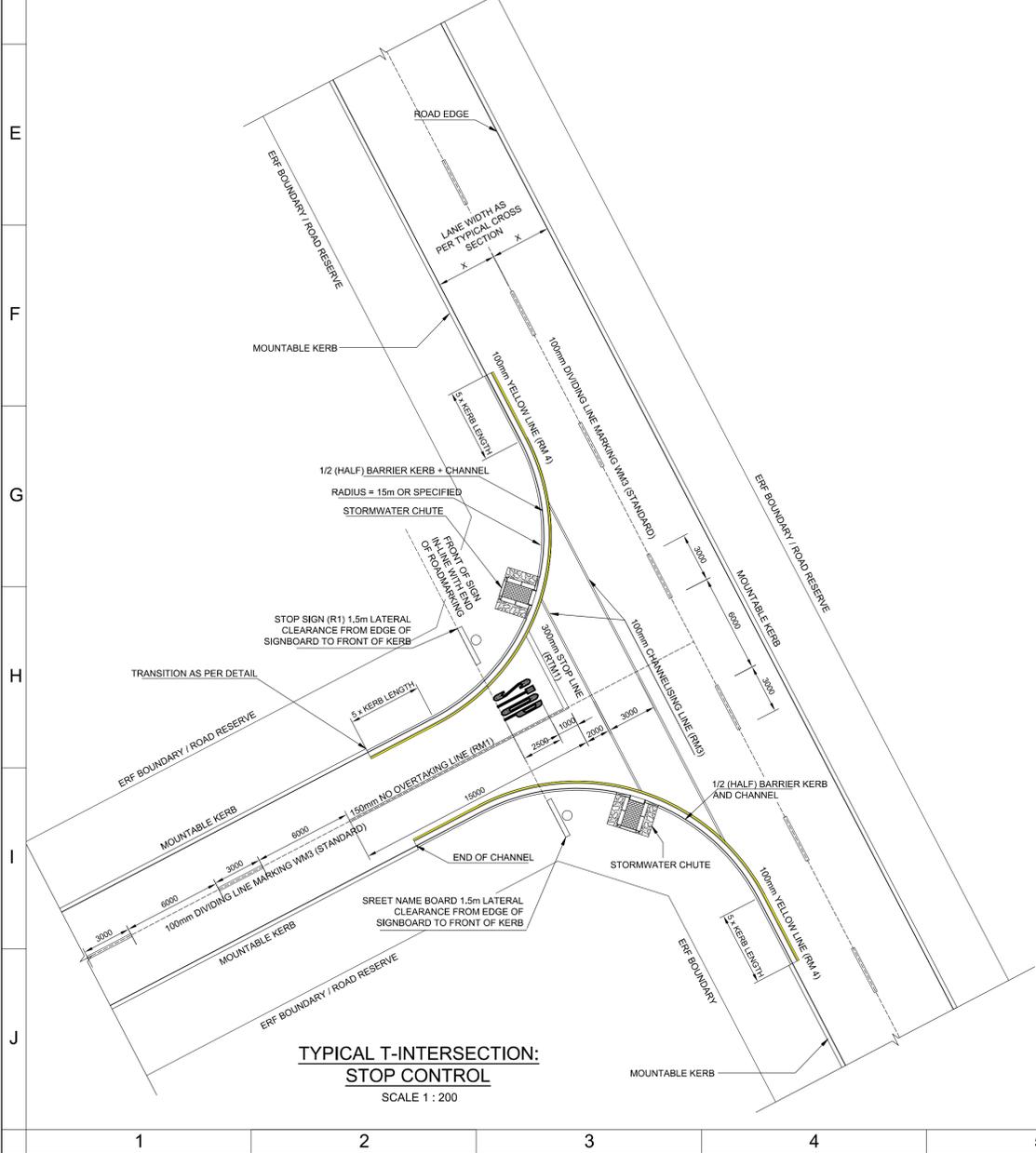
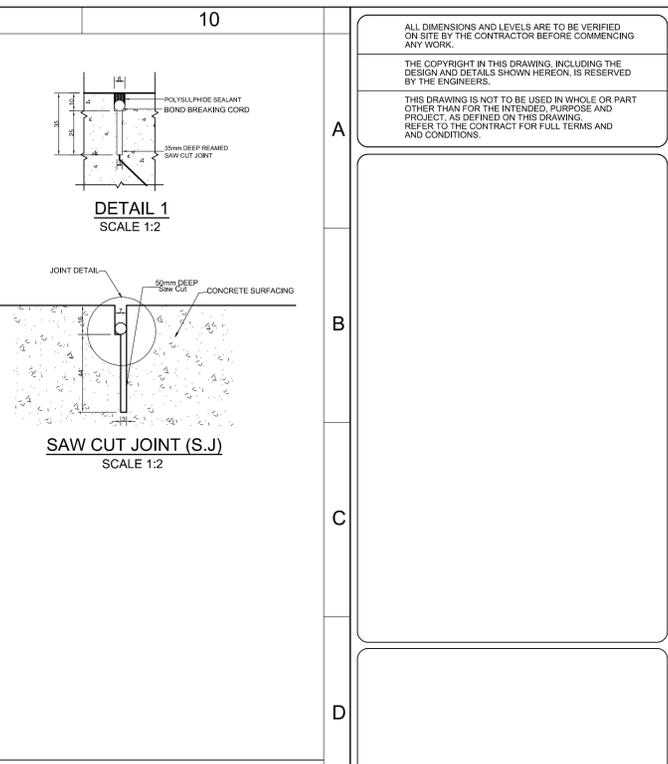
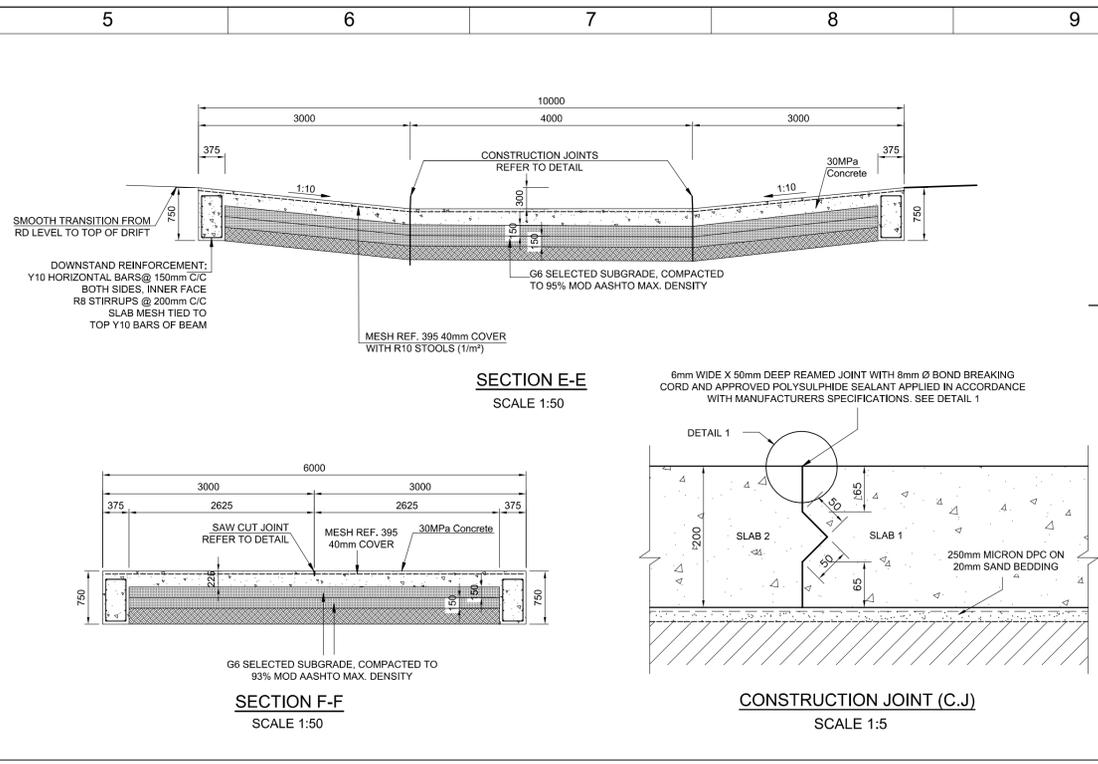
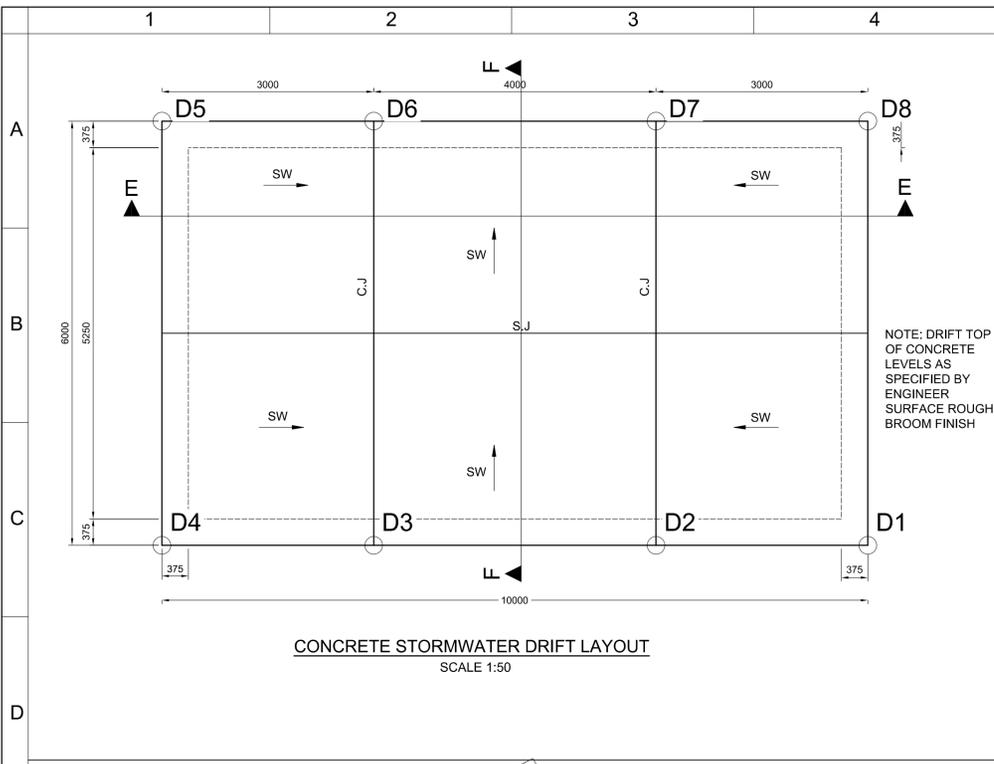
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 Tel: +264 65 238 522  
 Fax: +264 65 238 544  
 E-mail: north@wce.com.na

PROJECT: UPGRADE OF GRAVEL ROADS TO PAVED ROADS AT NDIYONA PROPER

TITLE: SITE LAYOUT AND TYPICAL DETAILS

DESIGNED	APPROVED BY CLIENT		
A AMUKWA			
DRAWN	FOR CLIENT		
A AMUKWA			
APPROVED FOR WCE	DATE		
TIMOTELUS NEGONGA			
DATE OF ISSUE	SCALE	AS SHOWN	SHEET SIZE
JULY 2025			A1
DRAWING NO.			
2105900-02-CP-SP/TD-01			
REVISIONS			
A			



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NO	DATE	REVISION	INIT
A	24-11-2025	FOR APPROVAL	TN

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E-mail: north@wce.com.na

PROJECT: UPGRADE OF GRAVEL ROADS TO PAVED ROADS AT NDIYONA PROPER

TITLE: TYPICAL DETAILS

DESIGNED	A AMUKWA	APPROVAL BY CLIENT
DRAWN	A AMUKWA	FOR CLIENT
APPROVED FOR WCE	T NEONGWA	DATE
DATE OF ISSUE	JULY 2025	SCALE AS SHOWN
DRAWING NO.	2105900-02-CP-SP/TD-02	SHEET SIZE
REVISIONS	A	A1