



MARULENG LOCAL MUNICIPALITY

TENDER DOCUMENT

REHABILITATION OF LORRAINE ACCESS ROAD

BID No. MLC/SCM/65/2024

ISSUED BY:

MARULENG LOCAL MUNICIPALITY
64 SPRINGBOK
HOEDSPRUIT
1380
TEL: 015 793 2409
FAX: 015 793 2341

NAME OF TENDERER:

AMOUNT OF TENDER (VAT INCLUSIVE):

CIDB GRADE:

CLOSING DATE: 22 MARCH 2024 AT 11H00



EXPANDED PUBLIC WORKS PROGRAMME
Creating opportunities towards human fulfilment

TABLE OF CONTENTS

PART T1: TENDERING PROCEDURES

- T1.1 TENDER NOTICE AND INVITATION TO TENDER *White*
- T1.2 SITE INSPECTION CERTIFICATE
- T1.3 TENDER DATA AND STANDARD CONDITION

PART T2: RETURNABLE DOCUMENTS

Pink

- T2.1 LIST OF RETURNABLE DOCUMENTS
- T2.2 RETURNABLE SCHEDULES

PART C1: AGREEMENT AND CONTRACT DATA

Green

- C1.1 FORM OF OFFER AND ACCEPTANCE
- C1.2 CONTRACT DATA
- C1.3 PERFORMANCE GUARANTEE
- C1.4 DISCLOSURE STATEMENT
- C1.5 ADJUDICATION BOARD MEMBER AGREEMENT
- C1.6 THE VARIATIONS TO THE GENERAL CONDITIONS OF CONTRACT
- C1.7. OCCUPATIONAL HEALTH SAFETY

PART C2: PRICING DATA

Yellow

- C2.1 PRICING INSTRUCTIONS
- C2.2 PREAMBLE TO SCHEDULE OF QUANTITIES

PART C3: SCOPE OF WORKS

Blue

- C3.1 DESCRIPTION OF WORKS
- C3.2 ENGINEERING
- C3.3 PROCUREMENT
- C3.4 CONSTRUCTION
- C3.5 MANAGEMENT
- C3.6 SPECIAL CONDITIONS OF CONTRACT

PART C4 SPECIFICATIONS TO SCOPE OF WORK

Blue

- C4.1 APPLICABLE STANDARDISED SPECIFICATION
- C4.2 VARIATIONS FROM STANDARDIZED SPECIFICATIONS

PART C5 OHS SPECIFICATIONS FOR CONSTRUCTION PROJECTS *Blue*

PART C6 APPENDIX A DRAWINGS

MARULENG LOCAL MUNICIPALITY



INVITATION TO BID

Bid description	BID NO	Availability of documents & non-refundable fee	CIDB grading	Briefing/site inspection date	Closing date	Points system	Contact person for technical enquires
Rehabilitation of Lorraine Access Road	MLC/SCM/65/2024	20 February 2024 @ R500.00	6 CE or Higher	23 February 2024 @ 10h00 Thusong Service Centre	22 March 2024 @ 11H00	80/20 Preferential Points System	HWA Engineers @ 015 297 5906 082 509 0621

Specifications and other conditions are detailed in the bid documents. Bid documents are obtainable at the Maruleng Local Municipality, 64 Springbok, Hoedspruit during office hours (08h00-16h00). The Tenderer must submit the tender with the following in order to qualify to be evaluated.

- Only bidders who are registered in the relevant contractor category in the Construction Industry Development Board Register of Contractors will be considered. This requirement will remain in force as long as it is a requirement of the CIDB: 6 CE or higher
 - Original valid Tax Clearance Certificate issued by the South African Revenue Services.
 - Certificate of Contractor Registration issued by the Construction Industry Development Board
 - Certified company registration
 - Municipal rates and taxes
 - Attended the compulsory site meeting
 - Authority to signatory
 - Signing of form of offer
 - Alterations signed, document completed in full and initial every page
 - Document submitted in original format (Not dismantled)
 - Only South African currency must be used in all the rates.
 - Workmen's compensation Registration Certificate (or proof of payment of contributions in terms of the Compensation for Occupational Injuries and Disease Act No.130 of 1993.
 - All certified copies must not be older than 3 months
 - Programme of Works
 - Project Team (CV and Certified copied of qualification Certificates)
 - List of Plant and Equipment, Proof of equipment. (Lease agreements where applicable including relevant proof).
 - Health and Safety Plan
 - Updated CSD Report
- **A Non-Refundable fee of R500.00 should be paid at the Maruleng Local Municipality bank account per document. Proof of payment should be produced upon collection. No Cash will be accepted at the office.**
 - All bids documents must be sealed in a cover clearly marked and must be deposited in the bid box of **Maruleng Local Municipality Offices in Hoedspruit.**
 - Maruleng Local Municipality does not bind itself to accept the lowest or any bid and reserves the right to accept the whole or part of a bid. Bids will be evaluated and adjudicated in line with Maruleng Local Municipality's Procurement Policy, Preferential Procurement Policy Framework Act of 2022 in consultation to

the CIDB Act. Bidders will be evaluated on Responsiveness of bids, and only bidders who meet the responsiveness requirement on will be evaluated on Price and Specific Goals as outlined in the bid document.

- NO LATE / TELEPHONIC / FAXED OR EMAILED BIDS WILL BE ACCEPTED

Enquiries relating to bid documents should be directed to Maruleng Local Municipality Office at:

Contact Person: Mr M.L Muroa

Telephone No: 015 590 1650

Email Address: muroal@maruleng.gov.za

Or

Contact Person: Mr K Phiri

Telephone No: 015 590 1650

Email Address: phirik@maruleng.gov.za

Ms N.S Hoesane
MUNICIPAL MANAGER

MARULENG LOCAL MUNICIPALITY

REHABILITATION OF LORRAINE ACCESS ROAD

MLC/SCM/65/2024

T1.2 Site Inspection Certificate

This is to certify that I,

.....

representing and duly authorized by (Tenderer)

.....

attended the site inspection on

.....

Having prior to this site visit carefully examined the tender document, technical information and drawings supplied, I confirm that I was given unrestricted access to inspect those sections of the Site necessary for the execution of the Works.

I further confirm that I am completely satisfied with the scope of work as explained by the Engineer, and am fully aware of all Site conditions and regulations of whatsoever nature that could influence the preparation of our tender.

I therefore append my signature below in agreement that we will not institute any claim against the Employer after submission of our tender based on lack of knowledge of site conditions or regulations pertaining to the execution of this Contract.

Signature of Representative of the Engineer

Date.....

Signature of Representative of the Contractor

Date.....

MARULENG LOCAL MUNICIPALITY

REHABILITATION OF LORRAINE ACCESS ROAD

MLC/SCM/65/2024

T1.3 Tender Data

The conditions of Tender are the Standard Conditions of Tender as contained in Annex F of the CIDB Standard for Uniformity in Construction Procurement. (See www.cidb.org.za) which are reproduced without amendment or alteration for the convenience of Tenderers as an Annex to this Tender Data.

The Standard Conditions of Tender make several references to the Tender Data for details that apply specifically to this Tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the standard conditions of Tender. Each item of data given below is cross-referenced to the clause in the Standard Conditions of Tender to which it mainly applies.

The additional conditions of Tender are:

Clause number	Tender Data
F.1.1	The employer is Maruleng Local Municipality.
F.1.2	<p>The Tender document consists of the following:</p> <p><u>TENDER</u></p> <p>T1: Tendering Procedures</p> <p>T1.1 Tender notice and invitation to Tender</p> <p>T1.2 Site inspection</p> <p>T1.3 Tender data</p> <p>T2 : Returnable Documents</p> <p>T2.1 List of returnable documents</p> <p>T2.2 Returnable schedules</p> <p><u>CONTRACT</u></p> <p>Part 1: Agreements and contract data</p> <p>C1.1 Form of offer and acceptance</p> <p>C1.2 Contract data</p> <p>C1.3 Performance Guarantee</p> <p>C1.4 Disclosure Statement</p> <p>C1.5 Adjudication Board Member Agreement</p> <p>C1.6 The Variations to the General Conditions of Contract</p> <p>C1.7 Occupational Health and Safety</p> <p>Part 2: Pricing data</p> <p>C2.1 Pricing instructions</p>

	<p>C2.2 Preamble Schedule of Quantities</p> <p>Part 3: Scope of work</p> <p>C3 Scope of work</p> <p>Part 4: Specification to Scope of Works</p> <p>Part 5: OHS Specifications for Construction Projects</p> <p>Part 6: Site information</p> <p>C6.1 Site information</p> <p>DRAWINGS</p>
F.1.4	<p>The employer's agent is:</p> <p>Name: HWA Engineers and Project Managers</p> <p>Address: Physical Address: Postal Address:</p> <p>24a Rissik Street P.O. Box 3472</p> <p>Polokwane Polokwane</p> <p>0699 0700</p> <p>Tel: (015) 297 5906</p> <p>Fax: (086) 246 0744</p> <p>E-mail: admin@hwaeng.co.za</p>
F.1.5	<p>The Employer's right to accept or reject any tender off. The employer is not obliged to accept the lowest or any tender offer.</p>
F.2.1	<p>Only those Tenderers who have in their employ management and supervisory staff satisfying the requirements of the Scope of Work for labour intensive competencies for supervisory and management staff are eligible to submit Tenders.</p>
F.2.2	<p>The following Tenderers who are registered with the CIDB, or are capable of being so registered prior to the evaluation of submissions, are eligible to submit Tenders:</p> <p>a) contractors who have a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum Tendered for a 6 CE class of construction work; and</p> <p>b) contractors registered as potentially emerging enterprises with the CIDB who are registered in one contractor grading designation lower than that required in terms of a) above and who satisfy the following criteria:</p> <p>i) The Department, following an interview with the management of the enterprise, is satisfied that the enterprise has the potential to develop and qualify to be registered in a higher contractor grading designation; and</p> <p>ii) The Department, following a risk assessment, is able to provide the necessary supportive measures required to enable the enterprise to successfully execute the contract.</p> <p>Joint ventures are eligible to submit Tenders provided that:</p> <ol style="list-style-type: none"> every member of the joint venture is registered with the CIDB; the lead partner has a contractor grading designation in the 6 CE or higher class of construction work; and the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a 6 CE or higher class of construction work.

F.2.7	<p>The arrangements for a compulsory clarification meeting are as stated in the Tender Notice and Invitation to Tender.</p> <p>Tenderers must sign the attendance list in the name of the Tendering entity. Addenda will be issued to and Tenders will be received only from those Tendering entities appearing on the attendance list.</p>
F.2.12	<p>No alternative Tender offers will be considered</p> <p>If a Tenderer wishes to submit an alternative Tender offer, the only criteria permitted for such alternative Tender offer is that it demonstrably satisfies the Employer's standards and requirements, the details of which may be obtained from the Employer's Agent.</p> <p>Calculations, drawings and all other pertinent technical information and characteristics as well as modified or proposed Pricing Data must be submitted with the alternative Tender offer to enable the Employer to evaluate the efficacy of the alternative and its principal elements, to take a view on the degree to which the alternative complies with the Employer's standards and requirements and to evaluate the acceptability of the pricing proposals. Calculations must be set out in a clear and logical sequence and must clearly reflect all design assumptions. Pricing Data must reflect all assumptions in the development of the pricing proposal.</p> <p>Acceptance of an alternative Tender offer will mean acceptance in principle of the offer. It will be an obligation of the contract for the Tenderer, in the event that the alternative is accepted, to accept full responsibility and liability that the alternative offer complies in all respects with the Employer's standards and requirements.</p> <p>The modified Pricing Data must include an amount equal to 5% of the amount Tendered for the alternative offer to cover the Employer's costs of confirming the acceptability of the detailed design before it is constructed.</p>
F.2.13.3	Parts of each Tender offer communicated on paper shall be submitted as original only.
F.2.13.5 F2.15.1	<p>The employer's address for delivery of Tender offers and identification details to be shown on each Tender offer package are:</p> <p>Location of Tender box: Maruleng Local Municipality Offices in Hoedspruit Identification details: REHABILITATION OF LORRAINE ACCESS ROAD Postal address: 64 Springbok, Hoedspruit, 1380</p>
F.2.13	A one-envelope procedure will be followed.
F.2.15	The closing time for submission of Tender offers is as stated in the Tender Notice and Invitation to Tender.
F.2.15	Telephonic, telegraphic, telex, facsimile or e-mailed Tender offers will not be accepted.
F.2.16	The Tender offer validity period is 90 days
F.2.18	The Tenderer shall, when requested by the Employer to do so, submit the names of all management and supervisory staff that will be employed to supervise the labor-intensive portion of the works together with satisfactory evidence that such staff members satisfy the eligibility requirements.

F.2.19	Access shall be provided for inspections, tests and analysis by personnel acting on behalf of the Employer.
F.2.23	<p>The Tenderer is required to submit with his Tender the following documents which shall form part of the contract if awarded:</p> <ul style="list-style-type: none"> • CIDB grade 6CE or higher must be submitted. • Original valid Tax Clearance Certificate issued by the South African Revenue Services. • Certificate of Contractor Registration issued by the Construction Industry Development Board • Certified company registration • Municipal rates and taxes • Attended the compulsory site meeting • Authority to signatory • Signing of form of offer • Alterations signed, document completed in full and initial every page • Document submitted in original format (Not dismantled) • Only South African currency must be used in all the rates. • Workmen's compensation Registration Certificate (or proof of payment of contributions in terms of the Compensation for Occupational Injuries and Disease Act No.130 of 1993. • All certified copies must not be older than 3 months
F.3.4	Tenders will be opened immediately after the closing time for Tenders at Municipal Offices, Maruleng Local Municipality Offices.
F.3.11	<p>The procedure for the evaluation of responsive Tenders is Method 2 (CIDB -BEST PRACTICE GUIDELINE #A3 Evaluating tenders offers, February 2008, Fifth edition of CIDB document 1003)</p> <p>The financial offer will be scored using Formula 2 (option 1) where the value of W_1 is:</p> <ol style="list-style-type: none"> 1) 90 where the financial value inclusive of VAT of all responsive Tenders received have a value in excess of R 50 000 000; or 2) 80 where the financial value inclusive of VAT of one or more responsive Tender offers equals or is less than R 50 000 000. <p>Up to 100 minus W_1 Tender evaluation points will be awarded to Tenderers who complete the preferencing schedule and who are found to be eligible for the preference claimed.</p>
F3.13.1	<p>Tender offers will only be accepted if:</p> <ol style="list-style-type: none"> a) the Tenderer has in his or her possession an original valid Tax Clearance Certificate issued by the South African Revenue Services or has made arrangements to meet outstanding tax obligations; b) the Tenderer is registered with the Construction Industry Development Board in an appropriate contractor grading designation; c) the Tenderer or any of its directors is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector; d) the Tenderer has not: <ol style="list-style-type: none"> i) abused the Employer's Supply Chain Management System; or ii) failed to perform on any previous contract and has been given a written notice to this effect; and

	<ul style="list-style-type: none"> e) Tenderer has completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the Tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the Tender process. f) the Tenderer does not have arrears on municipal rates and levies exceeding 3 months. g) the tender offer is signed by a person authorized to sign on behalf of the Tenderer h) Tenderers declaration of compliance with the Occupational Health and Safety Act No. 85 of 1993 and the Construction Regulations 2003 as well as the tenderer's health and safety plan, is included with his tender submission. i) a tenderer who submitted a tender as a Joint Venture has included an acceptable Joint Venture Agreement with his tender j) the Employer is satisfied that the Tenderer or any of his principals have <u>not influenced</u> the tender offer and acceptance by the following criteria: <ul style="list-style-type: none"> a) having offered, promised or given a bribe or other gift or remuneration to any person in connection with the obtaining or execution of this Contract; b) having acted in a fraudulent or corrupt manner in obtaining or executing this Contract; c) having approached an officer or employee of the Employer or the Employer's Agent with the objective of influencing the award of a Contract in the tenderers favour d) having entered into any agreement or arrangement, whether legally binding or not, with any other person, firm or company to refrain from Tendering for this Contract or as to the amount of the Tender to be submitted by either party e) having disclosed to any other person, firm or company other than the Employer, the exact or approximate amount of his proposed Tender: f) The Employer may, in addition to using any other legal remedies, repudiate the Tender offer and acceptance and declare the Contract invalid should it have been concluded already
F.3.18	The number of paper copies of the signed contract to be provided by the employer is one.

Evaluation Criteria

1. Company's Experience & References

No.	Target goals Name reference with contact details (project involving road-related projects, attach appointment letter, and completion certificate)	Weighting	Score
1.		6	
2.		6	
3.		6	
4.		6	
5.		6	
SUBTOTAL: Experience & References		30	

Note: Please attach appointment letters and signed completion certificate issued by the client as proof for having completed such project.

For completion certificate, only signed completion certificate by the client (implementing agent/ institution)

2. Representative experience

No.	Target goal (attach CV & certified copy of qualifications)	Weighting	Score
1.	Contracts Manager in road-related projects 5 years and above = 6 4 years = 5 3 years = 3 2 years = 2 1 year = 1	6	
2.	Site Agent in road-related projects 5 years and above = 4 4 years = 3 3 years = 2 2 years = 1	4	
3.	Foreman in road-related projects 5 years and above = 3 4 years = 2 3 years = 1	3	
4.	Health & Safety Officer years' experience in road-related projects 5 years and above = 2 4 years and below=1	2	
SUBTOTAL: Representative experience		15	

3. Representative Qualification

No.	Target goals	Weighting	Score
1.	Contracts Manager BSc/B.Tech = 6 National Diploma Civil =4	6	
2.	Site Agent National Diploma Civil and higher = 4 N6 certificate = 2	4	
	SUBTOTAL: Representative Qualification	10	

Note: Project organogram of the project team should be attached. Curriculum vitae with certified copies of qualifications should be attached to the tender document for verification by the clients. NB foreign qualifications certified copies from SAQA must also be attached.

4. Financial Reference

No.	Target goals	Weighting	Score
1.	Tenderer submitted bank details proof attached	3	
2.	Bank rating "C" or better	9	
3.	Registered financial institution's full details as guarantor in the amount of 10% as specification for surety purposes shall be submitted	3	
	SUBTOTAL: Financial references	15	

5. Plants & Equipment

No.	Target goals	Weighting	Score
1.	Grader	5	
2.	12 Ton Roller	4	
3.	TLB	4	
4.	Water tanker	4	
5.	3 x Tipper Truck	4	
6.	Excavator	4	
7.	4 ton truck	3	
8.	Pedestrian Roller	2	
	SUBTOTAL: Plant & equipment	30	

Note: Proof of ownership to be submitted with tender. If plant will be hired, a letter from plant Hire Company is required.

6. Summary of table 1-5

No.	Summary of tables	Weighting	Score
1.	Experience & References	30	
2.	Representative experience	15	
3.	Representative Qualifications	10	
4.	Financial references	15	
5.	Plant & Equipment	30	
	Sub-Total	100	
	PRICE	80	
	Specific Goals	20	

NB: Functionality will be scored out of 100 and Bidders who do not reach the 70% threshold will not be evaluated further.

GRADING = 6CE

Standard Conditions of Tender

F.1 General

F.1.1 Actions

The employer and each Tenderer submitting a Tender offer shall comply with these conditions of Tender. In their dealings with each other, they shall discharge their duties and obligations as set out in F.2 and F.3, timeously and with integrity, and behave equitably, honestly and transparently.

F.1.2 Tender Documents

The documents issued by the employer for the purpose of a Tender offer are listed in the Tender data.

F.1.3 Interpretation

F.1.3.1 The Tender data and additional requirements contained in the Tender schedules that are included in the returnable documents are deemed to be part of these conditions of Tender.

F.1.3.2 These conditions of Tender, the Tender data and Tender schedules which are only required for Tender evaluation purposes, shall not form part of any contract arising from the invitation to Tender.

F.1.3.3 For the purposes of these conditions for the calling for expressions of interest, the following definitions apply:

- a) **comparative offer** means the Tenderer's financial offer after the factors of non-firm prices, all unconditional discounts and any other Tendered parameters that will affect the value of the financial offer have been taken into consideration
- b) **corrupt practice** means the offering, giving, receiving or soliciting of anything of value to influence the action of the employer or his staff or agents in the Tender process; and
- c) **fraudulent practice** means the misrepresentation of the facts in order to influence the Tender process or the award of a contract arising from a Tender offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels
- d) **quality (functionality)** means the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs.

F.1.4 Communication and employer's agent

Each communication between the employer and a Tenderer shall be to or from the employer's agent only, and in a form that can be read, copied and recorded. Writing shall be in the English language. The employer shall not take any responsibility for non-receipt of communications from or by a Tenderer. The name and contact details of the employer's agent are stated in the Tender data.

F.1.5 The employer's right to accept or reject any Tender offer

F.1.5.1 The employer may accept or reject any variation, deviation, Tender offer, or alternative Tender offer, and may cancel the Tender process and reject all Tender offers at any time before the formation of a contract. The employer shall not accept or incur any liability to a Tenderer for such cancellation and rejection, but will give written reasons for such action upon written request to do so.

F.1.5.2 The employer may not subsequent to the cancellation or abandonment of a Tender process or the rejection of all responsive Tender offers re-issue a Tender covering substantially the same scope of work

within a period of six months unless only one Tender was received and such Tender was returned unopened to the Tenderer.

F.2 Tenderer's obligations

F.2.1 Eligibility

Submit a Tender offer only if the Tenderer complies with the criteria stated in the Tender data and the Tenderer, or any of his principals, is not under any restriction to do business with employer.

F.2.2 Cost of Tendering

Accept that the employer will not compensate the Tenderer for any costs incurred in the preparation and submission of a Tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer satisfy requirements.

F.2.3 Check documents

Check the Tender documents on receipt for completeness and notify the employer of any discrepancy or omission.

F.2.4 Confidentiality and copyright of documents

Treat as confidential all matters arising in connection with the Tender. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a Tender offer in response to the invitation.

F.2.5 Reference documents

Obtain, as necessary for submitting a Tender offer, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are not attached but which are incorporated into the Tender documents by reference.

F.2.6 Acknowledge addenda

Acknowledge receipt of addenda to the Tender documents, which the employer may issue, and if necessary apply for an extension to the closing time stated in the Tender data, in order to take the addenda into account.

F.2.7 Clarification meeting

Attend **compulsory a clarification meeting** at which Tenderers may familiarize themselves with aspects of the proposed work, services or supply and raise questions. Details of the meeting(s) are stated in the Tender data.

F.2.8 Seek clarification

Request clarification of the Tender documents, if necessary, by notifying the employer at least five working days before the closing time stated in the Tender data.

F.2.9 Insurance

Be aware that the extent of insurance to be provided by the employer (if any) may not be for the full cover required in terms of the conditions of contract identified in the contract data. The Tenderer is advised to seek qualified advice regarding insurance.

F.2.10 Pricing the Tender offer

F.2.10.1 Include in the rates, prices, and the Tendered total of the prices (if any) all duties, taxes (except Value Added Tax (VAT), and other levies payable by the successful Tenderer, such duties, taxes and levies being those applicable 14 days before the closing time stated in the Tender data.

F.2.10.2 Show VAT payable by the employer separately as an addition to the Tendered total of the prices.

F.2.10.3 Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except as provided for in the conditions of contract identified in the contract data.

F.2.10.4 State the rates and prices in Rand unless instructed otherwise in the Tender data. The conditions of contract identified in the contract data may provide for part payment in other currencies.

F.2.11 Alterations to documents

Not to make any alterations or additions to the Tender documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the Tenderer. All signatories to the Tender offer shall initial all such alterations. Erasures and the use of masking fluid are prohibited.

F.2.12 Alternative Tender offers

F.2.12.1 Submit alternative Tender offers only if a main Tender offer, strictly in accordance with all the requirements of the Tender documents, is also submitted. The alternative Tender offer is to be submitted with the main Tender offer together with a schedule that compares the requirements of the Tender documents with the alternative requirements the Tenderer proposes.

F.2.12.2 Accept that an alternative Tender offer may be based only on the criteria stated in the Tender data or criteria otherwise acceptable to the employer.

F.2.13 Submitting a Tender offer

F.2.13.1 Submit a Tender offer to provide the whole of the works, services or supply identified in the contract data and described in the scope of works, unless stated otherwise in the Tender data.

F.2.13.2 Return all returnable documents to the employer after completing them in their entirety, either electronically (if they were issued in electronic format) or by writing in black ink.

F.2.13.3 Submit the parts of the Tender offer communicated on paper as an original plus the number of copies stated in the Tender data, with an English translation of any documentation in a language other than English, and the parts communicated electronically in the same format as they were issued by the employer.

F.2.13.4 Sign the original and all copies of the Tender offer where required in terms of the Tender data. The employer will hold all authorized signatories liable on behalf of the Tenderer. Signatories for Tenderers proposing to contract as joint ventures shall state which of the signatories is the lead partner, whom the employer shall hold liable for the purpose of the Tender offer.

F.2.13.5 Seal the original and each copy of the Tender offer as separate packages marking the packages as "ORIGINAL" and "COPY". Each package shall state on the outside the employer's address and identification details stated in the Tender data, as well as the Tenderer's name and contact address.

F.2.13.6 Where a two-envelope system is required in terms of the Tender data, place and seal the returnable documents listed in the Tender data in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall state on the outside the employer's address and identification details stated in the Tender data, as well as the Tenderer's name and contact address.

F.2.13.7 Seal the original Tender offer and copy packages together in an outer package that states on the outside only the employer's address and identification details as stated in the Tender data.

F.2.13.8 Accept that the employer shall not assume any responsibility for the misplacement or premature opening of the Tender offer if the outer package is not sealed and marked as stated.

F.2.14 Information and data to be completed in all respects

Accept that Tender offers, which do not provide all the data or information requested completely and in the form required, may be regarded by the employer as non-responsive.

F.2.15 Closing time

F.2.15.1 Ensure that the employer receives the Tender offer at the address specified in the Tender data not later **11h00** on **22/03/2024** as stated in the Tender data. Proof of posting shall not be accepted as proof of delivery. The employer shall not accept Tender offers submitted by telegraph, telex, facsimile or e-mail, unless stated otherwise in the Tender data.

F.2.15.2 Accept that, if the employer extends the closing time stated in the Tender data for any reason, the requirements of these conditions of Tender apply equally to the extended deadline.

F.2.16 Tender offer validity

F.2.16.1 Hold the Tender offer(s) valid for acceptance by the employer at any time during the validity period stated in the Tender data after the closing time stated in the Tender data.

F.2.16.2 If requested by the employer, consider extending the validity period stated in the Tender data for an agreed additional period.

F.2.17 Clarification of Tender offer after submission

Provide clarification of a Tender offer in response to a request to do so from the employer during the evaluation of Tender offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the total of the prices or substance of the Tender offer is sought, offered, or permitted. The total of the prices stated by the Tenderer shall be binding upon the Tenderer.

Note: Sub-clause F.2.17 does not preclude the negotiation of the final terms of the contract with a preferred Tenderer following a competitive selection process, should the Employer elect to do so.

F.2.18 Provide other material

F.2.18.1 Provide, on request by the employer, any other material that has a bearing on the Tender offer, the Tenderer's commercial position (including notarized joint venture agreements), referencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment. Should the Tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the Tender offer as non-responsive.

F.2.18.2 Dispose of samples of materials provided for evaluation by the employer, where required.

F.2.19 Inspections, tests and analysis

Provide access during working hours to premises for inspections, tests and analysis as provided for in the Tender data.

F.2.20 Submit securities, bonds, policies, etc.

If requested, submit for the employer's acceptance before formation of the contract, all securities, bonds, guarantees, policies and certificates of insurance required in terms of the conditions of contract identified in the contract data.

F.2.21 Check final draft

Check the final draft of the contract provided by the employer within the time available for the employer to issue the contract.

F.2.22 Return of other Tender documents

If so instructed by the employer, return all retained Tender documents within 28 days after the expiry of the validity period stated in the Tender data.

F.2.23 Certificates

Include in the Tender submission or provide the employer with any certificates as stated in the Tender data.

F.3 The employer's undertakings**F.3.1 Respond to clarification**

Respond to a request for clarification received up to five working days prior to the Tender closing time stated in the Tender Data and notify all Tenderers who drew procurement documents.

F.3.2 Issue Addenda

If necessary, issue addenda that may amend or amplify the Tender documents to each Tenderer during the period from the date of the Tender Notice until seven days before the Tender closing time stated in the Tender Data. If, as a result a Tenderer applies for an extension to the closing time stated in the Tender Data, the Employer may grant such extension and, will then notify it to all Tenderers who drew documents.

F.3.3 Return late Tender offers

Return Tender offers received after the closing time stated in the Tender Data, unopened, (unless it is necessary to open a Tender submission to obtain a forwarding address), to the Tenderer concerned.

F.3.4 Opening of Tender submissions

F.3.4.1 Unless the two-envelope system is to be followed, open valid Tender submissions in the presence of Tenderers' agents who choose to attend at the time and place stated in the Tender data. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened.

F.3.4.2 Announce at the opening held immediately after the opening of Tender submissions, at a venue indicated in the Tender data, the name of each Tenderer whose Tender offer is opened, the total of his prices, preferences claimed and time for completion, if any, for the main Tender offer only.

F.3.4.3 Make available the record outlined in F.3.4.2 to all interested persons upon request.

F.3.5 Two-envelope system

F.3.5.1 Where stated in the Tender data that a two-envelope system is to be followed, open only the technical proposal of valid Tenders in the presence of Tenderers' agents who choose to attend at the time and place stated in the Tender data and announce the name of each Tenderer whose technical proposal is opened.

F.3.5.2 Evaluate the quality of the technical proposals offered by Tenderers, then advise Tenderers who remain in contention for the award of the contract of the time and place when the financial proposals will be opened. Open only the financial proposals of Tenderers, who score in the quality evaluation above the minimum number of points for quality stated in the Tender data, and announce the score obtained for the technical proposals and the total price and any preferences claimed. Return unopened financial proposals to Tenderers whose technical proposals failed to achieve the minimum number of points for quality.

F.3.6 Non-disclosure

Not disclose to Tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of Tender offers, the final evaluation price and recommendations for the award of a contract, until after the award of the contract to the successful Tenderer.

F.3.7 Grounds for rejection and disqualification

Determine whether there has been any effort by a Tenderer to influence the processing of Tender offers and instantly disqualify a Tenderer (and his Tender offer) if it is established that he engaged in corrupt or fraudulent practices.

F.3.8 Test for responsiveness

Determine, on opening and before detailed evaluation, whether each Tender offer properly received:

- a) meets the requirements of these Conditions of Tender,
- b) has been properly and fully completed and signed, and
- c) is responsive to the other requirements of the Tender documents.

A responsive Tender is one that conforms to all the terms, conditions, and specifications of the Tender documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:

- detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work,
- change the Employer's or the Tenderer's risks and responsibilities under the contract, or
- affect the competitive position of other Tenderers presenting responsive Tenders, if it were to be rectified.

Reject a non-responsive Tender offer, and not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation.

F.3.9 Arithmetical errors

- Check responsive Tender offers for arithmetical errors, correcting them in the following manner: Where there is a discrepancy between the amounts in figures and in words, the amount in words shall govern.
- If a bill of quantities (or schedule of rates) apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line item total shall govern and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as quoted shall govern, and the unit rate will be corrected.
- Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the Tenderer's addition of prices, the total of the prices shall govern and the Tenderer will be asked to revise selected item prices (and their rates if a bill of quantities applies) to achieve the Tendered total of the prices.

The Tenderer will be asked to revise selected item prices (and their rates if bills of quantities applies) to achieve the Tendered total of the prices.

Consider the rejection of a Tender offer if the Tenderer does not correct or accept the correction of his arithmetical errors in the manner described above.

F.3.10 Clarification of a Tender offer

Obtain clarification from a Tenderer on any matter that could give rise to ambiguity in a contract arising from the Tender offer.

F.3.11 Evaluation of Tender offers

F3.11.1 General

Appoint an evaluation panel of not less than three persons. Reduce each responsive Bid offer to a comparative offer and evaluate it using the Bid evaluation method that is indicated in the Bid Data and described below:

Method 1: Financial offer	<ol style="list-style-type: none"> 1) Rank tender offers from the most favourable to the least favourable comparative offer. 2) Recommend highest ranked tenderer for the award of the contract, unless there are compelling and justifiable reasons not to do so.
Method 2: Financial offer and preferences	<ol style="list-style-type: none"> 1) Score tender evaluation points for financial offer. 2) Confirm that tenderers are eligible for the preferences claimed and if so, score tender evaluation points for preferencing. 3) Calculate total tender evaluation points. 4) Rank tender offers from the highest number of tender evaluation points to the lowest. 5) Recommend tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
Method 3: Financial offer and quality	<ol style="list-style-type: none"> 1) Score quality, rejecting all tender offers that fail to score the minimum number of points for quality stated in the Tender data. 2) Score tender evaluation points for financial offer. 3) Calculate total tender evaluation points. 4) Rank tender offers from the highest number of tender evaluation points to the lowest. 5) Recommend tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
Method 4: Financial offer, quality and preferences	<ol style="list-style-type: none"> 1) Score quality, rejecting all tender offers that fail to score the minimum number of points for quality stated in the Tender data. 2) Score tender evaluation points for financial offer. 3) Confirm that tenderers are eligible for the preferences claimed, and if so, score tender evaluation points for preferencing. 4) Calculate total tender evaluation points. 5) Rank tender offers from the highest number of tender evaluation points to the lowest. 6) Recommend tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.

Score financial offers, preferences and quality, as relevant, to two decimal places.

F.3.11.2 Scoring Financial Offers

Score the financial offers of remaining responsive Bid offers using the following formula:

$N_{FO} = W_1 \times A$ where:

N_{FO} = the number of Bid evaluation points awarded for the financial offer.

W_1 = the maximum possible number of Bid evaluation points awarded for the financial offer as stated in the Bid Data.

A = a number calculated using either formulas 1 or 2 below as stated in the Bid Data.

Formula	Basis for comparison	Option 1	Option 2
1	Highest price or discount	$(1 + \frac{(P - P_m)}{P_m})$	P/P_m
2	Lowest price or percentage commission/fee	$(1 - \frac{(P - P_m)}{P_m})$	P_m/P

where:

P_m = the comparative offer of the most favorable Bid offer.

P = the comparative offer of Bid offer under consideration.

F.3.12 Insurance provided by the employer

If requested by the proposed successful Tenderer, submit for the Tenderer's information the policies and / or certificates of insurance which the conditions of contract identified in the contract data, require the employer to provide.

F.3.13 Acceptance of Tender offer

F.3.13.1 Accept Tender offer only if the Tenderer satisfies the legal requirements stated in the Tender Data.

F.3.13.2 Notify the successful Tenderer of the employer's acceptance of his Tender offer by completing and returning one copy of the form of offer and acceptance before the expiry of the validity period stated in the Tender Data, or agreed additional period. Providing the form of offer and acceptance does not contain any qualifying statements, it will constitute the formation of a contract between the employer and the successful Tenderer as described in the form of offer and acceptance.

F.3.14 Notice to unsuccessful Tenderers

After the successful Tenderer has acknowledged the employer's notice of acceptance, notify other Tenderers that their Tender offers have not been accepted.

F.3.15. Prepare contract documents

If necessary, revise documents that shall form part of the contract and that were issued by the employer as part of the Tender documents to take account of:

- a) addenda issued during the Tender period,
- b) inclusion of some of the returnable documents,
- c) other revisions agreed between the employer and the successful Tenderer, and
- d) the schedule of deviations attached to the form of offer and acceptance, if any.

F.3.16 Issue final contract

Prepare and issue the final draft of contract documents to the successful Tenderer for acceptance as soon as possible after the date of the employer's signing of the form of offer and acceptance (including the schedule of deviations, if any). Only those documents that the conditions of Tender require the Tenderer to submit, after acceptance by the employer, shall be included.

F.3.17 Complete adjudicator's contract

Unless alternative arrangements have been agreed or otherwise provided for in the contract, arrange for both parties to complete formalities for appointing the selected adjudicator at the same time as the main contract is signed.

F.3.18 Provide copies of the contracts

Provide to the successful Tenderer the number of copies stated in the Tender Data of the signed copy of the contract as soon as possible after completion and signing of the form of offer and acceptance.

MARULENG LOCAL MUNICIPALITY
REHABILITATION OF LORRAINE ACCESS ROAD
MLC/SCM/65/2024

T2.1 List of Returnable Documents

<p>The Tenderer must complete the following returnable documents for contract purposes:</p> <p>1 Returnable Schedules required only for Tender evaluation purposes</p> <ul style="list-style-type: none"> • Record of Addendum to Tender Document • Certificate for Authority for Signatory • Certificate of authority for joint ventures (where applicable) • Proposed Key Personnel • Financial References • Estimated Monthly Expenditure • Details of Alternative Tenders submitted • Amendments and qualifications by Tenderer • Schedule of Proposed sub-contractors • Schedule of Plant and Equipment • Schedule of Tenderer's Experience • Proposed amendments and qualifications • Compulsory Enterprise Questionnaire • Tax Clearance/Proof of CSD Registration • Declaration of interest • Declaration for procurement above R10 million (VAT included) • Preference Points claim form in terms of the preferential procurement regulations 2011 • Declaration of Bidder's past supply chain management practices • Certificate of independent bid determination-MBD 9 • Schedule of the Tenderer's Experience • Municipal statement on Tenderer's rates and taxes • CK and Certified ID Documents of Members <p>2 Other documents required only for Tender evaluation purposes</p> <ul style="list-style-type: none"> • Certificate of Contractor Registration issued by the Construction Industry Development Board or printout of the registration number • Valid Tax Clearance Certificate or Pin issued by the South African Revenue Services. • Company profile • Last 3 years audited financial statements for (Pty) Limited and more audited for 	<p><i>Tick if submitted</i></p>
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<ul style="list-style-type: none"> • CV and qualification of key personnel • Qualification of the NQF qualified person and CV • Documentation if tender exceeds R10M (compulsory if applicable) <ul style="list-style-type: none"> ○ If the bidder is required by law to prepare AFS (Annual Financial Statements) for auditing, the AFS for the past three years or since the establishment if established during the past three years. • Municipal Rates of the company not in arrears for more than 90 days • Form of Offer properly signed • Letter of Good Standing (COIDA) • A certificate signed by the bidder certifying that the bidder has no undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days • Attach certificate of Attendance or Briefing Session Attendance Register signed • Required to Declare Interest • Certificate of Independent Bid Determination • Declaration of Bidder's Past Supply Chain Management Practices. • Certified copy of BBBEE Certificate. <p>N.B All MBD forms must be included in the tender document.</p> <p>3 The offer portion of the C1.1 Offer and Acceptance</p> <p>4 C1.2 Contract Data (Part 2)</p> <p>5 C2.2 Bills of quantities</p>	
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RECORD OF ADDENDA TO TENDER DOCUMENTS

We confirm that the following communications received from the Employer before the submission of this Tender offer, amending the Tender documents, have been taken into account in this Tender offer:

	Date	Title or Details
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		

Attach additional pages if more space is required.

Signed		Date	
Name		Position	
Tenderer			

AUTHORITY FOR SIGNATORY

Signatories for close corporations and companies shall confirm their authority by attaching to this form a duly signed and dated copy of the relevant resolution of their members or their board of directors, as the case may be.

An example for a company is shown below:

“By resolution of the board of directors passed on *(date)*

Mr./Mrs.

Has been duly authorized to sign all documents in connection with the Tender for Contract No

..... and any Contract which may arise there from on behalf of

(BLOCK CAPITALS)

.....

.....

SIGNED ON BEHALF OF THE COMPANY :

IN HIS CAPACITY AS :

DATE :

FULL NAMES OF SIGNATORY :

AS WITNESSES 1:

2:

Company Stamp

CERTIFICATE OF AUTHORITY FOR JOINT VENTURES

This Returnable Schedule is to be completed by joint ventures.

We, the undersigned, are submitting this Tender offer in Joint Venture and hereby authorize Mr./Ms.
 , authorized signatory of the company
 , acting in the capacity of lead partner, to
 sign all documents in connection with the Tender offer and any contract resulting from it on our behalf.

NAME OF FIRM	ADDRESS	DULY AUTHORISED SIGNATORY
Lead partner		Signature Name Designation.....
		Signature Name Designation.....
		Signature Name Designation.....
		Signature Name Designation.....

1.3If the Tenderer is a PARTNERSHIP

- (a) Affix a copy of the relevant resolution on the Partners, duly signed and dated
- (b) List the Partners

.....

.....

.....

.....

.....

.....

1.4If the Tenderer is a ONE-MAN-CONCERN.

Provided the full name, identity number and qualifications of the person
.....

1.5If the Tenderer is a JOINT VENTURE

- a) Affix a copy of the original document of information defining the conditions under which the joint venture will function, its period of duration and the participating persons, companies and/or firms

- (c) Affix a certificate signed for or on behalf of each participating person, company and/or firm authorizing the person who signed the tender to do so.

1.6If the Tenderer is a CONCERN OTHER than these listed above

Provide full details of the CONCERN submitting the tender:
.....

PROPOSED KEY PERSONNEL

The Tenderer shall list below the key personnel (including first nominee and the second-choice alternate), whom he/she proposes to employ on the contract should his tender be accepted, both at his headquarters and on the Site, to direct and for the execution of the work, together with their qualifications, experience, positions held and their nationalities.

DESIGNATION	NAME AND NATIONALITY OF: (i)NOMINEE (ii)ALTERNATE	SUMMARY OF QUALIFICATIONS, EXPERIENCE AND PRESENT OCCUPATION
<u>HEADQUARTERS</u> Partner/director Contracts manager Other key staff (give designation)		

Signed		Date	
Name		Position	
Tenderer			

DETAILS OF COMPANY'S BANK

I/We hereby authorise the Employer/Engineer to approach all or any of the following banks for the purposes of obtaining a financial reference:

DESCRIPTION OF BANK DETAIL	BANK DETAILS APPLICABLE TO TENDERER'S HEAD OFFICE
Name of bank	
Branch name	
Branch code	
Street address	
Postal address	
Name of manager	
Telephone number	()
Fax number	()
Account number	

TENDERER'S TAX DETAILS

Tenderer's VAT vendor registration number:

Tenderer's SARS tax reference number:

Signed		Date	
Name		Position	
Tenderer			

ESTIMATED MONTHLY EXPENDITURE

The Tenderer shall state below the estimated value of work to be completed every month, based on his preliminary programme and his tendered unit rates.

MONTH	VALUE
1	R
2	R
3	R
4	R
5	R
6	R
7	R
8	R
	COMPLETION OF CONTRACT
TOTAL	R

Signed		Date	
Name		Position	
Tenderer			

DETAILS OF ALTERNATIVE TENDERS SUBMITTED

See condition of tender.

DESCRIPTION	

Signed		Date	
Name		Position	
Tenderer			

AMENDMENTS AND QUALIFICATIONS BY TENDERER

See condition of tender

PAGE	DESCRIPTION

Signed		Date	
Name		Position	
Tenderer			

SCHEDULE OF PROPOSED SUBCONTRACTORS

We notify you that it is our intention to employ the following Subcontractors for work in this contract.

If we are awarded a contract, we agree that this notification does not change the requirement for us to submit the names of proposed Subcontractors in accordance with requirements in the contract for such appointments. If there are no such requirements in the contract, then your written acceptance of this list shall be binding between us.

	Name and address of proposed Subcontractor	Nature and extent of work	Previous experience with Subcontractor.
Signed		Date	
Name		Position	
Tenderer			

SCHEDULE OF PLANT AND EQUIPMENT

The following are lists of major items of relevant equipment that I/we presently own or lease and will have available for this contract or will acquire or hire for this contract if my/our Tender is accepted.

(a) Details of major equipment that is owned by and immediately available for this contract.

Quantity	Description, size, capacity, etc.

Attach additional pages if more space is required.

(b) Details of major equipment that will be hired, or acquired for this contract if my/our Tender is acceptable.

Quantity	Description, size, capacity, etc.

Attach additional pages if more space is required.

Signed		Date	
Name		Position	
Tenderer			

SCHEDULE OF THE TENDERER'S EXPERIENCE

The following statement of <u>similar work</u> successfully executed by myself/ourselves:			
Employer, contact person and telephone number	Description of contract	Value of work inclusive of VAT (Rand)	Date completed
Signed		Date	
Name		Position	
Tenderer			

PROPOSED AMENDMENTS AND QUALIFICATIONS

The Tenderer should record any deviations or qualifications he may wish to make to the Tender documents in this Returnable Schedule. Alternatively, a Tenderer may state such deviations and qualifications in a covering letter to his Tender and reference such letter in this schedule.

The Tenderer's attention is drawn to clause F.3.8 of the Standard Conditions of Tender referenced in the Tender Data regarding the employer's handling of material deviations and qualifications.

Page	Clause or item	Proposal

Signed		Date	
Name		Position	
Tenderer			

MBD 4**DECLARATION OF INTEREST**

1. No bid will be accepted from persons in the service of the state.
2. Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in service of the state, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority.
3. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

3.1 Full Name of bidder or his or her representative.....

3.2 Identity Number:

3.3 Position occupied in the Company (director, trustee, shareholder²)

3.4 Company Registration Number:

3.5 Tax Reference Number.....

3.6 VAT Registration Number:

3.7 The names of all directors / trustees / shareholders members, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below.

3.8 Are you presently in the service of the state? **YES / NO**

3.8.1 If yes, furnish particulars.

.....

¹MSCM Regulations: "in the service of the state" means to be –

(a) a member of –

- (i) any municipal council;
- (ii) any provincial legislature; or
- (iii) the national Assembly or the national Council of provinces;

- (b) a member of the board of directors of any municipal entity;
- (c) an official of any municipality or municipal entity;
- (d) an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999);
- (e) a member of the accounting authority of any national or provincial public entity; or
- (f) an employee of Parliament or a provincial legislature.

² Shareholder" means a person who owns shares in the company and is actively involved in the management of the company or business and exercises control over the company.

3.9 Have you been in the service of the state for the past twelve months? **YES / NO**

3.9.1 If yes, furnish particulars

.....

3.10 Do you have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid? **YES / NO**

3.10.1 If yes, furnish particulars.
.....
.....

3.11 Are you, aware of any relationship (family, friend, other) between any other bidder and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid? **YES / NO**

3.11.1 If yes, furnish particulars
.....
.....

3.12 Are any of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state? **YES / NO**

3.12.1 If yes, furnish particulars.
.....
.....

3.13 Are any spouse, child or parent of the company's directors trustees, managers, principal shareholders or stakeholders in service of the state? **YES / NO**

3.13.1 If yes, furnish particulars.
.....
.....

3.14 Do you or any of the directors, trustees, managers, principle shareholders, or stakeholders of this company have any interest in any other related companies or business whether or not they are bidding for this contract. **YES / NO**

3.14.1 If yes, furnish particulars:
.....
.....

1. Full details of directors / trustees / members / shareholders.

Full Name	Identity Number	State Employee Number

.....
Signature

.....
Date

.....
Capacity

.....
Name of Bidder

MBD 5

DECLARATION FOR PROCUREMENT ABOVE R10 MILLION (ALL APPLICABLE TAXES INCLUDED)

For all procurement expected to exceed R10 million (all applicable taxes included), bidders must complete the following questionnaire:

1 Are you by law required to prepare annual financial statements for auditing?

***YES / NO**

1.1 If yes, submit audited annual financial statements for the past three years or since the date of establishment if established during the past three years.

.....
.....

2 Do you have any outstanding undisputed commitments for municipal services towards any municipality for more than three months or any other service provider in respect of which payment is overdue for more than 30 days?

***YES / NO**

2.1 If no, this serves to certify that the bidder has no undisputed commitments for municipal services towards any municipality for more than three months or other service provider in respect of which payment is overdue for more than 30 days.

2.2 If yes, provide particulars.

.....

.....

.....

.....

* Delete if not applicable

3 Has any contract been awarded to you by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract? ***YES / NO?**

3.1 If yes, furnish particulars
.....
.....

4. Will any portion of goods or services be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality / municipal entity is expected to be transferred out of the Republic? ***YES / NO?**

4.1 If yes, furnish particulars
.....
.....

MBD 5

CERTIFICATION

I, THE UNDERSIGNED (NAME)

CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS CORRECT.

I ACCEPT THAT THE STATE MAY ACT AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

MBD 6.1**PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022**

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to invitations to tender:

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2 To be completed by the organ of state

a) The applicable preference point system for this tender is the 80/20 preference point system.

1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:

- (a) Price; and
- (b) Specific Goals.

1.4 To be completed by the organ of state:

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	
SPECIFIC GOALS	
Total points for Price and SPECIFIC GOALS	100

1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.

1.6 The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

2. DEFINITIONS

- (a) **“tender”** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;
- (b) **“price”** means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- (c) **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;
- (d) **“tender for income-generating contracts”** means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
- (e) **“the Act”** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

3.1.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

A maximum of 80 or 90 points is allocated for price on the following basis:

$$Ps = 80 \left(1 - \frac{Pt - P_{min}}{P_{min}} \right) \quad \text{or} \quad Ps = 90 \left(1 - \frac{Pt - P_{min}}{P_{min}} \right)$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

3.2. FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME GENERATING PROCUREMENT

3.2.1. POINTS AWARDED FOR PRICE

A maximum of 80 or 90 points is allocated for price on the following basis:

$$Ps = 80 \left(1 + \frac{Pt - P_{max}}{P_{max}} \right) \quad \text{or} \quad Ps = 90 \left(1 + \frac{Pt - P_{max}}{P_{max}} \right)$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmax = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:

4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—

(a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or

(b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,

then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

Table 1: Specific goals for the tender and points claimed are indicated per the table below.

(Note to organs of state: Where either the 90/10 or 80/20 preference point system is applicable, corresponding points must also be indicated as such.)

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (80/20 system) (To be completed by the tenderer)
HDI (blacks, Indians and Coloureds)	12	
Woman-Ownership of more than 50%	2	
Disability ownership of more than 50%	2	
Youth	2	
Locality	2	
Total	20	

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3. Name of company/firm.....

4.4. Company registration number:

4.5. TYPE OF COMPANY/ FIRM

- Partnership/Joint Venture / Consortium
- One-person business/sole propriety
- Close corporation
- Public Company
- Personal Liability Company
- (Pty) Limited
- Non-Profit Company
- State Owned Company

[TICK APPLICABLE BOX]

4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
- iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –
 - (a) disqualify the person from the tendering process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
 - (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
 - (e) forward the matter for criminal prosecution, if deemed necessary.

.....
SIGNATURE(S) OF TENDERER(S)

SURNAME AND NAME:

DATE:

ADDRESS:

.....

.....

.....

MBD 8**DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES**

- 1 This Municipal Bidding Document must form part of all bids invited.
- 2 It serves as a declaration to be used by municipalities and municipal entities in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
- 3 The bid of any bidder may be rejected if that bidder, or any of its directors have:
 - a. abused the municipality's / municipal entity's supply chain management system or committed any improper conduct in relation to such system;
 - b. been convicted for fraud or corruption during the past five years;
 - c. willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or
 - d. been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004).
- 4 **In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.**

Item	Question	Yes	No
4.1	Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector? (Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the <i>audi alteram partem</i> rule was applied). The Database of Restricted Suppliers now resides on the National Treasury's website(www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.1.1	If so, furnish particulars:		
4.2	Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)? The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.2.1	If so, furnish particulars:		
4.3	Was the bidder or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.3.1	If so, furnish particulars:		
Item	Question	Yes	No
4.4	Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.4.1	If so, furnish particulars:		
4.5	Was any contract between the bidder and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.7.1	If so, furnish particulars:		

MBD 8

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME)

CERTIFY THAT THE INFORMATION FURNISHED ON THIS
DECLARATION FORM TRUE AND CORRECT.

I ACCEPT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MAY BE TAKEN
AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

MBD 9**CERTIFICATE OF INDEPENDENT BID DETERMINATION**

- 1 This Municipal Bidding Document (MBD) must form part of all bids¹ invited.
- 2 Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).² Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
- 3 Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:
 - a. take all reasonable steps to prevent such abuse;
 - b. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
 - c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
- 4 This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
- 5 In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid:

¹ Includes price quotations, advertised competitive bids, limited bids and proposals.

² Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

MBD 9**CERTIFICATE OF INDEPENDENT BID DETERMINATION**

I, the undersigned, in submitting the accompanying bid:

(Bid Number and Description)

in response to the invitation for the bid made by:

(Name of Municipality / Municipal Entity)

do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of : _____ that:
(Name of Bidder)

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - (a) has been requested to submit a bid in response to this bid invitation;
 - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder
6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - (a) prices;
 - (b) geographical area where product or service will be rendered (market allocation)
 - (c) methods, factors or formulas used to calculate prices;
 - (d) the intention or decision to submit or not to submit, a bid;
 - (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
 - (f) bidding with the intention not to win the bid.

MBD 9

- 8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- 10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

.....

Signature	Date
.....
Position	Name of Bidder

Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

MARULENG LOCAL MUNICIPALITY

REHABILITATION OF LORRAINE ACCESS ROAD

MLC/SCM/65/2024

C1.1 Form of Offer and Acceptance

Offer

The employer, identified in the acceptance signature block, has solicited offers to enter into a contract in respect of the following works:

TENDER MLC/SCM/65/2024 – REHABILITATION OF LORRAINE ACCESS ROAD

The Tenderer, identified in the Offer signature block below, has examined the documents listed in the Tender Data and addenda thereto as listed in the Tender schedules, and by submitting this Offer has accepted the Conditions of Tender.

By the representative of the Tenderer, deemed to be duly authorized, signing this part of this Form of Offer and Acceptance, the Tenderer offers to perform all of the obligations and liabilities of the Contractor under the Contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the Conditions of Contract identified in the Contract Data. The client reserves the right to appoint contractor on the full or reduced scope or to appoint several contractors.

THE OFFERED SUMMARY OF THE PRICES INCLUSIVE OF VALUE ADDED TAX IS:

.....

..... Rand (in words);

R (in figures).

This offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document to the Tenderer before the end of the period of validity stated in the Tender data, whereupon the Tenderer becomes the party named as the contractor in the conditions of contract identified in the contract data.

For the Tenderer

Signature

Name

Capacity

(Name and
address of
organization)

.....

Name and
signature
of witness

Acceptance

By signing this part of this Form of Offer and Acceptance, the Employer identified below accepts the Tenderer's offer. In consideration thereof, the Employer shall pay the Contractor the amount due in accordance with the conditions of Contract identified in the Contract data. Acceptance of the Tenderer's Offer shall form an agreement between the Employer and the Tenderer upon the terms and conditions contained in this Agreement and in the Contract that is the subject of this Agreement.

The terms of the contract, are contained in:

- Part C1: Agreements and Contract Data, (which includes this Agreement)
- Part C2: Pricing Data
- Part C3: Scope of Work
- Part C4: Specification to Scope of Work
- Part C5: OHS Specification for Construction Projects
- Part C6: Site Information

and drawings and documents or parts thereof, which may be incorporated by reference into Parts 1 to 4 above.

Deviations from and amendments to the documents listed in the Tender data and any addenda thereto as listed in the Tender schedules as well as any changes to the terms of the Offer agreed by the Tenderer and the Employer during this process of offer and acceptance, are contained in the Schedule of Deviations attached to and forming part of this Agreement. No amendments to or deviations from said documents are valid unless contained in this Schedule, which must be duly signed by the authorised representative(s) of both parties.

The Tenderer shall within two weeks after receiving a completed copy of this Agreement, including the Schedule of Deviations (if any), contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the Contract Data, or just after, the date this Agreement comes into effect. Failure to fulfill any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the Tenderer receives one fully completed original copy of this document, including the Schedule of Deviations (if any). Unless the Tenderer (now Contractor) within five working days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this Agreement, this Agreement shall constitute a binding contract between the parties.

For the Employer

Signature

Name

Capacity

Name and Organisation:

.....

.....

.....

Signature and name of Witness:

Signature

Name

Date

By the duly authorised representatives signing this Schedule of Deviations, the Employer and the Tenderer agree to and accept the foregoing Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the Tenderer and the Employer during this process of offer and acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the Tenderer of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this Agreement.

For the Tenderer:

For the Employer:

..... Signature
..... Name
..... Capacity

.....
.....
.....

Name and address of organization:

Name and address of organization

.....
.....
.....

.....
.....
.....

..... Witness Signature

..... Witness Name

..... Date

Confirmation of Receipt

The tenderer, (now Contractor), identified in the Offer part of this Agreement hereby confirm receipt from the Employer, identified in the Acceptance part of this Agreement, of one fully completed original copy of this Agreement, including the Schedule of Deviations (if any) today:

the.....(day)

of.....(month)

20.....(year)

at.....(place)

For the Contractor:

Signature

Name

Capacity

Signature and name of witness:

Signature

Name

MARULENG LOCAL MUNICIPALITY
REHABILITATION OF LORRAINE ACCESS ROAD
MLC/SCM/65/2024

C1.2 CONTRACT DATA FOR: TENDER MLC/SCM//65/2024 – REHABILITATION OF LORRAINE ACCESS ROAD

Part 1: DATA PROVIDED BY THE EMPLOYER

CONDITIONS OF CONTRACT

The General Conditions of Contract for Construction Works, Third Edition, 2015 published by the South African Institution of Civil Engineering, Private Bag X 200, Halfway House, 1685, are applicable to this Contract and it is obtainable from www.saice.org.za.

CONTRACT SPECIFIC DATA

The following contract specific data, referring to the General Conditions of Contract for Construction Works, Third Edition, 2015, are applicable to this Contract:

Compulsory Data

Clause 1.1.1.5

“Commencement date” shall be the date upon receipt of the “Letter of Acceptance, indicating the acceptance of the tender by the Client.

Clause 1.1.1.13

The Defects Liability Period is **12 months**.

Clause 1.1.1.14:

The time for achieving Practical Completion is **8 months** or less as specified by tenderer.

Clause 1.1.1.15:

The name of the Employer is: **Maruleng Local Municipality**

Clause 1.1.1.16:

The Engineer is: **HWA Engineers and Project Managers**

Clause 1.1.1.26:

The Pricing Strategy is a Re-measurement Contract.

Clause 1.2.1.2:**The address of the Employer is:**

Government Building	Maruleng Local Municipality
Maruleng Local Building	64 Springbok
Springbok Road	Hoedspruit
1308	1308
Tel: 015 793 2409	Fax: 015 793 2341

The address of the Engineer is:**HWA Engineers and Project Managers**

24A Rissik Street	P.O Box 3472
Polokwane	Polokwane
0700	0700
Tel: 015 297 5906	Fax: 086 246 0744
E-mail: admin@hwaeng.co.za	

Clause 3.1.3

The Engineer is required in terms of his appointment with the Employer to obtain the following specific approvals from the Employer:

- Certify additional costs/expenditure
- Taking over of the Works
- Determining extension of Time for completion

Clause 4.3

Add the following at the end of subclause 4.3:

- 4.3.3. Provisions of Section 37 (2) of the Occupational Health and Safety Amendment Act 1993 (Act 85 of 1993),
- i. The contractor undertakes to acquaint the appropriate officials and employees of the contractor with all relevant provisions of the Act and the regulations promulgated in terms of the Act and fully comply with the relevant duties, obligations and prohibitions imposed in terms of the Act.
- 4.3.4. Constructional Regulations 2003 to the Act
- i. Acquaint himself with the requirements of the Employer's Health and safety specification as laid down in regulation 4 (1) (a) of the Construction Regulation 2003.
- 4.3.5 Other legal provision to comply with but not limited to:
- i Explosives (Explosive Act 26 of 1956)
- ii Compensation for Occupational Injuries and Diseases Act 130 of 1993
- iii National Environmental Management Act 107 of 1998.

Clause 5.3.1:

The documentation required before commencement with Works execution are:

- Health and Safety Plan (Refer to Clause 4.3)
- Initial Programme (Refer to Clause 5.6)

- Security/guarantee (Refer to Clause 6.2)
- Insurance (Refer to Clause 8.6)

Clause 5.3.2:

The time to submit the documentation required before commencement with Works is 28 days.

Clause 5.4.1

Add the following paragraph to sub clause 5.4.1 – “Access to the site and the issuing of working drawings will be done once an approved guarantee has been submitted and subject to the Contractor having an approved project specific health and safety plan in terms of the Occupational Health and Safety Act 1993. Construction Regulations 2003 and compiled with the initial requirements thereof”

Clause 5.8.1:

The non-working days are: Sundays

The special non-working days are:

- Public Holidays
- The year-end break commencing on 14 December and ending on 10 January or as per the industry norm for the specific year

Clause 5.12.1

No extension of time for Practical Completion shall be taken into account for days as indicated in clause 5.8.1. above.

Clause 5.13.1:

The penalty for failing to complete the Works is (0.1% of contract value per day)

Clause 5.16.3:

The latent defect period is 10 years.

Clause 6.2.1

The form of Guarantee is to contain the wording of the document as included in the Pro Forma in Part C1.3. The liability of the guarantee shall be for the amount of 10% of the Contract Price

Clause 6.5.1.2.3:

The percentage allowance to cover overhead charges is 10%.

Clause 6.10.1.5:

The percentage advance on materials not yet built into the Permanent Works is 80%

Clause 6.10.3:

The limit of retention money is 10%

Clause 8.6.1.1.2:

The value of Plant and materials supplied by the Employer to be included in the insurance sum is **R 1 million.**

Clause 8.6.1.1.3:

The amount to cover professional fees for repairing damage and loss to be included in the insurance is **R 1 million.**

Clause 8.6.1.3

The limit of indemnity for liability insurance is **R 5 million.**

Clause 10.5.2

Dispute resolution is by ad-hoc adjudication

Clause 10.5.3

The number of Adjudication Board members to be appointed is three

Clause 10.7.1

The determination of disputes shall be by arbitration

PART 2: DATA PROVIDED BY THE CONTRACTOR

Clause 1.1.1.9:

The name of the Contractor is:

Clause 1.2.1.2:

The address of the Contractor is:

Physical Address

Postal Address

.....

.....

.....

.....

.....

.....

.....

.....

Tel.:

Fax:

E-mail:

Clause 1.1.1.14:

The time for achieving Practical Completion for the portions as set out in the Scope of Works is:

99% of works

The time for achieving Practical Completion of the whole Works is 8 months or as specified by tenderer

Clause 6.2.1:

The security to be provided by the Contractor shall be one of the following:

Type of security	Contractor's choice. Indicate "Yes" or "No"
Cash Deposit of 10% of the Contract Sum, VAT Inclusive.	
Performance guarantee of 10% of the Contract Sum, VAT Inclusive	
Retention of 10% of the value of Works.	
Cash Deposit of 10% of the Contract Sum plus retention of 10% of the value of Works, VAT Inclusive	

Note: in the Standard for Uniformity in Construction Procurement in section 4.4.4.4 it is stated that: "Retention monies that are held shall not exceed 10% of any amount due to a contractor.

Where guarantees of an insurance company or bank that are provided are equal to or greater than 10% of the contract price, the total amount of retention monies held shall not exceed 5% of the contract price."

Clause 6.5.1.2.3:

The percentage allowance to overhead charges is 10% or less

Clause 6.8.3:

The variation in cost of special materials exclusive of VAT is:

MARULENG LOCAL MUNICIPALITY
REHABILITATION OF LORRAINE ACCESS ROAD

MLC/SCM/65/2024

PRO FORMA

C1.3. PERFORMANCE GUARANTEE

For use with the General Conditions of Contract for Construction Works, 3rd Edition, 2015.

GUARANTOR DETAILS AND DEFINITIONS

“Guarantor” means:

Physical address:

“Employer” means: **Maruleng Local Municipality**

“Contractor” means:

“Engineer” means: **HWA Engineers and Project Managers**

“Works” means: **REHABILITATION OF LORRAINE ACCESS ROAD**

“Site” means: the village listed in section C3.1.18 of this Tender Document.

“Contract” means: The Agreement made in terms of the Form of Offer and Acceptance and such amendments or additions to the Contract as may be agreed in writing between the parties.

“Contract Sum” means: The accepted amount inclusive of tax of R.....

Amount in words:

“Guaranteed Sum” means: The maximum aggregate amount of R.....

Amount in words:

“Expiry Date” means:

CONTRACT DETAILS

Engineer issues: Interim Payment Certificates, Final Payment Certificate and the Certificate Completion of the Works as defined in the Contract.

PERFORMANCE GUARANTEE

1. The guarantor’s liability shall be limited to the amount of the Guaranteed Sum.
2. The Guarantor’s Period of liability shall be from and including the date of issue of this Performance Guarantee and up to including the Expiry Date or the date of issue by the Engineer of the Certificate of Completion of the Works or the date of payment in full of the Guarantee Sum, whichever occurs first. The Engineer and/or the Employer shall advise the Guarantor in writing of the date on which the Certificate of Completion of the Works has been issued.
3. The Guarantor hereby acknowledge that:
 - 3.1. Any reference in this Performance Guarantee to the Contract is made for the purpose of convenience and shall not be construed as any intension whatsoever to create an accessory obligation or any intension whatsoever to create a surety ship.
 - 3.2. Its obligation under this Performance Guarantee is restricted to the payment of money.
4. Subject to the Guarantor’s maximum liability referred to in 1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 4.1 to 4.3.

- 4.1. A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Engineer in an Interim or Final Payment Certificate has not been made in terms of the Contract and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 4.2;
- 4.2. A first written demand issued by the Employer to the Guarantor at the Guarantor's physical address with a copy to the Contractor stating that a period of seven (7) days has elapsed since the first written demand in terms of 4.1 and the sum certified has still not been paid.
- 4.3. A copy of the aforesaid payment certificate which entitles the Employer to receive payment in terms of the Contract of the sum certified in 4.
5. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor undertakes to pay to the Employer the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the Employer to the Guarantor at the Guarantor's physical address calling upon this Performance Guarantee, such demand stating that:
 - 5.1. The contract has been terminated due to the Contractor's default and that this Performance Guarantee is called up in terms of 5; or
 - 5.2. A provisional or final sequestration or liquidation court order has been granted against the Contractor and that the Performance Guarantee is called up in terms of 5; and
 - 5.3. The aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provisional liquidation court order.
6. It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 4 and 5 shall not exceed the Guarantor's maximum liability in terms of 1.
7. Where the Guarantor has made payment in terms of 5, the Employer shall upon the date of issue of the Final Payment Certificate submit an expense account to the Guarantor showing how all monies received in terms of this Performance Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this Performance Guarantee shall bear interest at the prime overdraft rate of the Employer's bank compounded monthly and calculated from the date payment was made by the Guarantor to the Employer until the date of refund.
8. Payment by the Guarantor in terms of 4 and 5 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.
9. Payment by the Guarantor in terms of 5 will only be made against the return of the original Performance Guarantee by the Employer.
10. The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer may deem fit and the Guarantor shall not have the right to claim his release from this Performance Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.
11. The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.
12. This Performance Guarantee is neither negotiable nor transferrable and shall expire in terms of 2, where after no claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.
13. This Performance Guarantee, with the required demand notices in terms of 4 or 5, shall be regarded as a liquid document for the purposes of obtaining a court order.
14. Where this Performance Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of section 45 of the Magistrate's Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district have jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.

Signed at.....
Date.....
Guarantor's signatory (1)
Capacity
Guarantor's signatory (2)
Capacity
Witness signatory (1)
Witness signatory (2)

MARULENG LOCAL MUNICIPALITY

REHABILITATION OF LORRAINE ACCESS ROAD

MLC/SCM/65/2024

C1.4 DISCLOSURE STATEMENT

Date:

Contract:

Employer:

Engineer:

Dear Sirs

I am willing and available to serve as (ad-hoc/standing) Adjudication Board Member in the above-mentioned Contract.

In accordance with the General Conditions of Contract for Construction Works Adjudication Board Rules relating to disclosure statements by selected or nominated persons to the adjudication, I hereby state that:

- I shall act with complete impartially and know of nothing at this time, which could affect my impartiality
- I have had no previous involvement with this project.
- I do not have any financial interest in this project
- I am not currently employed by the Contractor, Employer or Engineer.
- I do not have any financial connections with the Contractor, Employer or Engineer.
- I do not have or have not had a personal relationship with any authoritative member of the Contractor, Employer or the Engineer which could affect my impartiality.
- I undertake to immediately disclose to the parties any changes in the above position which could affect my impartiality of be perceived to affect same

Should there be any deviation from the foregoing statements, details shall be given.

I further declare that I am experienced in the work which is carried out under the Contract an interpreting contract documentation.

Name in Full:

Signature:

MARULENG LOCAL MUNICIPALITY
REHABILITATION OF LORRAINE ACCESS ROAD

MLC/SCM/65/2024

PRO FORMA

C1.5. ADJUDICATION BOARD MEMBER AGREEMENT

This Agreement is entered into between:

Adjudication Board Member:

Name:

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Physical Address

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Tel.:

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Mobile:

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Surname:

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Postal Address

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.....
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Fax.

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E-mail:

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Contractor:

Name:

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Physical Address

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.....
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Tel.:

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Mobile :

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Surname:

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Postal Address

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Fax.

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E-mail:

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Employer**Name:****Surname:**

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Physical Address**Postal Address**

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Tel.:**Fax.**

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Mobile :**E-mail:**

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The contractor and the Employer will herein after be collectively referred to as the Parties.

The parties entered into a Contract for **REHABILITATION OF LORRAINE ACCESS ROAD** which provides that a dispute under or in connection with the General Conditions of Contract for Construction Works, 3rd Edition, 2015, must be referred to (ad-hoc adjudication/standing adjudication.)

The undersigned natural person has been appointed to serve as Adjudication Board Member and together with the undersigned Parties agree as follows:

1. The Adjudication Board Member accepts to perform his duties in accordance with the terms of the Contract, the General Condition of Contract for Construction Works Adjudication Board Rules and this Agreement.
2. The Adjudicator undertakes to remain independent and impartial of the Contractor, Employer and Engineer for the duration of the Adjudication Board proceedings.
3. The Adjudication Board Member agrees to serve for the duration of the Adjudication Board Proceedings.
4. The Parties may at any time, without cause and with immediate effect, jointly terminate this Agreement.
5. Unless the Parties agree, the Adjudication Board Member shall not act as arbitrator or representative of either Party in any subsequent proceedings between the Parties under the Contract. No Party may call the Adjudication Board Member as a witness in any such subsequent proceedings.
6. The standing Adjudication Board's duties shall end upon the Adjudication Board Member(s) receiving notice from the Parties of their joint decision to disband the Adjudication Board.
7. The Adjudication Board Member shall be paid in respect of time spent upon or in connection with the adjudication including time spent travelling:
 - a) A monthly retainer of (R.....) for (.....) of months, and/or
 - b) A daily fee of (R.....) based on a (.....) hour day, and/or
 - c) An hourly fee of (R.....), and/or
 - d) A non-recurrent appointment fee of (R.....) which shall be accounted for in the final sums payable.

- 8. The Adjudication Board Member’s expenses incurred in adjudication work shall be reimbursed at cost.

Upon submission of an invoice for fees and expenses to the Parties, the Employer shall pay the full amount within 28 days of receipt of the invoice and he shall be reimbursed by the other party by half the amount so that the fees and expenses are borne equally by the Parties. Late payment of such invoice shall attract interest at prime plus 3% points compounded monthly at the prime rate charged by the Adjudication Board Member’s bank.

This Agreement is entered into by:

Contractor’s signature

Contractor’s name

Place

Date

Employer’s signature

Employer’s name

Place

Date

Adjudication Board Member’s signature

Adjudication Board Member’s Signature

Place

Date

MARULENG LOCAL MUNICIPALITY

REHABILITATION OF LORRAINE ACCESS ROAD

MLC/SCM/65/2024

C1.6 VARIATIONS TO THE GENERAL CONDITIONS OF CONTRACT

The General Conditions of Contract for Construction Works make several references to the Contract Data for specific data, which together with these conditions collectively describe the risks, liabilities and obligations of the contracting parties and the procedures for the administration of the Contract. The Contract Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the general conditions of contract.

Each item of data given below is cross-referenced to the clause in the General Conditions of Contract for Construction Works to which it mainly applies.

<p>5.8.1.4 & 7.9.1</p> <p>6.10.6.2</p> <p>9.2.1.3.7</p>	<p>The variations to the General Conditions of Contract are:</p> <p>Replace the term “Safety” with “Occupational Health and Safety”</p> <p>Replace the term “Bank” with “Bank or Insurance Company”</p> <p>Replace sub-clause with: The Contractor or anyone on his behalf or in his employ would pay, offer or offer as payment to any person in the employ of the Employer, or in the employ of the Engineer, a gratuity or reward or commission.</p>
<p>5.12</p>	<p>The additional clauses to the General Conditions of Contract are:</p> <p>Extensions of time in respect of clause 42 in respect of abnormal rainfall shall be calculated using the following formula for each calendar month or part thereof:</p> $V = (Nw - Nn) + \frac{(Rw - Rn)}{X}$ <p>Where:</p> <p>V = Extension of time in calendar days in respect of the calendar month under consideration.</p> <p>Nw = Actual number of days during the calendar month on which a rainfall of 10 mm or more has been recorded.</p> <p>Nn = Average number of days in the relevant calendar month, as derived from existing rainfall records, as stated in the Site Information, on which a rainfall of 20mm or more has been recorded for the calendar month.</p> <p>Rw = Actual average rainfall in mm recorded for the calendar month under consideration.</p> <p>Rn = Average rainfall in mm for the calendar month as derived from existing rainfall records as stated in the Site Information.</p> <p>For purposes of the Contract Nn, Rn, X and Y shall have those values assigned to them in the Appendix and/or the Specification.</p>

If V is negative and its absolute value exceeds Nn, then V shall be taken as equal to minus Nn.

The total extension of time shall be the algebraic sum of all monthly totals for the period under consideration, but if the total is negative the time for completion shall not be reduced due to abnormal rainfall.

Extensions of time for part of a month shall be calculated using pro rata values of Nn and Rn.

This formula does not take account flood damage which could cause further or concurrent delays and will be treated separately as far as extension of time is concerned.

The factor (Nw – Nn) shall be considered to represent a fair allowance for variations from the average in the number of days during which rainfall exceeds 10 mm. The factor (Rw-Rn) shall be considered to represent a fair allowance for variations from the average in the number of days during which the rainfall did not exceed 10 mm but wet conditions prevented or disrupted work.

For the purpose of applying the formula, accurate rain gauging shall be taken at a suitable point on the Site and the Contractor shall at his own expense, take all necessary precautions to ensure that rain gauges cannot be interfered with by unauthorized persons.

Payment for the labour-intensive component of the works

Payment for works identified in the Scope of Work as being labour-intensive shall only be made in accordance with the provisions of the Contract if the works are constructed strictly in accordance with the provisions of the scope of work. Any non-payment for such works shall not relieve the Contractor in any way from his obligations either in contract or in delict.

Contractor's default in payment to labourers and Employees

Any dispute between the contractor and Labourers, regarding delayed payment or default in payment of fair wages, if not resolved immediately may compel the Employer to intervene. The employer may, upon the Contractor defaulting payment, pay the moneys due to the workers not honoured in time, out of any moneys due or which may become due to the Contractor under the contract.

Minimum Number of Workers to be Employed

the Contractor shall employ a minimum number of 5 unskilled workers, failure to which the Employer may take such steps to source these workers and incorporate them into the Contractor's workforce without any financial adjustment of the contract. Should the contractor continually and deliberately fail to adhere to this provision without the express written consent of the Employer, the Employer shall have the right to take over the project and terminate the Contract in line with the Conditions of Contract.

Reporting

The contractor shall submit monthly returns/reports as specified below:

- signed Muster rolls/pay sheets of temporary workers and permanent staff detailing the number, category, gender, rate of pay and daily attendance.
- Plant utilization returns
- Progress report detailing production output compared to the programme of works.

Applicable labour laws

The Ministerial Determination, Special Public Works Programmes, issued in terms of the Basic Conditions of Employment Act of 1997 by the Minister of Labour in Government Notice N° R63 of 25 January 2002, as reproduced below, shall apply to works described in the scope of work as being labour intensive and which are undertaken by unskilled or semi-skilled workers.

1 Introduction

1.1 This document contains the standard terms and conditions for workers employed in elementary occupations on a Special Public Works Programme (SPWP). These terms and conditions do NOT apply to persons employed in the supervision and management of a SPWP.

1.2 In this document –

- (a) “department” means any department of the State, implementing agent or contractor;
- (b) “employer” means any department, implementing agency or contractor that hires workers to work in elementary occupations on a SPWP;
- (c) “worker” means any person working in an elementary occupation on a SPWP;
- (d) “elementary occupation” means any occupation involving unskilled or semi-skilled work;
- (e) “management” means any person employed by a department or implementing agency to administer or execute an SPWP;
- (f) “task” means a fixed quantity of work;
- (g) “task-based work” means work in which a worker is paid a fixed rate for performing a task;
- (h) “task-rated worker” means a worker paid on the basis of the number of tasks completed;
- (i) “time-rated worker” means a worker paid on the basis of the length of time worked.

2 Terms of Work

2.1 Workers on a SPWP are employed on a temporary basis.

2.2 A worker may NOT be employed for longer than 24 months in any five-year cycle on a SPWP.

2.3 Employment on a SPWP does not qualify as employment as a contributor for the purposes of the Unemployment Insurance Act 30 of 1966.

3 Normal Hours of Work

3.1 An employer may not set tasks or hours of work that require a worker to work–

- (a) more than forty hours in any week
- (b) on more than five days in any week; and
- (c) for more than eight hours on any day.

3.2 An employer and worker may agree that a worker will work four days per week.

The worker may then work up to ten hours per day.

3.3 A task-rated worker may not work more than a total of 55 hours in any week to complete the tasks allocated (based on a 40-hour week) to that worker.

4 Meal Breaks

4.1 A worker may not work for more than five hours without taking a meal break of at least thirty minutes duration.

4.2 An employer and worker may agree on longer meal breaks.

4.3 A worker may not work during a meal break. However, an employer may require a worker to perform duties during a meal break if those duties cannot be left unattended and cannot be performed by another worker. An employer must take reasonable steps to ensure that a worker is relieved of his or her duties during the meal break.

4.4 A worker is not entitled to payment for the period of a meal break. However, a worker who is paid on the basis of time worked must be paid if the worker is required to work or to be available for work during the meal break.

5 Special Conditions for Security Guards

5.1 A security guard may work up to 55 hours per week and up to eleven hours per day.

5.2 A security guard who works more than ten hours per day must have a meal break of at least one hour or two breaks of at least 30 minutes each.

6 Daily Rest Period

Every worker is entitled to a daily rest period of at least eight consecutive hours. The daily rest period is measured from the time the worker ends work on one day until the time the worker starts work on the next day.

7 Weekly Rest Period

Every worker must have two days off every week. A worker may only work on their day off to perform work which must be done without delay and cannot be performed by workers during their ordinary hours of work ("emergency work").

8 Work on Sundays and Public Holidays

8.1 A worker may only work on a Sunday or public holiday to perform emergency or security work.

8.2 Work on Sundays is paid at the ordinary rate of pay.

8.3 A task-rated worker who works on a public holiday must be paid –

(a) the worker's daily task rate, if the worker works for less than four hours;

(b) double the worker's daily task rate, if the worker works for more than four hours.

8.4 A time-rated worker who works on a public holiday must be paid –

(a) the worker's daily rate of pay, if the worker works for less than four hours on the public holiday;

(b) double the worker's daily rate of pay, if the worker works for more than four hours on the public holiday.

9 Sick Leave

- 9.1 Only workers who work four or more days per week have the right to claim sick-pay in terms of this clause.
- 9.2 A worker who is unable to work on account of illness or injury is entitled to claim one day's paid sick leave for every full month that the worker has worked in terms of a contract.
- 9.3 A worker may accumulate a maximum of twelve days' sick leave in a year.
- 9.4 Accumulated sick-leave may not be transferred from one contract to another contract.
- 9.5 An employer must pay a task-rated worker the worker's daily task rate for a day's sick leave.
- 9.6 An employer must pay a time-rated worker the worker's daily rate of pay for a day's sick leave.
- 9.7 An employer must pay a worker sick pay on the worker's usual payday.
- 9.8 Before paying sick-pay, an employer may require a worker to produce a certificate stating that the worker was unable to work on account of sickness or injury if the worker is –
- (a) absent from work for more than two consecutive days; or
 - (b) absent from work on more than two occasions in any eight-week period.
- 9.9. A medical certificate must be issued and signed by a medical practitioner, a qualified nurse or a clinic staff member authorised to issue medical certificates indicating the duration and reason for incapacity.
- 9.10. A worker is not entitled to paid sick-leave for a work-related injury or occupational disease for which the worker can claim compensation under the Compensation for Occupational Injuries and Diseases Act.

10 Maternity Leave

- 10.1 A worker may take up to four consecutive months' unpaid maternity leave.
- 10.2 A worker is not entitled to any payment or employment-related benefits during maternity leave.
- 10.3 A worker must give her employer reasonable notice of when she will start maternity leave and when she will return to work.
- 10.4 A worker is not required to take the full period of maternity leave. However, a worker may not work for four weeks before the expected date of birth of her child or for six weeks after the birth of her child, unless a medical practitioner, midwife or qualified nurse certifies that she is fit to do so.
- 10.5 A worker may begin maternity leave –
- (a) four weeks before the expected date of birth; or
 - (b) on an earlier date –
 - (i) if a medical practitioner, midwife or certified nurse certifies that it is necessary for the health of the worker or that of her unborn child; or
 - (ii) if agreed to between employer and worker; or
 - (c) on a later date, if a medical practitioner, midwife or certified nurse has certified that the worker is able to continue to work without endangering her health.
- 10.6 A worker who has a miscarriage during the third trimester of pregnancy or bears a stillborn child may take maternity leave for up to six weeks after the miscarriage or stillbirth.
- 10.7 A worker who returns to work after maternity leave, has the right to start a new cycle of twenty-four months employment, unless the SPWP on which she was employed has ended.

11 Family responsibility leave

11.1 Workers, who work for at least four days per week, are entitled to three days paid family responsibility leave each year in the following circumstances -

- (a) when the employee's child is born;
- (b) when the employee's child is sick;
- (c) in the event of a death of –
 - (i) the employee's spouse or life partner;
 - (ii) the employee's parent, adoptive parent, grandparent, child, adopted child, grandchild or sibling.

12 Statement of Conditions

12.1 An employer must give a worker a statement containing the following details at the start of employment –

- (a) the employer's name and address and the name of the SPWP;
- (b) the tasks or job that the worker is to perform; and
- (c) the period for which the worker is hired or, if this is not certain, the expected duration of the contract;
- (d) the worker's rate of pay and how this is to be calculated;
- (e) the training that the worker will receive during the SPWP.

12.2 An employer must ensure that these terms are explained in a suitable language to any employee who is unable to read the statement.

12.3 An employer must supply each worker with a copy of these conditions of employment.

13 Keeping Records

13.1 Every employer must keep a written record of at least the following –

- (a) the worker's name and position;
- (b) in the case of a task-rated worker, the number of tasks completed by the worker;
- (c) in the case of a time-rated worker, the time worked by the worker;
- (d) payments made to each worker.

13.2 The employer must keep this record for a period of at least three years after the completion of the SPWP.

14 Payment

14.1 An employer must pay all wages at least monthly in cash or by cheque or into a bank account.

14.2 A task-rated worker will only be paid for tasks that have been completed.

14.3 An employer must pay a task-rated worker within five weeks of the work being completed and the work having been approved by the manager or the contractor having submitted an invoice to the employer.

14.4 A time-rated worker will be paid at the end of each month.

14.5 Payment must be made in cash, by cheque or by direct deposit into a bank account designated by the worker.

14.6 Payment in cash or by cheque must take place –

- (a) at the workplace or at a place agreed to by the worker;
- (b) during the worker's working hours or within fifteen minutes of the start or finish of work;
- (c) in a sealed envelope which becomes the property of the worker.

14.7 An employer must give a worker the following information in writing –

- (a) the period for which payment is made;

	<p>(b) the numbers of tasks completed or hours worked;</p> <p>(c) the worker's earnings;</p> <p>(d) any money deducted from the payment;</p> <p>(e) the actual amount paid to the worker.</p> <p>14.8 If the worker is paid in cash or by cheque, this information must be recorded on the envelope and the worker must acknowledge receipt of payment by signing for it</p> <p>14.9 If a worker's employment is terminated, the employer must pay all monies owing to that worker within one month of the termination of employment.</p> <p>15 Deductions</p> <p>15.1 An employer may not deduct money from a worker's payment unless the deduction is required in terms of a law.</p> <p>15.2 An employer must deduct and pay to the SA Revenue Services any income tax that the worker is required to pay.</p> <p>15.3 An employer who deducts money from a worker's pay for payment to another person must pay the money to that person within the time period and other requirements specified in the agreement law, court order or arbitration award concerned.</p> <p>15.4 An employer may not require or allow a worker to –</p> <p>(a) repay any payment except an overpayment previously made by the employer by mistake;</p> <p>(b) state that the worker received a greater amount of money than the employer actually paid to the worker; or</p> <p>(f) pay the employer or any other person for having been employed.</p> <p>16 Health and Safety</p> <p>16.1 Employers must take all reasonable steps to ensure that the working environment is healthy and safe.</p> <p>16.2 A worker must –</p> <p>(a) work in a way that does not endanger his/her health and safety or that of any other person;</p> <p>(b) obey any health and safety instruction;</p> <p>(c) obey all health and safety rules of the SPWP;</p> <p>(d) use any personal protective equipment or clothing issued by the employer;</p> <p>(e) report any accident, near-miss incident or dangerous behaviour by another person to their employer or manager.</p> <p>17 Compensation for Injuries and Diseases</p> <p>17.1 It is the responsibility of the employers (other than a contractor) to arrange for all persons employed on a EPWP to be covered in terms of the Compensation for Occupational Injuries and Diseases Act, 130 of 1993.</p> <p>17.2 A worker must report any work-related injury or occupational disease to their employer or manager.</p> <p>17.3 The employer must report the accident or disease to the Compensation Commissioner.</p> <p>17.4 An employer must pay a worker who is unable to work because of an injury caused by an accident at work 75% of their earnings for up to three months. The employer will be refunded this amount by the Compensation Commissioner. This does NOT apply to injuries caused by accidents outside the workplace such as accidents or accidents at home.</p>
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18 Termination

18.1 The employer may terminate the employment of a worker for good cause after following a fair procedure.

18.2 A worker will not receive severance pay on termination.

18.3 A worker is not required to give notice to terminate employment. However, a worker who wishes to resign should advise the employer in advance to allow the employer to find a replacement.

18.4 A worker who is absent for more than three consecutive days without informing the employer of an intention to return to work will have terminated the contract. However, the worker may be re-engaged if a position becomes available for the balance of the 24-month period.

18.5 A worker who does not attend required training events, without good reason, will have terminated the contract. However, the worker may be re-engaged if a position becomes available for the balance of the 24-month period.

19 Certificate of Service

19.1 On termination of employment, a worker is entitled to a certificate stating –

- (a) the worker's full name;
- (b) the name and address of the employer;
- (c) the SPWP on which the worker worked;
- (d) the work performed by the worker;
- (e) any training received by the worker as part of the SPWP;
- (f) the period for which the worker worked on the SPWP;
- (g) any other information agreed on by the employer and worker.

MARULENG LOCAL MUNICIPALITY
REHABILITATION OF LORRAINE ACCESS ROAD
MLC/SCM/65/2024

C1.7 Occupational Health and Safety

AGREEMENT IN TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT NO 85 OF 1993)

THIS AGREEMENT IS made at

on the day of in the year

Between MARULENG LOCAL MUNICIPALITY (hereinafter called "the Employer") of the one part, herein represented by

In his capacity as

and delegate of the Employer in terms of the Employer's standard powers of delegation pursuant to the provisions of Act No 7 of 1998,

and

(hereinafter called "the Mandatory") of the other part, herein represented by

.....

in his capacity as

and being duly authorized by virtue of a resolution appended hereto as Annexure A;

WHEREAS the Employer requires certain works be constructed, viz **REHABILITATION OF LORRAINE ACCESS ROAD** and has accepted a Tender by the Mandatory for the construction, completion and maintenance of such Works and whereas the Employer and the Mandatory have agreed to certain arrangements and procedures to be followed in order to ensure compliance by the Mandatory with the provisions of the Occupational Health and Safety Act, 1993 (Act 85 of 1993).

NOW THEREFORE THIS AGREEMENT WITNESSETH AS FOLLOWS:

- 1 The Mandatory shall execute the work in accordance with the Contract Documents pertaining to this Contract.
2. This Agreement shall hold good from its Commencement Date, which shall be the date of a written notice from the Employer or engineer requiring him to commence the execution of the Works, to either

- (a) the date of the Final Certificate issued in terms of Clause 55 of the Committee of Land Transport Officials General Conditions of Contract 1998 (hereinafter referred to as "the GCC"), as contained in Volume 1 of the Contract Documents pertaining to this Contract, or
 - (b) The date of termination of the Contract in terms of Clauses 9 of the GCC.
- 3 The Mandatory declares himself to be conversant with the following:
- (a) All the requirements, regulations and standards of the Occupational Health and Safety Act (Act 85 of 1993), hereinafter referred to as "The Act", together with its amendments and with special reference to the following Sections of The Act:
 - (i) Section 8 : General duties of Employers to their employees
 - (ii) Section 9 : General duties of Employers and self-employed persons to persons other than employees
 - (iii) Section 37 : Acts or omissions by employees or mandatories
 - (iv) Sub-section 37(2) relating to the purpose and meaning of this Agreement
 - (b) The procedures and safety rules of the Employer as pertaining to the Mandatory and to all his subcontractors.
- 4 In addition to the requirements of Clause 6.3 of the GCC (as amended by Special Condition of Contract pertaining to this Contract) and all relevant requirements specified in the scope of works, the Mandatory agrees to execute all the Works forming part of this Contract and to operate and utilize all machinery, Plant and equipment in accordance with the Act.
- 5 The Mandatory is responsible for the compliance with the Act by all his subcontractors, whether or not selected and/or approved by the Employer.
6. The Mandatory warrants that all his and his subcontractors' workmen are covered in terms of the Compensation for Occupational Injuries and Diseases Act, 1993 (Act No 130 of 1993), which cover, shall remain in force whilst any such workmen are present on site. A letter of good standing from the Compensation Commissioner to this effect must be produced to the Employer upon signature of the agreement.
7. The Mandatory undertakes to ensure that he and/or subcontractors and/or their respective employers will at all times comply with the following conditions:
- a) The Mandatory shall assume the responsibility in terms of Section 16.1 of the Act. The Mandatory shall not delegate any duty in terms of Section 16.2 of this Act without the prior written approval of the Employer. If the Mandatory obtains such approval and delegates any duty in terms of section 16.2 a copy of such written delegation shall immediately be forwarded to the Employer.

- b) All incidents referred to in the Act shall be reported by the Mandatory to the Department of Labour as well as to the Employer. The Employer will further be provided with copies of all written documentation relating to any incident.
- c) The Employer hereby obtains an interest in the issue of any formal enquiry conducted in terms of section 32 of the Act into any incident involving the Mandatory and/or his employees and/or his subcontractors.

In witness thereof the parties hereto have set their signatures hereon in the presence of the subscribing witnesses:

SIGNED FOR AND ON BEHALF OF THE EMPLOYER :

Witness

Witness

(Name)
(Print)

(Name)
(Print)

SIGNED FOR AND ON BEHALF OF THE MANDATORY :

Witness

Witness

(Name)
(Print)

(Name)
(Print)

CERTIFICATE OF AUTHORITY FOR SIGNATORY TO AGREEMENT IN TERMS OF OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT NO 85 OF 1993)

The signatory for the company that is the Contractor in terms of the above-mentioned Contract and the Mandatory in terms of the above-mentioned Act shall confirm his or her authority thereto by attaching to this page a duly signed and dated copy of the relevant resolution of the board of directors.

By resolution of the board of directors passed at a meeting held on 20.....,

Mr//Ms whose signature

appears below, has been duly authorised to sign the AGREEMENT IN TERMS OF THE

OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT 85 OF 1993) on behalf of

.....

SIGNED ON BEHALF OF THE COMPANY :

IN HIS/HER CAPACITY AS :

DATE :

SIGNATURE OF SIGNATORY :

WITNESS : WITNESS :

NAME (in capitals): NAME :

MARULENG LOCAL MUNICIPALITY
REHABILITATION OF LORRAINE ACCESS ROAD
MLC/SCM/65/2024

C2: PRICING DATA

C2.1 Pricing Instructions

1 Measurement and payment shall be in accordance with the relevant provisions of clause 8 of each of the SANS 1200 Standardised Specifications for Civil Engineering Construction referred to in the Scope of Work. The Preliminary and General items shall be measured in accordance with the provisions of SANS 1200-A, *General*.

2. The units of measurement described in the Bills of Quantities are metric units. Abbreviations used in these Bills of Quantities are as follows:

%	=	percent
h	=	hour
ha	=	hectare
kg	=	kilogram
kl	=	kilolitre
km	=	kilometre
km-pass	=	kilometre-pass
kPa	=	kilopascal
kW	=	kilowatt
l	=	litre
m	=	metre
mm	=	millimetre
m ²	=	square metre
m ² -pass	=	square metre-pass
m ³	=	cubic metre
m ³ -km	=	cubic metre-kilometre
MN	=	meganewton
MN.m	=	mega Newton-metre
MPa	=	mega Pascal
No.	=	number
Prov sum	=	Provisional sum
PC sum	=	Prime Cost sum
R/only	=	Rate only
sum	=	lump sum

t = ton (1000 kg)

W/day = Work Day

3. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.
4. The prices and rates in these Bills of Quantities are fully inclusive prices for the work described under the items. Such prices and rates cover all costs and expenses that may be required in and for the execution of the work described in accordance with the provisions of the Scope of Work, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the Contract Data, as well as overhead charges and profit. These prices will be used as a basis for assessment of payment for additional work that may have to be carried out.
5. It will be assumed that prices included in these Bills of Quantities are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for Tenders. (Refer to www.stanza.org.za or www.iso.org for information on standards)
6. Where the Scope of Work requires detailed drawings and designs or other information to be provided, all costs associated therewith are deemed to have been provided for and included in the unit rates and sum amount Tendered such items
7. An item against which no price is entered will be considered to be covered by the other prices or rates in the Bills of Quantities. A single lump sum will apply should a number of items be grouped together for pricing purposes.
8. The quantities set out in these Bills of Quantities are approximate and do not necessarily represent the actual amount of work to be done. The quantities of work accepted and certified for payment will be used for determining payments due and not the quantities given in the Bills of Quantities.
9. Reasonable compensation will be received where no pay item appears in respect of work required in the Bills of Quantities in terms of the Contract and which is not covered in any other pay item.
10. The short descriptions of the items of payment given in these Bills of Quantities are only for the purposes of identifying the items. More details regarding the extent of the work entailed under each item appear in the Scope of Work.
11. Descriptions in the Bills of Quantities are abbreviated and comply generally with those in the SABS 1200 Standardised Specifications.
12. Those parts of the contract to be constructed using labour-intensive methods have been identified in the scope of works. **Tenderers must price such works so as to allow for Labour-intensive construction methods.** The works, or parts of the works so designated are to be constructed using

labour-intensive methods only. The use of plant to provide such works, other than plant specifically provided for in the scope of work, is a variation to the contract.

13. Payment for items which are designated to be constructed labour-intensively will not be made unless they are constructed using labour-intensive methods. Any unauthorised use of plant to carry out work which was to be done labour-intensively will not be condoned and any works so constructed will not be certified for payment.

C2.2 DAY WORK LIST

C2.2.1 GENERAL

Contractors must complete this list, which will be used to assess the value of work that the Engineer instructs in writing to be done on a day work basis, all in agreement with clause 6.4.1.4 of the General Conditions of Contract, 2015 (3rd edition) and coupled Special Conditions of Contract. All the rates are fixed and shall be binding till the issuing of the final certificate, except for statutory increases that are announced from time to time. These unit rates shall be an all-inclusive rate.

C2.2.2 LABOUR COSTS

Rates for labour as listed below shall include all the allowances as specified in the General Conditions of Contract, 2015 (3rd edition) and Special Conditions of Contract. The extra allowance, applicable on Labour costs listed below, is given in the tender appendix and must not be taken into account in this list.

Overtime costs incurred by this contract shall be paid in the same proportion as the amounts actually paid to the employees.

DESCRIPTION	UNIT	RATE
Unskilled labour	Hour	R
Semi-skilled labour	Hour	R
Skilled labour	Hour	R
Foreman I Section leader	Hour	R
Surveyor	Hour	R
Surveyor's assistant	Hour	R

C2.2.3 EQUIPMENT COST

Full comprehensive hourly rates, which also include the cost of operators, must be listed below. Rates must also include all the costs of consumable items, maintenance, depreciation, tools, and all other coincidences that shall be necessary to operate the equipment for the purpose it is designed for. The rates must also include all the overhead costs, profits, site supervision, insurance, holidays with payment, travelling costs (or travelling allowances) and residence allowances of operators and any other allowances that are applicable on equipment. The Tenderer must list under each heading the make and specification of the equipment available.

DESCRIPTION	UNIT	RATE
1. Hydraulic, crawler mounted excavators (Caterpillar 325 type or similar with 1 cubic meter bucket)	Hour	R
2. Front-end loader (Caterpillar 939 type or similar)	Hour	R.....
3. Bulldozer Caterpillar D6 type or similar Caterpillar D7 type or similar	Hour Hour	R..... R.....
4. Grader (Caterpillar 140G or similar)	Hour	R.....
5. Hydraulic tractor mounted backhoe (JCB 3C or similar)	Hour	R.....
6. Tipper Trucks 6m ³ 10m ³	Hour Hour	R..... R.....
7. Water Truck 5000 litres 10000 litres	Hour Hour	R..... R.....
8. Tractor drawn 10-ton grid roller 10-ton flat roller Trailer	Hour Hour Hour	R..... R..... R.....
9. Roller 8 Ton Wheeled pneumatic tyred self-propelled road roller	Hour	R.....

DESCRIPTION	UNIT	RATE
10. Concrete mixer 75 litre concrete mixer	Hour	R
11. Vibratory poker	Hour	R.....
12. Compressor Mobile compressor, 4,7 cubic metres per minute, including hoses	Hour	R.....
13. Accessories for compressor Rock drill and rods	Hour	R.....
Jackhammer and steels	Hour	R.....
14. Water pumps including hoses and suction connector 75mm	Hour	R.....
100mm	Hour	R.....
150mm	Hour	R.....
15. Compactors Vibratory plate 400mm sq.	Hour	R.....
Vibratory drum roller	Hour	R.....
650mm wide	Hour	R.....
Rammers		
16. LDV, capacity 1.5 ton	Hour	R.....
17. Other equipment	Hour	R.....
.....	Hour	R.....
.....	Hour	R.....

C2.3 PREAMBLE TO SCHEDULE OF QUANTITIES

C2.3.1 General

The General conditions of Contract, the Special Conditions of Contract (if any), the Specifications (including the project Specification) and the Drawings are to be read in conjunction with the Schedule of Quantities.

C2.3.2 (a) The Schedule comprises items covering the Contractor's profit and costs of general liabilities and of the construction of temporary and permanent works.

(b) Although the Tenderer is at liberty a rate of his own choosing for each item in the Schedule, his attention is drawn to the fact that the Contractor has the right, under various circumstances, to payment for additional works carried out and that the Engineer is obliged to base his assessment of the rates to be paid for such additional work on the rates inserted in the schedule by the Contractor.

(c) Clause 8 of each standardized specification and the measurement and payment clause of each particular specification, read together with the relevant clause of the project specification, set out what ancillary or associated activities are included in the rates for the operations specified.

C2.3.3 Description in the Schedule of Quantities is abbreviated and the schedule has been drawn up generally in accordance with the latest issue of The Standard System of Measurement of Civil Engineering Quantities for South Africa, published by the South African Institution of Civil Engineers.

Should any requirement of the measurement and payment clause of the applicable standardized specification, or the project specification, or the particular specification(s), conflict with the terms of the schedule, the requirement of the Standardized, Project, or Particular Specification applicable, shall prevail.

C2.3.4 Unless otherwise stated, items are measured Nett in accordance with the drawings and no allowance has been made for waste.

C2.3.5 The prices and rates to be inserted in the schedule of quantities are to be the fully inclusive prices for the work described under the several items. Such prices shall cover all costs and expenses that may be required in and for the construction of the work described and shall cover the cost of all general risks, liabilities and obligations set forth or implied in the documents on which the tender is based.

C2.3.6 A price or rate is to be entered against each item in the Schedule of Quantities, whether the quantities are stated or not. An item against which no price is entered will be considered to be covered by the other prices or rates in the schedule.

C2.3.7 The Tenderer must price each item in the schedule of quantities in **BLACK ink**.

C2.3.8 Where any discrepancy exists between the unit price and the extended total against such item, the discrepancy will be adjusted by altering the total amount filled in against such item and consequently the total tendered sum.

C2.3.9 In cases where unit rates are considered too high, such rates may be of sufficient importance to warrant of a tender by the Client.

C2.3.10 Provisional Sums

In this schedule, items against which “Provisional Sums” are allowed are intended to provide special works and operations either anticipated or problematical, the scope and extent of which cannot be forecast. The Provisional Sum allowed will be used (as decided by the Engineer) for these works to be carried out under this contract at applicable schedule rates or on a day work basis or alternatively, the Engineer may decide to utilize these provisional sums for carrying out this work departmentally or by some other Contractor.

C2.4 Quantities Provisional Only

C2.4.1 The quantities given in the Schedules are provisional only and the Contractor will be paid for the actual amount of work done at the rates tendered. The accuracy or inaccuracy of the Quantities given in the Schedules of Quantities shall in no way affect the validity of the Tender or the Contract based thereon.

Notwithstanding anything to the contrary in the Conditions of Contract, the Contractor is to satisfy himself when ordering materials that such materials will actually be required for inclusion in the works as no payment will be made for materials ordered and delivered to site and then found to be in excess of the quantity actually required.

C2.5 BILLS OF QUANTITIES

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>GENERAL REQUIREMENTS AND PROVISIONS</u>				
B12.01	Locating of existing services	Prov sum	1	R 50,000.00	R 50,000.00
B12.02	Provisional sum for materials for the lowering and relocating of existing services	Prov sum	1	R 100,000.00	R 100,000.00
B12.03	Employment of a community liason officer for the duration of the contract	Prov sum	1	R 30,000.00	R 30,000.00
B12.04	Monthly payment of PSC Members Seating @R150 per seating per month	Prov sum	1	R 4,500.00	R 4,500.00
B12.05	Employment of a SHE Representative for the duration of the contract	Prov Sum	1	R 30,000.00	R 30,000.00
B12.06	Allowance for generic and entrepreneurial training	Prov sum	1	R 100,000.00	R 100,000.00
B12.07	Allowance for student training	Prov sum	1	R 48,000.00	R 48,000.00
B12.08	Provisional sum for payment for insitu material tests	Prov sum	1	R 60,000.00	R 60,000.00
B12.09	Provisional sum for payment of the contractors notice board as instructed by the engineer	Prov sum	1	R 15,000.00	R 15,000.00
B12.10	Provisional sum for payment for setting out and protection of Bench marks	Prov sum	1	R 15,000.00	R 15,000.00
B12.11	Provisional sum for payment for EIA of roads and Borrowpit	Prov sum	1	R 65,000.00	R 65,000.00
B12.12	Provisional sum for payment for Borrow Pit Royalties	Prov sum	1	R 10,000.00	R 10,000.00
B12.13	Engineer's Administration to the Contractor and monitoring of OHS requirements on the project	Prov sum	1	R 240,000.00	R 240,000.00
B12.14	Engineer's Environmental Compliance Management and monitoring of EMP requirements on the project	Prov sum	1	R 240,000.00	R 240,000.00
B12.15	Provisional Sum for payment for Social Facilitation	Prov sum	1	R 320,000.00	R 320,000.00
B12.16	Percentage for charges and profit on the B12.03-B12.15 provisional sums above for contractor's cost and profit	%	1,177,500.00		
B12.17	Contractor's initial obligations in respect of the Occupational Health and Safety Act & Construction Regulations	Sum	1	50,000.00	R 50,000.00
B12.18	Conducting of labourers fitness tests	Sum	1	36,000.00	R 36,000.00
B12.19	Submission of Health & Safety file	Sum	1	20,000.00	R 20,000.00
B12.20	HIV Aids awareness obligations	Sum	1	40,000.00	R 40,000.00
B12.21	Contractor's time-related obligations in respect of environmental plans and specifications.	month	8	6,000.00	R 48,000.00
1200	TOTAL CARRIED TO SUMMARY				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
13.01	<p><u>CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS</u></p> <p>The Contractor's general obligations:</p> <p>(a) Fixed obligations</p> <p>(b) Value-related obligations</p> <p>(c) Time-related obligations</p> <p><u>NB</u> The combined total tendered for subitems (a), (b) and (c) shall not exceed 15% of the Tender Sum.</p>	Lump sum		R 150,000.00	R 150,000.00
		Lump sum		R 100,000.00	R 100,000.00
		month	8		
1300	TOTAL CARRIED TO SUMMARY				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
14.01	<p><u>HOUSING, OFFICES AND LABORATORIES FOR THE ENGINEER'S SITE PERSONNEL</u></p> <p>Office and laboratory accommodation:</p> <p>(a) Offices (interior floor space only)</p> <p>(e) Ablution units</p>	m ²	28		
14.02	<p>Office and laboratory furniture:</p> <p>(a) Chairs</p> <p>(d) Desks, complete with drawers and locks</p> <p>(f) Conference tables</p>	No	16		
14.03	<p>Office and laboratory fittings, installations and equipment:</p> <p>(a) Items measured by number:</p> <p>(i) 220/250 volt power points</p> <p>(iii) Double 80 watt fluorescent-light fittings complete with ballast and tubes</p> <p>(vi) Wash-hand basins complete with taps and drains</p> <p>(x) Fire extinguishers, 9,0 kg all purpose dry powder type, complete, mounted on wall with brackets</p> <p>(xiv) General-purpose steel cupboards with shelves</p> <p>(b) Prime-cost items and items paid for in a lump sum:</p> <p>(i) The provision of telephone service, including the cost of calls in connection with contract administration and telephone rental</p> <p>(ii) Handling costs and profit in respect of subsubitem B14.03(b)(i) above</p>	No	2		
		No	1		
		No	1		
		No	1		
		No	1		
		PC Sum		R 30,000.00	R 30,000.00
		%	30,000		
1400	TOTAL CARRIED FORWARD				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT	
	Brought forward					
14.03 (b)(cont)	(iii) The provision of a direct independent telephone line for the Engineer, including the cost of calls in connection with contract administration and telephone rental	Prov sum		R 10,000.00	R 10,000.00	
	(iv) Handling costs and profit in respect of subsubitem 14.03(b)(iii) above	%	10,000			
	(v) The provision of a fax apparatus as specified	Prov sum		R 7,000.00	R 7,000.00	
	(vi) Handling costs and profit in respect of subsubitem 14.03(b)(v) above	%	7,000			
14.04	Car-ports	No	2			
14.07	Rented Accomodation					
	(a) Provisional Sum for providing rented housing for Engineers Site Personnel	Prov sum		R 40,000.00	R 40,000.00	
	(b) Handling costs and profit in respect of subsubitem 14.07(a) above	%	40,000			
14.08	Services					
	(a) Services at the offices and laboratories Engineers Site Personnel					
	(i) Fixed Costs	Lump Sum		R 25,000.00	R 25,000.00	
	(ii) Running Costs	Month	8			
14.10	Provision of Photostat Facilities	Month	8			
1400	TOTAL CARRIED TO SUMMARY					

ITEM NO	LI	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
15.01		<u>ACCOMMODATION OF TRAFFIC</u>				
		Accommodating traffic and maintaining temporary deviations	km	1.9		
15.02		Earthworks for temporary deviations:				
		(a) Shaping of temporary deviations	km	1.1		
		(b) Cut and borrow to fill	m ³	205		
		(c) Cut to spoil	m ³	123		
B15.03		Temporary traffic-control facilities:				
		(a) Flagmen	L sum			
		(b) Portable STOP and GO-RY signs	No	2		
		(e) Road signs, R- and TR-series	No	4		
		(f) Road signs, TW-series	No	4		
		(n) Drums	No	8		
15.06		Watering of temporary deviations	kl	1,760		
1500		TOTAL CARRIED TO SUMMARY				

ITEM NO	LI	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		<u>DAY WORKS</u>				
B18.01		Labourers				
		(i) Unskilled	hour	Rate only		
		(ii) Semi- Skilled	hour	Rate only		
		(iii) Skilled	hour	Rate only		
B18.02		Foreman	hour	Rate only		
B18.03		Tiper Trucks				
		(i) 3-5 ton	hour	Rate only		
		(ii) 5.1-10 ton	hour	Rate only		
B18.04		Loader(0.5m³)	hour	Rate only		
B18.05		Grader(CAT 140G or similar)	hour	Rate only		
B18.06		LDV	km	Rate only		
B18.07		Compaction Rollers:				
		(i) Vibrators	hour	Rate only		
		(ii) Tamping roller	hour	Rate only		
		(iii) Grid roller	hour	Rate only		
B18.08		Hand Controlled Compactors				
		(i) Pedestrian roller (Bomag BW90)	hour	Rate only		
		(ii) Vibrator Plate	hour	Rate only		
		(iii) Rammers	hour	Rate only		
B18.09		Water truck(min 10000 l)	hour	Rate only		
B18.10		Dozer (D& or similar)	hour	Rate only		
1800		TOTAL CARRIED TO SUMMARY				

ITEM NO	LI	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
21.01		<p><u>DRAINS</u></p> <p>Excavation for open drains:</p> <p>(a) Excavating soft material situated within the following depth ranges below the surface level:</p> <p>(i) 0 m up to 1,5 m</p> <p>(b) Extra over subitem 21.01(a) for excavation in hard material, irrespective of depth</p>	m ³	25		
21.02		Clearing and Shaping existing open drains	m ³	475		
21.05		Banks and dykes	m ³	285		
2100		TOTAL CARRIED TO SUMMARY				

ITEM NO	LI	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
22.01		<u>PREFABRICATED CULVERTS</u>				
		Excavation				
		(a) Excavating and backfilling soft material situated within the following depth ranges below the surface level:				
		(i) 0m up to 1.5m	m ³	288		
		(ii) Exceeding 1,5 m and up to 3,0 m	m ³	72		
		(b) Extra over subitem 22.01(a) for excavation in hard material, irrespective of depth	m ³	108		
22.03		Concrete pipe culverts:				
		(b) On class A bedding:				
		Class100 D pipes				
		(i) 450 mm diameter	m	16		
		(ii) 600 mm diameter	m	24		
22.05		Concrete box culverts:				
		(b) On class A bedding:				
		Class 200S pipes				
		(i) 450 x 450 mm	m	16		
		(ii) 600 x 600 mm	m	36		
22.07		Cast in situ concrete and formwork:				
		(a) In class A bedding, screeds and the encasing for pipes, including formwork:				
22.07	LI	Cast in situ concrete and formwork:				
		(a) In class A bedding, screeds and the encasing for pipes, including formwork:				
		(i) Class 25/19 concrete	m ³	11.4		
		(b) In floor slabs for portal or rectangular culverts, including formwork, joints and class U2 surface finish (25Mpa/19mm)	m ³	7		
		(c) In inlet and outlet structures, skewed ends, catchpits, manholes, thrust and anchor blocks, excluding formwork, but including class U2 surface finish(25Mpa/19mm)	m ³	60		
		(d) Formwork of concrete under subitem 22.07(c) above :				
		(i) Class F1 surface finish	m ²	160		
		(ii) Class F2 surface finish	m ²	10		
2200		TOTAL CARRIED TO SUMMARY				

ITEM NO	LI	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		<u>CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LININGS FOR OPEN DRAINS</u>				
23.01	LI	Concrete kerbing:				
		(a) Prefabricated mountable kerb, SABS 927 fig 7	m	700		
		(b) Cast in situ concrete mountable kerb class 25/19 with class U2 finish,	m ³	15		
		(c) Concrete edge beams, 300mm x 250mm (class 30/19 concrete)	m ³	15		
23.08	LI	Concrete lining for open drains:				
		(a) Cast in situ concrete lining class 25/19 for concrete drift with class U2 finish, as shown on the Drawings	m ³	10		
23.09	LI	Formwork to cast in situ concrete lining for open drains (Class F2 surface finish):				
		(c) To ends of slab	m ²	300		
23.12		Steel reinforcement:				
		(c) Welded steel fabric	m ²	751		
2300		TOTAL CARRIED TO SUMMARY				

ITEM NO	LI	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
31.02		<p><u>BORROW MATERIALS</u></p> <p>Excess overburden in borrow pits for obtaining crushed stone for pavement layers:</p> <p>(a) Overburden in soft or intermediate excavation</p>	m ³	4,500		
3100		TOTAL CARRIED TO SUMMARY				

ITEM NO	LI	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		<u>MASS EARTHWORKS</u>				
33.01		Cut and borrow to fill, including free-haul up to 0,5 km:				
		(a) Material in compacted layer thicknesses of 200 mm and less:				
		(i) Compacted to 90% of modified AASHTO density	m ³	5,400		
33.03		Extra over item 33.01 for excavating and breaking down material in:				
		(a) Intermediate excavation	m ³	4,320		
		(b) Hard excavation	m ³	270		
33.04		Cut to spoil, including free-haul up to 0,5 km. Material obtained from:				
		(a) Soft excavation	m ³	1,580		
		(b) Intermediate excavation	m ³	474		
		(c) Hard excavation	m ³	24		
33.07		Removal of unsuitable material (including free-haul of 0,5 km):				
			m ³	79		
33.10		Roadbed preparation and the compaction of material:				
		(a) Compaction to 90% of modified AASHTO density	m ³	2,205		
33.11		Three-roller-passes compaction:				
		(a) Vibratory roller	m ²	rate only		
		(c) Grid roller	m ²	rate only		
		(d) Tamping roller	m ²	rate only		
33.13		Finishing-off cut and fill slopes, medians and interchange areas:				
		(a) Cut slopes	m ²	20		
		(b) Fill slopes	m ²	20		
3300		TOTAL CARRIED TO SUMMARY				

ITEM NO	LI	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
34.01		<p><u>PAVEMENT LAYERS OF GRAVEL MATERIAL</u></p> <p>Pavement layers constructed from gravel taken from cut or borrow, including free-haul up to 1km</p> <p>(a) (1) Gravel lower selected (G7 material) layer compacted to:</p> <p style="padding-left: 40px;">(i) 90% of modified AASHTO density for a compacted layer thickness of 150 mm</p> <p>(2) Gravel upper selected (G7 material) layer compacted to:</p> <p style="padding-left: 40px;">(i) 93% of modified AASHTO density for a compacted layer thickness of 150 mm</p> <p>(c) Gravel subbase (G5 material) (unstabilized gravel) compacted to:</p> <p style="padding-left: 40px;">(i) 95% of modified AASHTO density for a compacted layer thickness of 150 mm</p> <p>(f) Gravel base (stabilized C4 material) compacted to:</p> <p style="padding-left: 40px;">(i) 95% of modified AASHTO density for a compacted layer thickness of 150 mm</p>	m ³	Rate Only	2,531	
3400		TOTAL CARRIED TO SUMMARY				

ITEM NO	LI	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
35.02		<u>STABILIZATION</u> Chemical stabilizing agent: (a) Ordinary Portland cement	t	159		
35.04		Provision and application of water for curing	kl	150		
3500		TOTAL CARRIED TO SUMMARY				

ITEM NO	LI	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
38.04	LI	<p><u>BREAKING UP EXISTING PAVEMENT LAYERS</u></p> <p>Excavating and spoiling material from an existing pavement and/or the underlying fill:</p> <p>(a) Non-cemented material</p> <p>(b) Cemented material</p> <p>(c) Cemented crushed stone</p>	<p>m³</p> <p>m³</p> <p>m³</p>	<p>1,688</p> <p>Rate Only</p> <p>Rate Only</p>		
3800		TOTAL CARRIED TO SUMMARY				

ITEM NO	LI	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
39.01	LI	<p><u>PATCHING AND REPAIRING EDGE BREAKS</u></p> <p>Sawing asphalt or cemented pavement layers for patching</p> <p>(a) Sawing Asphalt to an average depth:</p> <p style="padding-left: 40px;">(i) Not exceeding 50mm</p> <p style="padding-left: 40px;">(ii) Exceeding 50mm but not exceeding 100mm</p> <p style="padding-left: 40px;">(iii) Exceeding 100mm</p> <p>(b) Sawing Cemented Pavement to an average depth:</p> <p style="padding-left: 40px;">(i) Not exceeding 50mm</p> <p style="padding-left: 40px;">(ii) Exceeding 50mm but not exceeding 100mm</p> <p style="padding-left: 40px;">(iii) Exceeding 100mm</p>				
39.02		<p>Excavation in existing pavements for patching in:</p> <p>(a) Asphalt Layers</p> <p>(b) Cemented Layers</p> <p>(c) Other Layers</p>				
39.03		<p>Backfilling of excavations for patching with:</p> <p>(a) Chemically stabilized pavement material (Specify the pavement material and the stabilising agent) for a patch with a surface area:</p> <p style="padding-left: 40px;">(i) Not exceeding 5m²</p> <p style="padding-left: 40px;">(ii) Exceeding 5m² but not exceeding 100m²</p> <p style="padding-left: 40px;">(iii) Exceeding 100m²</p>				
39.04		<p>Compacting the floor of excavations for patching</p>				
3900		TOTAL CARRIED TO SUMMARY				

ITEM NO	LI	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
56.01		<p><u>ROAD SIGNS</u></p> <p>Road sign boards with painted or coloured semi-matt background. Symbols, lettering and borders in semi-matt black or Class I retro-reflective material, where the sign board is constructed from:</p> <p>(c) Prepainted galvanized steel plate (chromadek or approved equivalent):</p> <p>(i) Area not exceeding 2 m²</p>	m ²	10		
56.05	LI	Excavation and backfilling for road sign supports (not applicable to kilometre posts)	m ³	3		
56.06		Extra over item 56.05 for cement-treated soil backfill	m ³	2		
5600		TOTAL CARRIED TO SUMMARY				

ITEM NO	LI	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
57.01		<p><u>ROAD MARKINGS</u></p> <p>Road-marking paint:</p> <p>(a) White lines (broken or unbroken):</p> <p style="padding-left: 20px;">(i) 100 mm wide</p> <p>(b) Yellow lines (broken or unbroken):</p> <p style="padding-left: 20px;">(i) 100 mm wide</p> <p>(d) White lettering and symbols</p>	km	1.9		
5700		TOTAL CARRIED TO SUMMARY				

ITEM NO	LI	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
59.01		<u>FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS</u> Finishing the road and road reserve: (b) Single-carriageway road	km	1.9		
5900		TOTAL CARRIED TO SUMMARY				

ITEM NO	LI	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
73.01	LI	<p><u>CONCRETE BLOCK PAVING FOR ROADS</u></p> <p>Concrete Block Paving</p> <p>a) 80mm thick double interlocking [DZZ] precast grey coloured concrete paving blocks laid in a herringbone pattern on and including 20mm sand founding layer and covered with sand layer and sweep into joints</p>	m ²	15,400.00		
73.02	LI	<p>Cast insitu concrete edge and immediate beams</p> <p>a) 150mm wide x 300mm deep cast insitu concrete class 25/19 with class U2 finish</p>	m ³	9.00		
7300		TOTAL CARRIED TO SUMMARY				

ITEM NO	LI	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
81.02		<p><u>TESTING MATERIALS AND WORKMANSHIP</u></p> <p>Other special tests requested by the Engineer:</p> <p>(a) Cost of testing</p> <p>(b) Charge on Prime Cost Sum</p>	<p>PC Sum</p> <p>%</p>	<p>R 250,000.00</p>		<p>R 250,000.00</p>
8100		TOTAL CARRIED TO SUMMARY				

REHABILITATION OF LORRAINE ACCESS ROAD**SUMMARY OF SCHEDULE OF QUANTITIES**

SECTION	DESCRIPTION	AMOUNT
1200	GENERAL REQUIREMENTS AND PROVISIONS	
1300	CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS	
1400	HOUSING, OFFICES AND LABORATORIES FOR THE ENGINEER'S SITE PERSONNEL	
1500	ACCOMMODATION OF TRAFFIC	
1800	DAYWORKS	
2100	DRAINS	
2200	PREFABRICATED CULVERTS	
2300	CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LININGS FOR OPEN DRAINS	
3100	BORROW MATERIAL	
3300	MASS EARTHWORKS	
3400	PAVEMENT LAYERS OF GRAVEL MATERIAL	
3500	STABILIZATION	
3800	BREAKING UP EXISTING PAVEMENT LAYERS	
3900	PATCHING AND REPAIRING EDGE BREAKS	
5600	ROAD SIGNS	
5700	ROAD MARKINGS	
5900	FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS	
7300	CONCRETE BLOCK PAVING	
8100	TESTING MATERIAL AND WORKMANSHIP	
TOTAL ROAD CONSTRUCTION		
ALLOWANCE FOR CONTINGENCIES: 10%		
SUB TOTAL		
VALUE ADDED TAX (VAT) 15%		
TOTAL		

MARULENG LOCAL MUNICIPALITY
REHABILITATION OF LORRAINE ACCESS ROAD
MLC/SCM/65/2024

C3. SCOPE OF WORK

In the event of any discrepancy between the Scope of Works and a part or parts of the SANS 1200 Standard Specifications, the Bill of Quantities or the Drawings, the Project Specification shall take precedence and prevail in the Contract. The term "Project Specification" must be read as "Scope of Works" wherever it appears in these standardised specifications.

C3.1 DESCRIPTION OF THE WORKS

C3.1.1 Employer's objectives

The employer's objectives are to deliver public infrastructure using labour intensive method and that the work required be of a high standard and be completed in the shortest practical time, whereby the local community benefit throughout the entire project and also in doing so provide work place training opportunities to learners who have a Learnership Agreements with the Construction Education and Training Authority.

C3.1.2 Overview of the works

The Contract will entail the Rehabilitation of Lorraine access road. The rehabilitation of the access road starts where it connects with road D21 at chainage 0 + 000 and ends at chainage 1 + 900 km.

The works will mainly consist of earthworks, construction of drainage structures and construction of pavement layers and installation of paving blocks as the surface layer. Under earthworks the following operations will be carried out:

- Ripping and cut to spoil – there is need to rip existing asphalt paving layer and spoil.
- Excavations for roadway, drains and drainage structures - there are sections where we need to cut to spoil as well as cut to fill to improve the vertical alignment.
- Re-construction of subgrade, sub-base layer, and base layer.
- Surfacing the road with paving blocks.
- Compaction of the roadbed, fills and embankments.
- Construction of side walk using paving blocks.
- Installation of paving blocks at adjacent properties and streets entrances.
- Installation of the drainage system along the access road.

Also, with regards to EPWP requirements, labour-intensive works comprise the activities described in SANS 1921-5, Earthworks activities which are to be performed by hand, and its associated specification data. Such works shall be constructed using local workers who are temporarily employed in terms of this Scope of Work. Time is of the essence for this contract. The Tenderer shall state the time in calendar months required by him/her to complete the Works. Tenderers offering early completion dates will generally be more favorably received, other things being equal.

C3.1.3 Extent of the works

The works to be carried out comprise of:

The works will mainly consist of earthworks, construction of drainage structures and construction of pavement layers and installation of paving blocks as the surface layer.

All materials used under this contract shall be SANS approved.

Villages under this contract:

Rehabilitation of Lorraine access road shall be done in the following village:

Village GPS Locations			
No.	Settlement	Latitude	Longitude
1	Lorraine	24°11'38.8"	30°24'36.4"

C3.1.4 Nature of Ground and Subsoil Conditions

The site soil is generally categorized as sandy; Test result will be made available on request. Furthermore, for verification, the Tenderers will be permitted at their own expense to make trial pits investigations of the area for ascertaining the character and nature of the sub-strata. Written permission shall first be obtained from the Engineer before undertaking such work. It is the Contractor's responsibility in terms of the General Conditions of Contract, to satisfy himself as to the conditions on the site and the possible variation thereto due to seasonal effects.

C3.1.5 CONSTRUCTION PROGRAMME

C3.1.5.1 Time for Completion

Time is of the essence for this contract. The Tenderer shall state the time in calendar months required by him/her to complete the Works. Tenderers offering early completion dates will generally be more favourably received, other things being equal.

C3.1.5.2 Tenderer's Programme

The Tenderer shall attach a preliminary programme indicating each portion of the works. The proposed order and rate of progress of the various construction activities shall be consistent with, and in support of, his time required for completion.

C3.1.5.3 Contractor's Programme

After award of the Contract, the Contractor shall submit a detailed programme to the Engineer for approval. The Engineer, may from time to time during the contract, require this programme to be amended in the interest of the project, and such amended and approved programme shall be adhered to rigidly.

Arrangements will be necessary to enable the mechanical contractor to commence with the design of the pump station in advance.

All costs for co-ordination with the mechanical contractor during building in or mechanical equipment and laying of electrical cables shall be covered by the applicable rates. No separate payment will be made for this.

The Contractor shall use excavation methods, which will prevent damage to existing structures and pipe work. Any cost for the repair of damages due to the Contractor's activities shall be borne by the Contractor.

Sufficient photos of the existing infrastructure must be taken by the Contractor and handed to the Engineer before such operations commence. No payment will be made in this regard and it shall be deemed covered in the preliminary and general items.

The complication of the construction program and any amendments thereto during the course of construction shall be at the cost of the Contractor and shall not be measured elsewhere in this contract.

C3.1.6 SITE FACILITIES AVAILABLE

C3.1.6.1 Water and Electricity Supply

The Contractor shall make his own arrangements for the supply and distribution of water and power.

C3.1.6.2 Location of Contractor's Camp and Depots

The Employer, in conjunction with the Engineer, will allocate a suitable area to the Contractors for the erection of temporary site offices and for storing materials.

C3.1.6.3 Sources of Construction Materials

Materials for layer works shall be selected from the material excavated from the site. If the existing materials is not of the required standard, suitable material will be imported from the existing borrow pit located on site. All construction material must be found, selected and supplied by the Contractor him/herself and approved by the Engineer.

C3.1.7 SITE FACILITIES REQUIRED

No existing facilities are available. All the necessary site facilities shall be provided and maintained by the Contractor. The requirements regarding notice boards, laboratories, accommodation and survey equipment for use by the Engineer. etc. are set out in sections PSA and PSAB of the project specification.

C3.1.7.1 Temporary Offices and Storage Sheds

The Contractor shall provide, erect, maintain and remove on completion of the Contract, ample temporary offices and sheds for the proper storage of perishable materials and for the use of his workmen. An office

approximately 4m x 3m in size with a desk and 10 chairs is to be provided for the purpose of holding site meetings.

C3.1.7.2 Laboratory Facilities

No laboratory, testing or storage facilities are available from the Employer. The Contractor must make his own arrangements and provide all facilities which must be acceptable to the Engineer for all testing required. Refer also to Clause PSA 4.1

C3.1.7.3 Sanitary Facilities

No separate sanitation facilities for the specific use of the Engineer or his staff need be provided. The Contractor shall provide and maintain adequate and approved temporary ablution and latrine facilities for his workmen on site and remove on completion

C3.1.7.4 Telephone Facilities

No telephone facilities are available from the Employer. The Contractor is advised to establish his/her own communication facilities from the site to his/her outside organizations.

C3.1.7.5 Accommodation for the Engineer

A separate office is required for the specific use of the Engineer.

C3.1.8 FEATURES REQUIRING SPECIAL ATTENTION

C3.1.8.1 Existing Services

There are no data on the existing services; neither the Employer nor the Engineer will accept the responsibility for the accuracy or for any omission that may have been made.

The Contractor shall take all reasonable steps to protect any existing works against damage which may arise as a result of his operations on the site. The Contractor shall acquaint himself with all existing works. Before any excavation is commenced the Contractor shall submit to the owners of such works plans showing the extent of the proposed excavations together with a programme giving approximate dates on which excavations will be commenced, and shall where possible, obtain from the owners' plans showing the position of all existing works.

Where the Contractor anticipates that it will be virtually impossible for him/her to carry out the work without causing damaged to existing services or works, and the Engineer in his discretion feels such damage is likely to occur, the Contractor shall make arrangements with the authority concerned to temporarily remove, deviate, protect or suspend the work or service concerned and pay the costs incurred, which shall be reimbursed to the Contractor.

The Contractor shall be responsible for the proper consolidation of the ground under and around any exposed mains, cables, valves, stopcock boxes and the like. The uncovering of boxes and covers that may become buried during excavation or refilling operation will be at the expense of the Contractor.

When crossing under or running parallel to poles supporting electrical services, they shall be sustained securely in place until the work is complete and shall then be made safe as before.

Where any existing services are crossed or temporarily removed, the Contractor shall be responsible for the repair and/or reinstatement of the crossings to the satisfaction of the owners and the Engineer's Representative.

The Contractor shall be held responsible for damage to any existing works and any damage caused, including any claims, which arise as a result there from. All such claims shall be borne by the Contractor, unless it is established by the Engineer that the Contractor exercised reasonable care and damage was unavoidable and that the notices were served timeously.

All damage done to existing works shall be immediately notified to the owners concerned and to the Engineer. If so direction by the Engineer, the positions of any existing work shall be changed by the Contractor to meet the requirements of the proposed work and the cost of such changes will be paid for as extra works.

C3.1.9 PRESERVATION OF THE SITE

The Contractor shall take the utmost care to prevent the starting of veld fires, and in the event of such fires starting, he shall immediately use all his labour force to limit and extinguish them.

The Contractor shall not permit the destruction of, or injury to, wild animals or bird life within the site of the works during the period of the contract. During the progress of the work and at the completion thereof the site is to be kept, and left, in a clean and orderly condition to the satisfaction of the Engineer. The Contractor shall at all times store materials and equipment for which he is responsible in an orderly manner and shall keep the premises free from debris and obstruction. Only trees marked and indicated by the Engineer may be removed.

C3.1.10 KEY PERSONNEL

The Contractor shall furnish the Engineer with a list of addresses and telephone numbers of key personnel in the Contractor's organization who may be contacted in an emergency both during and outside the office.

C3.1.11 SAFETY OF WORKMEN

The safe conduct of the Works shall be a primary consideration and the entire Works (until completion or termination of the contract) shall be carried out in conformity with the Occupational Health and Safety Act, 1993 (Act No 85 of 1993) and all other applicable statutory regulations and requirements. Tenderers must price their tenders accordingly.

Particular attention is drawn to the following:

1. If the Contractor has more than 20 employees, a health and safety representative (or representatives) must be designated.
 - a) The Contractor is responsible for the compliance with the Act by all his/her subcontractors, whether or not nominated and/or approved by the Employer.
 - b) The Contractor accepts sole responsibility for compliance with the Relevant duties, obligations and prohibitions by the Act, and expressly absolved the Employer and the Employer's consulting engineers of responsibility for compliance with the Act in respect of work included in the contract
 - c) The Contractor shall be obliged to report forthwith to the Employer any investigation, complaint or criminal charge which may arise as a consequence of the provisions of the Act pursuant to work performed on behalf of the Employer.

The Contractor shall provide and maintain in readiness on the Site, all equipment and materials necessary to render first aid in case of accidents or other emergencies. The Contractor shall also assign to the Works and designate for this purpose, trained employees who are able to render first aid.

C3.1.12 SITE MEETINGS

The Engineer shall hold regular site meetings and keep and circulate minutes. The Contractor shall attend and shall ensure that all sub-contractors are represented when required by the Engineer.

C3.1.13 NOTICE TO THE ENGINEER

Apart from the specific notice periods called for in the Contract Documents, the Contractor shall give the Engineer 48 hours' notice of any work requiring inspection by the Engineer. No further subsequent work dependent on such approval may be undertaken until confirmation of such receipt by the Engineer has been received.

C3.1.14 USE OF DEFECTIVE WORKS

Should any of the works be found to be not in accordance with the Contract, the Client shall have the right to use such defective works until the Contractor shall have rectified the defect or replaced the defective works with works complying with the Contract, without prejudice to any of the Client's rights under the Contract and without incurring any obligation in respect of the use of the defective works.

C3.1.15 SANS 1200 SERIES STANDARDIZED SPECIFICATIONS

The Contractor shall provide onsite a copy of the relevant sections of both SANS 1200 Series Standardized Specification and the related O120 Code of Practice.

C3.1.16 PRIME COST ITEMS AND PROVISIONAL SUMS

In cases of any provisional sum set out in the Schedule of Quantities for work which has not been specified or scheduled in detail when the contract is entered into, where work to which the provisional sum relates has been ordered by the Engineer and such work is: -

- a) Executed by the Contractor, it shall be valued in accordance with Clause 48 of the General Conditions of Contract,
- b) Executed by a nominated Sub-Contractor and paid for by the Contractor, the later shall be reimbursed the sum or sums he actually paid to the Sub-Contractor plus either: -
 - i) A commission of 7,5% (seven and one half percent) on the sum or sums actually paid to the Sub-Contractor, irrespective of by whom payment is made to the Sub-Contractor, or
 - ii) If the Contractor shall have added to the provisional sum in question, a sum in respect of charges and profits, a sum in the same proportion to the amount paid to the provisional sum.

Where sums are stated in the Schedule of Quantities to be provided to cover the prime cost (P.C.) prime for goods or materials to be supplied under the Contract, the amount to be therefore to the Contractor shall be the actual price paid by him in substitution for the prime cost sum, together with any charge included by the Contractor in his tender for labour, profit, carriage, establishment and other charges.

Expenditure in connection with provisional and prime cost sums and under the contingency allowances (if any) shall be solely at the discretion and discretion from the Contract Price. When required by the Engineer, the Contractor shall produce all invoices, vouchers and receipts in respect of payments made by him in connection with provisional or prime cost items.

C3.1.17 Labour-Intensive Works

All the relevant tasks/works shall be constructed using Labour-Intensive Construction Methods only

C3.1.18 Location of the works

The Project area is in Lorraine Village under the Maruleng Local Municipality area of jurisdiction. The project area is located southwest of Hoedspruit Town. Refer to the Locality map attached in Appendix A of this document. The following villages are covered under this contract:

Village GPS Locations			
No.	Settlement	Latitude	Longitude
1	Lorraine	24°11'38.8"	30°24'36.4"

C3.1.19 Temporary works

The Contractor shall provide, erect, maintain and remove on completion of the Contract, ample temporary offices and sheds for the proper storage of perishable materials and for the use of his workmen. An office approximately 4m x 3m in size with a desk and 8 chairs is to be provided for the purpose of holding site meetings.

C3.2 ENGINEERING

C3.2.1 Design

a). The Employer is responsible for the complete design as listed under point C3.1.18 above of:

The works to mainly consist of earthworks, construction of drainage structures and construction of pavement layers and installation of paving blocks as the surface layer.

b). The Contractor is responsible for the following:

To provide all details necessary to assist the Engineer in the compilation of the "AS BUILT" drawings for the entire project.

C3.2.1.1 Employer's Design

The design of the Works was done on behalf of the Employer by professional Consulting Engineer

C3.2.2 Drawings

The drawings are attached to the document in order to give an overview of the project.

Additional construction drawings will, in terms of Clause 5.9 of the General Conditions of Contract (2015), be issued to the Contractor by the Engineer/Employer on the commencement date and from time to time as required.

The Contractor shall use only the dimensions stated in figures on the drawings in setting out the Works, and dimensions shall not be scaled from the drawings, unless required by the Engineer. The Engineer will, at the request of the Contractor in accordance with the provisions of the Conditions of Contract, provide such dimensions as may have been omitted from the drawings.

The Contractor shall ensure that accurate as built records are kept of all infrastructures installed or relocated during the Contract. The position of pipe bends, junction boxes, duct ends and all other underground infrastructures shall be given by either co-ordinated or stake values and offset. Where necessary, levels shall also be given. A marked-up set of drawings shall also be kept and updated by the Contractor. This information shall be supplied to the Engineer's Representative on a regular basis.

All information in possession of the Contractor, required by the Engineer and/or the Engineer's Representative to complete the As-Built record drawings must be submitted to the Engineer's Representative before a Certificate of Completion will be issued.

The drawings prepared by the Employer for the works are listed at the back of this volume. The Employer reserves the rights to issue amended and/or additional drawings during the Contract.

C3.3 PROCUREMENT

C3.3.1 Preferential procurement procedures

The works shall be executed in accordance with the conditions attached to preferences granted in accordance with the referencing schedule.

C3.3.2 Scope of mandatory subcontract work

At least 5% portions of the works shall be subcontracted to a CIDB registered local contractors in accordance with the subcontracting procedures described hereunder:

Competitive Bids shall be invited in respect of each of the above portions of the works in accordance with the relevant provisions of the latest edition of the CIDB Standard for Uniformity in Construction Procurement. The Contract Data in the associated procurement documents shall be based on the use of BIFSA Non-Nominated Subcontract for use with the JBCC Series 2000 Principal Building Agreement / CIDB Standard subcontract (labour only) / JBCC series 2000 Nominated / Selected Subcontract Agreement / SAFCEC General conditions of subcontract (2003 edition) (select appropriate option) / NEC Engineering and Construction Subcontract / NEC Engineering and Construction Short Subcontract with minimal project specific variations and amendments that do not change their intended usage.

The Employer together with the Contractor shall evaluate the Bids received in accordance with the provisions of the Standard Conditions of Bid contained in Annex F of Standard for Uniformity in Construction Procurement. The evaluation panel shall comprise equal representatives from the Employer and from the Contractor.

The employer together with the contractor shall evaluate the tenders received in accordance with the Standard Conditions of Contract issued by the CIDB and the Tender Data issued to tendering subcontractors. The evaluation panel shall comprise of two representatives from the employer, and two representatives from the contractor.

The contractor shall without delay, enter into contract with the successful tendering subcontractor based on his tender submission. Deviations from the tender document shall not be accepted by the employer and either the NEC Engineering and Construction Short Contract (NEC ECSS1) or the NEC Engineering and Construction Subcontract (NEC ECC2) shall be used.

C3.4 CONSTRUCTION

C3.4.1 STANDARD SPECIFICATIONS

(a) The following specifications shall apply for the construction of the Works.

(i) The COLTO Standard Specifications for Road and Bridge Works for State Road Authorities (1998).

The contractor may purchase copies of Volume (i) from the South African Institution of Civil Engineers.

SAICE	Tel: (011) 805-5947	
Waterfall Park	/ Postnet Suite 81	Fax: (011) 805-5971
Howick Gardens	/ Private Bag X65	
Vorna Valley	/ Halfwayhouse	Contact Person: Angeline Aylward
Becker Street	/ 1685	
Midrand		

(b) SANS or BS Specifications and Codes of Practice

Wherever any reference is made to the South African Bureau of Standards (SANS) and the British Standards Specification (BSS) in either these Bill of Quantities or the Specification of Materials and Methods to be Used (OOG-001E), this reference shall be deemed to read "SABS or equivalent standard" and BS or equivalent standard" respectively.

(c) Various other specifications specified in the COLTO Standard Specifications or the Project Specifications.

(d) Latest **Sabita Manual**, Manual 25 entitled "*Quality Management in the Handling and Transport of Bituminous Binders*".

C3.4.2 PROJECT SPECIFICATIONS RELATING TO STANDARD SPECIFICATIONS

C3.4.2.1 General Conditions of Contract Referred to in the Standard Specifications

The references to the General Conditions of Contract appearing in the COLTO Standard Specifications refer to the COLTO General Conditions of Contract which is superseded in this contract by the General Conditions of Contract for Construction Works 2015 the corresponding clause in the latter document pertaining to the reference in the COLTO Standard Specifications is listed in the table below.

Clause No. in the Standard Specifications	Clause No. in COLTO General Conditions	Equivalent Clause No. in General Conditions of Contract 2015
1202	15	5.6.1
1206	14	Deleted
1209	52	6.10.2
1210	54	51.1
1212(1)	49	6.10.1
1215	45	5.12.1
1217	35	8.2.1
1303	49	6.8
1303	53	6.11
1303	12	5.6
1303	45	5.12.1
1403	40(1)	6.4.1
1505	40	6.4
31.03	40	6.4
3204(b)	40	6.4
3303(b)	2	3
5803(c)	40	6.4
5805(d)	40	6.4
6103(c)	40	6.4
Item 83.03	22	5.15
ALL SECTIONS	48	6.6

C3.4.2.2 Amendments to the Standard Specifications

There are no amendments to the Standard Specifications as issued by the Committee of Land Transport Officials (COLTO).

C3.4.2.3 Project Specifications Relating to Standard Specifications

This part of the project specifications deals with matters relating to the standard specifications. Where reference is made in the standard specifications to the project specifications this part shall also contain the relevant information e.g. the requirements where a choice of materials or construction methods are provided for the standard specifications.

In certain clauses the standard specifications allow a choice to be specified in the project specifications between alternative materials or methods of construction and for additional requirements to be specified to suit a particular contract. Details of such alternatives or additional requirements applicable to this contract are contained in this part of the project specifications. It also contains some additional specifications and amendments of the standard specifications required for this particular contract.

The number of each clause and each payment item in this part of the project specifications consists of the prefix B followed by a number corresponding to the number of the relevant clause or payment item in the

standard specifications. The number of a new clause or a new payment item, which does not form part of a clause or a payment item in the standard specifications and is included here, is also prefixed by B followed by a new number. The new numbers follow on the last clause or item number used in the relevant section of the standard specifications.

Clauses and pay items referring to labour intensive methods are prefixed by L in the project specifications. and pay items referring to emerging contractors are prefixed by E in the project specifications.

As much as is economically feasible all work shall be implemented by employing Labour Intensive Construction methods. Over and above the normal Building and Allied works to be implemented by employing skilled and unskilled labour the works specified in the "Guidelines for the Implementation of Labour-Intensive Infrastructure Projects under the Expanded Public Works Programme (EPWP)" shall be undertaken using Labour Intensive Construction methods.

Unskilled and semi-skilled labour required for the execution of all labour intensive works shall be engaged strictly in accordance with prevailing legislation and SANS 1914-5, Participation of Targeted Labour.

The rate of pay set for the EPWP is R 200.00 per task or per day.

© Tasks established by the contractor must be such that:

a) the average worker completes 5 tasks per week in 40 hours or less; and

b) the weakest worker completes 5 tasks per week in 55 hours or less.

(d) The contractor must revise the time taken to complete a task whenever it is established that the time taken to complete a weekly task is not within the requirements of 1.1.3.

(e) The Contractor shall, through all available community structures, inform the local community of the labour intensive works and the employment opportunities presented thereby. Preference must be given to people with previous practical experience in construction and / or who come from households:

C3.4.3. EPWP labour intensive specification

C3.4.2.1 Labour intensive competencies of supervisory and management staff

Contractors having a CIDB contractor grading designation of 6CE and higher shall only engage supervisory and management staff in labour intensive works who have either completed, or for the period 1 April 2007 to 30 June 2008, are registered for training towards, the skills programme outlined in Table 1.

The managing principal of the contractor, namely, a sole proprietor, the senior partner, the managing director or managing member of a close corporation, as relevant, having a contractor grading designation of 6CE shall have personally completed, or for the period 1 April 2011 to 30 June 2012 be registered on a skills programme for the NQF level 2. All other site supervisory staff in the employ of such contractors must have completed, or for the period 1 April 2011 to 30 June 2012 be registered on a skills programme for, the NQF level 2 unit standards or NQF level 4 unit standard

Table 1: Skills programme for supervisory and management staff

Personnel	NQF level	Unit standard titles	Skills programme description
Team leader / supervisor	2	Apply Labour Intensive Construction Systems and Techniques to Work Activities	This unit standard must be completed, and Any one of these 3 unit standards
		Use Labour Intensive Construction Methods to Lay Paving Blocks	
		Use Labour Intensive Construction Methods to Construct and Maintain Storm Water Channels	
		Use Labour Intensive Construction Methods to Construct, Repair and Maintain Structures	
Foreman/ supervisor	4	Implement labour Intensive Construction Systems and Techniques	This unit standard must be completed, and Any one of these 3 unit standards
		Use Labour Intensive Construction Methods to Lay Paving Blocks	
		Use Labour Intensive Construction Methods to Construct and Maintain Storm Water Channels	
		Use Labour Intensive Construction Methods to Construct, Repair and Maintain Structures	
Site Agent / Manager (i.e., the contractor's most senior representative that is resident on the site)	5	Manage Labour Intensive Construction Processes	Skills Programme against this single unit standard

C3.4.2.2 Employment of unskilled and semi-skilled workers in labour-intensive works

C3.4.3.2.1 Requirements for the sourcing and engagement of labour

C3.4.3.2.1.1 Unskilled and semi-skilled labour required for the execution of all labour intensive works shall be engaged strictly in accordance with prevailing legislation and SANS 1914-5, Participation of Targeted Labour.

C3.4.3.2.1.2 The rate of payment for the labourers should be determined by the local municipality in line with the EPWP requirements.

C3.4.3.2.1.3 Tasks established by the contractor must be such that:

- a) the average worker completes 5 tasks per week in 40 hours or less; and
- b) the weakest worker completes 5 tasks per week in 55 hours or less.

C3.4.3.2.1.4 The contractor must revise the time taken to complete a task whenever it is established that the time taken to complete a weekly task is not within the requirements of 3.4.3.2.1.3.

C3.4.3.2.1.5 The Contractor shall, through all available community structures, inform the local community of the labour-intensive works and the employment opportunities presented thereby. Preference must be given to people with previous practical experience in construction and / or who come from households:

- a) where the head of the household has less than a primary school education;
- b) that have less than one full time person earning an income;
- c) where subsistence agriculture is the source of income.
- d) those who are not in receipt of any social security pension income

C3.4.3.2.1.6 The Contractor shall endeavor to ensure that the expenditure on the employment of temporary workers is in the following proportions:

- a) 40 % women;
- b) 20% youth who are between the ages of 18 and 35; and
- c) 2% on persons with disabilities.
- d) 18% Men
- e) Minimum labours to be employed per village should be 20 people

C3.4.3.2.2 Specific provisions pertaining to SANS 1914-5

C3.4.3.2.2.1 Definitions

Targeted labour: Unemployed persons who are employed as local labour on the project.

C3.4.3.2.2.2 Contract participation goals

C3.4.3.2.2.2.1 There is no specified contract participation goal for the contract. The contract participation goal shall be measured in the performance of the contract to enable the employment provided to targeted labour to be quantified.

C3.4.3.2.2.2.2 The wages and allowances used to calculate the contract participation goal shall, with respect to both time-rated and task rated workers, comprise all wages paid and any training allowance paid in respect of agreed training programmes.

C3.4.3.2.2.3 Terms and conditions for the engagement of targeted labour

Further to the provisions of clause 3.3.2 of SANS 1914-5, written contracts shall be entered into with targeted labour.

C3.4.3.2.2.4 Variations to SANS 1914-5

C3.4.3.2.2.4.1 The definition for net amount shall be amended as follows:

Financial value of the contract upon completion, exclusive of any value-added tax or sales tax which the law requires the employer to pay the contractor.

C3.4.3.2.2.4.2 The schedule referred to in 5.2 shall in addition reflect the status of targeted labour as

women, youth and persons with disabilities and the number of days of formal training provided to targeted labour.

C3.4.3.2.2.5 Training of targeted labour

C3.4.3.2.2.5.1 The contractor shall provide all the necessary on-the-job training to targeted labour to enable such labour to master the basic work techniques required to undertake the work in accordance with the requirements of the contract in a manner that does not compromise worker health and safety.

C3.4.3.2.2.5.2 The cost of the formal training of targeted labour, will be funded by the provincial office of the Department of Labour or by Maruleng Local Municipality as stated in the bill of quantities. This training should take place as close to the project site as practically possible. The contractor, must access this training by informing the relevant provincial office of the Department of Labour in writing, within 14 days of being awarded the contract, of the likely number of persons that will undergo training and when such training is required. The employer must be furnished with a copy of this request.

C3.4.3.2.2.5.3 A copy of this training request made by the contractor to the DOL provincial office must also be faxed to the EPWP Training Director in the Department of Public Works– Cinderella Makunike, Fax Number 012 328 6820 or email cinderella.makunike@dpw.gov.za, Tel: 083 677 4026.

C3.4.3.2.2.5.4 The contractor shall be responsible for scheduling the training of workers and shall take all reasonable steps to ensure that each beneficiary is provided with at least three (3) days of formal training if he/she is employed for 6 months or less and a minimum of five (5) days if he she is employed for 6 months or more.

C3.4.3.2.2.5.5 The contractor shall do nothing to dissuade targeted labour from participating in training programmes.

C3.4.3.2.2.5.6 An allowance equal to 100% of the task rate or daily rate shall be paid by the contractor to workers who attend formal training, in terms of 3.3.2.2.2.5.4 above.

C3.4.3.2.2.5.7 Proof of compliance with the requirements of 3.3.2.2.5.2 to 3.3.2.2.5.6 must be provided by the Contractor to the Employer prior to submission of the final payment certificate.

C3.4.4 Plant and equipment

Add Subclause 4.4: Restriction on the use of plant.

“Except for the type of plant, and to the extent permitted in terms of the project specification or approved by the Engineer, in writing, the Contractor shall use only hand tools and equipment in the construction of the Works, or portion(s) of the Works, that are required in terms of the project specification to be constructed using labour intensive methods.

Failure by the Contractor to adhere to this clause will put him in breach of contract. The provisions contained in this contract with regard to labour content and labour intensive construction, are binding, and will be enforced accordingly.”

The plant and equipment used on the site shall not be inferior to that described in the Schedule of Plant and Equipment.

C3.5 MANAGEMENT

C3.5.1 Applicable SANS 1921 standards

The following parts of SANS 1921 Construction works standards and associated specification data are applicable to the works:

- 1) SANS 1921-1:2004
- 2) SANS 1921-2:2004
- 3) SANS 1921-6:2004

The abovementioned South African National Standards make several references to the Specification Data for data, provisions and variations that make these standards applicable to this contract. The Specification Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and these standards.

Each item of Specification Data given below is cross-referenced to the clause in the standard to which it mainly applies.

The associated Specification Data is as follows:

SANS 1921-1, Construction and management requirements for works contracts – Part 1: General engineering and construction works	
Clause	Specification data
Essential data	
4.1.7	There are no requirements for drawings, information and calculations for which the contractor is responsible
4.2.1	The responsibility strategy assigned to the contractor for the works is A.
4.3.1	The planning, programme and method statements are to comply with the following: <ul style="list-style-type: none"> • format of programme, • critical path activities and their dependencies, • frequency of updating,
4.3.3	The notice period for inspection is 5 Days
4.7.3	The overbreak allowances for blasting must be included in the rate of hard rock excavation.
4.9.3	The trees and shrubs which are not to be disturbed are identified in the scope of work.
4.12.2	The samples of materials, workmanship and finishes that the contractor is to provide and deliver to the employer are: <ol style="list-style-type: none"> 1) concrete works 2) pressure testing results done.
4.14.3	The office accommodation, equipment, accommodation for site meetings and other facilities for use by the employer and his agents are: <ol style="list-style-type: none"> 1) Site office which shall be used for site meetings and for the contractor's use. Such an office shall comprise a minimum of 20m² in area and 3 m high, be ventilated, have good lamination, must be reasonably sound proof, and have a hard floor construction. It

	shall be furnished with a desk on which drawings can be rolled open and on which there is sufficient writing space and sufficient temporary chairs or benches to accommodate all persons present at site meetings.
4.14.5	The Contractor is required to provide latrine and ablution facilities.
4.14.6	The requirements for the provision and erection of separate sign boards for consultants and subcontractors are: 1) The boards must comply with the official standard type signboard of the Employer and be at least 4218 x 2083 mm high. 2) The boards must be constructed with a firm flat exposed face using suitable material of firm construction, painted and lettered according to the standard drawings available from the Employer on request and mounted on sturdy pipe-standards at a height of 1800 mm above natural ground level.
4.17.1	The requirements for the termination, diversion or maintenance of existing services are: 1) Water 2) Electricity 3) Sanitation
4.17.3	Services which are known to exist on the site are: 1) Water 2) Sanitation 3) Electricity
Additional clauses	
<p>Site meetings and procedures</p> <p>The Employer's Representative and the Contractor shall hold meetings relating to the progress of the works at regular intervals and at other such times as may be necessary. The Contractor shall attend all site meetings and shall ensure that all persons under his jurisdiction are notified timeously of all site meetings should the Employer's Representative require their attendance at such meetings.</p> <p>The Contractor shall keep on site a set of minutes of all site meetings, daily records of resources (people and equipment employed), a site instruction book, a complete set of contract working drawings and a copy of the procurement document and make these available at all reasonable times to all persons concerned with the contract.</p> <p>Water: The Contractor is to provide, and remove and make good upon completion, all the necessary temporary plumbing connections and purchase water from the local authority for the works at his own cost.</p> <p>Electricity: The Contractor is to provide, and remove and make good upon completion, all the necessary temporary electrical connections and installations and purchase electricity from the local authority / Eskom for the works at his own cost.</p>	

C3.5.2 Particular / generic specifications

Refer to Clause 3.4.1.2 of this document.

C3.5.3 Recording of weather

The Contractor shall erect an effective rainfall gauge on the site and record the daily rainfall figures in a book. Such book shall be handed to the employer's representative for his signature no later than 12 days after rain that is considered to justify an extension of time occurs.

C3.5.4 Unauthorized persons

The Contractor shall keep unauthorized persons from the works at all times under no circumstances may any person except guards be allowed to sleep on the building site.

C3.5.5 Management meetings

Site meetings will be held on monthly basis. The following parties are required to attend these meetings: The Employer's Representative, the Engineer and/or Representative, the Contractor and/or Representative, the Community Liaison Officer, the Health and Safety Officer and all members of the Project Steering Committee.

C3.5.6 Daily records

All accidents and incidents shall be recorded daily in a site diary. Apart from the site diary the Contractor shall provide a site instruction notebook for use by the Engineer. The notebook shall be signed by both the Engineer and the Contractor whenever a site instruction is issued by the Engineer.

C3.5.7 Payment certificates

Contractor to submit claims for all the work done. All claims are subjected to verification by the Engineer.

C3.5.8 Permits

Contractor to ensure that no unauthorised persons are permitted to site.

C3.5.9 Proof of compliance with the law

Contractor to submit copies of the CIDB Registration and the Company Registration Certificates.

C3.6 SPECIAL CONDITIONS OF CONTRACT

The following Special Conditions of Contract (SCC) shall apply to this contract and the Employer undertakes that the only variations from the General Conditions of Contract are as follows:

SCC 1 Clause 1.1.1.15 **“Employer”** means MARULENG LOCAL MUNICIPALITY
Herein represented by their Nominee.

SCC2 Clause 1.1.1.16 **“Engineer”** means HWA ENGINEERS AND PROJECT MANAGERS or its authorized representative.

SCC 3 Clause 4.1 Extent of Obligations and Liabilities – (Survey References)

The following sub-clause is added at the end of Clause 4.1.2 and is numbered 4.1.3:

“The Contractor shall take adequate precautions to preserve any permanent beacons such as erf boundary pegs, reference marks and benchmarks which may be present on or in the vicinity on the site, irrespective of whether any such beacon may have been placed before or during the construction period.

“Should any such beacon be distributed by any act or omission on the part of the Contractor or any officer, servant, agent or invitee of the Contractor then the Contractor shall arrange for the displaced beacon to be replaced by a registered land surveyor within such limits of time as the Engineer may prescribe and all costs, charges and expenses arising from such replacement shall be borne by the Contractor.

“Survey diagrams relating to the replacement of beacons in the circumstances described in the previous paragraph shall be submitted by the land surveyor concerned to the Director for Works of the Limpopo Department of Works for approval. In this regard, attention is drawn to Clause 35(1) of the Survey Act No. 9 of 1927 (as amended).”

SCC 4 Clause 5.9.1 Drawings and Instructions

On the commencement date, the Engineer shall deliver to the Contractor copies of the drawings and any instructions required for the commencement of the works

SCC 5 Clause 4.11.1 Competent employees

The Contractor shall employ on the Site, for the execution and completion of the Works, only such person as is careful, competent and efficient in their various trades and professions.

SCC 6 Clause 1.3.5 Contractor’s copyright

Except where otherwise provided in the Contract, the Contractor shall retain the copyright and other intellectual property rights in the documents supplied to the Employer or Engineer under the Contract.

The Contractor shall be deemed to have given the Employer a non-terminable, transferrable, nonexclusive, royalty-free license to copy, use and communicate the Contractor’s documents, including making and using modifications of such documents for the purposes of further work required to the Works.

SCC7 Clause 38(7) Workmen's compensation

Amend Clause 38(7) as follows:

The Contractor shall provide proof, that he has paid all contributions required in terms of the provisions of the Workmen's Compensation Act (Act No 30 of 1941, as amended), within 28 days of the Commencement Date.

SCC 8 Clause 5.12.1 Extension of Time for Practical Completion

If the Contractor considers himself entitled to an extension of time for circumstances of any kind whatsoever which may occur that will, in fact, delay practical Completion of the Works, the Contractor shall claim in accordance with Clause 10.1 such extension of time as is appropriate. Such extension of time shall take into account any special non-working days and all relevant circumstances, including concurrent delays or savings of time which might apply in respect of such claim.

SCC 8 Clause 5.12.2 Shortage of Materials

The Tenderer shall ascertain those materials on which his tender based will be available on a continuous basis for the execution of the contract.

No additional remuneration or extension of time will be granted should it become necessary to obtain material from other sources.

SCC 9 Clause 6.8.2 Application of Contract Price Adjustment Factor

If the Contract Data provides for the application of a Contract Price Adjustment Factor, the value of certificates issued in terms of Clause 6.10.1(excluding the value of those special materials referred to in Clause 6.8.3) shall be increased or decreased by applying a "Contract Price Adjustment Factor" calculated according to the formula and the conditions set out in the Contract Price Adjustment Schedule.

SCC 10 Clause 6.1.2 Valuation of Material Brought onto site

The Contractor shall deliver with his, statement, pursuant to Clause 6.10.1.5, copies of invoices or receipt in respect of the purchase and delivery of the materials for which the Contractor claims payment. The valuation of such materials shall be based on the purchase price and delivery cost reflected by the relevant invoices or receipt, exclusive of discounts to the Contractor and inclusive of any sales tax or value added tax which the law requires the Employer to pay to the Contractor, and duties payable on such materials by the Contractor.

Provided that, if the materials have been produced by the Contractor himself or if the valuation of such materials is not consistent with the relevant rates and/or prices set out in the Pricing Data, the Engineer shall have the right to base the valuation and payment for such materials either on rates and /or prices consistent with the rates and/or prices set out in the Pricing Data or on current market prices.

MARULENG LOCAL MUNICIPALITY

REHABILITATION OF LORRAINE ACCESS ROAD

MLC/SCM/65/2024

C4: PROJECT SPECIFICATIONS

C4.1 SCOPE

The project specification is set out in two parts. Portion 1 covers a general description of the project, the facilities available, and the requirements to be met. Portion 2 covers variations and additions to the standardized or specifications that are applicable to the contract.

The numbering method in Portion 2 of this project specification deviates as follows from the method suggested in Code of Practice SABS 1200.

Each clause with the prefix PS shall refer to the congruent clause in the appropriate section of the standardized or specification. Such clause shall either substitute, or supplement, or amend the clause with the same number. Where there is no such congruent clause in the standardized or specification, the PS clause shall be a new clause in the project specification. Any clause that is referred to in the standardized specification will also include the appropriate specification.

PROJECT SPECIFICATION

PORTION 1: THE WORKS

PS 1 GENERAL DESCRIPTION OF WORKS

This contract entails the construction of the following:

- Ripping and cut to spoil – there is need to rip existing asphalt paving layer and spoil.
- Excavations for roadway, drains and drainage structures - there are sections where we need to cut to spoil as well as cut to fill to improve the vertical alignment.
- Re-construction of subgrade, sub-base layer, and base layer.
- Compaction of the roadbed, fills and embankments.
- Surfacing the road with paving blocks.
- Construction of side walk using paving blocks.
- Installation of paving blocks at adjacent properties and streets entrances

Tenderers must note that certain rates in this tender are fixed and based on prices that the successful Tenderer shall undertake the complete construction of such installations. Tenderers are also to take note of the fact that the bulk of the works is to be executed by means of labour intensive construction (LIC) methods, where feasible. The execution of the work will be done using the following two methods:

- (i) Established contractor to employ people from the communities where the work is to be done.
- (ii) Nominated emerging sub-contractors, which are to be employed and trained by the established contractor with the assistance of an approved training institution.

The tenderers must take note of the fact that it will be expected of the successful Tender to enter into a formal agreement with the Nominated Emerging Contractors (NEC) and all local labor to be employed on the project. The established/main contractor (MC) will be responsible for the quantity and progress of the work of the nominated emerging contractors.

The work to be carried out during the contract period may be given as separate tasks. Each task to be undertaken will be issued as a written instruction by the Engineer and will consist of a detailed scope of work and relevant drawings for each particular task.

PS 2 DESCRIPTION OF THE SITE AND ACCESS

Refer to the “*PART C.6 Site Information*”.

PS 3 DOCUMENTATION

PS 3.1 The Provisional Bill of Quantities is included in this document and *must be completed and handed in with the tender*.

PS 3.2 The drawings, for tender purposes, listed under part C3.2 are applicable to this contract.

PS.3 The Tenderer shall check the Bills of Quantities for missing or duplicated pages or drawings and should any be missing or duplicated, or the reproduction be indistinct, or if any doubt exists as to the full intent or meaning of any particulars or description, or this Bill of Quantities contain any obvious errors, the Tenderer shall notify the Engineer at once who shall promptly give a written directive. No liability whatsoever will be admitted in respect of errors in any tender due to the above-mentioned causes.

No alteration, erasure, omission or addition is to be made in the text and conditions of these Bills of Quantities or other documents. Should any such alterations, amendment, note or addition is made, it will not be recognized and the text of the Bills of Quantities or other documents as prepared by the Representative must be adhered to.

PS 3.4 The Tenderer shall examine all documents and shall thoroughly acquaint himself with the nature and extent of the Works and the way they are to be executed as no claim for extra payment in this connection will be entertained.

PS4 NATURE OF GROUND AND SUBSOIL CONDITIONS ON SITE

No bore tests or investigation of the in-situ material were done.

The water table may be relatively high during the summer months and provision must be made for effective draining of excavations.

It is the Contractor's responsibility to supply and deliver all material that complies with the minimum standards as well as for the building and maintaining of access roads to the works on site, haul areas or dumping sites. No additional payment will be applicable to the above-mentioned, other than the relevant items in the schedule of quantities.

No trial holes were dug along the network layout. Note that the prospective tenderers shall acquaint themselves with the nature of materials on site.

PS5 DETAILS OF THE CONTRACT

PS5.1 MAIN CONTRACTS

Work included in this contract involves the scope of work as per paragraph PS1.

The other main components of the work under this contract are:

- a) Establishment of the Contractor's camp.
- b) Site clearance and earthworks.
- c) Provision of all materials and accessories as required, to complete the work as prescribed.
- d) Excavation and preparation of layers as specified,
- e) Surfacing the road with paving blocks.
- f) Concrete work associated with the above-mentioned equipment.
- g) Construction of side walk using paving blocks.
- h) Installation of drainage system along the access road.
- i) Commissioning of the works.
- j) Maintenance on the works for a twelve-month period.

PS6 CONSTRUCTION PROGRAM AND METHODS

The construction site is situated in a built-up area; the Contractor shall ensure the least disruption of movement of the public during construction.

Construction methods must be of such a nature that no property or life is endangered. The Employer accepts no responsibility for work that is done without consent by the Engineer outside the site boundaries. The Contractor himself is responsible for liaison and arrangements with the Local Authority about the finalization and approval of the construction program.

The Contractor is responsible for liaison and the necessary arrangements with the relevant road authorities in respect of the finalization and approval of the works programme.

Sufficient photos of existing structures, walls and areas that have to be crossed must be taken by the Contractor and handed over to the Engineer before such operations commence. No payment will be made in this regard and it shall be deemed to be covered in the Preliminary and General Items.

Local laborers must do the trench preparation, bedding, laying and backfilling of pipes and fittings. The contractor is responsible to liaise with the Labor Desk for labourers.

No separate payment shall be made for any arrangements with relative local authorities for closing off the current water supply or for the distribution of notices to the public.

The compilation of the construction programme and any arrangements thereto during construction shall be at the cost of the Contractor and shall not be measured elsewhere in this contract. The contract must be completed within the time specified in the "Contract Data" of this document, excluding the builder and public holidays.

PS7 SITE FACILITIES AVAILABLE

PS7.1 SOURCES OF WATER SUPPLY, POWER SUPPLY, SANITATION AND ACCOMMODATION

Water for construction purposes will be for the account of the contractor at the ruling tariff and will be supplied at a suitable point, from where the contract will be responsible to convey the water to the point of usage. Water for human consumption will be from the existing network at the ruling tariff. Electrical power is available from the existing reticulation at ruling tariffs. The Contractor shall make his own arrangement for any water or power he may require. Any extension of time due to delays resulting from these facilities will not be granted.

The contractor must supply and maintain at his own cost enough portable chemical toilets, one of which must be situated at the campsite and the rest in the area of the site.

No waste or sludge must be left uncovered until it is removed. The contractor must operate an efficient solid waste removal system to the satisfaction of the Engineer for the duration of the contract.

The Contractor must make his own arrangement for communication and a telephone service.

PS7.2 LOCATION OF CAMP AND DEPOT

A site for the Contractor's camp and a depot will be pointed out during the site inspection. No trees may be removed and the contractor must provide his own firewood.

PS7.3 HOUSING FOR CONTRACTOR'S EMPLOYEES

No housing is available for the Contractor's employees, and the Contractor shall make his own arrangements for housing his employees or transporting them to and from the site. The Contractor is in all respects responsible for the housing and transporting of his employees, and for the arrangement thereof, and not extension of time due to any delays resulting from this will be granted.

PS8 SITE FACILITIES REQUIRED

No housing is required for the Engineer. Other facilities such as an office, telephone, name board, survey equipment, etc. required for the Engineer, are described under the relevant sections.

PS9 FEATURES REQUIRING SPECIAL ATTENTION

PS9.1 CONTROL OF WATER

The Contractor is in all respects responsible for the handling of storm water from higher-laying areas adjacent to the works, for the handling of possible sub-surface water and for the handling of spoiled water when disconnecting existing connections or valves. No separate payment shall be made for this, as all costs related thereto shall be deemed to be included elsewhere in the tendered rates.

PS9.2 "AS BUILT DRAWINGS"

As the work progresses, the Contractor shall keep full records of all amendments to and deviations from the drawings as issued to the Contractor at the start of the contract. The true positions, invert levels and ground levels of all services shall be indicated on the drawings, for which purpose the Contractor shall receive a separate complete set of drawings from the Engineer, at no cost.

The completion certificate shall only be issued after the Engineer has received a properly completed set of "**AS BUILT**" drawings from the Contractor. No separate payment shall be made for this service, as all costs related thereto shall be deemed to be included in the related items.

PS9.3 FINISHING AND TIDYING

Progressive and systematic finishing and tidying will form an essential part of this contract. Under no circumstances shall spoil, rubble, materials, equipment or unfinished operations be allowed to accumulate unnecessarily and in the event of this occurring the Engineer shall have the right to withhold payment for as long as necessary in respect of the relevant works in the area(s) concerned.

PS9.4 SURVEY BEACONS

No setting out of the pipeline route was done. All proposed pipelines shall be parallel (at least 2,5 m away) to the existing yard boundaries. No separate payment shall be made for this, as all costs related thereto shall be deemed to be included elsewhere in the tendered rates.

PS9.5 CONSTRUCTION MODUS OPERANDI

Labour-based or labour-intensive construction may be defined as the economically efficient employment of as much labour as is technically feasible to produce as high a standard of construction as demanded by the specification and allowed by the funding available. In other words, projects based on labour-intensive principles aim at devoting the highest feasible proportion of projects costs to unskilled, semi-skilled and skilled labour without jeopardizing the technical quality of the product demanded by the specification.

The following regulations must be adhered to so as to ensure that the construction methods used are labour intensive:

- (i) The remuneration of local labour for hourly-rated employees and/or daily-based work shall be in accordance with the terms and conditions of the Proclamation R1841 of Government Gazette 16833 dated 24 November 1995 or its latest amendment.
- (ii) The name, identification number, task performed and hours worked per day for each labourer shall be recorded by the Contractor. These records shall be submitted to the secretary of the Project Steering Committee on the second working day of each week following the recounted week.

The employment of local labour must be at least **35%**, if possible, of the total contract amount. The 35% must be divided as follows:

Percentage of Labour	Description
40%	Women
40%	Youth (Above school, but under 36)
2%	Disabled persons,

PS9.6 LOCALLY BASED SUB-CONTRACTORS

PS10 TRAINING

PS10.1 General

A suitably capable Training consultant is to be employed on this project. Their duty is to identify suitable persons and train them for the following:

- (i) Employee Training – community based labor.
- (ii) Employer Training – community based contractors.
- (iii) Committee Training – maintenance and operation of the Works (this however falls outside the scope of this Contract)

This project is a project using community-based labour and community based contractors as far as possible.

The Contractor using the necessary plant and labour as he sees fit shall carry out conventional construction. However, the Contractor may only bring in key staff from outside the area that has the necessary skills not available among the local community. Other than key staff, all other labour must be employed from the local communities. As a guideline, key staff would include general foreman, foreman, site managers, buyers, quantity surveyors, etc.

The Training Consultant will provide the necessary training so that the local labourers will have the necessary skills to carry out this work. In this respect, the contractor and the Training Consultant must work closely together to identify what skills are required, how many labourers

in each trade are required and when this labour will be required, so that the necessary training can be given timeously.

Typical training that is envisaged at this stage includes shuttering, concrete work, reinforcing, team leaders, etc.

The other part of the Contract is work that will be carried out by community-based contractors.

The Training Consultant will identify persons, with the assistance of the Project Steering Committee, and training these persons to establish small community based contracting firms, who will employ local labour. These firms will tender to carry out this work and successful Tenderers will be appointed by the Contractor as nominated sub-contractors to execute this work.

Typical training that will be given by the Training Consultant is:

(i) Community based contractors

- Preparation phase – using a calculator, numeracy, using a scale ruler, reading a building plan, handling administrative tasks in the building industry.
- Estimating and tendering – marketing the services of a company, seeking, site selection, collecting and studying tender documents, investigating and assessing a site, developing a bill of quantities from building plans, calculating the cost of a project, finalizing tender prices, completing and submitting a tender.
- Project planning – introducing to planning techniques, pre-tender planning, planning contract activities, contract planning, executing a contract programme.
- Executing the project – managing the finances of the company, managing materials, administering record systems, managing manpower, completion and handover.

(ii) Community based labour

Local labour will be taught the following skills:

- Selected backfill and backfill
- Concrete mixing, plastering
- Bricklaying
- Installation of paving blocks

Again, the Contractor, Employees' Representative, Training Consultant will have to work closely together to identify what their requirements are and when this labour is needed.

Community based labour training will take place at a central point. The Provisional Sum allowed in the Schedule of Quantities, for the training of community based contractors.

PS10.2 Construction and Materials Management

This section applies only to work to be carried out by community-based contractors.

The Contractor shall provide construction and material management to the community-based contractors. In this respect, each party has the following responsibilities.

(i) Community Based Contractors

- To tender on the labour-based sub contract work and enter into a contract with the Contractor.
- To carry out the work according to specification and on time using community based labour.
- To liaise and cooperate with the contractor regarding specifications, programme, progress, delivery of material, quality of work, etc.
- To provide wheelbarrows, hand tools, clothing, safety equipment, etc. to enable his labourers to carry out the work. All material (pipes, fittings, valves, etc.) to be provided by the Contractor.
- To receive material required for the task, store it and provide the necessary security until the material is built into the works.
- To provide the necessary transport for this labour force.
- To carry out a task in its entirety until final product approval and acceptance. In other words, there will be no split responsibility. For example, a community based contractor will excavate, provide the selected backfill, brickwork.
- To pay his labourers, VAT, etc. and finalize the final account.

(ii) Contractor

- In conjunction with the Training Consultant, establish the needs, training and programming of the work.
- To assist the Training Consultant in drawing up the agreement of association between the Contractor and the community based contractors where applicable.
- To enter into nominated subcontracts with the community based subcontractors.
- To provide the necessary skills transfer and construction management for the community based contractors to successfully complete this work. This includes setting out of the work, quality control over the work, programming of the work, progress, testing and acceptance thereof.
- To provide the necessary materials to execute the work. This includes purchasing the required materials, transporting them to the campsite, storage at the campsite, transporting materials as required from camp site to the sites of the various community based contractors, handing over of materials.
- To pay the community based contractors as the work progresses and the Contractor must make allowance in his Tender for this. Retention monies will be as for this contract. No sureties will be required from the communities-based contractors.
- To measure the work and finalize the final account.
- Complete copies of the emerging contractors' contracts to be given to the Engineer for endorsement prior to the contract being signed.

Candidate selection would be according to the requirements for a particular discipline. A Certificate of Achievement should be awarded to a student who has attained a prescribed level of competency.

A provisional amount for training has been recorded in both sections under the Item "Training" in the Preliminary and General portions in the Schedule of Quantities.

MATTERS RELATING TO THE STANDARD SPECIFICATIONS

- SECTION 1200 : GENERAL REQUIREMENTS AND PROVISIONS
- SECTION 1300 : ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS
- SECTION 1400 : HOUSING, OFFICES AND LABORATORIES FOR THE ENGINEER'S SITE PERSONNEL
- SECTION 1500 : ACCOMMODATION OF TRAFFIC
- SECTION 1800 : DAYWORK SCHEDULE
- SECTION 2300 : CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES AND CONCRETE LININGS FOR OPEN DRAINS
- SECTION 5600 : ROAD SIGNS
- SECTION 5700 : ROAD MARKINGS
- SECTION 5900 : FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS
- SECTION 7300 : CONCRETE PAVING FOR ROADS
- SECTION 8100 : TESTING MATERIALS AND WORKMANSHIP

1200 : GENERAL REQUIREMENTS AND PROVISIONS**B1202 SERVICES**

Add the following to the fifth paragraph:

“Provision is made in the bill of quantities for payment for searching and exposing of known or unknown services as well as the relocation and/or protection of existing services. Any moving of existing services which may be required within the proclaimed road reserve will be undertaken by the relevant service authorities or by a selected subcontractor if so ordered by the engineer.”

B1204 PROGRAMME OF WORK**(a) General requirements**

Amend the word “network” in the fourth line of the first paragraph to read as “bar (Gantt) chart”.
Add the following after the third paragraph:

“The bar-chart programme to be provided by the contractor shall show the various activities in such detail as may be required by the engineer. Progress in terms of the programme shall be updated monthly by the contractor in accordance with the progress made by the contractor.

In compiling the programme of work, the contractor shall indicate and make due allowance for the following, as specified elsewhere in the contract documents:

1. The requirements regarding the accommodation of traffic and areas that may be occupied at any time for construction purposes (as indicated on the drawings and specified in Section 1500 of the specifications)
2. Requirements regarding the training of labourers and Emerging Contractors (EC's).
3. The requirements for work to be undertaken by labourers and work to be undertaken by EC's.

(b) Programme of work for rehabilitation work

Amend the word “network” in the fourth line of the second paragraph to read as “bar (Gantt) chart”.

B1205 WORKMANSHIP AND QUALITY CONTROL

Add the following to the third paragraph:

“The engineer shall, however, undertake acceptance control tests for the judgement of workmanship and quality, without accepting any obligations vested with the contractor in terms of the contract with specific reference to quality of materials and workmanship. Such acceptance control test done by the engineer shall not relieve the contractor of his obligations to maintaining his own quality control system.”

Add the following at the end of this clause:

“The engineer shall, for the purpose of acceptance control on products and workmanship, assess test results and measurements in accordance with the provisions of section 8300 of the standard specifications. Where small quantities of work are involved, a lot shall mean a full day's production for a specific item of work subject to acceptance control testing.”

B1206 THE SETTING-OUT OF THE WORK AND PROTECTION OF BEACONS

Add the following:

“The contractor shall be responsible for the true and proper setting out of the Works and for the correctness of the position, levels, dimensions and alignment of all parts of the Works and for the provision of all necessary instruments, appliances and labour in connection therewith.”

The Contractor shall take care that property beacons, trigonometrical survey beacons or setting-out beacons are not displaced or destroyed without the consent of the Engineer. Property beacons and trigonometrical survey beacons that have been displaced or destroyed shall be replaced by a registered land surveyor, who shall certify such replacement.

The cost of replacing all beacons displaced or destroyed during the course of the Contract without the consent of the Engineer shall be borne by the Contractor.”

B1209 PAYMENT**(b) Rates to be inclusive**

Add the following:

“VAT shall be excluded from the rates and provided for as a lump sum in the Summary of Bill of Quantities”.

(e) Materials on the site

Add the following:

"In addition, the engineer may at his sole discretion also allow payments under "Materials on Site" in respect of any construction materials if stored off-site providing that:

- (a) The site selected for this purpose is approved by the engineer
- (b) Such land is physically separated from any production plant or operation
- (c) Only materials for use under this contract is stockpiled on such land
- (d) The contractor has provided proof of an agreement with the owner of such land that the owner has no claim whatsoever on any materials stockpiled on such land
- (e) Materials obtained by the contractor for or on behalf of emerging subcontractors (SMME's) shall remain the responsibility of the contractor after payment has been made in respect of materials on site.”

B1215 EXTENSION OF TIME RESULTING FROM ABNORMAL RAINFALL

Add the following after the first paragraph of this clause:

"For the purposes of this contract, extension of time resulting from abnormal rainfall or other forms of inclement weather shall be determined according to the requirements of Method ii (critical-path method).”

Method (ii) (Critical path method)

Delete “(based on a five-day working week)” in the fifth and sixth lines of the second paragraph of the description of this method.

Delete the last sentence of the second paragraph of the description of this method and replace with the following:

“The value of “n” shall be taken as three (03) working days per calendar month.

If normal rainy or inclement weather, resulting in delays, occurs for less than three (03) working days in any calendar month, the difference between the three (03) working days and the actual number of working days on which normal rainy or inclement weather occurred, shall be ignored and not accumulated for the duration of the contract period for the purposes of determining an extension of time due to normal rainy weather, nor due to any other reason.

Items of work on the critical path of the programme of work which are subject to climatic limitations shall also be considered for extension of time if such items of work are delayed by e.g. cold weather, high winds or other inclement weather conditions.

In this regard, reference shall be made to weather limitations specified for the application of various bituminous products. However, for months during which seal-work cannot be undertaken in terms of the specifications, no extension of time shall be claimed for.

B1217 PROTECTION OF THE WORKS AND REQUIREMENTS TO BE MET BEFORE CONSTRUCTION OF NEW WORK ON TOP OF COMPLETED WORK IS COMMENCED

Add the following sub clause:

"(h) No concrete kerbing or concrete drains directly adjoining the bituminous surfacing shall be constructed prior to the completion of the bituminous surfacing."

B1222 USE OF EXPLOSIVES

Add the following subclause:

"(h) Where blasting operations are undertaken in close proximity of temporary deviations, the contractor shall implement all such safeguarding measures as may be required and instructed by the engineer."

B1224 THE HANDING-OVER OF THE ROAD RESERVE

Add the following:

"The total length of the road reserve between the specified limits of construction will be handed over to the contractor on the commencement date. Reference shall, however, be made to the requirements of section 1500 of these specifications where limitations in respect of work-areas are specified. In the event of the non-adherence by the contractor in terms of the mentioned specifications, the engineer shall withdraw such sections of the road reserve as may be justified to ensure suitable progress of the works or safe passage of traffic."

B1229 SABS CEMENT SPECIFICATIONS

Replace the last paragraph of this clause with the following:

"Where reference is made in this specification or the standard specifications to the cement specifications, e.g. SABS 471: Portland cement and rapid hardening Portland cement, it shall be replaced with the new specification:

SABS ENV 197-1: Cement-composition, specifications and conformity criteria.

Part 1: Common cements.

Furthermore, where reference is made in this specification or the standard specifications to the different cement types, the following new names/types shall apply:

Typical new product nomenclature	
Cement type	Cement strength class
CEM I	32,5
CEM I	32,5R
CEM I	42,5
CEM I	42,5R
No provision made	No provision made
CEM II/A-S	32,5
CEM II/A-S	32,5R
CEM II/A-S	42,5
CEM II/A-V	32,5
CEM II/A-V	32,5R
CEM II/A-W	32,5
CEM II/A-W	32,5R
CEM II/A-V	42,5

Typical new product nomenclature		
Cement type		Cement strength class
CEM II/A-V		42,5R
CEM II/A-W		42,5
CEM II/A-W		42,5R
CEM III/A		32,5
CEM III/A		32,5R
CEM II/B-V		32,5
CEM II/B-W		32,5
	CEM II/B-S	32,5R
	CEM II/B-S	42,5
	CEM III/A	32,5R
	CEM III/A	42,5

CEM I 32,5, CEM II A-S 32,5, CEM II/A-V 32,5, or CEM III A may be used for the manufacture of reinforced concrete members.”

Add the following new clauses:

“B1230: IN-SERVICE AND STRUCTURED TRAINING

The contractor shall in addition to the structured (accredited) training as provided for in Part C of this document implement an in-service training programme, from the commencement of the contract, in which the various skills required for the execution and completion of the works are imparted to the labourers engaged thereon, in a programmed and progressive manner. Labourers shall be trained progressively throughout the duration of the contract, in the various stages of a particular type of work.

(a) Details of in-service and structured training

- (i) The in-service training programme shall be submitted with the initial works programme. The progress in relation to this programme will be recorded monthly and attached to the site meeting minutes and payment certificate.
- (ii) The contractor shall provide on-site, sufficient skilled and competent trainers to train all labourers engaged on the contract, in the various skills required for the execution and completion of the works.
- (iii) All labourers shall be remunerated in respect of all time spent undergoing training.
- (iv) Every worker engaged on the contract shall on the termination of his participation on the contract, be entitled to receive from the contractor, a certificate of service in which the following information shall be recorded:
 - a. the name of the contractor
 - b. the name of the employee
 - c. the name of the project/contract
 - d. the nature of the work satisfactorily executed by the worker and the time spent thereon
 - e. the nature and extent of training provided to the worker
 - f. the dates of service.

The cost of the above obligations shall be deemed to be covered by the sums and rates tendered for items B13.01 (a), (b) and (c) in the bill of quantities. The performance of the contractor in providing in-service training, shall be taken into consideration should the contractor fail to reach his CPG at the completion of the project.

(b) Lead time for training

The training of labour as specified shall, as far as possible, take place before commencement of each activity and the contractor shall take into account in his programme the lead-time he requires for such training. All training herein specified shall be deemed to be a construction activity and a non-negotiable condition of the contract”.

B1231 COMMUNITY LIAISON OFFICER (CLO)

The contractor or his appointed agent will appoint a Community Liaison Officer (CLO) after consultation with the local communities, the engineer and the employer. The contractor shall direct all his liaison efforts with the local communities through the appointed officer. The contractor shall, however, accept the appointed as part of his management personnel.

(a) Duties of the Community Liaison Officer

The Community Liaison Officer’s duties will be:

- (i) To be available on site daily between the hours of _____ (insert time) and _____ (insert time) and at other times as the need arises. His normal working day will extend from _____ (insert time) in the morning until _____ (insert time) in the afternoon.
- (ii) To determine, in consultation with the contractor, the needs of the temporary labour for relevant skills training. He will be responsible for the identification of suitable trainees and will attend one of each of the training sessions.
- (iii) To communicate daily with the contractor and the engineer to determine the labour requirements with regard to numbers and skill, to facilitate in labour disputes and to assist in their resolution.
- (iv) To assist in and facilitate in the recruitment of suitable temporary labour and the establishment of a “labour desk”.
- (v) To attend all meetings in which the community and/or labour are present or are required to be represented.
- (vi) To assist in the identification, and screening of labourers from the community in accordance with the contractor’s requirements.
- (vii) To inform temporary labour of their conditions of temporary employment and to inform temporary labourers as early as possible when their period of employment will be terminated.
- (viii) To attend disciplinary proceedings to ensure that hearings are fair and reasonable.
- (ix) To keep a daily written record of his interviews and community liaison.
- (x) To attend monthly site meetings to report on labour and RDP matters.
- (xi) All such other duties as agreed upon between all parties concerned.
- (xii) To submit monthly returns regarding community liaison as illustrated in Part C5.1 of this document (form RDP 12(E)).

(b) Payment for the community liaison officer

A special pay item is incorporated in section 1200 of the bill of quantities relating to payment of the liaison officer on a prime cost sum basis. This payment shall only be made for the period for which the duties of the liaison officer are required. The remuneration of the CLO shall be determined by the Employer in terms of the Sectorial determination 2: Civil Engineering Sector (Task grade 3).

(c) Period of employment of the community liaison officer

The period of employment of the community liaison officer shall be as decided upon jointly by the contractor, engineer and employer at a maximum period of a six months basis, but with the option of renewal.

B1232 SUBCONTRACTORS

Over and above the stipulations of clause 4.4 of the General Conditions of Contract 2015, regarding subletting of part of the works, it is a condition of the contract that an approved subcontractor shall not sublet part of his work, covered in his appointment by the main contractor, to another subcontractor without the consent and approval of the engineer. Subletting shall in all cases be critically considered by the engineer.

In addition to the provisions of clause 4.4 of the general conditions of contract regarding subcontracting of the works, it is a requirement of this contract that an approved subcontractor shall not further subcontract work subcontracted to him by the main contractor, to another subcontractor without the consent and approval of the engineer. Subcontracting shall in all cases be critically considered by the engineer. The engineer reserves the right to limit the extent or the volume of work subcontracted by the contractor, should he deem it necessary in terms of progress or quality of workmanship.

B1233 WORKMEN'S COMPENSATION ACT

All labour employed on the site shall be covered by the Compensation for Occupational Injuries and Deceases Act (COIDA). The contractor shall pay in full, including the payment of the necessary levies, such amounts, as are due in terms of the Act. The contractor at the commencement of the contract shall resolve the manner in which Workmen's Compensation will be handled. Amounts paid by the contractor shall not be included in the wage rates but shall be covered by the Contractor to be deemed as included in his General Obligations rates in Section 1300 of the Bill of Quantities.

Add the following clause:

B1234 MINE HEALTH AND SAFETY ACT 1996, ACT 29 OF 1996**(a) Introduction**

The main objective of this Act is to protect the health and safety of persons at mines. This specification is therefore aimed at promoting health and safety specifically at borrow pits. Borrow pits are classified as mines.

(b) General Provisions

The contractor shall be responsible for controlling his operations at every borrow pit where material is being excavated to ensure compliance with all the requirements of the Mine Health and Safety Act, 1996. The contractor shall also ensure that the works, shaping and finishing off of the borrow pit are done in accordance with the provisions as specified in section 3100 of the COLTO Standard Specifications and this Act. The contractor shall also comply to the requirements as set out in C3.4.3.2 Environmental Management Plan.

The minimum requirements for operations at borrow pits are:

- g. Borrow pits are worked in such a way that the health and safety of employees and the public will not be endangered.
- h. A monthly report shall be submitted to the engineer on health and safety aspects at the borrow pits.
- i. The contractor shall appoint a manager to manage the borrow pits in accordance with the Mine Health and Safety Act.
- j. The contractor shall take the necessary steps to ensure that the work area of the borrow pits are safe at all times. This shall include items such as the provision of fencing and security guards.

(c) Duties of the Manager

The minimum duties of the manager supervising the activities at borrow pits shall be:

- k. Maintain a healthy and safe borrow pit environment.
- l. Identify hazards and related risks to which persons and employees are exposed.
- m. Establish a health and safety policy that
 - Describes the organisation of work.
 - Contains aspects concerning the protection of the employees and other persons' health and safety.
 - Contains a risk analysis.
- n. Supply and erect the necessary safety and warning signs.

Add the following pay items and change the clause number.

B12.35 MEASUREMENT AND PAYMENT

Add the following items:

“ITEM **UNIT**

B12.01 Locating of Existing Services

Allow a provisional sum for existing services to be relocated and/or protected as ordered by the engineer provisional sum

Measurement and payment shall be as specified for item 22.01 in the standard specifications.

ITEM **UNIT**

B12.02 (a) Allow a provisional sum for existing services to be relocated and/or protected as ordered by the engineer provisional sum

(b) Handling costs and profit in respect of sub-item B12.03 (a) above percentage (%)
Measurement and payment shall be in accordance with the general conditions of contract.”

ITEM **UNIT**

B12.03 Provision for a Community Liaison Officer

a) Provisional sum for the payment of the Community Liaison Officer Provisional Sum

b) Handling costs and profit in respect of sub-item B12.03 (a) Percentage (%)

Expenditure of the above item shall be made in accordance with the general conditions of contract.

The tendered percentage is a percentage of the amount actually spent under the sub-item B12.03 (a), which shall include full compensation for the handling costs of the contractor, and the profit in connection with providing the community liaison officer.”

ITEM **UNIT**

B12.04 Provision for Monthly Payment of PSC Seating

a) Provisional sum for the payment of the PSC Seating Allowance Provisional Sum

b) Handling costs and profit in respect of sub-item B12.04 (a) Percentage (%)

Expenditure of the above item shall be made in accordance with the general conditions of contract.

The tendered percentage is a percentage of the amount actually spent under the sub-item B12.04 (a), which shall include full compensation for the handling costs of the contractor, and the profit in connection with providing the community liaison officer.”

ITEM	UNIT
B12.05 Provision for a SHE Representative	
a) Provisional sum for the payment of the SHE Representative	Provisional Sum
b) Handling costs and profit in respect of sub-item B12.03 (a)	Percentage (%)

Expenditure of the above item shall be made in accordance with the general conditions of contract.

The tendered percentage is a percentage of the amount actually spent under the sub-item B12.04 (a), which shall include full compensation for the handling costs of the contractor, and the profit in connection with providing the community liaison officer.”

ITEM	UNIT
B12.06 Provision for generic and entrepreneurial training	
Provisional sum for the payment of accredited generic and entrepreneurial training	Provisional Sum

Expenditure of the above item shall be made in accordance with the general conditions of contract.

1300 : CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS**B1302 GENERAL REQUIREMENTS****(a) Camps, constructional plant and testing facilities**

Add the following:

"The contractor shall, at each area where work is being undertaken, provide on a daily basis at least one (1) portable chemical latrine unit per fifteen (15) for use by construction workers employed on the project. The latrine units shall be serviced daily and kept in a hygienic and orderly state to the satisfaction of the engineer. No separate payment shall be made for this requirement and shall be deemed to be included in the rates tendered for the contractor's time-related obligations."

B1303 PAYMENT

ITEM	UNIT
B13.01 The contractor's general obligations	(As specified)

Add the following after the fifth paragraph:

"The combined total tendered for sub-items (a), (b) and (c) shall not exceed 15% of the tender sum, excluding VAT.

1400 : HOUSING, OFFICES AND LABORATORIES FOR THE ENGINEER'S SITE PERSONNEL**B1402 OFFICES AND LABORATORIES****(a) General**

Add the following:

“The facilities to be provided for the engineer in terms of these specifications shall be fenced off by a two metre high veranda type security fence with diamond mesh on the vertical portion and barbed wire on the overhang. A security gate shall be provided in the fence which shall be guarded at all times by an acceptable watchman provided by the contractor.

The engineer's establishment may be incorporated within the contractor's establishment provided that the preceding requirements are met to the satisfaction of the engineer.

Separate payment shall be made for the provision and erecting of the security fence and gate as indicated on the drawings, but the cost in respect of the provision of a watchman at all times by the contractor shall be deemed to be included in the contractor's tendered rate for item B13.01(c).”

(b) Offices

Add the following new sub-sub-clause:

“(xviii) The engineer's site supervisory staff shall be provided with cellular telephones by the contractor for site communication purposes. Provision is made in the bill of quantities for separate payment of the supply and operating costs of such cellular phones.”

B1403 HOUSING**(c) Rented accommodation**

Add the following:

“The engineer may arrange for the obtaining of rented accommodation for his supervisory personnel on site. Payment of such rent shall be made under the provisional sum in sub-item 14.07(a) and shall be expended on a monthly basis by the contractor as ordered by the engineer.”

B1406 MEASUREMENT AND PAYMENT

Add the following sub-item:

ITEM	UNIT
B1403 (b) (ix)	
1. Provision of cellular telephones	Number (No)
2. Provisional sum for the costs of cellular calls and other charges	Provisional sum
3. Handling cost and profit in respect of sub-item B14.03 (b) (ix) 2	Percentage (%)

The unit of measurement for sub-sub-item B14.03 (b) (ix) 1 shall be the number of cellular telephones supplied to the engineer's site supervisory staff. The tendered rate shall include full compensation for the purchasing of the cellular phones inclusive of any fixed contract costs with the service provider.”

Measurement and payment in respect of the provisional sum item shall be made in accordance with the provisions of the general conditions of contract.

The tendered percentage is a percentage of the amount actually spent under sub-item B.14.03 (b) (ix) 2, which shall include full compensation for the handling costs of the contractor, and the profit in connection with the payment of the cost of calls and other charges relating to the use by the engineers site staff of the supplied cellular telephones.”

ITEM	UNIT
B14.11 Provision and erection of security fencing (Including gate)	metre (m)

The unit of measurement shall be the metre of security fence supplied and erected as indicated on the drawings and/or ordered by the engineer. The tendered rate shall include full compensation for procuring and furnishing of all material, including one vehicle gate and one pedestrian gate, labour and equipment required to erect the specified security fence and maintain it for the duration of the contract."

General: Method of payment

Add the following:

"The tendered rates under this section of the bill of quantities shall also include full compensation for the dismantling and removal from site of all offices, laboratories and other facilities provided for the engineer's supervisory staff at the completion of the contract."

ITEM	UNIT
B14.12 Commercial Laboratory for the Exclusive use of the Engineer	

1. Payment to the laboratory	Prov. Sum
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A provisional sum will be allowed in the bills of quantities to allow for payment to a commercial laboratory established on site for the exclusive use of the engineer to carry out acceptance testing of the works. The laboratory will be approved by the engineer and made known to the contractor before the works commence. The contractor will not be permitted to use the same laboratory to carry out process-control testing of the works during construction and must either establish their own laboratory on site or use an alternative commercial laboratory.

Under no circumstances will the contractor be permitted to use the engineer's laboratory to carry out process-control testing.

Amounts certified by the engineer for payment to the engineer's laboratory must be paid by the contractor before they are included in the payment certificate for payment to the contractor. Proof of payment must be submitted with each payment certificate.

Handling cost and profit in respect of sub-item (a)	Percentage (%)
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1500 : ACCOMMODATION OF TRAFFIC**B1502 GENERAL REQUIREMENTS****(e) Access to properties**

Add the following:

“Where the alignment of the new road coincides with the alignment of the existing road, a number of accesses to private properties will have to be operational and maintained during the constructional period. No separate payment will be made for providing acceptable and safe access across the new road at all times during construction of the road.”

(i) Traffic safety officer

Add the following after subclause (viii):

- “(ix) be responsible for contacting all the relevant authorities in the event of an accident on the site of the Works
- (vi) arrange for the removal of broken down vehicles that obstruct the normal traffic flow

The Contractor shall provide the traffic safety officer with all the necessary resources to carry out his duties as specified, inter alia, light delivery van (LDV), personnel, warning signs and revolving amber flashing lights. A warning sign with the words “CONTRACTOR TRAFFIC CONTROL” and/or “AANNEMER VERKEERSBEHEER” in clearly legible letters shall be mounted on the vehicle at least 1,5m above ground level to be clearly visible. The vehicle shall be equipped with two revolving amber-coloured flashing lights with a minimum intensity of 55W. The flashing lights shall be switched on and the warning sign be displayed at all times when the vehicle is used on the site.

No separate payment will be made for the traffic safety officer, his vehicle, personnel and equipment and the cost thereof shall be included in the Contractor’s cost for his establishment and general obligations (Section 1300).”

Add the following new subclauses:

“(j) Handing over the site

The total extent of the site between the limits of construction as described in this document and indicated on the drawings will be handed over to the contractor at the commencement of the contract period. The engineer however reserves the right to adjust this arrangement should progress or safe passage of traffic warrant such a change.

(k) Use of explosives in close proximity of temporary deviations

The contractor shall arrange all necessary traffic control and other requirements to safeguard the traffic on temporary deviations during blasting operations.

(l) Land taken up for deviations

Negotiations with landowners to obtain the land taken up by temporary deviations will be undertaken by the employer. A prime cost sum is allowed in the bill of quantities for payment of compensation to affected landowners. All other negotiations regarding temporary access to properties, land-use, fencing requirements etc. shall be dealt with by the contractor in conjunction with the engineer and be confirmed in writing and be kept on record by the contractor.

“(m) Maximum lengths of construction areas

A temporary deviation, where the proposed road follows the existing route shall be constructed along the length of existing road. Traffic shall generally be accommodated as follows:

On a two-way two lane gravel deviation (Class 1) constructed partially outside or adjacent to the existing road reserve boundaries of road.

- (i) On one-way single lane gravel deviation (Class 2) constructed inside the existing road reserve boundaries and on either side of road. In this instance special cognisance shall be taken to accommodate traffic to private properties.

A maximum length of one section of approximately 5,0km or two sections of 3,0km each of deviation (Class 1 or 2) shall be operational at a time and no relieve of this limitation shall be considered by the engineer except where the programme necessitates such at the construction of bridges.”

B1503 TEMPORARY TRAFFIC CONTROL FACILITIES

Add the following after the first paragraph:

“All temporary road signs, devices, sequences, layouts and spacing shall comply with the requirements of the Road Traffic Act, 1996 (Act 93 of 1996), the National Road Traffic Regulations, 2000, the South African Road Traffic Signs Manual, the requirements of the relevant road authority and the drawings. All temporary traffic control facilities shall comply with the guidelines set in SA Road Traffic Signs Manual, Volume 2, Chapter 13: Roadworks Signing, (SARTSM, June 1999, obtainable from the Government Printer, Pretoria).”

(b) Road signs and barricades

Add the following:

“All the temporary road signs are to be mounted on posts as specified in section 5600 of the specifications. Provision shall be made for the supply and erection of the signs and the maintenance of the signs during the construction period. Provisions shall also be made for the removal of the temporary road signs on completion of the construction work when such signs are no longer required.

Temporary road signs and channelization devices shall be manufactured in accordance with the latest edition of the South African Road Traffic Signs Manual (June 1999) and placed as shown on the drawings and in Road Signs Note 13. Delineators shall be manufactured from a non-metal material and shall be mounted on a base section also manufactured of non-metal material. Single as well as back-to-back mounted delineators are required.

The obligation to arrange safe passage of traffic shall always be vested with the contractor regardless what is indicated on the drawings of the engineer.”

(c) Channelization devices and barricades

Add the following:

“Drums shall not be used as channelization devices.

TW 401 and TW 402 delineators shall comply with the following requirements:

- a) It shall be manufactured from a flexible material and shall comply with SABS 1555. The blade portion of the delineator shall be positively affixed to a base unit which in turn shall be stable on its own or be stabilized by means of sandbags when used on the road.
- ii) The blade shall be retro-reflectorised, with class 1 yellow sheeting on the side facing oncoming traffic.
- iii) It shall nominally be 1000mm high x 250mm wide and the bottom edge of the delineator shall not be more than 200mm above the road surface.
- iv) It shall be subject to the approval of the Engineer.

The maximum spacing between centres of delineators shall be as shown on the drawings or as directed by the Engineer.”

(e) Warning devices

Add the following:

“It is a requirement of this contract that all construction vehicles and plant used on the works will be equipped with rotating amber flashing lights and warning boards as specified in the standard specifications. Construction vehicles travelling outside the limits of construction areas shall however, not operate the warning lights.

The warning lights shall have a base diameter of at least 170mm and the amber bulb cover a height of a least 150mm high. It shall be a requirement that the contractor also provides the engineer’s site personnel with warning lights for their vehicles (a maximum of two lights are required) without any payment applicable.

B1514 TEMPORARY FENCING AND GATES

Replace the contents of this clause with the following:

“Where temporary fencing is ordered by the engineer, it shall be paid for under item 55.06 of the standard specifications. The temporary fencing shall be new fencing material, which shall subsequently be dismantled and removed and erected at an alternative position as directed by the engineer. When ordered by the engineer, temporary fences and gates shall be moved to new locations or either left in place or when no longer required be dismantled and removed from site if so directed. Allowance is made in the bill of quantities for moving existing fences and gates.”

Add the following clause:

B1517 RETRO-REFLECTIVE MATERIAL

“Retro-reflective material for temporary signs shall comply with the requirements of SABS 1519-1 for weathered material. Tests shall be carried out with a field retro-reflectometer and the testing procedure and classification are described in Clause B 8118. The value of the coefficient of Retro-Reflection shall be at least 60% of the values indicated in Table B 8118/1.”

B1518 MEASUREMENT AND PAYMENT

B15.01 Accommodating traffic and maintaining temporary deviations

Add the following:

“The tendered rate shall also include for all measures necessary to safeguard traffic on temporary deviations during blasting operations as well as all temporary traffic-control facilities for temporary deviations.”

Delete all references to half width construction under payment item 15.01. Half width construction will be measured under payment item 15.10.

Re-number item 15.03 as B15.03 and add the following

"This sections provides only for additional traffic-control facilities as and when required on instruction by the Engineer and does not provide for facilities already included under payment item B15.01"

Add the following sub-item:

"ITEM	UNIT
B15.03 Temporary traffic control facilities	
(a) Provision of high visibility safety jackets and safety hats	number (No)

The unit of measurement shall be the number of safety jackets supplied to the supervisory staff.

The tendered rate shall include full compensation for providing and maintaining hats and the jackets equipped with high visibility retro-reflective and/or fluorescent panels in red, yellow and white for the duration of the contract".

Add the following items:

"ITEM	UNIT
B15.14 Allow provisional sum for:	
(a) repair of damaged temporary road signs and delineators	provisional sum
(b) replacement of damaged temporary road signs and delineators	provisional sum

The provisional sums allowed under sub-items (a) and (b) shall be expended on a day work basis in terms of the provisions of the general conditions of contract.

Payment shall only be made in respect of repair work or replacement of such temporary traffic-control facilities arising from damage or loss occasioned by the travelling public and which did not arise from negligence or non-compliance with the requirements of the specifications on the part of the contractor.

ITEM	UNIT
B15.15 Prime cost sum for:	
b) Compensation to landowners for land taken up by deviations	prime cost (PC) sum
c) Handling cost and profit in respect of sub-item B15.15 (a) above	percentage (%)

The prime cost sum shall be expended in accordance with the provisions of the general conditions of contract. Payment to the landowner shall be made within fourteen (14) days after such order has been given by the engineer. The contractor shall provide detailed proof of payment before payment shall be certified to the contractor.

The tendered percentage in item B15.15 (b) is an extra over percentage on the amount actually spent under sub-item B15.15 (a) which shall include full compensation for the handling costs and profit of the contractor."

1700 : CLEARING AND GRUBBING**B1702 DESCRIPTION OF WORK****a) Clearing**

Add the following:

“Clearing shall include the removal of material to a thickness of up to 150mm in-situ material as ordered by the engineer. No payment shall be made for temporary stockpiling of topsoil material in the case where this material is applied as topsoil after completion of road side slopes.

Should the required depth exceed 150mm, the total volume of material removed shall either be classified as “temporary stockpiling of topsoil” or “unsuitable roadbed material” or “cut to spoil” whichever is applicable as allowed for in the standard specifications. In these cases no payment shall be made for clearing and grubbing.

Clearing as described shall in all cases be undertaken in such a manner that the topsoil is preserved and not contaminated with other debris or rubbish. Cross-sections for the determination of earthworks quantities shall be taken after clearing (topsoil or unsuitable roadbed material) and roadbed preparation if applicable.

Payment for gabion boxes and mattresses which have to be removed and the material sorted and stacked shall be made under section 5200”

B1703 EXECUTION OF WORK**(a) Areas to be cleared and grubbed**

Add the following:

“Apart from normal clearing and grubbing, the fill embankments of the existing roads are also to be cleared and grubbed over the areas where the new horizontal alignment coincides with the alignment of the existing road, or where repairs are required to the fill embankments of the approaches of bridges. Provision is made for separate payment for clearing and grubbing of the existing fill embankments where conventional machinery might be suitable to undertake the work due to the steep side slopes of the embankments. An additional pay-item is allowed for in the bill of quantities for this type of clearing and grubbing which may have to be undertaken by hand or similar manner.”

B1704 MEASUREMENT AND PAYMENT

Change item 17.01 to read as follows:

ITEM	UNIT
B17.01 Clearing and grubbing of:	
a) Normal areas:	
i) Within the road reserve	hectare (ha)
ii) In borrow pits	hectare (ha)
b) Existing fill embankments with Slopes steeper than 1:4	hectare (ha)

Measurement and payment for sub-items (a) and (b) shall be as specified for item 17.01 of the standard specifications. Where distinction is made for clearing and grubbing existing fill embankments with slopes steeper than 1:4 (vertical: horizontal), payment shall be made under item B17.01.”

1800 : DAYWORK SCHEDULE

Note: This is a new section added to the Standard Specifications.

Add the following:

B1801 SCOPE

This section covers the listing of daywork items for use in determining payment for work which cannot be quantified in specific pay item "units" in the bill of quantities or work ordered by the engineer during the construction period which was not foreseen at tender stage for which no applicable rate exists in the schedule or for work of a special or different character warranting special payment as decided by the engineer.

B1802 ORDERING OF DAYWORK

No daywork shall be undertaken unless specific written authorisation is obtained from the engineer.

B1803 MEASUREMENT AND PAYMENT

The engineer may order the following daywork items:

ITEM	DESCRIPTION	UNIT
B18.01	Labourers:	
	1. Unskilled	Hour (h)
	2. Semi-skilled	Hour (h)
	3. Skilled	Hour (h)
B18.02	Foreman	Hour (h)
B18.03	Tipper trucks:	
	1. 3 – 5 ton	Hour (h)
	2. 5,1 – 10 ton	Hour (h)
B18.04	Loader (0,5m ³)	Hour (h)
B18.05	Grader (CAT 140G or similar)	Hour (h)
B18.06	LDV	Hour (h)
B18.07	Compaction Rollers:	
	1. Vibrator roller	Hour(h)
	2. Tamping roller	Hour (h)
	3. Grid roller	Hour(h)
B18.08	Hand Controlled Compactors	
	1. Pedestrian roller (Bomag BW90)	Hour(h)
	2. Vibratory plate	Hour(h)
	3. Rammers	Hour(h)
B18.09	Water truck (min 10000 l)	Hour(h)
B18.10	Dozer (D7 or similar)	Hour(h)

The unit of measurement shall be the actual number of hours worked by labourers or foremen or an item of plant.

The tendered rates shall include full compensation for all cost items including overheads, head-office expenses and profits as described in sub clause 6.5 of the general conditions of contract and shall be subject to contract price adjustment as provided for in the contract.

The mark-ups on daywork items in accordance with the Appendix to the Tender shall not be applicable on daywork items listed in the bill of quantities in terms of the above specifications. In the event of new daywork rates being requested for items not appearing in the bill of quantities, then the provisions of the general conditions of contract and the Appendix to the Tender shall apply.

Prior to the commencement of any work by the labourers described under item B18.01, the contractor must obtain written consent from the engineer regarding the classification and composition of all labourers in terms of “unskilled” and “skilled” labourers required for the work as ordered by the engineer.”

1900 : MECHANICAL SAW CUTTING

Note: This is a new section added to the Standard Specifications.

Add the following section:

B1901 SCOPE

This section covers the saw cutting of various types of in-situ material with a mechanical saw cutting machine.

B1902 PLANT

Saw cutting machines shall be power driven saws suitable and capable to cut accurately to required depths and alignment in various materials as specified. Skilled operators shall be required for operating the sawing machines. Operators shall be equipped with suitable safety equipment (e.g. industrial goggles, suitable boots as well as clothing) for operating the sawing machines.

B1903 PREPARATION PRIOR TO SAW CUTTING

Before saw cutting may commence the cut line shall be accurately pre-marked to the specified dimensions in terms of the drawings or as instructed by the engineer.

B1904 CONSTRUCTION TOLERANCES

Mechanical saw cutting shall be undertaken within the following dimensional tolerances:

(a) Horizontally

The maximum deviation from the specified line shall not be more than 5mm.

(b) Vertically

The cut depth shall never be less than the specified depth but shall not exceed the specified depth by more than 25mm".

B1905 MEASUREMENT AND PAYMENT**ITEM****UNIT**

B19.01 Establishment of suitable saw cutting machine on site number (No.)

The unit of measurement shall be the number of saw cutting machines provided on the instruction of the engineer.

The tendered rate shall include full compensation for the provision of the saw cutting machine including transport to and from the site. No payment shall be made for providing substitute saw cutting machines for machines that have broken down. No payment shall be made for standing time of saw cutting machines and at least one saw cutting machine shall be available on the site when such a machine is required on site. Payment shall only be made once for the establishment of the saw cutting machine on site irrespective of any discontinuity in the application of the saw cutting machine on site.

ITEM**UNIT**

B19.02 Saw cutting of in situ materials (type of material and depth of saw cut indicated) metre (m)

The unit of measurement shall be the metre of material cut with the saw cutting machine for each type of material and depth of saw cut. The tendered rate shall include full compensation for the saw cutting of the materials as directed as well as for all plant, labour, fuel and other incidentals necessary."

2100 : DRAINS**B2103 BANKS AND DYKES**

Add the following:

“Mitre banks at culvert inlets should be considered at such a skew angle that it guides the water into the inlet with a minimum loss of velocity (energy).”

B2104 SUBSOIL DRAINAGE**(a) Materials****(i) Pipes**

Delete the last sentence of the fifth paragraph and substitute it with the following:

“Perforation for 100mm pipes shall be spaced in two rows, one on each side of the vertical centre line of the pipe, and at one third of the circumference. The perforation for the 150mm pipes shall be spaced in four rows, two as described for 100mm pipes, and the other two rows at two thirds of the circumference.”

(ii) Synthetic-fibre filter fabric

Add the following:

“All filter fabric shall be a non-woven needle punched type material and must be approved by the engineer. Filter fabrics shall have a minimum co-efficient of permeability of 3×10^{-3} m per second.”

B2107 MEASUREMENT AND PAYMENT

Change item 21.09 to read as follows:

ITEM	UNIT
B21.09 Polyethylene sheeting, 0,25mm thick, or similar approved material, for lining subsoil draining systems	square metre (m ²)

Measurement and payment shall be as specified for item 21.09 in the standard specifications.”

Add the following new items:

“ITEM	UNIT
B21.20 Galvanised wire mesh 250 x 250mm, at the outlets of subsoil drainage systems. Mesh 10mm x 2,5mm wire diameter	Number (No)

The unit of measurement shall be the number of 250mm x 200mm pieces of wire mesh, with a 10mm x 10mm mesh and 2,5mm wire diameter built into the subsurface drain outlet structure as shown on the drawings.

The tendered rate shall include for procuring, furnishing and installing the material, cutting, waste and keeping the mesh in the pipe opening clean during installation.

ITEM	UNIT
B21.21 Subsoil drainage markers	Number (No)

Measurement and payment shall be as specified for item 22.24 in the standard specifications.”

2200: PREFABRICATED CULVERTS**B2201 SCOPE**

Add the following:

"All rectangular culverts with spans from 0,9m up to and including 2,4m shall be constructed with precast units.

The attention of the contractor is drawn to the fact that information given on the plans, longitudinal sections or drainage schedules may have to be altered to suit actual site conditions and, therefore, the contractor shall only construct these culverts after the engineer has verified the information on the drawings from detail surveys taken on site by the contractor as directed by the engineer.

Precast units shall be ordered by the contractor from actual measurements of length acquired on the site and not from lengths stated in the drainage schedule or from the bill of quantities.

No precast units shall be ordered until the engineer has satisfied himself that the proposed units have been manufactured to the required tolerances and loading standards. The engineer must be given the opportunity to load test units if he considers this necessary".

B2203 MATERIALS**(f) Skewed Ends**

Delete the second and third paragraphs and substitute with the following:

"Precast portal and rectangular culverts placed on a skew shall be supplied with cast in situ skewed ends as shown on the drawings. In situ skew ends are to be constructed simultaneously with the wing walls and headwalls".

B2204 CONSTRUCTION METHODS

Add the following:

"In all cases where soft founding materials is classified as suitable for culvert bedding construction, the in situ material shall be ripped, moistened and compacted to 90% or 93% modified AASHTO density. The depth of preparation and compaction of founding material shall be as indicated on the drawings or as specified by the engineer. Allowance for measurement and payment for this work is made in the bill of quantities under this section."

(c) Excavation by hand

Where circumstances prevent the use of mechanical excavators and material can be removed only by hand tools, the engineer shall authorise the supplementary payment to the contractor for such work at the tendered rates for excavation by hand should he be satisfied that the contractor had been unable to prevent the necessity for excavation by hand by proper planning and precautionary measures. The supplementary rate for excavation by hand shall not apply to minor finishing or clearing jobs in excavations which are otherwise being done by mass excavation plant.

Payment for hand excavation shall be an "extra over" payment to normal excavation as allowed for in item 22.01."

B2205 EXCAVATION FOR CONSTRUCTION BY TRENCH METHOD

Add the following sub clause:

"(c) Excavation by hand

Where circumstances prevent the use of mechanical excavators and material can be removed only by hand tools, the engineer shall authorise the supplementary payment to the contractor for such work at the tendered rates for excavation by hand should he be satisfied that the contractor had been unable to prevent the necessity for excavation by hand by proper planning and precautionary measures. The supplementary rate for excavation by hand shall not apply to minor finishing or clearing jobs in excavations which are otherwise being done by mass excavation plant.

Payment for hand excavation shall be an "extra over" payment to normal excavation as allowed for in item 22.01.

(d) Drainage of excavations

The contractor shall apply suitable, effective drainage and dewatering methods for preventing the ingress of water into the excavation and to keep them dry.

Drainage measures, with the exception of pumping, shall be maintained until the backfilling has been completed. Between various construction stages, pumping may be interrupted in consultation with the engineer.

Any draining or pumping of water shall be done in a manner as will preclude the concrete or materials or any part thereof from being carried away.

Allowance for measurement and payment for dewatering and keeping dry of culvert excavations is made in the schedule in this section".

B2210 LAYING AND BEDDING OF PREFABRICATED CULVERTS**B2210 (b) (i) Cast in situ invert slabs**

Replace with the following:

"In accordance with the drawings, transverse construction joints are required in cast in situ concrete invert slabs for portal culverts. In addition, longitudinal construction joints as shown on the drawings between the invert slabs of each of the barrels of multiple culverts are required. Allowance for measurement and payment for a Class F1 surface finish and soft board in these joints is made in the bill of quantities. No payment shall be made for formwork on the outside edges of invert slabs (closest to excavated face).

All culverts (precast as well as in situ) shall be constructed with an in situ reinforced concrete floor laid on a 75mm concrete screed".

Delete subclause B.2210 (b) (ii): "Prefabricated floor slabs."

B2211 BACKFILLING OF PREFABRICATED CULVERTS

Change the last sentence in the fourth paragraph to read "90% or 93% as shown on the drawings or as directed by the engineer."

B2212 INLET AND OUTLET STRUCTURES, CATCHPITS AND MANHOLES**(b) Concrete work**

Add the following:

"The type of surface finish for in situ concrete in the culverts shall be as indicated on the drawings. Generally all exposed faces shall be of Class F2 formwork and faces covered by backfill shall be Class F1. The top of parapet walls and wingwalls shall be finished to a Class U2 surface finish."

(h) Prefabricated inlet and outlet structures

Add the following:

"The use of precast concrete inlets and outlets as described in clause 2212(h), shall not be allowed under any circumstances. Cast in situ concrete wingwall type inlets and outlets shall be constructed as indicated on the drawings and shall be in accordance with section 6000 of the Standard Specifications. Allowance for measurement and payment for wingwall type inlets and outlets is made in the schedule in this section."

B2218 MEASUREMENTS AND PAYMENT

Add the following:

"ITEM	UNIT
B22.01 (c) Extra over sub-item B22.01 (a) for excavation by hand using hand tool`	cubic metre (m ³)

Measurement shall be as specified for pay item 22.01 of the standard specifications. The tendered rate shall include full compensation for carrying out the excavations by hand where circumstances prevent the use of mechanical excavators.

ITEM	UNIT
B22.07 (f) Formwork for joints in cast in situ concrete invert slabs	
(i) Transverse construction joints (type indicated)	square metre (m ²)
(ii) Longitudinal joints (as per drawing)	metre (m)

Measurement and payment shall be as specified in item 22.07 of the standard specifications with the exception that formwork for construction joints in cast in situ invert slabs in trench conditions as indicated on the drawings, shall be measured and paid for in accordance with section 6200 of the standard specifications. No payment shall be made for formwork to the outside edges of invert slabs (closest to excavated face)."

Add the following to pay item 22.08:

"In addition to the requirements for measuring concrete backfill to rectangular culverts as specified for item 22.08, the following shall apply:

Concrete backfill shall be measured to the actual dimensions of the precast units, i.e. actual volumes between ribs and haunches shall be taken into account. For the purpose of calculating concrete backfill quantities, the horizontal dimensions of the concrete backfill on the outside of the culvert(s) (closest to excavated face), shall be taken as 100mm maximum irrespective of what type or make of precast portal is used or the actual width of the excavation.

The width of the concrete backfill between portals in the case of multiple culverts, shall be taken as 80mm for precast units with a leg height of 1500mm and 100mm for precast units with a leg height exceeding 1500mm. The vertical dimensions, in both cases, shall be equal to the height of the portal".

Add the following new items:

“ITEM	UNIT
B22.29 Tie bars for joining in situ concrete invert slabs to inlet and outlet structures, as indicated on the drawings (Type, diameter and length indicated)	Number (No.)

The unit of measurement shall be the number of tie bars installed as specified and indicated on the drawings.

The tendered rate shall include full compensation for supply and installation of the tie bars.

ITEM	UNIT
B22.30 a) Preparation and compaction of in-situ bedding material to 90% of Mod. AASHTO density (depth indicated) cubic metre (m ³)	
b) Extra over sub-item B22:30(a) for compaction to 93% of Mod. AASHTO density (depth indicate) cubic metre (m ³)	

The unit of measurement shall be the cubic metre of material ripped and compacted as specified.

The tendered rate shall include full compensation for the ripping of the in-situ material to the specified width and depth, wetting of the material to such an extent that the specified density can be achieved.

ITEM	UNIT
B22.31 Dewatering and keeping dry of culvert excavations	

The unit of measurement shall be the number of culverts constructed. The tendered rate shall be full compensation for dewatering and keeping dry of the culvert excavations until the backfill is completed.

Payment shall be as follows:

- (i) 80% of the payment shall be made after the barrel of the culvert has been constructed and backfilled.
- (ii) Remaining 20% of the payment shall be made after the wingwalls have been constructed and backfilled.

ITEM	UNIT
B22.32 Cutting of concrete pipes	
a) Diameter indicated	Number (No.)

The unit of measurement shall be the number of pipes that have been cut. The tendered rate shall be full compensation for the cutting, by means of mechanical saw (angle grinder) and finishing off of the pipes for the specific angle of skew at which the pipes must be laid.

Cutting of pipes shall only be paid for if the headwall of the wingwalls are at such a skew angle in respect to the centre line of the pipes that cutting is required and where non-standard lengths are required. The maximum skew angle at which pipes are allowed to be cut shall be 30 degrees and the minimum length of pipe, measured along the shortest side, shall be 1,5m.”

Classification of soft/hard materials as well as all quantities shall be agreed upon and finalised as the work progresses.

2300 : CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES AND CONCRETE LININGS FOR OPEN DRAINS**B2301 SCOPE**

Add the following:

“The position and length of the following types of concrete kerbs and channels are indicated on the geometric layout plans, typical drawings and on the drainage plans.

Type A	: In situ concrete channel, 0,8m wide on fills
Type B	: Precast concrete kerbing, semi-mountable (SABS 927-1969)
Type C	: In situ concrete kerbing at intersections
Edge beam	: In situ concrete kerbing at farm access and bus stops
Type E, F1 & F2	: In situ concrete “V”-shaped channels in side drains and open drains.”

B2302 MATERIAL

Add the following new subclauses:

(e) Metal pipes

“Metal pipes down side slopes shall comply with the requirements of clause 2203 of the standard specifications.”

B2304 CONSTRUCTION**(d) Slip form kerbing**

Add the following:

“Slip-form kerbing shall under no circumstances be allowed.”

(e) Cast in situ kerbs and channels

Add the following:

“Forming and templates used to form joints between alternate sections shall be of steel plate of which the thickness shall not be less than 5mm.”

Add the following new subclauses:

(i) Construction sequence

Replace paragraphs (i), (ii) and (iii) with the following:

“In all cases where kerbing and/or channelling adjoin the bituminous surface of the road, the kerbing and/or channelling may only be constructed after the bituminous surface has been completed.

Before commencing with the kerbing and/or channelling, the surfacing and the base, shall be accurately cut to line with a mechanical saw to a minimum depth of 75mm. After excavation the concrete shall then be cast against the cut surface without formwork. All material outside the cut line must be carefully removed to the required thickness of concrete without damaging the edge before commencing with the casting of the concrete. No payment shall be made for repair work as instructed by the engineer to damage caused by the cutting/excavating process of surfacing and base layers. Any concrete spilt onto the surfacing shall immediately be removed and cleaned. Where so required by the engineer, the contractor shall, without any additional compensation, paint emulsion over the stained surface.

Add the following subclause:

(k) Formwork and finish

“Formwork and finish of concrete kerbs shall comply with the requirements of section 6200. All visible edges on the sides or at joints of cast in situ concrete kerbs or channels shall be rounded with a rounding tool.”

3100 : BORROW MATERIALS**B3102 NEGOTIATIONS WITH OWNERS AND AUTHORITIES**

Add the following to sub-clause 3102(a):

“Arrangements regarding to access to borrow pits and the alignment of haul roads shall be made between the contractor and the owners of the land on which borrow pits are situated. The engineer’s representative on site shall be present at all such negotiations, which shall be confirmed in writing by the contractor. All costs involved with such negotiations as well as the requirements contained in clause 3102 and clause 1225 of the specifications shall be borne entirely by the contractor.”

B3103 OBTAINING BORROW MATERIALS**(a) General**

Add the following:

“The expropriation and compensation for land from which borrow materials is obtained shall be negotiated and paid for by the employer.”

(b) Use of borrow materials

Add the following to the second paragraph of this subclause:

“Compensation to owners (only on private land) and arrangements with owners for taking material from alternative borrow pits proposed by the contractor shall be the contractor’s responsibility and entirely at his own expenses.”

B3104 OPENING AND WORKING BORROW PITS AND HAUL ROADS**(c) Excess overburden**

Add the following:

“All excess overburden removed at borrow pits shall be replaced over the entire area of the borrow pit after initial shaping has been undertaken in an even layer. Payment for this requirement shall be deemed to be included in pay item 31.01

(f) Protecting borrow pits

Add the following:

"It is a requirement of the contract that each borrow pit or pits shall be provided with fencing around the perimeters, including a access gate, of the borrow areas, including the supply of danger warning signage fixed to the fencing, visible at all sides approaching the borrow pit area. The fencing shall be erected prior to entering the land for borrowing purposes and shall on final finishing of the borrow areas as specified by the employer, be dismantled and removed or left in-place as instructed by the employer. Payment for fencing around borrow pits shall be made in accordance with the stipulations of section 5500 in these specifications."

In addition to fencing, Security Guards shall be supply on a 24 hour, 7 days a week basis, with full time communication to the Site Manager or site camp for the duration of the contract and activities at the borrow pits.”

Add the following new subclause:

“(h) Haul roads

Haul roads to designated borrow pits along the road shall be constructed along alignments as instructed by the engineer and shall be maintained at the contractor’s own cost to the satisfaction of the engineer.”

B3105 FINISHING-OFF BORROW AREAS AND HAUL ROADS

Add the following to this clause:

"Should the employer, engineer or any other authority approved by the engineer, require a higher standard of shaping and finishing off of borrow pits than specified in the standard specifications, measurement and payment for such extra work shall be made using daywork items as scheduled under this section."

B3108 MEASUREMENT AND PAYMENT

Change item 31.01 to read as follows:

"ITEM	UNIT
B31.01 Excess overburden:	
(a) Depth up to and including 0,5m	cubic meter (m ³)
(b) Depth exceeding 0,5m and up to 1,0m	cubic meter (m ³)

Measurement and payment shall be as specified for item 31.01 of the standard specifications with the abovementioned depth ranges applicable."

Add the following new item:

"ITEM	UNIT
B31.04 Compensation to landowners:	
(a) Prime cost sum for compensation to landowner's	prime cost (PC) sum
(b) Handling cost and profit in respect of sub-item B31.04(a)	above percentage (%)

Measurement and payment shall be in accordance with the provisions of clause 6.6 of the general conditions of contract. Payment to the landowner shall be made within fourteen (14) days after such order has been given by the engineer. The contractor shall provide detailed proof of payment before payment shall be certified to the contractor.

The tendered percentage is an extra over percentage on the amount actually spent under sub-item B31.04 (a) which shall include full compensation for the handling costs and profit of the contractor."

3200 : SELECTION, STOCKPILING AND BREAKING-DOWN THE MATERIAL FROM BORROW PITS, CUTTINGS AND EXISTING PAVEMENT LAYERS, AND PLACING AND COMPACTING THE GRAVEL LAYERS**B3204 BREAKING-DOWN THE MATERIAL****(a) Initial breaking-down of the material in cuttings, borrow pits and existing pavement layers**

Add the following to the table in the second paragraph of this subclause:

"Pioneer layers - 500mm maximum dimension
Not more than 20% of pioneer layer material shall pass through the 2,0mm sieve."

(b) Further breaking-down of pavement material

Add the following:

"Material used for the construction of selected, and wearing course layers shall be broken down by means of normal grid-rolling or additional normal grid-rolling to such an extent that the compacted pavement layer shall contain material of which 95% of the aggregate size shall not exceed 65mm. All oversize material, after breaking-down, shall be removed".

B3209 PLACING AND COMPACTING THE MATERIALS IN LAYER THICKNESSES IN EXCESS OF 200mm AFTER COMPACTION

Add the following new subclause:

(d) Pioneer layer

"The maximum size rock used in pioneer layers shall be 500mm and the layer thickness before compaction shall not be more than one-and-a-half times the maximum actual size of the rock. Not more than 20% of pioneer layer material shall pass through the 2,0mm sieve. Pioneer layer processing and compaction shall be as specified in subclause 3307(c) of the standard specifications".

3300 : MASS EARTHWORKS**B3305 TREATING THE ROADBED****(a) Removing unsuitable material**

Add the following to the third paragraph:

"For the purpose of this contract, excavation and removal of in-situ clayey material over areas where the road is in a fill condition, shall be classified as removal of unsuitable material, irrespective of the stability or moisture condition of the in-situ material".

(c) Preparing and compacting the roadbed

Delete the last sentence of the first paragraph "If necessary, roadbed.....depth of compaction" and replace as follows:

"Where demarcated by the engineer, prior to the roadbed being scarified, the excess in situ material forming part of the present roadway, and within the limits of the roadbed, and in close proximity of the layer works, but falling within the limits of the layerworks, shall be bladed to controlled level in order to achieve the required level and necessary depth of compaction."

B3307 FILLS**(c) Constructing a pioneer layer**

Add the following to the first paragraph:

"For the purpose of this contract, pioneer layers shall be completed by means of eight-pass roller compaction using vibratory rollers as specified in subclause 3304(b) of the standard specifications."

(d) Benching

Add the following:

"Benching of fill and pavement layer material is required to be undertaken into the existing fill embankments and pavement layers. No additional payment shall be made over and above the normal pay items applicable to earthworks and pavement layers where benching is required for widening of the existing road formation. Benching shall be undertaken as shown on the drawings.

It is a requirement that benching shall always be started at the bottom of the existing fill progressing to the top of the formation. The dimensions and details of benching are shown on the drawings."

B3308 FINISHING THE SLOPES**(d) General**

Add the following:

“Where existing cut and fill slopes are excessively eroded or where slippages occurred in slopes, the slopes are to be reinstated by means of backfilling with suitable gravel material. All loose material and vegetation shall first be removed from the eroded cut and fill slopes before backfilling may commence from the bottom of the cut or fill. The backfill material shall be benched into the existing slopes and compacted to 90% of modified AASHTO density, using suitable small compaction equipment e.g. Bomag walk-behind rollers or hand-held compaction tools. Benching shall be executed to the dimensions shown on the drawings. Upon completion of the backfilling operation the cut and fill slopes shall be neatly finished as specified.”

B3312 MEASUREMENT AND PAYMENT

Add the following sub-item to item 33.10:

“ITEM	UNIT
B33.10 (e) Extra over sub-items 33.10(a), (b) and (d) for blading to controlled levels (existing road)	cubic metre (m ³)
The unit of measurement in respect of the material bladed as specified in subclauses 33.05 (c) shall be the cubic metre of material bladed, measured in the original position before blading, in accordance with the method of average end areas.	
The tendered rate shall include full compensation for blading of such material to level.	
Only material bladed on the instruction of the engineer for exposing the underlying roadbed material for treatment will be measured and paid for as described above.”	

3400 : PAVEMENT LAYERS OF GRAVEL MATERIAL**B3402 MATERIALS****(a) General**

Add the following:

"Material requirements for gravel pavement layers are in accordance with TRH4 and shall be indicated on the drawings."

B3405 CONSTRUCTION TOLERANCES**(e) Cross-section**

Delete the second paragraph and replace with the following:

"The normal crossfall of the road wearing course where the road is in a straight horizontal alignment, is specified as 3% as shown on the drawings.

At any cross-section the measured crossfall between any two points shall at least be 2,8% and not more than 3,5%. At any cross-section the actual level at any point shall not be higher than 10mm above the computed level from the cross-section as specified and the actual level, if lower than the computed level, shall not be lower by more than that derived from the specifications for longitudinal grade and crossfall deviations."

(f) Surface regularity

Add the following:

"Where transverse construction joints in base layers are made between newly and previously constructed sections, the contractor shall exercise level control at such joints by installing level poles at 5m intervals on either side of the joint of the layer covering at least a 30m length into the newly constructed section."

B3406 QUALITY OF MATERIALS AND WORKMANSHIP

Add the following:

"Test results and measurements shall be assessed by the engineer according to the provisions of Section 8300 of the standard specifications".

5200 : GABIONS**B5201 SCOPE**

Add the following paragraph

“This section also covers the removal, dismantling and stacking of existing gabion work, and the reuse of these materials where authorised by the engineer.”

B5203 CONSTRUCTION OF GABION CAGES**(a) General**

Add the following new sub-clause:

“(iii) Reno mattresses or similar may be used as alternative to gabion boxes. These Reno mattresses are to be manufactured of 80mm x 100mm mesh (2,5mm diameter wires, diaphragm spacing 0,6m).

B5204 CONSTRUCTING GABIONS**(c) Assembly**

Delete and substitute with:

(c) Assembly, erection and stretching**(i) Assembly**

“Prior to assembly, the gabion material shall be opened out flat on the ground and stretched to remove any kinks and bends. The gabion boxes shall then be assembled individually by raising the sides, ends and diaphragms ensuring that all creases are in the correct position and that the tops of all four sides are even. The four corners of the gabion boxes shall be laced first followed by the edges of internal diaphragms to the sides. In all cases lacing shall commence at the top of the box by twisting the end of the lacing wire around the selvages. It shall then be passed round two edges being joined, through each mesh in turn and securely tied off at the bottom. The ends of all lacing wire shall be turned to the inside of the box on completion of each lacing operation.

(ii) Erection

Only assembled boxes, or groups of boxes, shall be positioned in the structure. The side, or end, from which work is to proceed, shall be secured to either completed work or by rods or stakes driven into the ground at the corners. These must be secured and reach at least to the top of the gabion box. Further gabions shall then be positioned in the structure as required, each being securely laced to the preceding one at all corners and diaphragm points.

(iii) Stretching

On completion of erection of a suitable length of gabion, the gabion boxes shall be stretched using a wire strainer or winch of at least one ton capacity firmly secured to the free end of the assembled gabion boxes.

Whilst under tension the gabion boxes shall be securely laced along edges (top, bottom and sides) and at diaphragm points, to all adjacent boxes and shall thereafter be filled.”

(d) Rock filling

Add the following new sub-sub-clause:

(iii) General

"Filling shall be carried out only whilst gabion boxes are under tension. Filling material shall consist of rock of size not less than 120mm and not greater than 250mm so placed to produce a neat face and line with a minimum of voids.

Internal horizontal bracing wire shall be provided at 500mm vertical centres or such spacing to ensure a ratio of four to every 1m³ of filling. These bracing wires shall be wrapped around two mesh wires and extended from front to back so positioned to ensure a neat face and line free of excessive bulges and depressions. Gabion boxes shall be filled in stages and horizontal bracing wires inserted as filling is brought up.

Similar bracing wires used vertically shall be provided in 0,5mm deep gabions at 330mm horizontal centres where water falls directly onto gabions or where a neat face is required. Tension on the gabion boxes shall be released only when sufficiently full to prevent the mesh from slackening.

Gabion boxes shall be overfilled by 20 to 50mm above their tops to allow subsequent settlement of the filling."

Add the following new sub-clauses:

(e) Final wiring

"Closing and wiring down of lids shall proceed as soon as possible after filling operations and certainly in the likelihood of storms or floods during construction. The wiring down shall consist of wrapping around wire at such intervals as required or specified.

Lids shall be stretched tight over the filling with bars and wired down securely through each mesh along all edges, ends and diaphragms. The ends of all tying and bracing wires shall be turned into the gabion box on completion of all lacing operations.

Tightness of mesh, well packed filling and secure lacing is essential in all structures."

(f) Removal, dismantling and stacking of gabions

"Existing gabions, either damaged or not, that require to be removed or moved to a new location shall be dismantled. Material not required for re-assembly or unsuitable for re-use shall be neatly stacked at approved locations in accordance with the engineer's instructions. Payment will be made only for gabions removed in accordance with the written instruction of the engineer.

Where gabions require moving, or as declared suitable by the engineer are re-usable, the contractor shall re-use all the material, plus supply such new materials as may be required to re-assemble the gabion again to the standard specification for new gabions."

B5205 MEASUREMENT AND PAYMENT

Add the following new items:

"ITEM	UNIT
B52.05 Removal and dismantling of existing damaged gabions	Cubic metre (m ³)

The unit of measurement for the removal and dismantling of existing damaged gabions shall be the cubic metre of each type of gabion removed and dismantled on the instruction of the engineer.

The tendered rate shall include full compensation for removing and dismantling gabions, and stacking all the materials. The tendered rate shall further include for the disposal of unsuitable material.

ITEM		UNIT
B52.06	Gabions constructed from re-usable materials	
a)	Galvanised gabion boxes:	
	(i) 4m x 1m x 1m	Cubic metre (m ³)
	(ii) 3m x 1m x 1m	Cubic metre (m ³)
	(iii) 2m x 1m x 1m	Cubic metre (m ³)
b)	Galvanised gabion mattresses	
	(i) 0.3m Deep	Cubic metre (m ³)

The unit of measurement for re-assembling gabions from re-usable materials shall be the cubic metre of rock filled cages for each type of gabion that is re-usable and approved by the engineer, as specified in the standard specification.

The tendered rate shall include full compensation for using the existing wire cages and rock fill, and for supplying new binding and connecting wires, the assembling and filling of the cages, and any other work for the re-construction of the gabions to conform to the specifications.”

5600 : ROAD SIGNS**B5601 SCOPE**

“This section also covers the supply and erection of permanent danger plates at culverts and bridges at the locations indicated on the drawings or as directed by the engineer.”

B5603 MANUFACTURING OF ROAD SIGN BOARDS AND SUPPORTS**(a) Road signboards**

Add the following:

“The contractor shall make every effort to ensure that signboards are correct in all respect and before dispatching the boards from the manufacturer’s factory shall provide the Engineer with a 100mm x 150mm colour photograph of each sign face for approval of the correctness of the legend. Such approval will not imply final acceptance of the board. If the Contractor is in any doubt as to the correctness of the sign detail, the sign designer shall be contacted for verification.”

(ii) Steel profile road signboards

Add the following:

“Where the letter or legends cross the horizontal joints of the sign panels, the letter shall be cut on the joint and both ends folded around the radius.

Retro-reflective material to adjoining Chromadek panels on a sign shall be practical visual match of the specified colour.”

B5604 ROAD SIGN FACES AND PAINTING

Add the following new subclause:

“(e) Application of retro-reflective material

All sign faces shall be faced with class 1 grade retro-reflective material. Painted front sign faces shall not be used.

Where applied to Chromadek sections, retro-reflective material shall be applied as specified for aluminium section in Clause 5603(d) of the Standard Specification, and of Clause B5603 (a) (ii) of this project Specification. All sign lettering and symbols are to be class 1 retro-reflective material with the exception of direction signs which is to be Class III retro-reflective material.

For W405, W406, R1 and W409 signs, the sign faces shall be Class III retro-reflective material and the lettering and symbols shall be Class III retro-reflective material.”

B5605 STORAGE AND HANDLING

Add the following:

“The following shall not be allowed on the sign face:

Drilling of holes, except for the fastening of overlays

Application of any form of adhesive. Cleaning with any chemicals that are not specifically approved by the manufacturer of the retro-reflective material covering the sign face with an impermeable material that does not allow free circulation of air.”

B5606 ERECTING ROAD SIGNS**(c) Erection**

Add the following:

“After erection the signboard shall be thoroughly cleaned with a cleaning agent approved by the retro-reflective material’s manufacturer.

All vegetation obstructing the new or replaced sign board shall be removed and disposed of as instructed by the Engineer.”

B5608 DISMANTLING, STORING AND RE-ERECTING EXISTING ROAD SIGNS

Add the following:

“Existing overhead and ground mounted road signs that are being replaced by new signs shall be dismantled and disposed of by the Contractor. Where possible the dismantling of the signs shall not be before the replacement sign is erected and displayed. Where dismantling of the sign is required before erection of the replacement sign, the dismantling shall not take place until immediately before work is to commence on the replacement, and the replacement shall be completed and the new sign displayed as soon as possible thereafter (within 72 hours).

Dismantling shall include sign panels and ground mounted sign supports.

Ground mounted sign supports shall be cut off just below ground level. Material excavated for removal of buried poles shall be replaced, and any depression made good using excess material from excavation for new signs.

Pay items are provided in the Bill of Quantities. Payment will differentiate between different types of sign panels.”

B5609 MEASUREMENT AND PAYMENT**ITEM****UNIT**

B56.01 Road sign boards with painted or coloured semi-matt background. Symbols, lettering, and borders in diamond grade retro-reflective material, where the sign board is constructed from:

Amend the last two lines of the second paragraph to read:

“completion, delivery, installation of the road sign board complete as specified, and the removal and disposal of all vegetation obstructing the motorists’ view of the new or replaced sign board.

Add the following pay items:

“ITEM	UNIT
B56.10	Danger plates at culverts/structures
(a)	Type A at stormwater culverts (size indicated) number (No.)
(b)	Type B at bridges (size indicated) number (No.)

The unit of measurement shall be the number of danger plates provided and erected in accordance with the drawings.

The tendered rate shall include full compensation for all labour and material, painting, posts, excavation, backfilling with soil etc., as may be necessary for completing the work in accordance with the details shown on the drawings.”

“ITEM	UNIT
B56.11	Replace marker boards on existing kilometre posts number (No)

The unit of measurement shall be the number of reference marker boards provided and attached to existing kilometre posts in accordance with the drawings.

The tendered rate shall include full compensation for the manufacturing and supplying of the completed marker boards, for attaching the marker board to existing posts along the route and for all materials equipment, labour, nuts and bolts necessary for attaching the marker board as specified.”

The tendered rate shall include full compensation for all the labour and material, painting, retro-reflective material, posts, excavation, backfilling, etc. as may be necessary for completing the work in accordance with the details shown on the drawings.”

5700 : ROAD MARKINGS**B5706 SETTING OUT THE ROAD MARKINGS**

Add the following:

“Where road markings are to be replaced after milling/overlay seal, it is essential that all existing barrier lines and other road marking lines be accurately referenced before commencement of milling or other operations which will obliterate the existing road markings. The position of barrier lines shall be re-assessed on site by the Engineer before the Contractor commences with the road marking.”

B5707 APPLYING THE PAINT

Add the following:

“The Contractor’s establishment on site and general obligation shall be deemed to fully include the establishment of the road-marking team, irrespective of the number of times the road-marking team is required to be onsite or is required to move within the site.”

B5711 GENERAL

Insert the following into the last sentence of the last paragraph between “black paint” and “or chemical paint remover”:

“, bituminous emulsion, slurry”

Add the following to the last paragraph:

“Where black paint is used, it shall be matt.”

Add the following new clause:

“B5715 REMOVAL OF EXISTING ROAD STUDS

The existing road studs shall be removed from the road surface prior to milling.”

B5714 MEASUREMENT AND PAYMENT

ITEM	UNIT
B57.06 Setting out and pre-marking the lines (excluding traffic island markings, lettering and symbols)	

Add the following:

“Referencing of existing barrier lines and other road marking lines prior to milling and other operations, shall be included in the tendered rate for setting out and pre-marking.”

ITEM	UNIT
B57.05 Road studs	

Add the following after the first sentence of the second paragraph:

“No additional payment will be made should temporary or permanent road studs be replaced if lost or broken during the construction period or the maintenance period.”

5800 : LANDSCAPING AND PLANTING GRASS**B5802 MATERIALS****(c) Grass seeds**

Add the following:

"The seed mixture to be used for borrow pit areas shall be:

Eragrostis Curvula "Selected"	:	3kg/ha
EragrostisTef	:	2kg/ha
Chloris Gayana	:	9kg/ha
Cynodon Dactylon	:	5kg/ha
Pioneer seed	:	<u>10kg/ha</u>
		<u>29kg/ha</u>

The seed mixture to be used on cut and fill slopes shall be:

Eragrostis Curvula "Selected"	:	3kg/ha
EragrostisTef	:	2kg/ha
Cynodon Dactylon	:	7kg/ha
Chloris Gayana	:	5kg/ha
Cenchrus Ciliaris	:	5kg/ha
Digitaria Eriantha	:	4kg/ha
Pioneer seed	:	<u>10kg/ha</u>
		<u>36kg/ha</u>

The 10kg of pioneer seed specified shall consist of the following mixture of seeds:

Aristida Adscensionis	:	2kg/ha
Chloris Virgata	:	2kg/ha
Eleusine Coracana Subsp. Africana	:	2kg/ha
Melinis Repens Subsp. Repens	:	2kg/ha
Urochloa Panicoides	:	2kg/ha

The contractor shall make his own arrangements to obtain the specified seed mixtures. Should specific species not be available, alternative seeds may be proposed by the contractor for consideration by the engineer at tender stage."

5900 : FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS**B5902 FINISHING THE ROAD AND ROAD RESERVE**

Add the following to the first paragraph:

“The contractor shall pay special attention to the collection and removal of all waste materials originating from the construction activities. All materials trimmed or excavated from the road shall be collected and removed from the road reserve to the satisfaction of the engineer.

This requirement shall be deemed to be incorporated in the tendered rates for item 59.01 of the bill of quantities or such other items as the contractor may decide upon.

The engineer may order additional finishing of the road reserve which will entail the collection and disposal of loose rocks etc. Payment for this work will be made under daywork items included in section 5900 of the bill of quantities as described in section 1800 of these project specifications.”

6100 : FOUNDATIONS FOR STRUCTURES**B6106 FOUNDING**

Add the following paragraph:

"Where founding takes place in soils or at "founding level" before the placing of foundation fill the in-situ material in the bottom of the excavation shall be compacted to a density of 90% or 93% of modified AASHTO density as directed by the engineer. The depth of preparation and compaction of founding material shall be specified by the engineer. Allowance for measurement and payment for this work is made in the bill of quantities under this section."

B6108 BACKFILL AND FILL NEAR STRUCTURES**(a) General**

Add the following:

- (iv) "During backfilling within 1,0m of any concrete structure, or as directed by the Engineer, only hand operated mechanical compaction equipment shall be used to achieve the required density."

B6109 FOUNDATION FILL

Add the following after the 3rd paragraph:

"Granular foundation fill shall be constructed from selected subgrade material.

Add the following after the 6th paragraph:

Concrete screeds shall extend 200mm beyond the horizontal dimensions of all footings to facilitate the placing of formwork, unless otherwise directed by the engineer.

In the case of structures where excessive ground water is encountered, the screed shall extend over the full plan area of the base of the excavation. Payment shall be made for the quantity of concrete calculated as the product of the specified thickness of the screed and the actual area of screed specified by the engineer up to a maximum area of the product of the neat footing length plus 750mm and the neat footing width plus 750mm."

B6115 MEASUREMENT AND PAYMENT

Add the following new items:

"ITEM	UNIT
B61.51 (a) Preparation and compaction of in situ founding material to 90% Mod. AASHTO density (depth indicated)	cubic metre (m ³)
(b) Extra over item B61.51 (a) for compaction to 93% of Mod. AASHTO density (depth indicated)	cubic metre (m ³)

The unit of measurement shall be the cubic metre of founding material prepared and compacted to the density as specified in accordance with Clause B6106 of these project specifications.

The tendered rates shall include full compensation for shaping, scarifying, mixing of in-situ and imported material if required, and preparing and compacting the material as specified."

6400: CONCRETE FOR STRUCTURES**B6402 MATERIALS****(a) Cement**

Replace this sub-section with the following:

"Refer to section 1142 for specification of cement."

CEM I 32,5, CEM II A-S 32,5, CEM II/A-V 32,5, or CEM III A may be used for the manufacture of reinforced concrete members.

B6404 CONCRETE QUALITY**(b) Strength concrete**

Add the following paragraph:

"The cement content for any class of structural concrete or mass concrete used in structures shall not be less than 300kg/m³ of concrete.

The contractor must provide the engineer with complete mix designs and materials for strength concrete at least six (6) weeks before the first concrete is cast on the project".

B6405 MEASURING THE MATERIALS**(c) Aggregates**

Add the following:

"All concrete for structures shall be manufactured by mechanical mass batching unless authorised otherwise by the engineer for minor concrete structures or for labour-intensive methods."

B6407 PLACING AND COMPACTING**(a) General**

Add the following after the third paragraph:

"Concrete shall only be placed up to 20:00 at the latest. Under exceptional circumstances the Engineer may allow night work on condition that proper lighting arrangements can be made and a new and rested shift for night work is provided and ambient temperatures are such as to not adversely affect the setting of the concrete."

B6408 CONSTRUCTION JOINTS**(a) General**

Add the following:

"No construction joints other than those indicated on the drawings will be permitted without the written approval of the engineer".

B6409 CURING AND PROTECTING

Add the following:

The surface area of bridge and culvert floor slabs and decks shall be cured as follows:

- (i) The area of freshly cast and finished concrete surface shall be immediately covered as specified in clause 6409(e).
- (ii) After the concrete has set sufficiently the entire area shall be treated with an approved curing compound as specified in clause 6409(f)."

B6414 QUALITY OF MATERIALS AND WORKMANSHIP**(a) Criteria for compliance with the requirements**

Add the following:

"Quality control shall be carried out by the engineer as specified in Section 8200: Quality Control (Scheme 1)."

Add the following new paragraph:

(d) Concrete cores - strength requirements

"Cores will only be drilled if authorised by the engineer. This will only be considered if the contractor's own cubes, when crushed by the engineer, attained the required 28-day cube strength."

B6416 MEASUREMENT AND PAYMENT**ITEM****UNIT**

B64.01 Cast in situ concrete: cubic metre (m³)

Add the following after the first paragraph:

"Where foundation slabs are set directly against the face of excavations, the volume of concrete measured for payment shall include the total volumes of concrete placed, allowing for up to a maximum over the neat footing dimensions of 200mm where in the opinion of the engineer accurate excavation to neat lines and levels indicated on the drawings is not possible. (No formwork to the footing shall be measured when the concrete is cast against the face of the excavations)."

C3.3.3 PROJECT SPECIFICATIONS: ADDITIONAL SPECIFICATIONS

CONTENTS

- C3.3.3.1 REQUIREMENTS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT REGULATIONS
- C3.3.3.2 ENVIRONMENTAL MANAGEMENT PLAN
- C3.3.3.3 PROVISION OF STRUCTURED TRAINING
- C3.3.3.4 PROVISION OF THE TEMPORARY WORKFORCE

C3.3.3.1 OCCUPATIONAL HEALTH AND SAFETY ACT 1993: HEALTH AND SAFETY SPECIFICATION**CONTENTS**

C3.3.3.1.1	INTRODUCTION
C3.3.3.1.2	SCOPE
C3.3.3.1.3	GENERAL OCCUPATIONAL HEALTH AND SAFETY PROVISIONS
C3.3.3.1.4	OPERATIONAL CONTROL
ANNEXURE 1:	MEASURING INJURY EXPERIENCE
ANNEXURE 2:	EXECUTIVE SHE RISK MANAGEMENT REPORT
ANNEXURE 3:	LIST OF RISK ASSESSMENTS

C3.3.3.1.1 Introduction

In terms of the Construction Regulation 4(1) (a) of the Occupational Health and Safety Act, No. 85 of 1993, Maruleng Local Municipality, as the Client, is required to compile a Health & Safety Specification for any intended project and provide such specification to any prospective tenderer.

The Client's further duties are as in C3.5.1.3.1.1. below and in the Construction Regulations, 2003.

This specification has as objective to ensure that Principal Contractors entering into a Contract with Maruleng Local Municipality achieve an acceptable level of OH&S performance. This document forms an integral part of the Contract and Principal and other Contractors should make it part of any Contracts that they may have with Contractors and/or Suppliers.

Compliance with this document does not absolve the Principal Contractor from complying with minimum legal requirements and the Principal Contractor remains responsible for the health & safety of his employees and those of his Mandataries.

C3.3.3.1.2 Scope

Development of a health & safety specification that addresses all aspects of occupational health and safety as affected by the abovementioned contract work.

The specification will provide the requirements that Principal Contractors and other Contractors will have to comply with in order to reduce the risks associated with the abovementioned contract work that may lead to incidents causing injury and/or ill health, to a level as low as reasonably practicable.

C3.3.3.1.3 General Occupational Health & Safety Provisions

(a) Hazard Identification & Risk Assessment (Construction Regulation 7)

(i) Risk Assessments

Annexure 3 contains a list of Risk Assessment headings that have been identified by MARULENG LOCAL MUNICIPALITY as possibly applicable to the abovementioned contract work. It is, by no means, exhaustive and is offered as an assistance to Contractors intending to tender.

Based on the Risk Assessments, the Principal Contractor must develop a set of site-specific OH&S rules that will be applied to regulate the OH&S aspects of the construction.

The Risk Assessments, together with the site-specific OH&S rules must be submitted to the Maruleng Local Municipality before mobilisation on site commences.

Despite the Risk Assessments listed in Annexure 3, the Principal Contractor is required to conduct a baseline Risk Assessment and the aforesaid listed Risk Assessments must be incorporated into the base-line Risk Assessment. The baseline Risk Assessment must further include the Standard Working procedures (SWP) and the applicable Method Statements based on the Risk Assessments. All out-of-scope work must be associated with a Risk Assessment.

(ii) Review of Risk Assessments

The Principal Contractor is to review the Hazard Identification, Risk Assessments and SWP's at each Production Planning and Progress Report meeting as the Contract work develops and progresses and each time changes are made to the designs, plans and construction methods and processes.

The Principal Contractor must provide the Client, other Contractors and all other concerned-parties with copies of any changes, alterations or amendments as contemplated in above.

(b) Legal Requirements

All Contractors entering into a Contract with the Maruleng Local Municipality shall, as a minimum, comply with the

- 1.** Occupational Health & Safety Act and Regulations (Act 85 of 1993). A current, up-to-date copy of the OHS Act must be available on site at all times
- 2.** Compensation for Occupational Injuries & Diseases Act (Act 130 of 1993). The principal Contractor will be required to submit a letter of Registration and "good-standing" from the Compensation Insurer before being awarded the Contract. A current, up-to-date copy of the COID Act must be available on site at all times.
- 3.** Where work is being carried out on mines' premises the Contractor will have to comply with the Mine Health & Safety Act and Regulations (Act. 29 of 1996) and any other OH&S requirements that the mine may specify. A current, up-to-date copy of the OHS Act must be available on site at all times.

(c) Structure and Responsibilities

(i) Overall Supervision and Responsibility for OH&S

* It is a requirement that the Principal Contractor, when he appoints Contractors (Sub-contractors) in terms of Construction Regulations 5(3), (5), (9), (10) and (12) he includes an OHS Act Section 37(2) agreement: "Agreement with Mandatary" in his agreement with such Contractors.

* Any OH&S Act (85/1993), Section 16(2) appointee/s as detailed in his/her/their respective appointment forms

(ii) Further (Specific) Supervision Responsibilities for OH&S

The Contractor shall appoint designated competent employees and/or other competent persons as required by the Act and Regulations. Below is a list of identified appointments and may be used to select the appropriate appointments for the current contract:

Ref. Section/Regulation in OHS Act

Batch Plant Supervisor	(Construction Regulation 6(1))
Construction Vehicles/Mobile Plant/Machinery Supervisor	(Construction Regulation 21)
Demolition Supervisor	(Construction Regulation 12)
Drivers/Operators of Construction Vehicles/Plant	(Construction Regulation 21)
Electrical Installation and Appliances Inspector	(Construction Regulation 22)
Emergency/Security/Fire Coordinator	(Construction Regulation 27)
Excavation Supervisor	(Construction Regulation 11)
Explosive Powered Tool Supervisor	(Construction Regulation 19)
Fall Protection Supervisor	(Construction Regulation 8)
First Aider	(General Safety Regulation 3)
Fire Equipment Inspector	(Construction Regulation 27)
Formwork & Support work Supervisor	(Construction Regulation 10)
Hazardous Chemical Substances Supervisor	(HCS Regulations)
Incident Investigator	(General Admin Regulation 29)
Ladder Inspector	(General Safety Regulation 13A)
Lifting Equipment Inspector	(Construction Regulation 20)
Materials Hoist Inspector	(Construction Regulation 17)
OH&S Committee	(OHS Act Section 19)
OH&S Officer	(Construction Regulation 6(6))
OH&S Representatives	(OHS Act Section 17)
Person Responsible for Machinery	(General Machinery Regulation 2)
Scaffolding Supervisor	(Construction Regulation 14)
Stacking & Storage Supervisor	(Construction Regulation 26)
Structures Supervisor	(Construction Regulation 9)
Suspended Platform Supervisor	(Construction Regulation 15)
Tunnelling Supervisor	(Construction Regulation 13)
Vessels under Pressure Supervisor	(Vessels under Pressure Regulations)
Working on/next to Water Supervisor	(Construction Regulation 24)
Welding Supervisor	(General Safety Regulation 9)

The appointments must be in writing and the responsibilities clearly stated together with the period for which the appointment is made. This information must be communicated and agreed with the appointees.

Copies of appointments must be submitted to the Maruleng Local Municipality together with concise CV's of the appointees. All appointments must be officially approved by Maruleng Local Municipality. Any changes in appointees or appointments must be communicated to Maruleng Local Municipality forthwith.

The Principal Contractor must, furthermore, provide Maruleng Local Municipality with an organogram of all Contractors that he/she has appointed or intends to appoint and keep this list updated on a weekly basis.

In addition Maruleng Local Municipality may require that a Traffic Safety Officer be appointed for any project.

(iii) Designation of OH&S Representatives (Section 18 of the OHS Act)

OH&S Representatives have to be designated in writing and the designation must include the area of responsibility of the person and term of the designation.

(iv) Duties and Functions of the OH&S Representatives (Section 19 of the OHS Act)

The Principal Contractor must ensure that the designated OH&S Representatives conduct a minimum monthly inspection of their respective areas of responsibility using a checklist and report thereon to the Principal Contractor

OH&S representatives must be included in accident/incident investigations

OH&S representatives must attend all OH&S committee meetings.

(v) Appointment of OH&S Committee (Section 20 of the OHS Act)

The Principal Contractor must establish an OH&S Committee consisting of all the designated OH&S Representatives together with a number of management representatives that are not allowed to exceed the number of OH&S representatives on the committee and a representative of the Client who shall act as the chairman without a vote. The members of the OH&S committee must be appointed in writing.

The OH&S Committee must meet minimum monthly and consider, at least, the following Agenda:

1. Opening & Welcome
2. Present/Apologies/Absent
3. Minutes of previous Meeting
4. Matters Arising from the previous Minutes
5. OH&S Reps Reports
6. Incident Reports & Investigations
7. Incident/Injury Statistics
8. Other Matters
9. Endorsement of Registers and other statutory documents by a representative of the Principal Contractor
10. Close/Next Meeting

(d) Administrative Controls and the Occupational Health & Safety File

(i) The OH&S File (Construction Regulation 5 (7))

As required by Construction Regulation 5(7), the Principal Contractor and other Contractors will each keep an OH&S File on site containing the following documents as a minimum:

- * Notification of Construction Work (Construction Regulation 3.)
- * Copy of OH&S Act (updated) (General Administrative Regulation 4.)
- * Proof of Registration and good standing with a COID Insurer (Construction Regulation 4 (g))
- * OH&S Programme agreed with the Client including the underpinning Risk Assessment/s & Method Statements (Construction regulation 5 (1))
- * Copies of OH&S Committee and other relevant Minutes
- * Designs/drawings (Construction Regulation 5 (8))
- * A list of Contractors (Sub-Contractors) including copies of the agreements between the parties and the type of work being done by each Contractor (Construction Regulation 9)
- * Appointment/Designation forms as per (a) (i) & (ii) above.
- * Registers as follows:
 - * Accident/Incident Register (Annexure 1 of the General Administrative Regulations)
 - * OH&S Representatives Inspection Register
 - * Asbestos Demolition & Stripping Register
 - * Batch Plant Inspections
 - * Construction Vehicles & Mobile Plant Inspections by Controller
 - * Daily Inspection of Vehicles, Plant and other Equipment by the Operator/Driver/User
 - * Demolition Inspection Register
 - * Designer's Inspection of Structures Record

- * Electrical Installations, -Equipment & -Appliances (including Portable Electrical Tools)
- * Excavations Inspection
- * Explosive Powered Tool Inspection, Maintenance, Issue & Returns Register (incl. cartridges & nails)
- * Fall Protection Inspection Register
- * First Aid Box Contents
- * Fire Equipment Inspection & Maintenance
- * Formwork & Support work Inspections
- * Hazardous Chemical Substances Record
- * Ladder Inspections
- * Lifting Equipment Register
- * Materials Hoist Inspection Register
- * Machinery Safety Inspection Register (incl. machine guards, lock-outs etc.)
- * Scaffolding Inspections
- * Stacking & Storage Inspection
- * Inspection of Structures
- * Inspection of Suspended Platforms
- * Inspection of Tunnelling Operations
- * Inspection of Vessels under Pressure
- * Welding Equipment Inspections
- * Inspection of Work conducted on or Near Water
- * All other applicable records

Maruleng Local Municipality conduct an audit on the OH&S file of the Principal Contractor from time-to-time.

(e) OH&S Goals & Objectives & Arrangements for Monitoring & Review of OH&S Performance

The Principal Contractor is required to maintain a CIFR of at least 8 (See Annexure 1. to this document: "Measuring Injury Experience) and report on this to Maruleng Local Municipality on a monthly basis

(f) Notification of Construction Work (Construction Regulation 3.)

The Principal Contractor must, where the Contract meets the requirements laid down in Construction Regulation 3, within 5 working days, notify the Department of Labour of the intention to carry out construction work and use the form (Annexure A in the Construction Regulations) for the purpose. A copy must be held on the OH&S File and a copy must be forwarded to Maruleng Local Municipality for record keeping purposes.

(g) Training, Awareness and Competence

The contents and syllabi of all training required by the Act and Regulations are to be included in the Principal Contractor's OH&S Plan.

(i) General Induction Training

All members of Contractor's Site management as well as all the persons appointed as responsible for OH&S in terms of the Construction and other Regulations will be required to attend a general induction session by the Client

All employees of the Principal and other Contractors to be in possession of proof of General Induction training.

(ii) Site Specific Induction Training

The Principal Contractor will be required to develop Contract work project specific induction training based on the Risk Assessments for the Contract work and train all employees and other Contractors and their employees in this.

All employees of the Principal and other Contractors to be in possession of proof of Site Specific OH&S Induction training at all times.

(iii) Other Training

All operators, drivers and users of construction vehicles, mobile plant and other equipment to be in possession of valid proof of training.

All employees in jobs requiring training in terms of the Act and Regulations to be in possession of valid proof of training as follows:

OH&S Training Requirements: (as required by the Construction Regulations and as indicated by the OH&S Specification & the Risk Assessment/s):

- * General Induction (Section 8 of the Act)
- * Site/Job Specific Induction (also visitors) (Sections 8 & 9 of the Act)
- * Site/Project Manager
- * Construction Supervisor
- * OH&S Representatives (Section 18 (3) of the Act)
- * Training of the Appointees indicated above
- * Operators & Drivers of Construction Vehicles & Mobile Plant (Construction Regulation 21)
- * Basic Fire Prevention & Protection (Environmental Regulations 9 and Construction regulation 27)
- * Basic First Aid (General Safety Regulations 3)
- * Storekeeping Methods & Safe Stacking (Construction Regulation 26)
- * Emergency, Security and Fire Co-coordinator

(iv) Awareness & Promotion

The Principal Contractor is required to have a promotion and awareness scheme in place to create an OH&S culture in employees. The following are some of the methods that may be used:

1. Toolbox Talks
2. OH&S Posters
3. Videos
4. Competitions
5. Suggestion schemes
6. Participative activities such as OH&S Safety circles.

(v) Competence

The Principal Contractor shall ensure that his and other Contractors personnel appointed are competent and that all training required to do the work safely and without risk to health, has been completed before work commences

The Principal Contractor shall ensure that follow-up and refresher training is conducted as the contract work progresses and the work situation changes.

Records of all training must be kept on the OH&S File for auditing purposes.

(h) Consultation, Communication and Liaison

OH&S Liaison between the Client, the principal Contractor, the other Contractors, the Designer and other concerned parties will be through the OH&S committee as contemplated in above.

In addition to the above, communication may be directly to the Client or his appointed Agent, verbally or in writing, as and when the need arises.

Consultation with the workforce on OH&S matters will be through their Supervisors, OH&S Representatives, the OH&S committee and their elected Trade Union Representatives, if any.

The Principal Contractor will be responsible for the dissemination of all relevant OH&S information to the other Contractors e.g. design changes agreed with the Client and the Designer, instructions by the Client and/or his/her agent, exchange of information between Contractors, the reporting of hazardous/dangerous conditions/ situations etc.

The Principal Contractor will be required to do Site Safety Walks with Maruleng Local Municipality at least on a basis to be determined between the two parties.

The Principal and other Contractors will be required to conduct Toolbox Talks with their employees on a weekly basis and records of these must be kept on the OH&S File. Employees must acknowledge the receipt of Toolbox Talks which record must, likewise be kept on the OH&S File.

The Principal Contractors most senior manager on site will be required to attend all Maruleng Local Municipality OH&S meetings and a list of dates, times and venues will be provided to the Principal Contractor by Maruleng Local Municipality.

(i) Checking, Reporting and Corrective Actions

(i) Monthly Audit by Client (Construction Regulation 1(d))

Maruleng Local Municipality will be conducting a Monthly Audit to comply with Construction Regulation 4(1) (d) to ensure that the principal Contractor has implemented and is maintaining the agreed and approved OH&S Plan.

(ii) Other Audits and Inspections by Maruleng Local Municipality:

Maruleng Local Municipality reserves the right to conduct other ad hoc audits and inspections as deemed necessary. This will include Site Safety Walks.

(iii) Conducting an Audit

A representative of the Principal Contractor must accompany Maruleng Local Municipality on all Audits and Inspections and may conduct his/her own audit/inspection at the same time. Each party will, however, take responsibility for the results of his/her own audit/inspection results.

(iv) Contractor's Audits and Inspections

The Principal Contractor is to conduct his own monthly internal audits to verify compliance with his own OH&S Management system as well as of with this specification.

(v) Inspections by OH&S Representative's and other Appointees

OH&S Representatives must conduct weekly inspections of their areas of responsibility and report thereon to their foreman or supervisor whilst other appointees must conduct inspections and report thereon as specified in their appointments e.g. vehicle, plant and machinery drivers, operators and users must conduct daily inspections before start-up.

(vi) Recording and Review of Inspection Results

All the results of the abovementioned inspections to be in writing, reviewed at OH&S committee meetings, endorsed by the chairman of the meeting and placed on the OH&S File.

(vii) Reporting of Inspection Results

The Principal Contractor is required to provide the Client with a monthly report in the format as per the attached Annexure 2: "SHE Risk Management Report"

(j) Incident Reporting and Investigation

Reporting of Accidents and Incidents (Section 24 and General Administrative Regulation 8 of the OHS Act)

The Principal Contractor must report all incidents where an employee is injured on duty to the extent that he/she:

- * dies
- * becomes unconscious
- * loses a limb or part of a limb
- * is injured or becomes ill to such a degree that he/she is likely either to die or to suffer a permanent physical defect or likely to be unable for a period of at least 14 days either to work or continue with the activity for which he/she was usually employed

OR where:

- * a major incident occurred
- * the health or safety of any person was endangered
- * where a dangerous substance was spilled
- * the uncontrolled release of any substance under pressure took place
- * machinery or any part of machinery fractured or failed resulting in flying, falling or uncontrolled moving objects
- * machinery ran out of control

To Maruleng Local Municipality within two days and to the Provincial Director of the Department of Labour within seven days (Section 24 of the Act & General Administrative Regulation 8.) EXCEPT that, where a person has died, has become unconscious for any reason or has lost a limb or part of a limb or may die or suffer a permanent physical defect, the incident must be reported to both Maruleng Local Municipality and the Provincial Director of the Department of Labour forthwith by telephone, telefax or E-mail.

The Principal Contractor is required to provide Maruleng Local Municipality with copies of all statutory reports required in terms of the Act within 7 days of the incident occurring.

The Principal Contractor is required to provide Maruleng Local Municipality with copies of all internal and external accident/incident investigation reports including the reports contemplated below within 7 days of the incident occurring.

Accident and Incident Investigation (General Administrative Regulation 9)

The Principal Contractor is responsible for the investigation of all accidents/incidents where employees and non-employees were injured to the extent that he/she/they had to be referred for medical treatment by a doctor, hospital or clinic

The results of the investigation to be entered into the Accident/Incident Register listed in above. The Principal Contractor is responsible for the investigation of all minor and non-injury incidents as described in Section 24 (1) (b) & (c) of the Act and keeping a record of the results of such investigations including the steps taken to prevent similar accidents in future.

The Principal Contractor is responsible for the investigation of all road traffic accidents and keeping a record of the results of such investigations including the steps taken to prevent similar accidents in future.

The Maruleng Local Municipality reserves the right to hold its own investigation into an incident or call for an independent external investigation.

C.3.3.3.1.4 Operational Control

(a) Emergency Preparedness, Contingency Planning and Response

The Principal Contractor must appoint a competent person to act as Emergency Controller/Coordinator.

The Principal Contractor must conduct an emergency identification exercise and establish what emergencies could possibly develop. He/she must then develop detailed contingency plans and emergency procedures, taking into account any emergency plan that Maruleng Local Municipality may have in place.

The Principal Contractor and the other Contractors must hold regular practice drills of contingency plans and emergency procedures to test them and familiarise employees with them.

(b) First Aid (General Safety Regulation 3)

The Principal Contractor must provide First Aid equipment (including a stretcher) and have qualified First Aider/s as required by General Safety Regulation 3 of the OHS Act.

The Contingency Plan of the Principal Contractor must include the arrangements for speedily and timeously transporting injured/ill person/s to a medical facility or of getting emergency medical aid to person/s that may require it.

The Principal Contractor must have firm arrangements with his other Contractors in place regarding the responsibility of the other Contractors injured/ill employees

(c) Security

The Principal Contractor must establish site access rules and implement and maintain these throughout the construction period. Access control must include the rule that non-employees will not be allowed on site unaccompanied.

The Principal Contractor must develop a set of Security rules and procedures and maintain these throughout the construction period

(d) Fall Protection (Working in Elevated Positions (Construction regulation 8.))

A pre-emptive Risk Assessment will be required for any work to be carried out above two metres from the ground or any floor level and will be classified as "Work in Elevated Positions".

As far as is practicable, any person working in an elevated position will work from a platform, ladder or other device that is at least as safe as if he/she is working at ground level and whilst working in this position be wearing a single belt with lanyard that will be worn to prevent the person falling from the platform, ladder or other device utilised. This safety belt will be, as far as is possible, secured to a point away from the edge over which the person might fall and the lanyard must be of such a length that the person will not be able to move over the edge.

Alternatively any platform, slab, deck or surface forming an edge over which a person may fall may be fitted with guard rails at two different heights as prescribed in SABS 085: Code of Practice for the Design, Erection, Use and Inspection of Access Scaffolding.

Where the requirement in is not practicable, the person will be provided with a full body harness that will be worn and attached above the wearer's head at all times and the lanyard must be fitted with a shock absorbing device OR the person must be attached to an approved, by Maruleng Local Municipality, fall arrest system.

Where the requirements are not practicable, a suitable catch net must be erected.

Workers working in elevated positions must be trained to do this safely and without risk to health Where work on roofs is carried out, the Risk Assessment must take into account the possibility of persons falling through fragile material. Skylights and openings in the roof.

C3.3.3.1.5 Measurement and Payment

Payment for the contractor's obligations in respect of the Occupational Health and Safety act and Construction Regulations shall be made through three payment items described below. The three payment items together shall include full compensation for all personnel (including a dedicated full time Construction Safety Officer), cost and incidentals in respect of compliance with the enforcement of the Health and Safety Specifications, which shall include for the compilation, presentation, implementation and maintenance of the Health and Safety Plan as contemplated. In tendering rates for the three items the contractor shall ensure that the sum of the amounts for the three items shall not be less than one percent (1%) of the Tender Amount.

Item

Unit

C1.1 Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations Lump Sum

The full amount will be paid in one instalment only once:-

- (a) The contractor has notified the Provincial Director of the Department of Labour in writing of the project.
- (b) The contractor has made the required initial appointments of employees and sub-contractors.
- (c) The client has approved the contractor's Health and Safety Plan.
- (d) The contractor has set up his Health and Safety File.

Item	Unit
C1.2 Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations	Month

The tendered monthly amount shall represent full compensation for that part of the contractor's general obligations in terms of the Occupational Health and Safety Act and the Construction Regulations which are mainly a function of time. This includes inter alia payment of all costs for the appointment of all staff contemplated in the construction regulations and the transport of employees on site. Payment will be monthly only after payment for Item **C1.1** has been made.

Item	Unit
C1.3 Submission of the Health and Safety File	Lump Sum

The tendered lump sum shall represent full compensation for the contractor meeting all his obligations in respect of the Occupational Health and Safety Act and the Construction Regulations and for the preparation and submission of his Health and Safety File complete as envisaged on this specification to the Client's satisfaction.

This amount will be paid only once the contractor has met all his obligations in respect of the Occupational Health and Safety Act and the Construction Regulations and has submitted his Health and Safety File complete as envisaged on this specification to the Client's satisfaction.

C3.3.3.1.6 Project/Site Specific Requirements

See Annexure 3

Annexure 1: Measuring Injury Experience

Annexure 2: SHE Risk Management Report

Annexure 3. List of Risk Assessments

ANNEXURE 1: MEASURING INJURY EXPERIENCE

Injury experience has traditionally been measured by the use of a disabling injury frequency rate, the so-called "DIFR". The DIFR is calculated by multiplying the number of disabling injuries by 1 million and dividing by the number of man-hours worked.

Lately the DIFR has been replaced internationally with a DIIR: disabling injury incidence rate. The only difference between the two rates are that the 10 million in the calculation is replaced with 200 000. (200 000 purported to be the number of hours and average person works in a lifetime.)

The use of the two rates above has proved to be somewhat problematical as they are open to manipulation and disabling injuries are often "hidden" by returning the injured employee to the workplace so as not to lose a shift and therefore having to register a disabling injury.

The Construction Industry recently decided to promote the use of a new frequency rate based on the number of compensation injury claims as these are more difficult to hide or manipulate because the reporting of compensable injuries is a legal requirement.

The industry is hoping that adoption of this new measurement of injury experience will enable the industry to monitor itself as far as work related injuries are concerned.

Below follows an explanation of this new rating system.

COMPENSATION INCIDENCE FREQUENCY RATE (CIFR)

FORMULA

No. of Compensation Claims X 200 000 /

*220 man hours X No. of Employees

DEFINITIONS

No. of Compensation

Claims: **The number of claims lodged with the COID insurer for the period under review**

200 000: The fixed factor to align the rate with other rates used internationally

Man-hours Worked

Include: * Hourly Paid Employees

* Sub-contractors (No. of Employees X *220 each)

* Staff (No. of Employees X *220 hours each)

220 man-hours: The *average number of hours worked by one employee in one month in the Construction industry.

* Overtime, absence on leave or sick leave, unrecorded after hours' time worked by senior and middle management factored into this average.

No. of Employees: The actual or average number of employees employed

for the period under review.

2002/03CIFRSystem

ANNEXURE 2: EXECUTIVE SHE RISK MANAGEMENT REPORT

The SAFCEC OH&S committee recently developed the following report in an attempt to standardise on reporting and assist contractors in obtaining a clear picture of their SHE Risk Management performance. It is hoped that clients will also accept this standardised report. Your comments/suggestions for improvement is invited.

EXAMPLE ONLY: ALL INFORMATION IS FICTITIOUS

XYZ construction

*SHE RISK MANAGEMENT REPORT

PERIOD JANUARY TO MARCH 2002

*(SHE = Safety, Health & Environment)

1. Introduction

We hope that this new format of quarterly SHE Risk Management reporting will provide a clear picture of the company’s performance as far as occupational health & safety is concerned.

The first quarter of 2002 generally reflected an improvement in injury experience and shows a decline in the number of injuries. Although Building was the only division where there was an increase in compensation claims, figures are still well down from the average 2001 figures. A sub-contractor experienced one fatality.

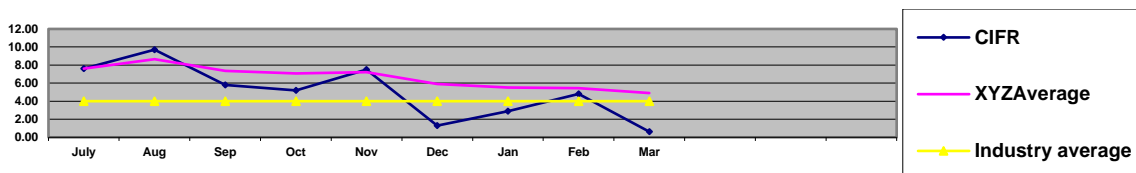
All divisions are eagerly awaiting the final implementation in May of the new electronic SHE Management system that will make the tools to implement the SHE programme available to all management and supervisory staff.

2. Incident Statistics

Compensation Incident Frequency Rate (CIFR)

CIFR = Total No. of Claims against the Workmen’s Compensation Fund X 200 000

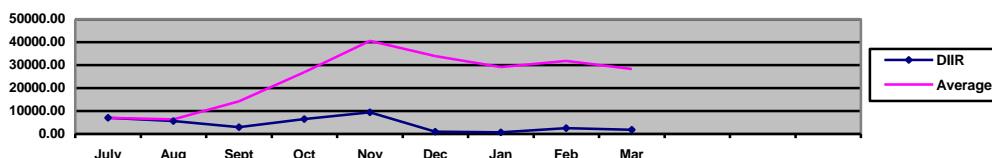
Man-hours worked



2.2. Disabling Injury Incidence Rate (DIIR)

DIIR = $\frac{\text{No. Disabling Injuries} \times 200\,000}{\text{Man-hours worked}}$

Man-hours worked



2.3. Other Major Incidents

Three other major incidents were experienced in the period under review:

1. A major trench collapsed at Job. 00123: XYZ Head Office, Bochum: No personnel injured, extensive damage to foundations: 3 days delay.
2. A concrete dumper ran away when its brakes failed. It smashed into the glass façade of the building on Job 00332: McDonalds, Polokwane. The driver jumped off and was not injured. Cost of damage to façade: R45 000.
3. A storage hut on Job 00567: BP Petrol Station, Swartruggens was demolished by fire when the night watchman made a fire inside the storage hut which contained concrete vibrators and levelling machines. Cost of replacing the hut and machines: R30 000

7. RISK AREAS

The following items of concern need priority consideration by management:

- 3.1. New employees must undergo pre-employment medical examinations to:
 - 1.protect XYZ from claims at a later stage
 - 1.ensure that only healthy persons are employed
 - 1.prevent injuries and illness in the workplace
 - 1.enhance XYZ image
1. Vehicle drivers and plant operators must be instructed to inspect their vehicles daily before start-up using the prescribed checklists to ensure that these are safe to operate and in good condition.

2. AUDITS

Three SHE audits were conducted in February and March:

- | | |
|---------------------------------|------------------------|
| 4.1. Job 00432: Gillooly's Mall | Compliance: 56 %(*) |
| Job 00786: Cullinan Head Office | Compliance: 83 %(****) |
| Job 00589: Cleveland Station | Compliance: 76 %(***) |

5. TRAINING

One hundred and forty two employees, representing 7% of employees, attended nine training courses.

*Our objective is to train 5,5% of employees quarterly.

Month	No. of Employees Trained	Course	Source
January	26 15 3	Induction OH&S Reps Crane Drivers	Internal Consultant External
February	23 17	Induction OH&S Reps	Internal Consultant
March	43 9 3 3	Induction OH&S Reps Bomag Rollers First Aiders	Internal Consultant Supplier St. John's

6. LEGAL ISSUES

- 6.1. An inspector of the Department of Labour issued an improvement notice on Job 00987: Gillooly's Mall. The notice requires that all scaffolding comply with the SABS standards for the Erection and Maintenance of Access Scaffolding (SABS 085). This is currently being attended to and the inspector will return on 15 April 2002 to ascertain if the notice has been complied with.

1. OCCUPATIONAL AND OTHER HEALTH MATTERS

1. HIV Aids

The proposed SAFCEC clinic will soon be operational and we will then be able to send our employees who have tested positive to the clinic for counselling and eventual treatment when necessary

The mobile clinic saw and tested fifty employee volunteers at 3 sites this month. Eighteen of them tested positive.

2. Tuberculosis

The mobile clinic will be calling at Gillooly's Mall and Cleveland Station on 15 and 16 October respectively to screen employees for TB.

3. Noise

All suspected noise pollution areas have been tested and the results are awaited. Employees working in areas testing over 85dBa will be issued with suitable hearing protectors.

9. ENVIRONMENTAL MEASURES

Inspectors from the Botswana Department of the Environment visited Djwaneng and inspected the site and yard. They gave it a "clean bill of health" and advised that we should increase the dust control measures by spraying roads three times per day instead of the present twice per day.

10. ACHIEVEMENTS/AWARDS

1. The client at Djwaneng (Job 00786) awarded the XYZ site first position in the housekeeping competition conducted bi-monthly by the client's SHE managers. The project manager and his team are to be congratulated for this sterling effort.
2. Job 0987: Refurbishment of Pretoria Main Railway Station has just completed 1million compensation claim free days. This was no easy achievement if we consider the conditions being worked under after the extensive fire that caused major damage.

SHE Risk Manager

2002.09.27

ANNEXURE 3: LIST OF RISK ASSESSMENTS

- * Clearing & Grubbing of the Area/Site
- * Site Establishment including:
 - 1. Office/s
 - 2. Secure/safe storage for materials, plant & equipment
 - 3. Ablutions
 - 4. Sheltered eating area
 - 5. Maintenance workshop
 - 1. Vehicle access to the site
- * Dealing with existing structures
- * Location of existing services
- * Installation and maintenance of temporary construction electrical supply, lighting and equipment
- * Adjacent land uses/surrounding property exposures
- * Boundary and access control/Public Liability Exposures (NB: the Employer is also responsible for the OH&S of non-employees affected by his/her work activities.)
- * Health risks arising from neighbouring as well as own activities and from the environment e.g. threats by dogs, bees, snakes, lightning etc.
- * Exposure to noise
- * Exposure to vibration
- * Protection against dehydration and heat exhaustion
- * Protection from wet & cold conditions
- * Dealing with HIV/Aids and other diseases
- * Use of Portable Electrical Equipment including
 - 1. Angle grinder
 - 2. Electrical drilling machine
 - 3. Skill saw
- * Excavations including
 - 1. Ground/soil conditions
 - 2. Trenching
 - 3. Shoring
 - 4. Drainage of trench
- * Welding including
 - 1. Arc Welding
 - 2. Gas welding
 - 3. Flame cutting
 - 4. Use of LP gas torches and appliances
- * Loading & offloading of trucks
- * Aggregate/sand and other materials delivery
- * Manual and mechanical handling
- * Lifting and lowering operations
- * Driving & operation of construction vehicles and mobile plant including
 - 1. Trenching machine
 - 2. Excavator
 - 3. Bomag roller
 - 4. Plate compactor
 - 5. Front end loader
 - 6. Mobile cranes and the ancillary lifting tackle
 - 7. Parking of vehicles & mobile plant
 - 8. Towing of vehicles & mobile plant
- * Use and storage of flammable liquids and other hazardous substances
- * Layering and bedding
- * Installation of pipes in trenches
- * Pressure testing of pipelines
- * Backfilling of trenches
- * Protection against flooding
- * Gabion work

- * Use of explosives
- * Protection from overhead power lines
- * As discovered by the Principal Contractor's hazard identification exercise
- * As discovered from any inspections and audits conducted by the Client or by the Principal Contractor or any other Contractor on site
- * As discovered from any accident/incident investigation.

C3.3.3.2 ENVIRONMENTAL MANAGEMENT PLAN

CONTENTS

C3.3.3.2.1	SCOPE
C3.3.3.2.2	DEFINITIONS
C3.3.3.2.3	IDENTIFICATION OF ENVIRONMENTAL ASPECTS AND IMPACTS
C3.3.3.2.4	LEGAL REQUIREMENTS
C3.3.3.2.5	ADMINISTRATION OF ENVIRONMENTAL OBLIGATIONS
C3.3.3.2.6	TRAINING
C3.3.3.2.7	ACTIVITIES/ASPECTS CAUSING IMPACTS
C3.3.3.2.8	ENVIRONMENTAL MANAGEMENT OF CONSTRUCTION ACTIVITIES
C3.3.3.2.9	RECORD KEEPING
C3.3.3.2.10	COMPLIANCE AND PENALTIES
C3.3.3.2.11	MEASUREMENT AND PAYMENT

C3.3.3.2.1 SCOPE

This environmental management programme (EMP) sets out the methods by which proper environmental controls are to be implemented by the contractor. The duration over which the contractor's controls shall be in place cover the construction period of the project as well as the limited time after contract completion defined by the General Conditions of Contract, and the project specifications, as the defects notification period (maintenance period).

The provisions of this EMP are binding on the contractor during the life of the contract. They are to be read in conjunction with all the documents that comprise the suite of documents for this contract. In the event that any conflict occurs between the terms of the EMP and the project specifications or Record of Decision, the terms herein shall be subordinate.

The EMP is a dynamic document subject to similar influences and changes as are brought by variations to the provisions of the project specification. Any substantial changes shall be submitted to the Roads Agency Limpopo in writing for approval.

The EMP identifies the following:

Construction activities that will impact on the environment. Specifications with which the contractor shall comply in order to protect the environment from the identified impacts.

Actions that shall be taken in the event of non-compliance.

C3.3.3.2.2 DEFINITIONS

Alien Vegetation: alien vegetation is defined as undesirable plant growth which shall include, but not be limited to, all declared category 1 and 2 listed invader species as set out in the Conservation of Agricultural Resources Act (CARA) regulations. Other vegetation deemed to be alien shall be those plant species that show the potential to occupy in number, any area within the defined construction area and which are declared to be undesirable.

Construction Activity: a construction activity is any action taken by the contractor, his subcontractors, suppliers or personnel during the construction process as defined in the South African National Roads Agency Limited and National Roads Act, 1998 (Act No. 7, 1998)

Environment: environment means the surroundings within which humans exist and that could be made up of -

- the land, water and atmosphere of the earth;
- micro-organisms, plant and animal life;
- any part or combination of (i) and (ii) and the interrelationships among and between them; and

- the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being.

Environmental Aspect: an environmental aspect is any component of a contractor's construction activity that is likely to interact with the environment.

Environmental Impact: an impact or environmental impact is the change to the environment, whether desirable or undesirable, that will result from the effect of a construction activity. An impact may be the direct or indirect consequence of a construction activity.

Record of Decision: a record of decision is a written statement from the Limpopo Department of Economic Development, Environment and Tourism, that records its approval of a planned undertaking to improve, upgrade or rehabilitate a section of road and the mitigating measures required to prevent or reduce the effects of environmental impacts during the life of a contract.

Road Reserve: the road reserve is a corridor of land, defined by co-ordinates and proclamation, within which the road, including access intersections or interchanges, is situated. A road reserve may, or may not, be bounded by a fence.

Road Width: for the purposes of the EMP, the road width is defined as the area within the road reserve i.e. fence line to fence line, but also includes all areas beyond the road reserve that are affected by the continuous presence of the road, e.g. a reach of a water course.

C3.3.3.2.3 IDENTIFICATION OF ENVIRONMENTAL ASPECTS AND IMPACTS

The contractor shall identify likely aspects before commencing with any construction activity. Examples of environment aspects include:

1. waste generation
2. stormwater discharge
3. emission of pollutants into the atmosphere
4. chemical use operations
5. energy use operations
6. water use operations
7. use of natural resources
8. noise generation

Thereafter the contractor shall programme his work in such a way that each cause and effect of a construction activity is also identified and the activity planned so as to prevent any impact from happening. If prevention is not practicable, or in the event of mishap or misapplication, the contractor shall provide plans and measures for the engineer's approval, which will limit and contain the magnitude, duration and intensity of the impact. The contractor shall demonstrate that he/she is capable of carrying out any repair and reinstatement of the damaged environment. These requirements shall be concurrent with the time constraints to produce an approved construction programme according to subclause 8.3 as amended by Particular Condition of the general conditions of contract and clause B1204 of these project specifications.

Listed below are some environmental impacts that could adversely alter an aspect of the environment through usual construction activities:

Pollution of atmosphere, soil or water
Destruction or removal of fauna and flora and effect on biological diversity
Deformation of the landscape
Soil erosion
Destruction of historical/heritage sites
Effect on the built environment
Effect on agricultural land and wetlands

General good construction practice will play an important role in avoiding the occurrence of an Impact. The contractor's attention is drawn, in this regard, to C1008. Environmental Management of Construction Activities

C3.3.3.2.4 LEGAL REQUIREMENTS

a) General

Construction will be according to the best industry practices, as identified in the project documents. This EMP, which forms an integral part of the contract documents, informs the contractor as to his duties in the fulfilment of the project objectives, with particular reference to the prevention and mitigation of environmental impacts caused by construction activities associated with the project. The contractor should note that obligations imposed by the EMP are legally binding in terms of environmental statutory legislation and in terms of the additional conditions to the general conditions of contract that pertain to this project. In the event that any rights and obligations contained in this document contradict those specified in the standard or project specifications then the latter shall prevail.

b) Statutory and other applicable legislation

The contractor is deemed to have made himself conversant with all legislation pertaining to the environment, including provincial and local government ordinances, which may be applicable to the contract.

C3.3.3.2.5 ADMINISTRATION OF ENVIRONMENTAL OBLIGATIONS

a) Appointment of a Designated Environmental Officer (DEO)

For the purposes of implementing the conditions contained herein, the contractor shall submit to the engineer for approval the appointment of a nominated representative of the contractor as the DEO for the contract. The request shall be given, in writing, at least fourteen days before the start of any work clearly setting out reasons for the nomination, and with sufficient detail to enable the engineer to make a decision. The engineer will, within seven days of receiving the request, approve, reject or call for more information on the nomination. Once a nominated representative of the contractor has been approved he/she shall be the DEO and shall be the responsible person for ensuring that the provisions of the EMP are complied with during the life of the contract. The engineer will be responsible for issuing instructions to the contractor where environmental considerations call for action to be taken. The DEO shall submit regular written reports to the engineer, but not less frequently than once a month.

The engineer shall have the authority to instruct the contractor to replace the DEO if, in the engineer's opinion, the appointed officer is not fulfilling his/her duties in terms of the requirements of the EMP or this specification. Such instruction will be in writing and shall clearly set out the reasons why a replacement is required.

There shall be an approved DEO on the site at all times.

b) Administration

Before the contractor begins each construction activity the DEO shall give to the engineer a written statement setting out the following:

The type of construction activity.

Locality where the activity will take place.

Identification of the environmental aspects and impacts that might result from the activity.

Methodology for impact prevention for each activity or aspect.

Methodology for impact containment for each activity or aspect.

Emergency/disaster incident and reaction procedures.

Treatment and continued maintenance of impacted environment.

The contractor may provide such information in advance of any or all construction activities provided that new submissions shall be given to the engineer whenever there is a change or variation to the original.

The engineer may provide comment on the methodology and procedures proposed by the DEO, but he shall not be responsible for the contractor's chosen measures of impact mitigation and emergency/disaster management systems. However, the contractor shall demonstrate at inception and at least once during the contract that the approved measures and procedures function properly.

c) Good Housekeeping

The Contractor shall undertake "good housekeeping" practices during construction as stated in clause 1217 of the COLTO Standard Specifications for Roads and Bridges and subclauses 4.3.1 and 4.3.2 of the General Conditions of Contract. This will help avoid disputes on responsibility and allow for the smooth running of the contract as a whole. Good housekeeping extends beyond the wise practice of construction methods that leaves production in a safe state from the ravages of weather to include the care for and preservation of the environment within which the site is situated.

C3.3.3.2.6 TRAINING

The designated environmental officer (DEO) must be conversant with all legislation pertaining to the environment applicable to this contract and must be appropriately trained in environmental management and must possess the skills necessary to impart environmental management skills to all personnel involved in the contract.

The contractor shall ensure that adequate environmental training takes place. All employees shall have been given an induction presentation on environmental awareness. Where possible, the presentation needs to be conducted in the language of the employees. The environmental training should, as a minimum, include the following:

- The importance of conformance with all environmental policies
- The environmental impacts, actual or potential, of their work activities;
- The environmental benefits of improved personal performance;
- Their roles and responsibilities in achieving conformance with the environmental policy and procedures and with the requirement of the Agency's environmental management systems, including emergency preparedness and response requirements;
- The potential consequences of departure from specified operating procedures;
- The mitigation measures required to be implemented when carrying out their work activities.

In the case of permanent staff the contractor shall provide evidence that such induction courses have been presented. In the case of new staff (including contract labour) the contractor shall inform the engineer when and how he/she intends concluding his environmental training obligations.

C3.3.3.2.7 ACTIVITIES/ASPECTS CAUSING IMPACTS

A list of possible causes of environmental impacts that occur during construction activities is given in Table 7/1: Aspects or Activities that Cause Environmental Impacts during Construction Activities, which is to be found at the end of this part. This list is not exhaustive, and shall be used for guideline purposes only.

C3.3.3.2.8 ENVIRONMENTAL MANAGEMENT OF CONSTRUCTION ACTIVITIES

a) Site Establishment

i) Site Plan

The contractor shall establish his construction camps, offices, workshops, staff accommodation and testing facilities on the site in a manner that does not adversely affect the environment. However, before construction can begin, the contractor shall submit to the engineer for his approval, plans of the exact location, extent and construction details of these facilities and the impact mitigation measures the contractor proposes to put in place.

The plans shall detail the locality as well as the layout of the waste treatment facilities for litter, kitchen refuse, sewage and workshop-derived effluents. The site offices should not be sited in close proximity to steep areas, as this will increase soil erosion. Preferred locations would be flat areas along the route. If the route traverses water courses, streams and rivers, it is recommended that the offices, and in particular the ablution facilities, aggregate stockpiles, spoil areas and hazardous material stockpiles are located as far away as possible from any water course as possible. Regardless of the chosen site, the contractor's intended mitigation measures shall be indicated on the plan. The site plan shall be submitted not later than the first site meeting. Detailed, electronic colour photographs shall be taken of the proposed site before any clearing may commence. These records are to be kept by the engineer for consultation during rehabilitation of the site. Read with COLTO Specification 1302(a), 1402 (e).

ii) Vegetation

The contractor has a responsibility to inform his staff of the need to be vigilant against any practice that will have a harmful effect on vegetation.

The natural vegetation encountered on the site is to be conserved and left as intact as possible. Vegetation planted at the site shall be indigenous and in accordance with instructions issued by the engineer. Only trees and shrubs directly affected by the works, and such others as may be indicated by the engineer in writing, may be felled or cleared. In wooded areas where natural vegetation has been cleared out of necessity, the same species of indigenous trees as were occurring, shall be re-established.

The project specification for the rehabilitation of the grass cover shall be strictly adhered to. Any proclaimed weed or alien species that propagates during the contract period shall be cleared by hand before seeding. (Read in conjunction with COLTO Specification 5801(b), 5802(b), (c), (d) and (e), 5804, 5805, 5806 and 5807). Fires shall only be allowed in facilities or equipment specially constructed for this purpose. A firebreak shall be cleared and maintained around the perimeter of the camp and office sites.

iii) Rehabilitation

The area where the site offices were erected will require rehabilitation at the end of the

Contract. All construction material, including concrete slabs and braai areas shall be removed from the site on completion of the contract.

iv) Water for human consumption

Water for human consumption shall be available at the site offices and at other convenient locations on site.

All effluent water from the camp / office sites shall be disposed of in a properly designed and constructed system, situated so as not to adversely affect water sources (streams, rivers, pans dams etc.). Only domestic type wastewater shall be allowed to enter this drain.

v) Heating and Cooking fuel

The contractor shall provide adequate facilities for his staff so that they are not encouraged to supplement their comforts on site by accessing what can be taken from the natural surroundings. The contractor shall ensure that energy sources are available at all times for construction and supervision personnel for heating and cooking purposes.

b) Sewage treatment

Particular reference in the site establishment plan shall be given to the treatment of sewage generated at the site offices, site laboratory and staff accommodation and at all localities on the site where there will be a concentration of labour. Sanitary arrangements should be to the satisfaction of project management, the local authorities and legal requirements.

Safe and effective sewage treatment will require one of the following sewage handling methods: septic tanks and soak-away, dry-composting toilets such as "enviro loos", or the use of chemical toilets which are supplied and maintained by a subcontractor. The type of sewage treatment will depend on the geology of the area selected, the duration of the contract and proximity (availability) of providers of chemical toilets. Should a soak-away system be used, it shall not be closer than 800 metres from any natural water course or water retention system. The waste material generated from these facilities shall be serviced on a regular basis. The positioning of the chemical toilets shall be done in consultation with the engineer. Read with COLTO Specifications 1402(g) and 1404(a).

Toilets and latrines shall be easily accessible and shall be positioned within walking distance from wherever employees are employed on the works. Use of the veld for this purpose shall not, under any circumstances, be allowed.

Outside toilets shall be provided with locks and doors and shall be secured to prevent them from blowing over. The toilets shall also be placed outside areas susceptible to flooding. The contractor shall arrange for regular emptying of toilets and shall be entirely responsible for enforcing their use and for maintaining such latrines in a clean, orderly and sanitary condition to the satisfaction of the engineer.

c) Waste Management

The contractor's intended methods for waste management and waste minimisation shall be implemented at the outset of the contract. All personnel shall be instructed to dispose of all waste in the proper manner.

i) Solid Waste

Solid waste shall be stored in an appointed area in covered, tip proof metal drums for collection and disposal. A refuse control system shall be established for the collection and removal of refuse to the satisfaction of the engineer. Disposal of solid waste shall be at a Department of Water Affairs and Forestry (DWAF) licensed landfill site or at a site approved by DWAF in the event that an existing operating landfill site is not within reasonable distance from the site offices and staff accommodation. No waste shall be burned or buried at or near the site offices, nor anywhere else on the site, including the approved solid waste disposal site. Read with COLTO Specification 1404(a).

ii) Litter

No littering by construction workers shall be allowed. During the construction period, the facilities shall be maintained in a neat and tidy condition and the site shall be kept free of litter.

Measures shall be taken to reduce the potential for litter and negligent behaviour with regard to the disposal of all refuse. At all places of work the contractor shall provide litter collection facilities for later safe disposal at approved sites. (Read with COLTO Specification 1302(b)).

iii) Hazardous waste

Hazardous waste such as bitumen, tar, oils etc. shall be disposed of in a Department of Water Affairs and Forestry approved landfill site. Special care shall be taken to avoid spillage of tar or bitumen products such as binders or pre-coating fluid to avoid water-soluble phenols from entering the ground or contaminating water.

Under no circumstances shall the spoiling of tar or bituminous products on the site, over embankments, in borrow pits or any burying, be allowed. Unused or rejected tar or bituminous products shall be returned to the supplier's production plant. Any spillage of tar or bituminous products shall be attended to immediately and affected areas shall be promptly reinstated to the satisfaction of the engineer.

d) Control at the workshop

The contractor's management and maintenance of his plant and machinery will be strictly monitored according to the criteria given below, regardless whether it is serviced on the site (i.e. at the place of construction activity or at a formalised workshop).

i) Safety

All the necessary handling and safety equipment required for the safe use of petrochemicals and oils shall be provided by the contractor to, and used or worn by, the staff whose duty it is to manage and maintain the contractor's and his subcontractor's and supplier's plant, machinery and equipment.

ii) Hazardous Material Storage

Petrochemicals, oils and identified hazardous substances shall only be stored under controlled conditions. All hazardous materials e.g. tar or bitumen binders shall be stored in a secured, appointed area that is fenced and has restricted entry. Storage of tar or bituminous products shall only take place using suitable containers to the approval of the engineer.

The contractor shall provide proof to the engineer that relevant authorisation to store such substances has been obtained from the relevant authority. In addition, hazard signs indicating the nature of the stored materials shall be displayed on the storage facility or containment structure. Before containment or storage facilities can be erected the contractor shall furnish the engineer with details of the preventative measures he proposes to install in order to mitigate against pollution of the surrounding environment from leaks or spillage. The preferred method shall be a concrete floor that is bunded. Any deviation from the method will require proof from the relevant authority that the alternative method proposed is acceptable to that authority. The proposals shall also indicate the emergency procedures in the event of misuse or spillage that will negatively affect an individual or the environment.

iii) Fuel and Gas Storage

Fuel shall be stored in a secure area in a steel tank supplied and maintained by the fuel suppliers.. An adequate bund wall, 110% of volume, shall be provided for fuel and diesel areas to accommodate any leakage spillage or overflow of these substances. The area inside the bund wall shall be lined with an impervious lining to prevent infiltration of the fuel into the soil. Any leakage, spillage or overflow of fuel shall be attended to without delay.

Gas welding cylinders and LPG cylinders shall be stored in a secure, well-ventilated area.

iv) Oil and Lubricant Waste

Used oil, lubricants and cleaning materials from the maintenance of vehicles and machinery shall be collected in a holding tank and sent back to the supplier. Water and oil should be separated in an oil trap. Oils collected in this manner, shall be retained in a safe holding tank and removed from site by a specialist oil recycling company for disposal at approved waste disposal sites for toxic/hazardous materials. Oil collected by a mobile servicing unit shall be stored in the service unit's sludge tank and discharged into the safe holding tank for collection by the specialist oil recycling company.

All used filter materials shall be stored in a secure bin for disposal off site. Any contaminated soil shall be removed and replaced. Soils contaminated by oils and lubricants shall be collected and disposed of at a facility designated by the local authority to accept contaminated materials.

e) Clearing the Site

In all areas where the contractor intends to, or is required to clear the natural vegetation and soil, either within the road reserve, or at designated or instructed areas outside the road reserve, a plan of action shall first be submitted to the engineer for his approval.

The plan shall contain a photographic record and chainage/land reference of the areas to be disturbed. This shall be submitted to the engineer for his records before any disturbance/stockpiling may occur. The record shall be comprehensive and clear, allowing for easy identification during subsequent inspections.

The contractor shall be responsible for the re-establishment of grass within the road reserve boundaries for all areas disturbed during road construction. This includes, for example, service roads, stockpile areas, stop/go facilities, windrows and wherever material generated for, or from, road construction has to be stored temporarily or otherwise within the road reserve, or at designated or instructed areas outside the road reserve. This responsibility shall extend until expiry of the defects notification period.

f) Soil Management

i) Topsoil

Topsoil shall be removed from all areas where physical disturbance of the surface will occur and shall be stored and adequately protected. The contract will provide for the stripping and stockpiling of topsoil from the site for later re-use. Topsoil is considered to be the natural soil covering, including all the vegetation and organic matter. Depth may vary at each site. The areas to be cleared of topsoil shall

include the storage areas. All topsoil stockpiles and windrows shall be maintained throughout the contract period in a weed-free condition. Weeds appearing on the stockpiled or windrowed topsoil shall be removed by hand. Soils contaminated by hazardous substances shall be disposed of at an approved Department of Water Affairs and Forestry waste disposal site. (Read with COLTO Specifications 3104(a), 5802(a), (g), 5804(a), (b) and (c)). The topsoil stockpiles shall be stored, shaped and sited in such a way that they do not interfere with the flow of water to cause damming or erosion, or itself be eroded by the action of water. Stockpiles of topsoil shall not exceed a height of 2m, and if they are to be left for longer than 6 months, shall be analysed, and if necessary, upgraded before replacement. Stockpiles shall be protected against infestation by weeds.

The contractor shall ensure that no topsoil is lost due to erosion – either by wind or water. Areas to be topsoiled and grassed shall be done so systematically to allow for quick cover and reduction in the chance of heavy topsoil losses due to unusual weather patterns. The contractor's programme shall clearly show the proposed rate of progress of the application of topsoil and grassing. The contractor shall be held responsible for the replacement, at his own cost, for any unnecessary loss of topsoil due to his failure to work according to the progress plan approved by the engineer. The contractor's responsibility shall also extend to the clearing of drainage or water systems within and beyond the boundaries of the road reserve that may have been affected by such negligence.

ii) Subsoil

The subsoil is the layer of soil immediately beneath the topsoil. It shall be removed, to a depth instructed by the engineer, and stored separately from the topsoil if not used for road building. This soil shall be replaced in the excavation in the original order it was removed for rehabilitation purposes.

g) Drainage

The quality, quantity and flow direction of any surface water runoff shall be established prior to disturbing any area for construction purposes. Cognisance shall be taken of these aspects and incorporated into the planning of all construction activities. Before a site is developed or expanded, it shall be established how this development or expansion will affect the drainage pattern. Recognised water users / receivers shall not be adversely affected by the expansion or re-development. No water source shall be polluted in any way due to proposed changes.

Streams, rivers, pans, wetlands, dams, and their catchments shall be protected from erosion and from direct or indirect spillage of pollutants such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils, aggregate, tailings, wash water, organic materials and bituminous or tar products.

The contractor shall submit to the engineer his proposals for prevention, containment and rehabilitation measures against environmental damage of the identified water and drainage systems that occur on the site. Consideration shall be given to the placement of sedimentation ponds or barriers where the soils are of a dispersive nature or where toxic fluids are used in the construction process. The sedimentation ponds must be large enough to contain runoff so that they function properly under heavy rain conditions.

h) Earthworks and Layerworks

This section includes all construction activities that involve the mining of all materials, and their subsequent placement, stockpile, spoil, treatment or batching, for use in the permanent works, or temporary works in the case of deviations. Before any stripping prior to the commencement of construction, the contractor shall have complied with the requirements of sections C1008 (e) and C1008 (g). In addition, the contractor shall take cognisance of the requirements set out below.

i) Quarries and borrow pits

The contractor's attention is drawn to the requirement of the Department of Minerals and Energy that before entry into any quarry or borrow pit, an EMP for the establishment, operation and closure of the quarry or borrow pit shall have been approved by the Department. It is the responsibility of the contractor

to ensure that he is in possession of the approved EMP or a copy thereof, prior to entry into the quarry or borrow pit. The conditions imposed by the relevant EMP are legally binding on the contractor and may be more extensive and explicit than the requirements of this specification. In the event of any conflict occurring between the requirements of the specific EMP and these specifications the former shall apply. The cost of complying with the requirements shall be deemed to be included in existing rates in the Bill of Quantities. (Read with COLTO Specification 3100 and 3200).

ii) Excavation, hauling and placement

The contractor shall provide the engineer with detailed plans of his intended construction processes prior to starting any cut or fill or layer. The plans shall detail the number of personnel and plant to be used and the measures by which the impacts of pollution (noise, dust, litter, fuel, oil, and sewage), erosion, vegetation destruction and deformation of landscape will be prevented, contained and rehabilitated. Particular attention shall also be given to the impact that such activities will have on the adjacent built environment. The contractor shall demonstrate his "good housekeeping", particularly with respect to closure at the end of every day so that the site is left in a safe condition from rainfall overnight or over periods when there is no construction activity. (Read with COLTO Standard Specification clauses 1217 and 3309)

iii) Spoil sites

The contractor shall be responsible for the safe siting, operation, maintenance and closure of any spoil site he uses during the contract period, including the defects notification period. This shall include existing spoil sites that are being re-entered. Before spoil sites may be used proposals for their locality, intended method of operation, maintenance and rehabilitation shall be given to the engineer for his approval. The location of these spoil sites shall have signed approval from the affected landowner before submission to the engineer. No spoil site shall be located within 500m of any watercourse. A photographic record shall be kept of all spoil sites for monitoring purposes. This includes before the site is used and after re-vegetation.

The use of approved spoil sites for the disposal of hazardous or toxic wastes shall be prohibited unless special measures are taken to prevent leaching of the toxins into the surrounding environment. Such special measures shall require the approval of the relevant provincial or national authority. The same shall apply for the disposal of solid waste generated from the various camp establishments. The engineer will assist the contractor in obtaining the necessary approval if requested by the contractor.

Spoil sites will be shaped to fit the natural topography. These sites shall receive a minimum of 75mm topsoil and be grassed with the recommended seed mixture. Slopes shall not exceed a vertical: horizontal ratio of 1:3. Only under exceptional circumstances will approval be given to exceed this ratio. Appropriate grassing measures to minimise soil erosion shall be undertaken by the contractor. This will include both strip and full sodding. The contractor may motivate to the engineer for other acceptable stabilising methods. The engineer may only approve a completed spoil site at the end of the defects notification period upon receipt from the contractor of a landowner's clearance notice and an engineer's certificate certifying slope stability (Read with COLTO standard Specifications clause 1214). The contractor's costs incurred in obtaining the necessary certification for opening and closing of spoil sites shall be deemed to be included in the tendered rates for spoiling.

iv) Stockpiles

The contractor shall plan his activities so that materials excavated from borrow pits and cuttings, in so far as possible, can be transported direct to and placed at the point where it is to be used. However, should temporary stockpiling become necessary, the areas for the stockpiling of excavated and imported material shall be indicated and demarcated on the site plan submitted in writing to the engineer for his approval, together with the contractor's proposed measures for prevention, containment and rehabilitation against environmental damage.

The areas chosen shall have no naturally occurring indigenous trees and shrubs present that may be damaged during operations. Care shall be taken to preserve all vegetation in the immediate area of these temporary stockpiles. During the life of the stockpiles the contractor shall at all times ensure that they are:

1. Positioned and sloped to create the least visual impact;
2. Constructed and maintained so as to avoid erosion of the material and contamination of surrounding environment; and
3. Kept free from all alien/undesirable vegetation.

After the stockpiled material has been removed, the site shall be re-instated to its original condition. No foreign material generated / deposited during construction shall remain on site. Areas affected by stockpiling shall be landscaped, top soiled, grassed and maintained at the contractor's cost until clearance from the engineer and the relevant Authority is received.

Material milled from the existing road surface that is temporarily stockpiled in areas approved by the engineer within the road reserve, shall be subject to the same condition as other stockpiled materials. Excess materials from windrows, in-situ milling or any detritus of material from road construction activities may not be swept off the road and left unless specifically instructed to do so in the contract drawing or under instruction from the engineer

In all cases, the engineer shall approve the areas for stockpiling and disposal of construction rubble before any operation commences and shall approve their clause only when they have been satisfactorily rehabilitated. (Read with COLTO Specification 3203 and 4306).

v) Blasting activities

Wherever blasting activity is required on the site (including quarries and/or borrow pits) the contractor shall rigorously adhere to the relevant statutes and regulations that control the use of explosives. In addition, the contractor shall, prior to any drilling of holes in preparation for blasting, supply the engineer with a locality plan of the blast site on which shall be shown the zones of influence of the ground and air shock-waves and expected limits of fly-rock. The plan shall show each dwelling, structure and service within the zones of influence and record all details of the dwellings/structures/services including existing positions, lengths and widths of cracks, as well as the condition of doors, windows, roofing, wells, boreholes etc. The contractor, alone, shall be responsible for any costs that can be attributed to blasting activities, including the collection of fly-rock from adjacent lands and fields. The submission of such a plan shall not in any way absolve the contractor from his responsibilities in this regard. The contractor shall also indicate to the engineer the manner in which he intends to advertise to the adjacent communities and/or road users the times and delays to be expected for each individual blast.

i) Batching sites

Asphalt plants are considered scheduled processes listed in the second schedule to the Atmospheric Pollution Prevention Act, 1965 (Act No. 45 of 1965). Should the use of an asphalt plant be considered on site, the contractor shall be responsible to obtain the necessary permit from the Department of Environmental Affairs and Tourism, regardless of where they are sited.

Crushing plants and concrete batching plants, whether sited inside or outside of defined quarry or borrow pit areas, shall be subject to the requirements of the Department of Minerals and Energy legislation as well as the applicable industrial legislation that governs gas and dust emissions into the atmosphere. Such sites will be the subject of regular inspections by the relevant authorities during the life of the project. In addition, the selection, entry onto, operation, maintenance, closure and rehabilitation of such sites shall be the same as for those under section C1008(h)(iii), with the exception that the contractor shall provide additional measures to prevent, contain and rehabilitate against environmental damage from toxic/hazardous substances. In this regard the contractor shall provide plans that take into account such additional measures as concrete floors, bunded storage facilities, linings to drainage channels and settlement dams. Ultimate approval of these measures shall be from the relevant national authority, as shall approval of closure. The engineer will assist the contractor in his submissions to the relevant authority.

Effluent from concrete batch plants and crusher plants shall be treated in a suitable designated sedimentation dam to the legally required standards to prevent surface and groundwater pollution. The designs of such a facility should be submitted to the engineer for approval.

The contractor shall invite the relevant department to inspect the site within 2 months after any plant is commissioned and at regular intervals thereafter, not exceeding 12 months apart

j) Spillages

Streams, rivers and dams shall be protected from direct or indirect spillage of pollutants such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils, aggregate, tailings, wash water, organic materials and tar or bituminous products. In the event of a spillage, the contractor shall be liable to arrange for professional service providers to clear the affected area.

Responsibility for spill treatment lies with the contractor. The individual responsible for, or who discovers a hazardous waste spill must report the incident to his/her DEO or to the engineer. The Designated Environmental Officer will assess the situation in consultation with the engineer and act as required. In all cases, the immediate response shall be to contain the spill. The exact treatment of polluted soil / water shall be determined by the contractor in consultation with the DEO and the engineer. Areas cleared of hazardous waste shall be re-vegetated according to the engineer's instructions

Should water downstream of the spill be polluted, and fauna and flora show signs of deterioration or death, specialist hydrological or ecological advice will be sought for appropriate treatment and remedial procedures to be followed. The requirement for such input shall be agreed with the engineer. The costs of containment and rehabilitation shall be for the contractor's account, including the costs of specialist input.

k) Areas of Specific Importance

Any area, as determined and identified within the project document as sensitive or of special interest within the site shall be treated according to the express instructions contained in these specifications or the approved EMP. The contractor may offer alternative solutions to the engineer in writing should he consider that construction will be affected in any way by the hindrance of the designated sensitive area or feature. However, the overriding principle is that such defined areas requiring protection shall not be changed. Every effort to identify such areas within the site will have been made prior to the project going out to tender. The discovery of other sites with archaeological or historical interest that have not been identified shall require ad hoc treatment.

i) Archaeological Sites

If an artefact on site is uncovered, work in the immediate vicinity shall be stopped immediately. The contractor shall take reasonable precautions to prevent any person from removing or damaging any such article and shall immediately upon discovery thereof inform the engineer of such discovery. The South African Heritage Research Agency (SAHRA) is to be contacted who will appoint an archaeological consultant. Work may only resume once clearance is given in writing by the archaeologist. (Read with COLTO General Condition of Contract Subclause 4.24 as amended by Particular Condition).

ii) Graves and middens

If a grave or midden is uncovered on site, or discovered before the commencement of work, then all work in the immediate vicinity of the graves/middens shall be stopped and the engineer informed of the discovery. SAHRA should be contacted and in the case of graves, arrangements made for an undertaker to carry out exhumation and reburial. The Employer will be responsible for attempts to contact family of the deceased and for the site where the exhumed remains can be re-interred. (Read with COLTO General Conditions of Contract Subclause 4.24 as amended by Particular Condition).

l) Noise Control

The contractor shall endeavour to keep noise generating activities to a minimum. Noises that could cause a major disturbance, for instance blasting and crushing activities, should only be carried out during daylight hours. Compliance with the appropriate legislation with respect to noise, shall be mandatory.

Should noise generating activities have to occur at night the people in the vicinity of the drilling shall be warned about the noise well in advance and the activities kept to a minimum.

m) Dust Control

Dust caused by strong winds shall be controlled by means of water spray vehicles. Dust omission from batching plants shall be subject to the relevant legislation and shall be the subject of inspection by the relevant office of the Department of Minerals and Energy.

n) Alien Vegetation

The contractor shall be held responsible for the removal of alien vegetation within the road reserve disturbed during road construction. This includes, for example, service roads, stockpile areas, stop/go facilities, windrows and wherever material generated for or from road construction has been stored temporarily or otherwise within the road reserve. This responsibility shall extend for the duration of the defects notification period.

C3.3.3.2.9 RECORD KEEPING

The engineer and the DEO will continuously monitor the contractor's adherence to the approved impact prevention procedures and the engineer shall issue to the contractor a notice of non-compliance whenever transgressions are observed. The DEO should document the nature and magnitude of the non-compliance in a designated register, the action taken to discontinue the non-compliance, the action taken to mitigate its effects and the results of the actions. The non-compliance shall be documented and reported to the engineer in the monthly report.

Copies of any record of decision or EMP's for specific borrow pits or quarries used on the project shall be kept on site and made available for inspection by visiting officials from the employer or relevant environmental departments.

C3.3.3.2.10 COMPLIANCE AND PENALTIES

The contractor shall act immediately when such notice of non-compliance is received and correct whatever is the cause for the issuing of the notice. Complaints received regarding activities on the construction site pertaining to the environment shall be recorded in a dedicated register and the response noted with the date and action taken. This record shall be submitted with the monthly reports and a verbal report given at the monthly site meetings.

Any avoidable non-compliance with the above-mentioned measures shall be considered sufficient ground for the imposition of a penalty

The following penalties shall apply for environmental violations:

a) Unnecessary removal or damage to trees

1. 2600mm girth or less	:	R 5 000 per tree
2. Greater than 2600mm, but less than 6180mm girth	:	R10 000 per tree
3. Greater than 6180mm girth	:	R30 000 per tree

b) Serious violations:

1. Hazardous chemical/oil spill and/or dumping in non-approved sites.	:	R10 000 per incident
2. General damage to sensitive environments.	:	R 5 000 per incident
3. Damage to cultural and historical sites.	:	R 5 000 per incident
4. Uncontrolled/unmanaged erosion (plus rehabilitation at contractor's cost).	:	R1 000 to R5 000 per incident
1. Unauthorised blasting activities.	:	R 5 000 per incident
2. Pollution of water sources.	:	R 10 000 per incident

The engineer's decision with regard to what is considered a violation, its seriousness and the penalty imposed shall be final.

c) Less serious violations:

- Littering on site. : R1 000 per incident
- Lighting of illegal fires on site. : R1 000 per incident
- Persistent or un-repaired fuel and oil leaks. : R1 000 per incident
- Excess dust or excess noise emanating from site. : R1 000 per incident
- Dumping of milled material in side drains or on grassed areas: R1 000 per incident
- Possession or use of intoxicating substances on site. : R 500 per incident
- Any vehicles being driven in excess of designated speed limits. : R 500 per incident
- Removal and/or damage to flora or cultural or heritage objects on site, and/or killing of wildlife. : R2 000 per incident
- Illegal hunting. : R2 000 per incident
- Urination and defecation anywhere except in designated areas. : R 500 per incident

The engineer’s decision with regard to what is considered a violation, its seriousness and the penalty imposed shall be final. The calculation shall include allied construction activities in the same way as the calculation of reduced payments under section 8200. The imposition of such a penalty shall not preclude the relevant provincial or national authority from applying an additional penalty in accordance with its statutory powers. Any non-compliance with the agreed procedures of the EMP is a transgression of the various statutes and laws that define the manner by which the environment is managed.

Failure to redress the cause shall be reported to the relevant authority for them to deal with the transgression, as it deems fit.

C3.3.3.2.11 MEASUREMENT AND PAYMENT

The cost of complying to this specification shall be deemed to be included in the rates tendered for this project.

Item

C100.01	Penalty for unnecessary removal or damage to trees	Unit
	for the following diameter sizes	
(a)	2600mm girth or less	number (No)
(b)	Greater than 2600mm, but less than 6180mm girth	number (No)
(c)	Greater than 6180mm girth	number (No)

The unit of measurement shall be the number of trees by diameter size removed unnecessary or damaged. The penalty rates applied shall be those stated in clause C3.5.2.10.

Item

C100.02	Penalty for serious violations	Unit
(a)	Hazardous chemical/oil spill and/or dumping in non-approved sites	in number (No)
(b)	General damage to sensitive environments	
(c)	Damage to cultural and historical sites	number (No)
(d)	Pollution of water sources	number (No)
(e)	Unauthorised blasting activities	number (No)
(f)	Uncontrolled/unmanaged erosion per incident, depending on environment impacts, plus rehabilitation at contractor’s cost)	number (No)

The unit of measurement for C100.02 (a) to (f) shall be the number of serious violation incidents. The penalty rates to be applied shall be those stated in clause C3.5.2.10.

Item

		Unit
C100.03	Penalty for less serious violations	
1.	Littering on site	number (No)
2.	Lighting of illegal fires on site	number (No)
3.	Persistent or un-repaired fuel and oil leaks	number (No)
1.	Excess dust or excess noise emanating from site	number (No)
2.	Dumping of milled material in side drains or on grassed areas	number (No)
3.	Possession or use of intoxicating substances on site	number (No)
4.	Any vehicles being driven in excess of designated speed limits	number (No)
5.	Removal and/or damage to flora or cultural or heritage objects on site, and/or killing of wildlife	number (No)
1.	Illegal hunting	number (No)
2.	Urination and defecation anywhere except in designated areas	number (No)

The unit of measurement shall be the number of less serious violation incidents. The penalty rates applied shall be those stated in clause C3.5.2.10.

The engineer's decision with regard to what is considered a violation, its seriousness and the penalty imposed shall be final. The calculation shall include allied construction activities in the same way as the calculation of reduced payments under section 8200. The imposition of such a penalty shall not preclude the relevant provincial or national authority from applying an additional penalty in accordance with its statutory powers. Any non-compliance with the agreed procedures of the EMP is a transgression of the various statutes and laws that define the manner by which the environment is managed.

Failure to redress the cause shall be reported to the relevant authority for them to deal with the transgression, as it deems fit.

Table 1: Mechanisms that Cause Environmental Impacts during Construction Activities

SECTION	CONTENTS	ENVIRONMENTAL IMPACTS					SENSITIVE AREAS (to be completed by compiler)
		POLLUTION TYPE	DEFORMATION OF LANDSCAPE	SOIL EROSION	ALIEN VEGETATION		
1300	Camp Establishment	Waste treatment Hazardous waste supply Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds		
1400	Housing, Offices and laboratories	Waste treatment Hazardous waste supply Water supply Spillage Storage Noise/lights	Selection of site Preserve indigenous vegetation Preserve topsoil Demarcate sensitive areas	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds		
1500	Accommodation of Traffic	Waste treatment Hazardous waste supply Water supply Spillage Storage Noise/lights Dust control	Selection of site Preserve indigenous vegetation Preserve topsoil Demarcate sensitive areas Maintenance of windrows	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds		
1600	Overhaul	Spillage Storage Noise/lights Dust control Exhaust fumes Washing waste	Turning circles Parking areas	Restrict access to sensitive areas	Protection of indigenous vegetation Preserve topsoil		
1700	Clearing and grubbing	Waste treatment Hazardous waste supply Water supply	Selection of site Preserve indigenous vegetation	Selection of site Preserve indigenous vegetation	Protection of indigenous vegetation Preserve topsoil		

SECTION	CONTENTS	ENVIRONMENTAL IMPACTS					SENSITIVE AREAS (to be completed by compiler)
		POLLUTION TYPE	DEFORMATION LANDSCAPE	OF	SOIL EROSION	ALIEN VEGETATION	
		Noise /lights Dust control	Preserve topsoil		Preserve topsoil		
2100 - 2400	Drainage	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil		Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
3100	Borrow pits	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil		Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
3200	Stockpiling	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil		Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
3300	Mass Earthworks	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil		Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
3400 - 3900	Pavement layers	Waste treatment Hazardous waste Water supply Spillage Storage Noise / lights Dust control	Selection of site Preserve indigenous vegetation Preserve topsoil Demarcate sensitive areas Maintenance of windrows		Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	

SECTION	CONTENTS	ENVIRONMENTAL IMPACTS				
		POLLUTION TYPE	DEFORMATION OF LANDSCAPE	SOIL EROSION	ALIEN VEGETATION	SENSITIVE AREAS (to be completed by compiler)
4100	Asphalt works / sealing operations	Waste treatment Hazardous waste supply Water supply Spillage Storage Noise / lights Dust control Smoke control Storage of materials	Selection of site Preserve indigenous vegetation Preserve topsoil Turning circles Parking areas	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil	
5000	Ancillary roadworks	Waste treatment Hazardous waste supply Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
6000	Structures	Waste treatment Hazardous waste supply Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
7000	Concrete pavements etc.	Waste treatment Hazardous waste supply Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	

C3.3.3.3 PROVISION OF STRUCTURED TRAINING

CONTENTS

- C3.3.3.3.1 SCOPE
- C3.3.3.3.2 GENERIC TRAINING
- C3.3.3.3.3 ENTREPRENEURIAL SKILLS TRAINING
- C3.3.3.3.4 MEASUREMENT AND PAYMENT

C3.3.3.3.1 SCOPE

This specification covers the requirements for the provision of structured training to be arranged by the contractor over the period of this contract.

C3.3.3.3.2 GENERIC TRAINING

- C3.3.3.3.2.1 The contractor shall, from the commencement of the contract, implement a structured progressive training programme.
- C3.3.3.3.2.2 Training shall be at or by an approved accredited organisation and shall be delivered by suitably qualified and experienced trainers.
- C3.3.3.3.2.3 The contractor shall be responsible for the provision of everything necessary for the delivery of the generic training programme, including the following:
 1. A suitable venue with sufficient furniture, lighting and power.
 2. All necessary stationery consumables and study material.
 3. Transport of the students (as necessary).
- C3.3.3.3.2.4 The contractor's training programme shall be subject to the approval of MARULENG LOCAL MUNICIPALITY and the contractor shall if so instructed by MARULENG LOCAL MUNICIPALITY alter or amend the programme and course content if a need is identified once the contract commences.
- C3.3.3.3.2.5 The contractor shall keep comprehensive records of the training given to each student and whenever required shall provide copies of such records to the engineer. At the successful completion of each course each student shall be issued with a certificate indicating the course contents as proof of attendance and completion.

In addition to the above, a monthly return shall be submitted by the contractor. An example of the form is illustrated in Part C5 of this document (form RDP 11 (E))

C3.3.3.3.3 ENTREPRENEURIAL SKILLS TRAINING

- C3.3.3.3.3.1 Small contractors, subcontractors and the Project Steering Committee (PSC) will be entitled to receive a structured training programme, which will comprise both management skills as well as business development skills.
- C3.3.3.3.3.2 The contractor shall closely monitor the performance of all small subcontractors in the execution of their contracts and shall identify all such subcontractors who, in his opinion, display the potential to benefit from structured training as may be provided for in the contract and where required by the engineer, shall make recommendations in this regard. The final list of candidates will be decided between the contractor and the engineer.

- C3.3.3.3.3 The training will be delivered by trainers who are accredited by the Civil Engineering Training Scheme (CEITS) or other institutions recognised by the Department of Labour. Accredited training refers to both the trainers as well as to the training material.
- C3.3.3.3.4 The contractor shall facilitate in the delivery thereof, by instructing and motivating the subcontractor regarding attendance and participation therein.
- C3.3.3.3.5 The contractor shall further make all reasonable efforts to co-ordinate the programming of the subcontractor's work with that of the delivery of the structured training.
- C3.3.3.3.7 The contractor shall be responsible for the provision of everything necessary for the delivery of the entrepreneurial training programme, including the following:
1. A suitably furnished venue (if required) with lighting and power.
 2. All necessary consumables, stationery and study material.
 3. Transport of the subcontractors (as necessary).
- C3.3.3.3.7 All entrepreneurial training shall take place within normal working hours.
- C3.3.3.3.8 The contractor's training programme shall be subject to the approval of MARULENG LOCAL MUNICIPALITY and the contractor shall if so instructed by MARULENG LOCAL MUNICIPALITY alter or amend the programme and course content if a need is identified once the contract commences.
- C3.3.3.3.10 The contractor shall keep comprehensive records of the training given to each subcontractor and whenever required shall provide copies of such records to the engineer. At the successful completion of each course each subcontractor shall be issued with a certificate indicating the course contents as proof of attendance and completion.

In addition to the above, a monthly return shall be submitted by the contractor. An example of the form to be used is illustrated in Part C5 of this document, (form RDP 12 (E)).

C3.3.3.4
ITEM

MEASUREMENT AND PAYMENT

UNIT

- B12.06 Provision for accredited training generic and entrepreneurial training and training venue
Provisional Sum

The prime cost sums are provided to cover the actual costs (including wages and the daily PSC reimbursement) for attendance of accredited training courses as agreed with the engineer and shall be expended in accordance with the provisions of sub-clause 48(2) of the general conditions of contract. The tendered percentage in sub-item B12.06 (c) is a percentage of the amount actually spent under sub-items B12.06 (a) and (b) which shall include full compensation for the contractor's handling cost, profit, mentoring, record keeping, reporting and all other costs in connection therewith.

The lump sum tendered for B12.06 shall include full compensation for the provision of the training venue, for all necessary lighting, power, furniture, stationery, consumables and study material and for transportation of the students to and from the training venue.

Payment of the lump sum will be made after the provision of all the accredit training, issuing of all certificates and submission of all records as specified in the document.

C3.3.3.4 PROVISION OF THE TEMPORARY WORKFORCE

CONTENTS

- C3.3.3.4.1 SCOPE
- C3.3.3.4.2 INTERPRETATIONS
- C3.3.3.4.3 PERMITTED SOURCES OF TEMPORARY WORKERS
- C3.3.3.4.4 EMPLOYMENT RECORDS TO BE PROVIDED
- C3.3.3.4.5 VARIATIONS IN WORKER PRODUCTION RATES
- C3.3.3.4.6 TRAINING OF THE TEMPORARY WORKFORCE
- C3.3.3.4.7 RECRUITMENT AND SELECTION PROCEDURES
- C3.3.3.4.8 TERMS AND CONDITIONS PERTAINING TO THE EMPLOYMENT OF THE TEMPORARY WORKFORCE
- C3.3.3.4.9 LABOUR RELATIONS AND WORKER GRIEVANCE PROCEDURES
- C3.3.3.4.10 THE SUBCONTRACTORS' WORKFORCES
- C3.3.3.4.11 MEASUREMENT AND PAYMENT
- C3.3.3.4.1 SCOPE

This Specification covers the provisions and requirements relating to the provision of the temporary workforce. Reference is also made to the Basic Conditions of Employment Act (Act 75 of 1997) with specific reference to the Sectoral Determination 2: Civil Engineering Sector

C3.3.3.4.2 INTERPRETATIONS

C3.3.3.4.2.1 Supporting documents

The Tender Rules, Conditions of Contract, Standard and Project Specifications, Drawings and statutory minimum requirements relating to the employment and remuneration of labour shall *inter alia* be read in conjunction with this Specification.

C3.3.3.4.2.1.2 Definitions and abbreviations

For the purposes of this specification, the definitions given in the Conditions of Contract, the Standard Specifications and the Project Specifications, together with the following additional definitions shall, unless the context dictates otherwise, apply:

- (a) "Key Personnel" means all contracts managers, site agents, materials and survey technicians, trainers, supervisors, foremen, skilled plant operators, artisans and the like, and all other personnel in the permanent employ of the Contractor or Subcontractor who possess special skills and/or who play key roles in the Contractor's or Subcontractor's operation
- (b) "Project Committee" means a committee consisting of the Employer, the Engineer, the Contractor, (or their nominated representatives) as well as representatives of the temporary workforce, which is

convened from time to time at the discretion of the Engineer, for the purposes of acting as an avenue for effective communication and liaison between all the parties referred to, in all matters pertaining to the Contract

- (c) "Subcontractor" means any person or group of persons in association, or firm, or body corporate (whether formally constituted or otherwise) not being the Contractor, to whom specific portions or aspects of the Works are sublet or subcontracted by the Contractor in accordance with the provisions of the Contract
- (d) "Worker" for the purposes of this Specification means any person, not being one of the Contractor's key personnel, nor any key personnel of any Subcontractor, who is engaged by the Contractor, a Subcontractor or the Employer to participate in the execution of any part of the Contract Works and shall include unskilled labour, semi-skilled and skilled labour, clerical workers and the like
- (e) "Workforce" means the aggregate body comprising all workers and shall, unless the context dictates otherwise, include the workforces of the Contractor and all Subcontractors
- (f) "Project Steering Committee (PSC)" means a committee comprising mainly of representatives (to a maximum of 5) of the affected communities with additional members from MARULENG LOCAL MUNICIPALITY, the Contractor, Consultants and the Municipality. The PSC convenes at least once a month as well as when the need so dictates, for the purpose of recruiting labour for the project, to address community issues and for acting as an avenue for effective communication and liaison between all the parties.
- (g) "Liaison Officer" means a local representative of the temporary workforce, duly appointed through the PSC processes, to act on behalf of the workers and through whom all matters pertaining to the temporary workforce can be channelled.

C3.3.3.4.2.1.3 Status

Where any provisions or requirements of this Specification are in conflict with anything elsewhere set out in the Contract, the provisions and requirements of this Specification shall take precedence and prevail.

C3.3.3.4.3 PERMITTED SOURCES OF TEMPORARY WORKERS

The Contractor shall as far as possible make optimum use of the human resources outside his own workforce and the workforces of all subcontractors. The temporary workforce that is to be used in the execution of the Works in terms of Part C3 may consist of the workers of local communities.

C3.3.3.4.4 EMPLOYMENT RECORDS TO BE PROVIDED

- (a) The Contractor shall maintain accurate and comprehensive records of all workers engaged on the Contract and shall provide the Engineer at monthly intervals from the commencement of the Contract, with interim records substantiating the actual numbers of employment opportunities that shall have been generated to date and the amounts actually paid in respect thereof. Such interim records shall be in a MARULENG LOCAL MUNICIPALITY approved format. An example of the forms to be used is illustrated in Part C5 of this document, (forms RDP 9 and 10 (E)).
- (b) The Contractor shall, on completion of the Contract, and as a pre-requisite event to the release of any retention money in terms of the Conditions of Contract, provide the Engineer with copies of the Terms of Employment as well as independently audited documentary evidence of the total number of temporary and permanent employment opportunities actually generated during the Contract.

C3.3.3.4.5 VARIATIONS IN WORKER PRODUCTION RATES

Notwithstanding anything to the contrary as may be stated in or inferred from any other provision of this Contract, the Contractor shall not be entitled to any additional payment or compensation whatever, in respect of any differences as may result between the production rates actually achieved by workers in the course of the execution of the Contract Works and those production rates on which he has based his tender.

C3.3.3.4.6 TRAINING OF THE TEMPORARY WORKFORCE

- (a) Selected members of the workforce are to be provided with structured training in accordance with the provisions of Part C3.4.3.3.
- (b) The Contractor shall make all necessary allowances in his programme of work to accommodate and facilitate the delivery of such structured training and shall comply fully with the requirements of Part C3.4.3.3.
- (c) The provision of structured training as described in Part C3.4.3.3. shall not relieve the Contractor of any of his obligations in terms of the Conditions of Contract and the Contractor shall remain fully liable for the provision, at his own cost, of all training of the workforce, additional to that as provided for in Part C3.4.3.3, as may be necessary to achieve the execution and completion of the works strictly in accordance with the provisions of the Contract.

C3.3.3.4.7 RECRUITMENT AND SELECTION PROCEDURES

C3.3.3.4.7.1 The Project Steering Committee, through the assistance of the Social Facilitator and the Contractor, shall be responsible for the recruitment and selection of the Community Liaison Officer and the workers to constitute the temporary workforce.

C3.3.3.4.7.2 The Contractor shall advise the Engineer in writing of the numbers of each category of temporary worker which he requires, together with the personal attributes which he considers desirable that each category of worker shall possess (taking due cognisance of the provisions of the Contract relating to training).

C3.3.3.4.7.3 The Social Facilitator shall take the necessary actions to advertise within the affected local communities comprising the personnel resources, the fact that temporary employment opportunities exist and the time and place where recruiting will occur

C3.3.3.4.7.4 The Social Facilitator shall record in writing, the details of all persons applying for employment, including *inter alia*:

- (a) Name, Identity Number, Date of Birth, age and sex
- (b) Marital status and number of dependants
- (c) Qualifications and previous work experience (whether substantiated or not)
- (d) On the job training programmes attended
- (e) Period since last economically active
- (f) Preference for type of work or task.

C3.3.3.4.7.5 The selection of workers from amongst the applicants should take into cognizance the Contractor's requirements for the workforce and the provisions of the contract in regard to the provision of training to the workforce and in accordance with the following principle:

- (a) No potential temporary worker shall be precluded from being employed by the Contractor on the execution of the Works, by virtue of his lack of skill in any suitable operation forming part of the Works, unless -
 - (i) all available vacancies have been or can be filled by temporary workers who already possess suitable skills, or
 - (ii) the Time for Completion allowed in the Contract, or the remaining portion of the Contract Period (as the case may be) is insufficient to facilitate the creation of the necessary skills.
- (b) Preference shall be given to the unemployed and single heads of households.
- (c) The Contractor shall, in so far as is reasonably practicable, give priority to accommodating the applicants' expressed preferences regarding the types of work for which they are selected.
- (d) The selection process shall not be prejudicial to youth (over the age of fifteen years) and women. The Contractor should strive to achieve the participation target for employment set for this project which is 60% female and 20% youth.

C3.3.3.4.7.6 After making the selection, the Social Facilitator shall forward the list in writing and without undue delay, to the Engineer for record keeping.

C3.3.3.4.7.7 The provisions of this clause shall apply *mutatis mutandis* in respect of the selection of additional or replacement members of the workforce as may be necessary from time to time during the Contract.

C3.3.3.4.7.8 The Contractor shall, after appointing his temporary workforce, arrange at his own cost for the appointment of the Liaison Officer as representative of the workforce to act on their behalf with regards to all matters pertaining to the workforce.

C3.3.3.4.8 TERMS AND CONDITIONS PERTAINING TO THE EMPLOYMENT OF THE TEMPORARY WORKFORCE

C3.3.3.4.8.1 All temporary workers engaged in accordance with the provisions of Part A of the Project Specifications, shall be employed on the terms and conditions of employment as are consistent with those as set out in this Contract. The Contractor shall implement and adhere strictly to such terms and conditions relating to the employment of the temporary workforce, and subject only to the provisions of this Contract, shall not employ any temporary worker on terms and conditions which are less favourable to the worker or inconsistent with the standards and norms generally applicable to temporary workers in the Civil Engineering Industry and applicable to the particular area. Refer to the Contract of Employment drafted/published by Department of Labour.

C3.3.3.4.8.2 RATE OF REMUNERATION. The Contractor shall pay to all workers engaged in terms of the contract a minimum wage rate of R200.00/day

The remuneration of the CLO shall be paid monthly at the rate of R6000.00

Compensation for transport for the members of the Project Steering Committee shall be made at a rate of R250 / month. This will cover for transport cost to and from the PSC meeting, site meeting and any other meeting deemed necessary to fulfil their obligations.

C3.3.3.4.8.3NON-PAYMENT OF LABOURERS. Under this contract it is expected of the Main Contractor to ensure that all labourers are paid in time on a monthly basis, whether they are employed by him/her directly or by any of his/her subcontractors. In the event of non-compliance, the employer reserves the right to use any remedies available at its disposal.

C3.3.3.4.9 LABOUR RELATIONS AND WORKER GRIEVANCE PROCEDURES

C3.3.3.4.9.1 The Contractor, as the Employer of the workforce, shall be fully responsible for the establishment and maintenance at his own cost, of satisfactory labour relations on site and the resolution of all grievances of temporary workers as may occur. Refer to Disciplinary Procedures for Small Business drafted/published by Department of Labour.

C3.3.3.4.9.2 The Contractor shall at all times adhere to the accepted norms and standards of labour relations prevailing generally in the Civil Engineering Construction Industry and shall conduct himself in a fair and reasonable manner, within the constraints as may be imposed upon him by the terms of the Contract.

C3.3.3.4.9.3 In the event of any temporary worker engaged by the Contractor in terms of the Contract, being aggrieved with regard to his Terms of Employment, working conditions and training, he shall have the right, at his discretion, to be supported in any inquiry or disciplinary hearing or investigation instituted by the Contractor in terms of Subclause C3.3.3.4.9.2 above, by one member of the temporary workforce and one member of the Project Committee, which persons shall be nominated by the worker.

C3.3.3.4.9.4 In the event of any grievance not being satisfactorily resolved through the application of normal dispute resolution procedures in accordance with Sub clauses C3.3.3.4.9.2 and C3.3.3.4.9.3, then either the Contractor or the worker concerned may require that the matter be referred to the Project Committee for further consideration, with a view to facilitate the resolution thereof.

C3.3.3.4.10 THE SUBCONTRACTORS' WORKFORCES

C3.3.3.4.10.1 The provisions of this Part C shall apply *mutatis mutandis* to the workforces employed by all subcontractors engaged by the Contractor and the Contractor shall be fully responsible for ensuring, at his own cost, that the terms of every subcontract agreement entered into are such as to facilitate the application of these provisions in respect of the workforces of all subcontractors.

C3.3.3.4.10.2 The Contractor shall at his own cost and to the extent necessary, assist and monitor all subcontractors in the application of the provisions of this Specification, and shall, in terms of the Conditions of Contract, remain fully liable in respect of the acts, omissions and neglects of all subcontractors, in respect of the application of the provisions of this Specification.

C3.3.3.4.11 MEASUREMENT AND PAYMENT

The Contractor will not be separately reimbursed or compensated in respect of the provision of the workforce and creation of temporary employment opportunities and all the Contractor's costs associated with compliance with the provisions of this part of the Project Specifications shall, except to the extent

provided for in Part C3.4.3.3. as relevant, be deemed to be included in the rates tendered for the various items of work listed in the Schedule of Quantities.

C3.4 MANAGEMENT**C3.4.1 MANAGEMENT MEETINGS**

The following meetings will be required as minimum for the management of the contract.

- (a) Monthly client site meeting (using standard agenda for management control).
- (b) Technical meetings as required for each phase of the work.
- (c) Monthly safety meetings in terms of the OHS requirements.
- (d) Weekly progress meetings

C3.4.2 QUALITY CONTROL

Contractor to supply details of quality plan and procedures. These shall include:

- Accommodation of traffic.
- Inspection and test plans.
- Approval process.
- Hold-points.
- Milestones.

C6. ANNEXURE A: DRAWINGS (SITE INFORMATION)

C6.1


BID DRAWINGS


LIST OF DRAWINGS

DRAWING NO.	DESCRIPTION	SHEET NO.
22002-00	DRAWING LIST	1 OF 1
22002-01	NAME BOARD	1 OF 1
22002-02	KEY PLAN	1 OF 1
22002-03	HORIZONTAL AND VERTICAL ALIGNMENT DETAILS	1 OF 4
22002-03	HORIZONTAL AND VERTICAL ALIGNMENT DETAILS	2 OF 4
22002-03	HORIZONTAL AND VERTICAL ALIGNMENT DETAILS	3 OF 4
22002-03	HORIZONTAL AND VERTICAL ALIGNMENT DETAILS	4 OF 4
22002-04	CROSS SECTIONAL DETAILS	1 OF 2
22002-04	CROSS SECTIONAL DETAILS	2 OF 2
22002-05	TYPICAL CROSS SECTION STANDARD DETAILS	1 OF 1
22002-06	SPEED HUMP AND KERBING DETAILS	1 OF 1
22002-07	ROAD SIGNS DETAILS	1 OF 1
22002-08	TYPICAL PRECAST PORTAL CULVERT DETAILS	1 OF 1
22002-08	TYPICAL PRECAST PORTAL CULVERT DETAILS	1 OF 2
22002-09	TYPICAL STORMWATER INLET AND OUTLET DETAILS	1 OF 2

No	DATE	REVISION	CONSULT	DIR
A	02/2024	FOR TENDER	F.M	

DESIGNED BY	D.M.M
CHECKED BY	F.M
DRAWN BY	D.M.M
CHECKED BY	F.M

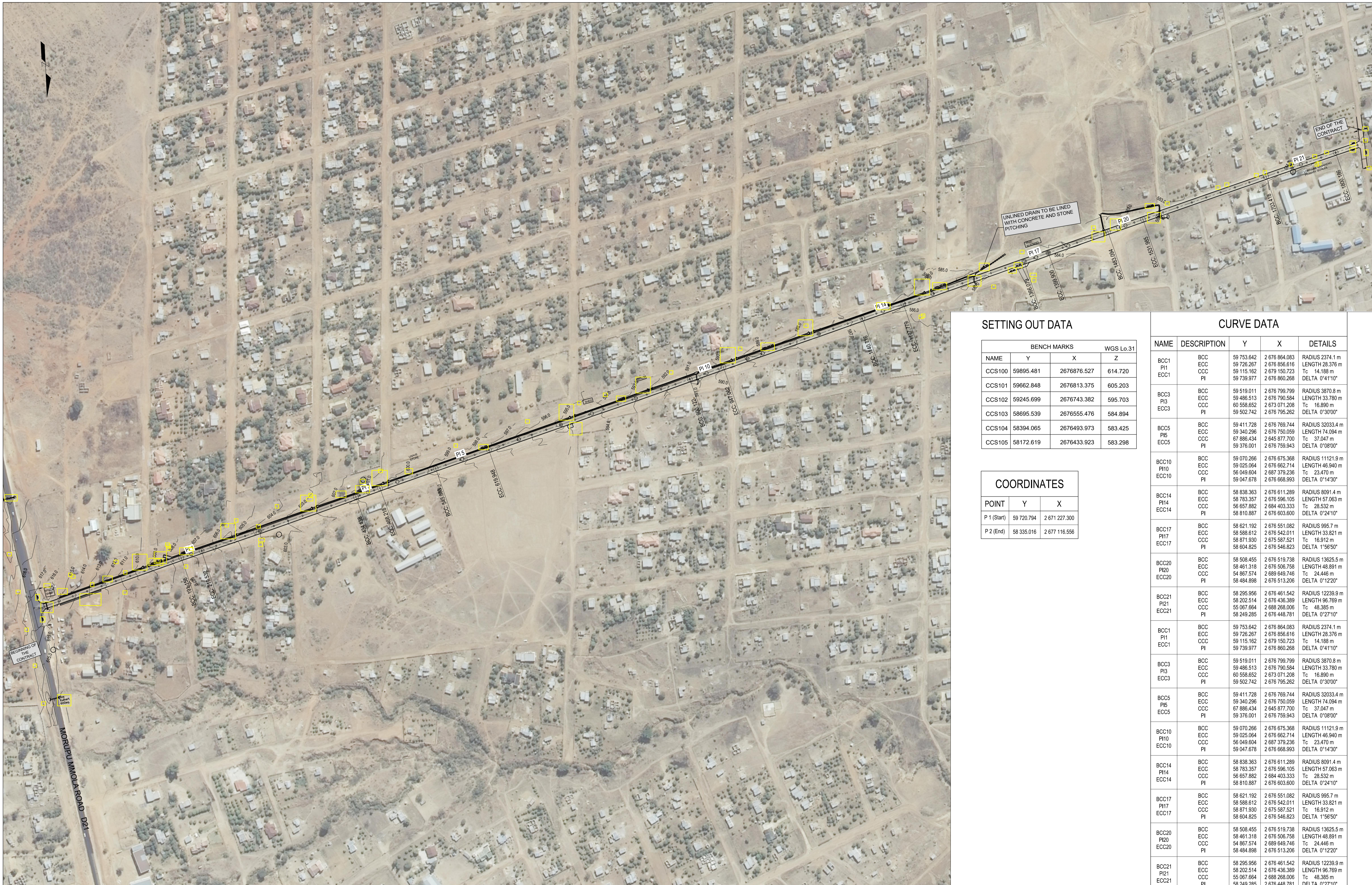
CLIENT	 MARULENG LOCAL MUNICIPALITY 64 SPRINGBOK STREET HOEDSPRUIT 1380
TEL: 015 811 6300	FAX: 015 812 4301
EMAIL:	

CONSULTANT	 HWA 24 A RISSIK STREET POLOKWANE 0699
TEL: 015 297 0744	FAX: 089 248 0744
EMAIL: admin@hwaeng.co.za	

PROJECT NAME	REHABILITATION OF LORRAINE ACCESS ROAD
DRAWING TITLE	DRAWING LIST

DRAWING No.	22002-00
SCALE	N.T.S
REVISION No.	A
SHEET No.	SHEET 1 of 1
CONTRACT No.	MLC/SCM/65/2024

CONTRACT No.	MLC/SCM/65/2024
SHEET No.	SHEET 1 of 1



SETTING OUT DATA

BENCH MARKS			WGS Lo.31
NAME	Y	X	Z
CCS100	59895.481	2676876.527	614.720
CCS101	59662.848	2676813.375	605.203
CCS102	59245.699	2676743.382	595.703
CCS103	58695.539	2676555.476	584.894
CCS104	58394.065	2676493.973	583.425
CCS105	58172.619	2676433.923	583.298

COORDINATES

POINT	Y	X
P 1 (Start)	59 720.794	2 671 227.300
P 2 (End)	58 335.016	2 677 116.556

CURVE DATA


NAME	DESCRIPTION	Y	X	DETAILS
BCC1	BCC	59 753.642	2 676 864.083	RADIUS 2374.1 m
ECC	59 726.267	2 676 856.616	LENGTH 28.376 m	
PI1	59 115.162	2 679 150.723	Tc 14.188 m	
ECC1	59 739.977	2 676 860.268	DELTA 0°41'10"	
BCC3	BCC	59 519.011	2 676 799.799	RADIUS 3870.8 m
PI3	59 486.513	2 676 790.584	LENGTH 33.780 m	
ECC3	60 558.652	2 673 071.208	Tc 16.890 m	
PI	59 502.742	2 676 795.262	DELTA 0°30'00"	
BCC5	BCC	59 411.728	2 676 769.744	RADIUS 32033.4 m
PI5	59 340.296	2 676 750.059	LENGTH 74.094 m	
ECC5	67 886.434	2 645 877.700	Tc 37.047 m	
PI	59 376.001	2 676 759.943	DELTA 0°08'00"	
BCC10	BCC	59 070.266	2 676 675.368	RADIUS 11121.9 m
PI10	59 025.064	2 676 662.714	LENGTH 46.940 m	
ECC10	56 049.604	2 687 379.236	Tc 23.470 m	
PI	59 047.678	2 676 668.993	DELTA 0°14'30"	
BCC14	BCC	58 838.363	2 676 611.289	RADIUS 8091.4 m
PI14	58 783.357	2 676 596.105	LENGTH 57.063 m	
ECC14	56 657.882	2 684 403.333	Tc 28.532 m	
PI	58 810.887	2 676 603.600	DELTA 0°24'10"	
BCC17	BCC	58 621.192	2 676 551.082	RADIUS 995.7 m
PI17	58 588.612	2 676 542.011	LENGTH 33.821 m	
ECC17	58 871.930	2 675 587.521	Tc 16.912 m	
PI	58 604.825	2 676 546.823	DELTA 1°56'50"	
BCC20	BCC	58 508.455	2 676 519.738	RADIUS 13625.5 m
PI20	58 461.318	2 676 506.758	LENGTH 48.891 m	
ECC20	54 867.574	2 689 649.746	Tc 24.446 m	
PI	58 484.898	2 676 513.206	DELTA 0°12'20"	
BCC21	BCC	58 295.956	2 676 461.542	RADIUS 12239.9 m
PI21	58 202.514	2 676 436.389	LENGTH 96.769 m	
ECC21	55 067.664	2 688 268.006	Tc 48.385 m	
PI	58 249.285	2 676 448.781	DELTA 0°27'10"	
BCC1	BCC	59 753.642	2 676 864.083	RADIUS 2374.1 m
PI1	59 726.267	2 676 856.616	LENGTH 28.376 m	
ECC1	59 115.162	2 679 150.723	Tc 14.188 m	
PI	59 739.977	2 676 860.268	DELTA 0°41'10"	
BCC3	BCC	59 519.011	2 676 799.799	RADIUS 3870.8 m
PI3	59 486.513	2 676 790.584	LENGTH 33.780 m	
ECC3	60 558.652	2 673 071.208	Tc 16.890 m	
PI	59 502.742	2 676 795.262	DELTA 0°30'00"	
BCC5	BCC	59 411.728	2 676 769.744	RADIUS 32033.4 m
PI5	59 340.296	2 676 750.059	LENGTH 74.094 m	
ECC5	67 886.434	2 645 877.700	Tc 37.047 m	
PI	59 376.001	2 676 759.943	DELTA 0°08'00"	
BCC10	BCC	59 070.266	2 676 675.368	RADIUS 11121.9 m
PI10	59 025.064	2 676 662.714	LENGTH 46.940 m	
ECC10	56 049.604	2 687 379.236	Tc 23.470 m	
PI	59 047.678	2 676 668.993	DELTA 0°14'30"	
BCC14	BCC	58 838.363	2 676 611.289	RADIUS 8091.4 m
PI14	58 783.357	2 676 596.105	LENGTH 57.063 m	
ECC14	56 657.882	2 684 403.333	Tc 28.532 m	
PI	58 810.887	2 676 603.600	DELTA 0°24'10"	
BCC17	BCC	58 621.192	2 676 551.082	RADIUS 995.7 m
PI17	58 588.612	2 676 542.011	LENGTH 33.821 m	
ECC17	58 871.930	2 675 587.521	Tc 16.912 m	
PI	58 604.825	2 676 546.823	DELTA 1°56'50"	
BCC20	BCC	58 508.455	2 676 519.738	RADIUS 13625.5 m
PI20	58 461.318	2 676 506.758	LENGTH 48.891 m	
ECC20	54 867.574	2 689 649.746	Tc 24.446 m	
PI	58 484.898	2 676 513.206	DELTA 0°12'20"	
BCC21	BCC	58 295.956	2 676 461.542	RADIUS 12239.9 m
PI21	58 202.514	2 676 436.389	LENGTH 96.769 m	
ECC21	55 067.664	2 688 268.006	Tc 48.385 m	
PI	58 249.285	2 676 448.781	DELTA 0°27'10"	

No	DATE	REVISION	CONSULT	DIR
A	02/2024	FOR TENDER	F.M	

NOTES

DESIGNED BY	D.M.M
CHECKED BY	F.M
DRAWN BY	D.M.M
CHECKED BY	F.M

CLIENT



MARULENG LOCAL MUNICIPALITY
64 SPRINGBOK STREET
HOEDSFRUIT 1380

TEL: 015 811 6300
FAX: 015 812 4301
EMAIL:

CONSULTANT



24 A RISSIK STREET
POLOKWANE 0699

TEL: 015 297 0744
FAX: 088 246 0744
EMAIL: admin@hwaeng.co.za

PROJECT NAME

REHABILITATION OF LORRAINE ACCESS ROAD

DRAWING TITLE

KEY PLAN

DRAWING No.

22002-02

SCALE

AS SHOWN

REVISION No.

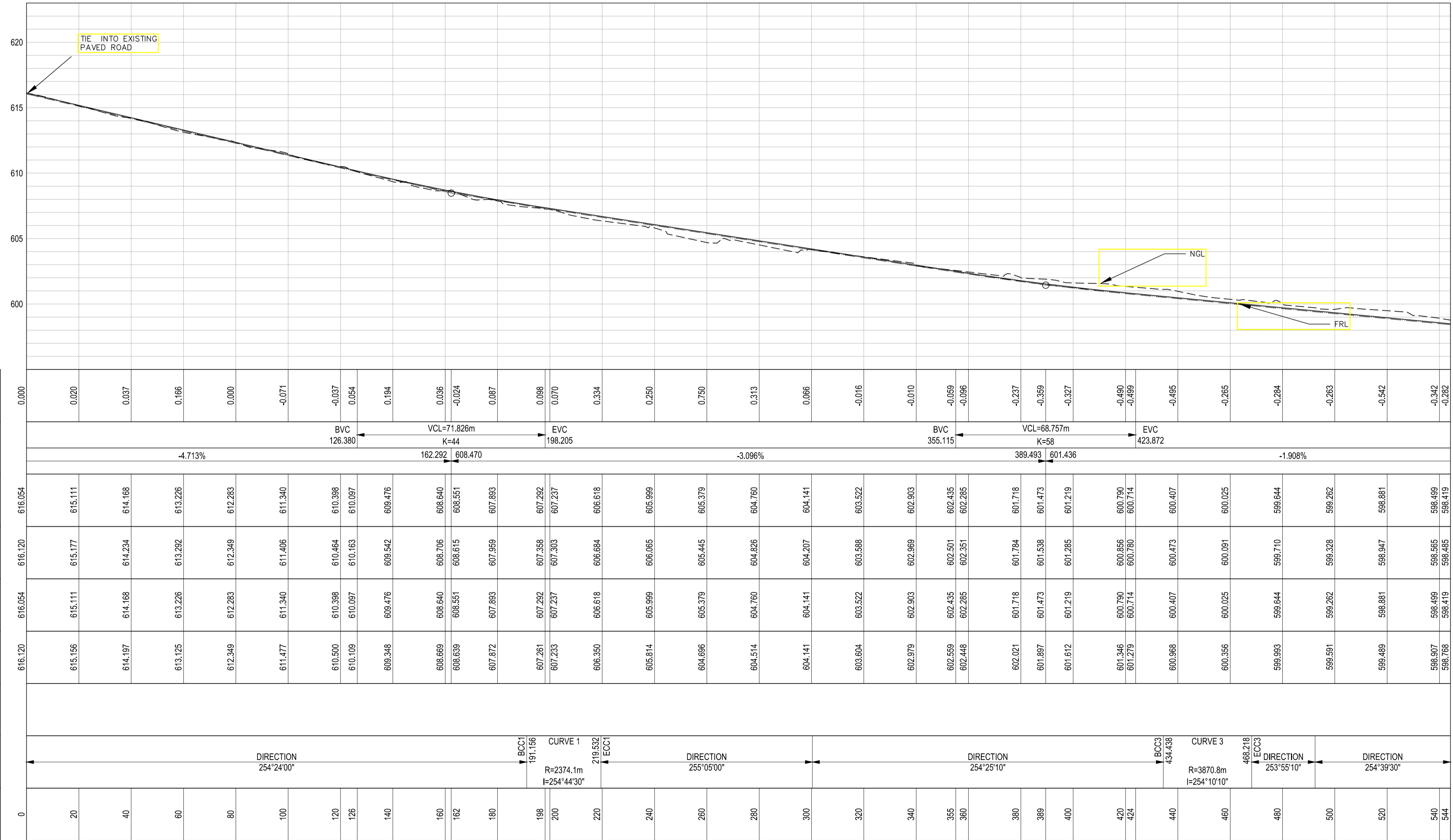
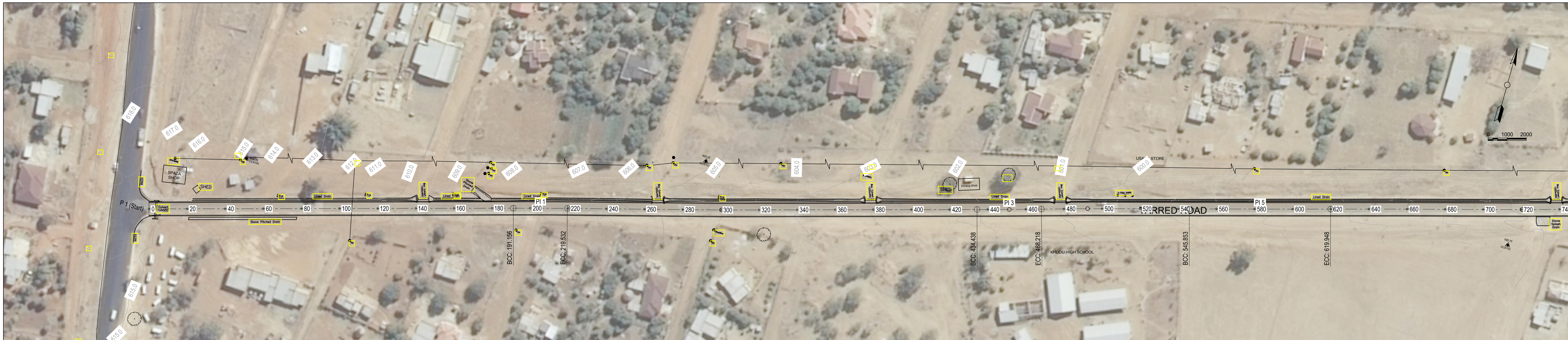
A

SHEET No.

SHEET 1 of 1

CONTRACT No.

MLC/SCM/65/2024



LAYOUT SCALE
1:1000

SCALES:
Horizontal 1:1000
Vertical 1:200

DATUM 595.000

CUT / FILL		0.000	0.020	0.037	0.166	0.000	-0.071	-0.037	0.054	0.194	0.036	-0.024	0.087	0.098	0.070	0.334	0.250	0.750	0.313	0.066	-0.016	-0.010	-0.059	-0.096	-0.237	-0.359	-0.327	-0.480	-0.489	-0.495	-0.285	-0.284	-0.263	-0.542	-0.342	-0.282
VERTICAL PROFILE GRADES		-4.713%										VCL=71.826m K=44										VCL=68.757m K=58														
FINAL DESIGN ROAD LEVELS	LEFT EDGE (HL)	616.054	615.111	614.168	613.226	612.283	611.340	610.398	610.097	609.476	608.640	608.551	607.893	607.292	607.237	606.618	605.999	605.379	604.760	604.141	603.522	602.903	602.435	602.285	601.718	601.473	601.219	600.790	600.714	600.407	600.025	599.644	599.262	598.881	598.499	598.119
	CENTRE LINE (CL)	616.120	615.177	614.234	613.292	612.349	611.406	610.464	610.163	609.542	608.706	608.615	607.959	607.358	607.303	606.684	606.065	605.445	604.826	604.207	603.588	602.969	602.501	602.351	601.784	601.538	601.285	600.856	600.780	600.473	600.091	599.710	599.328	598.947	598.565	598.185
	RIGHT EDGE (HR)	616.054	615.111	614.168	613.226	612.283	611.340	610.398	610.097	609.476	608.640	608.551	607.893	607.292	607.237	606.618	605.999	605.379	604.760	604.141	603.522	602.903	602.435	602.285	601.718	601.473	601.219	600.790	600.714	600.407	600.025	599.644	599.262	598.881	598.499	598.119
GROUND LEVELS ON CL		616.120	615.156	614.197	613.125	612.349	611.477	610.500	610.109	609.348	608.669	608.639	607.872	607.291	607.233	606.330	605.814	604.696	604.514	604.141	603.604	602.979	602.559	602.448	602.021	601.897	601.612	601.346	601.279	600.968	600.356	599.953	599.591	599.489	598.907	598.768
SUPERELEVATION		LEFT RIGHT ---																																		
HORIZONTAL ALIGNMENT		DIRECTION 254°24'00"										CURVE 1 R=2374.1m I=254°44'30"										DIRECTION 255°05'00"														
DISTANCE (m)		0	20	40	60	80	100	120	126	140	160	162	180	198	200	220	240	260	280	300	320	340	355	360	380	389	400	420	424	440	460	480	500	520	540	544

LONGSECTION ROAD 1
FROM 0.000 TO 544.171

No	DATE	REVISION	CONSULT	DIR
A	02/2024	FOR TENDER	F.M	

NOTES

DESIGNED BY	D.M.M
CHECKED BY	F.M
DRAWN BY	D.M.M
CHECKED BY	F.M

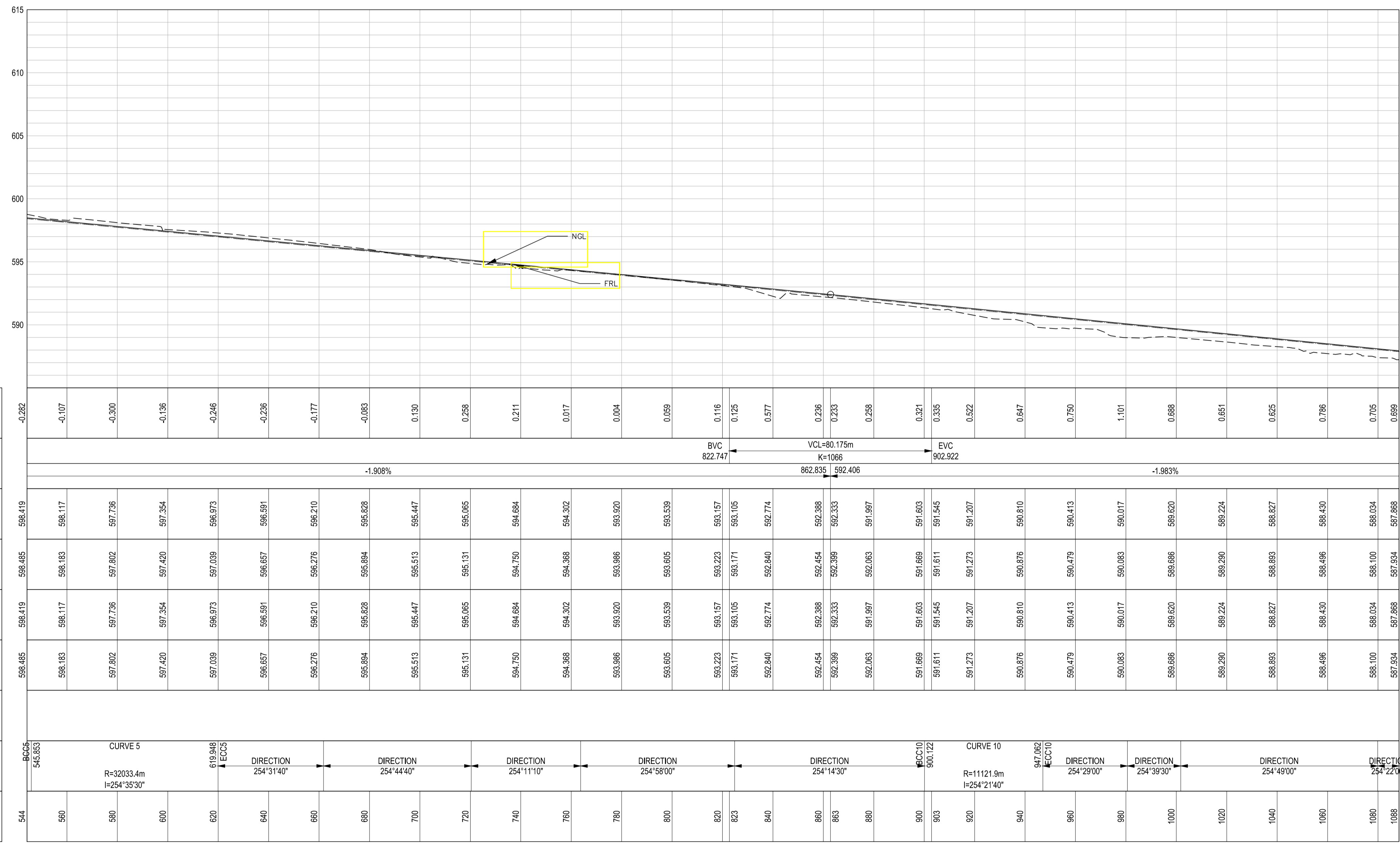
CLIENT
MARULENG LOCAL MUNICIPALITY
64 SPRINGBOK STREET
HOEDSFRUIT
1380

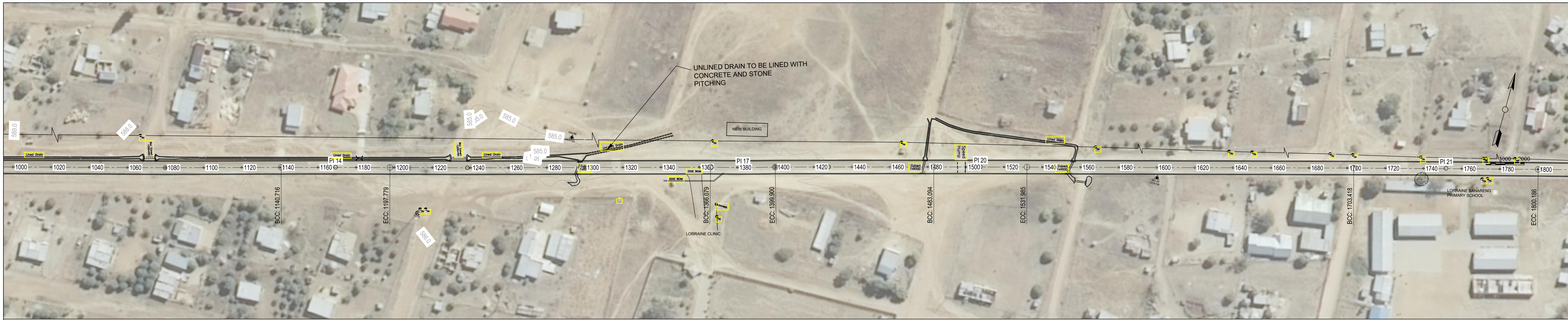
CONSULTANT
HWA
24 A RISSIK STREET
POLKWANE
0699

PROJECT NAME
REHABILITATION OF LORRAINE ACCESS ROAD

DRAWING TITLE
HORIZONTAL AND VERTICAL ALIGNMENT DETAILS

DRAWING No.	22002-03	SCALE	AS SHOWN
REVISION No.	A	SHEET No.	SHEET 1 of 4
CONTRACT No.	MLC/SCM/65/2024		

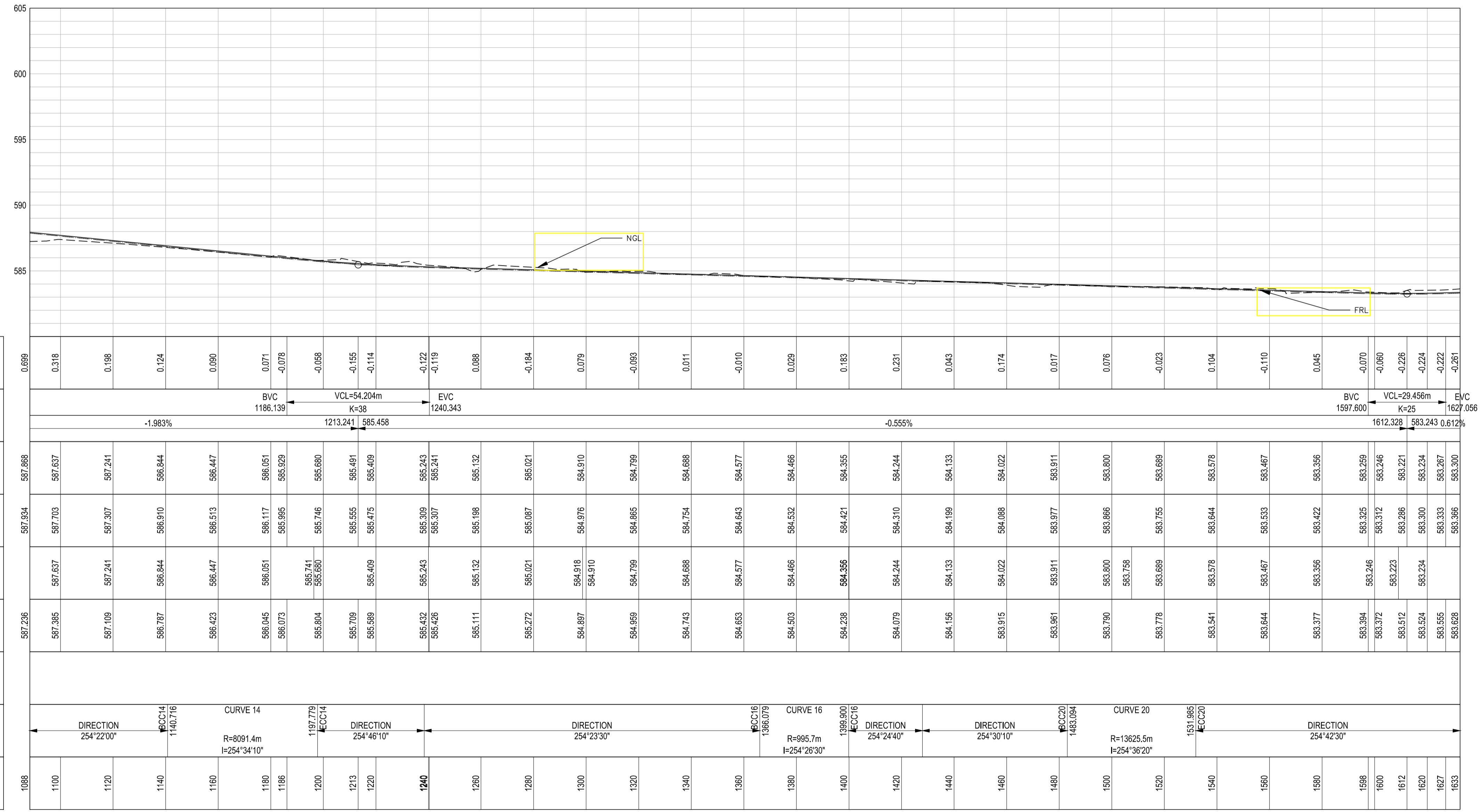




LAYOUT SCALE
1:1000

SCALES:
Horizontal 1:1000
Vertical 1:200

DATUM 580.000



LONGSECTION ROAD 1
FROM 1088.342 TO 1632.513

No	DATE	REVISION	CONSULT	DIR
A	02/2024	FOR TENDER	F.M	

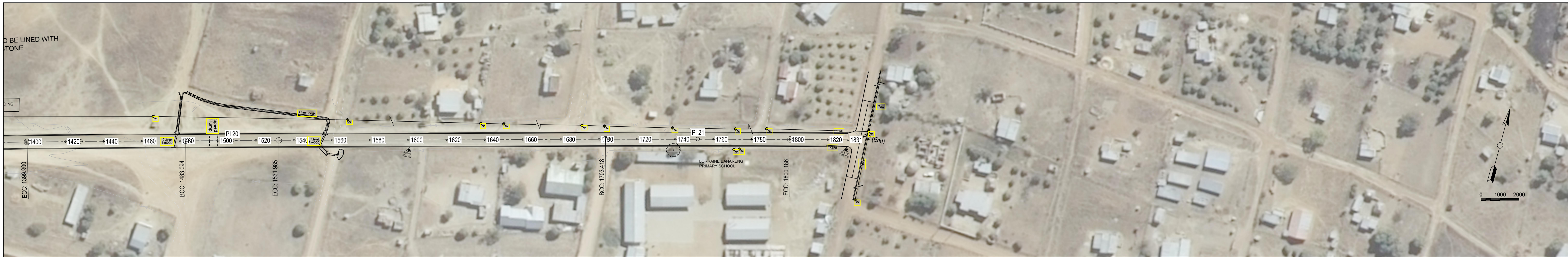
DESIGNED BY	D.M.M
CHECKED BY	F.M
DRAWN BY	D.M.M
CHECKED BY	F.M

CLIENT	MARULENG LOCAL MUNICIPALITY 64 SPRINGBOK STREET HOEDSFRUIT 1380
CONTACT	TEL: 015 811 6300 FAX: 015 812 4301 EMAIL:

CONSULTANT	HWA 24 A RISSIK STREET POLKWANE 0699
CONTACT	TEL: 015 297 0744 FAX: 082 246 3744 EMAIL: admin@hwaeng.co.za

PROJECT NAME	REHABILITATION OF LORRAINE ACCESS ROAD
DRAWING TITLE	HORIZONTAL AND VERTICAL ALIGNMENT DETAILS

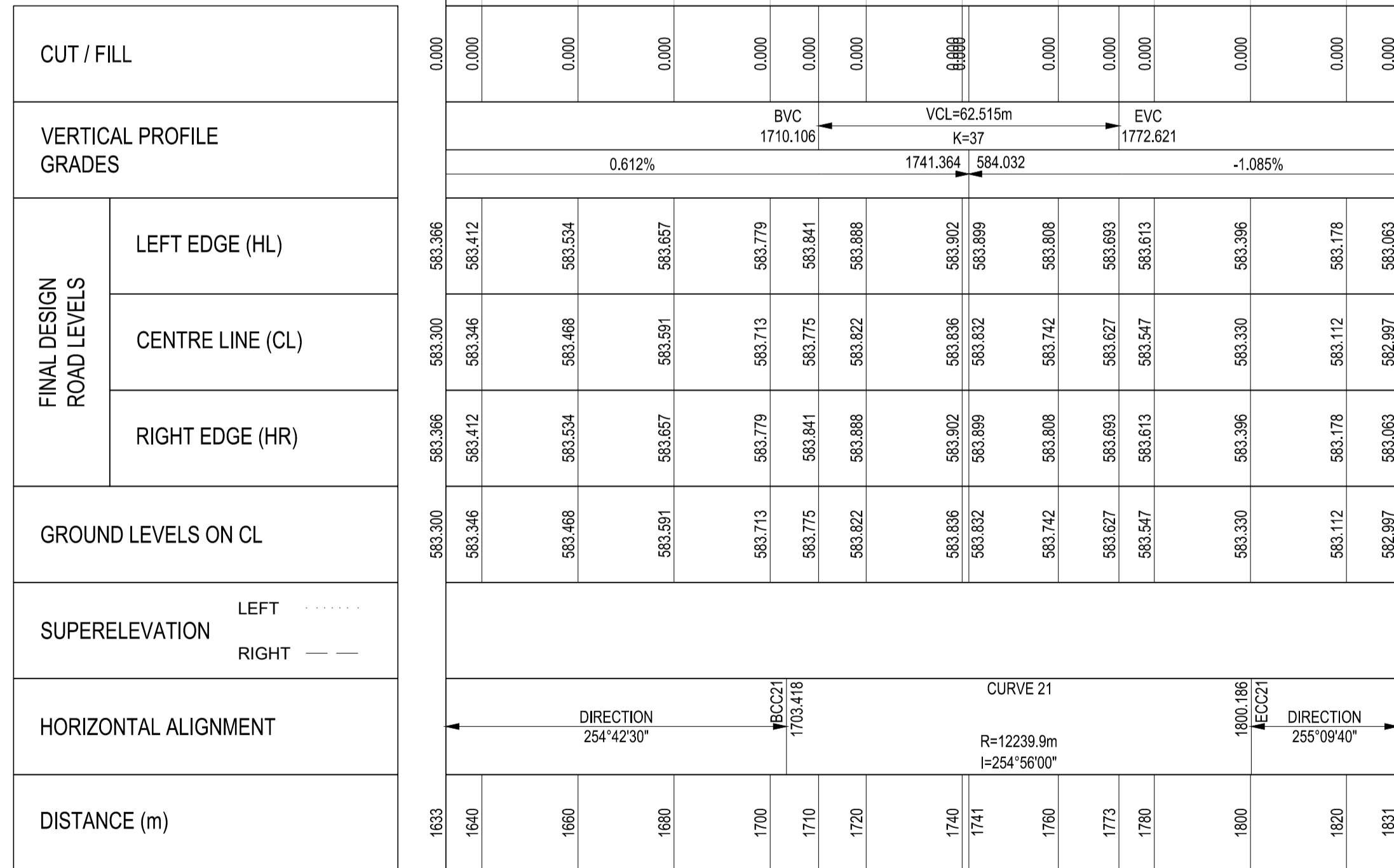
DRAWING No.	22002-03	SCALE	AS SHOWN
REVISION No.	A	SHEET No.	SHEET 3 of 4
CONTRACT No.	MLC/SCM/65/2024		



LAYOUT SCALE
1:1000

SCALES:
Horizontal 1:1000
Vertical 1:200

DATUM 575.000




LONGSECTION ROAD 1
FROM 1632.513 TO 1830.671

No	DATE	REVISION	CONSULT	DIR
A	02/2024	FOR TENDER	F.M	

NOTES

DESIGNED BY	D.M.M
CHECKED BY	F.M
DRAWN BY	D.M.M
CHECKED BY	F.M

CLIENT



MARULENG LOCAL MUNICIPALITY
64 SPRINGBOK STREET
HOEDSFRUIT
1380

TEL: 015 811 6300
FAX: 015 812 4301
EMAIL:

CONSULTANT

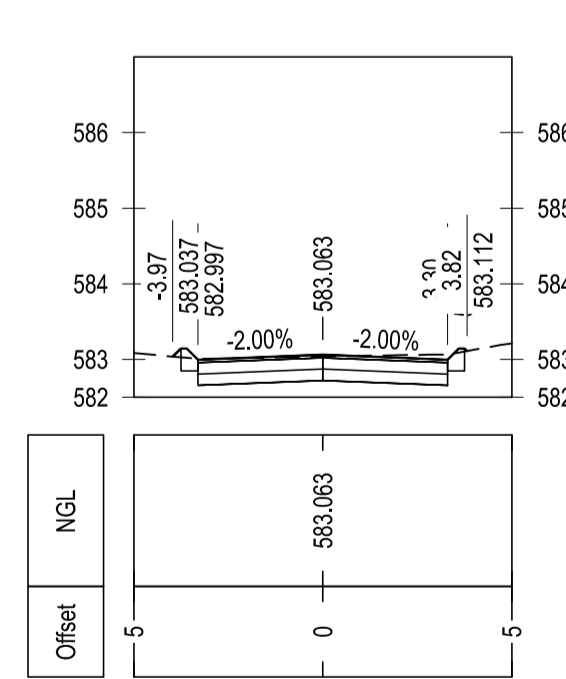
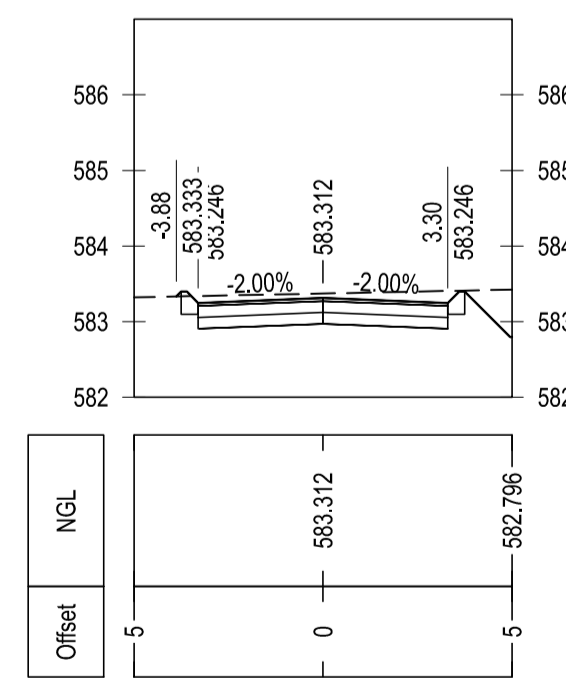
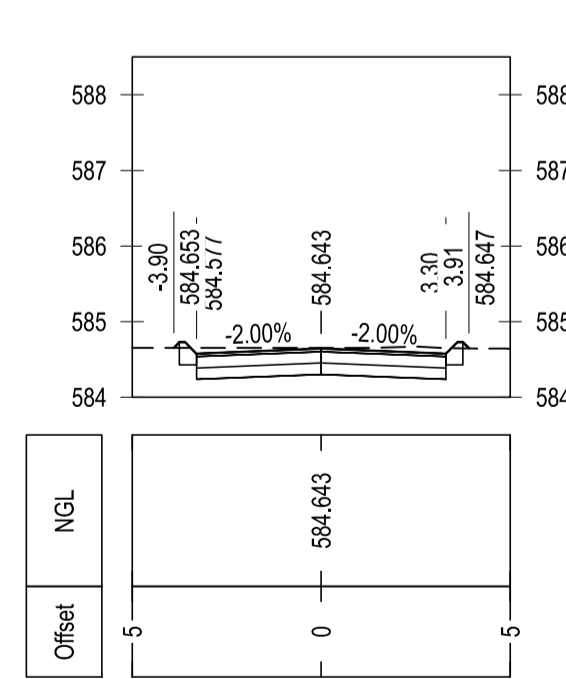
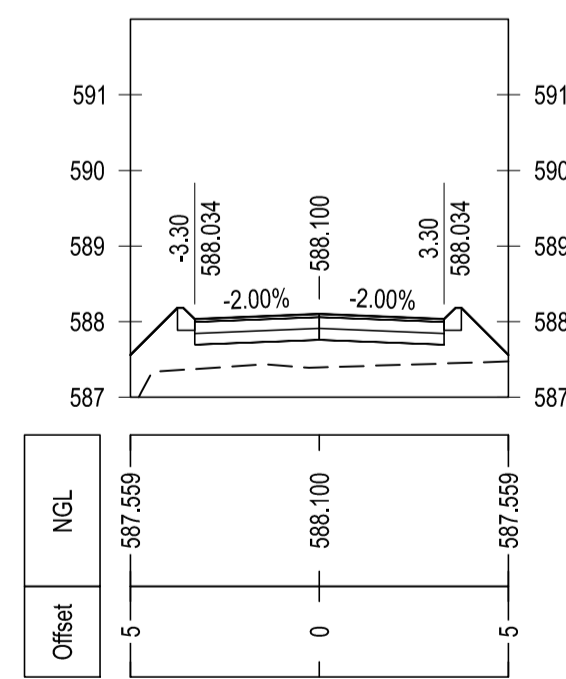
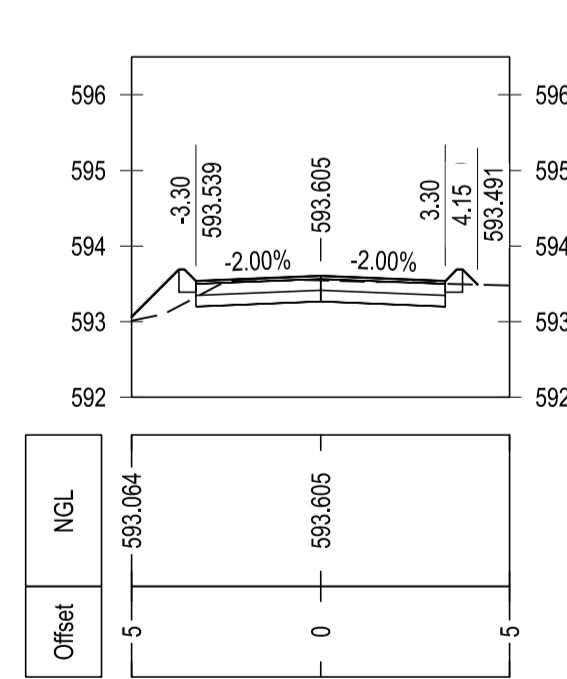
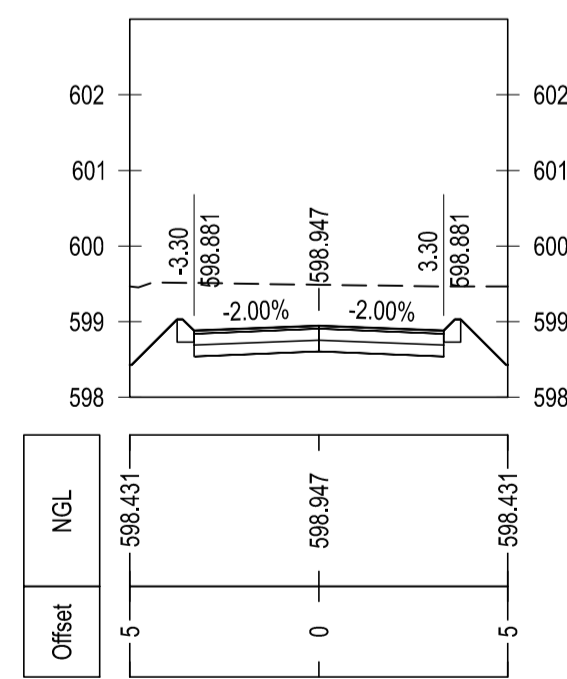
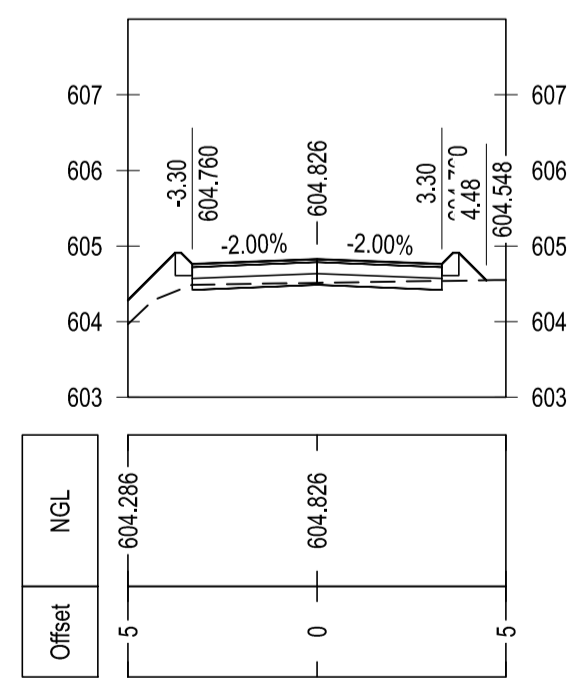
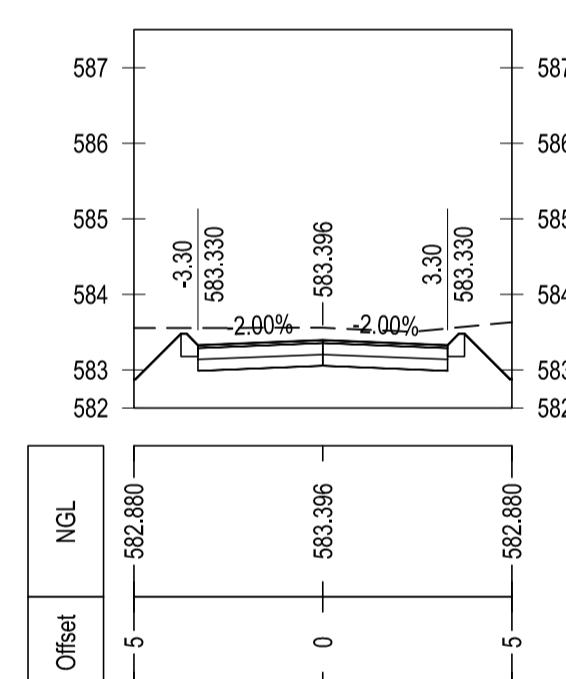
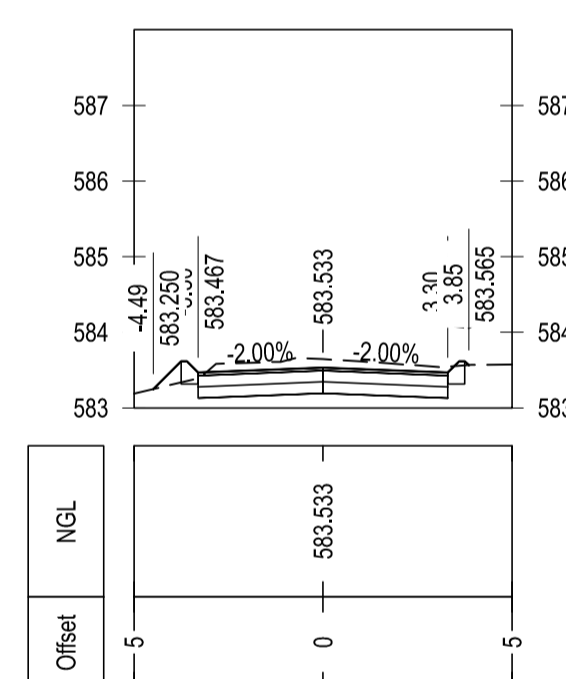
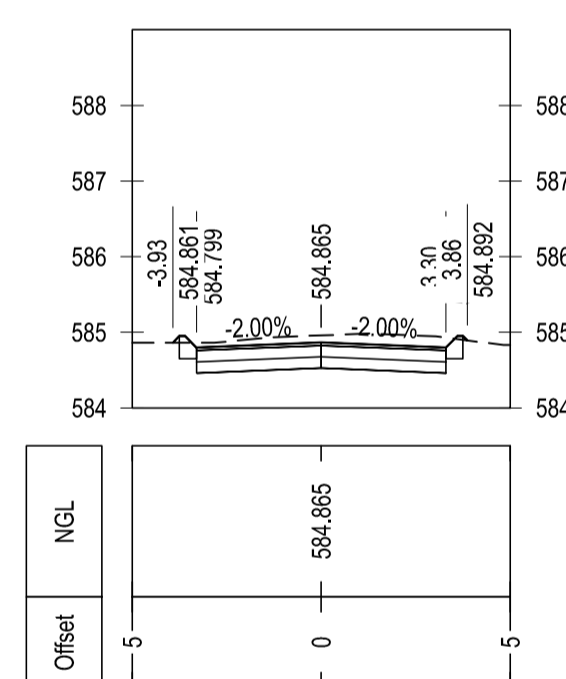
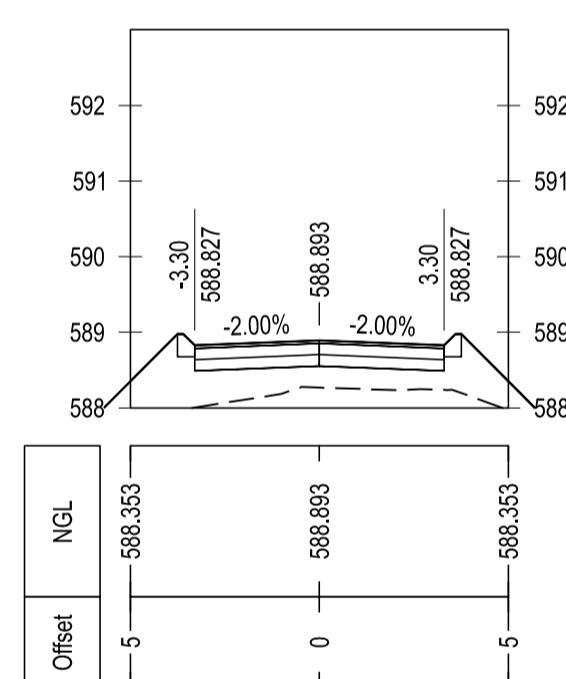
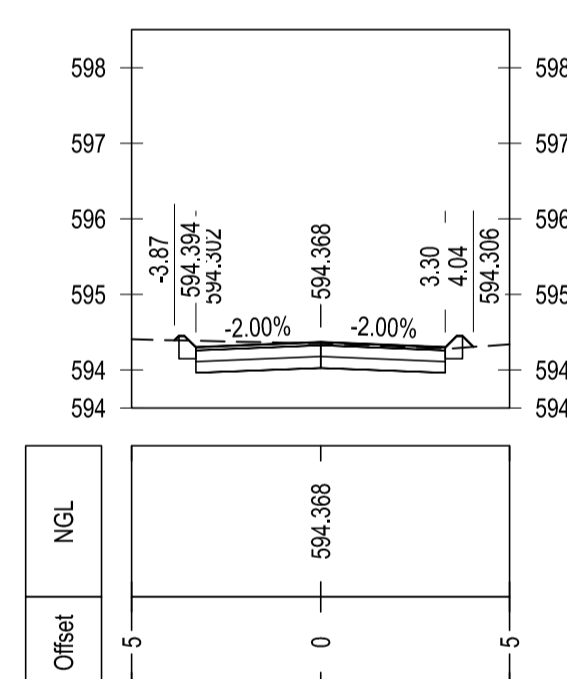
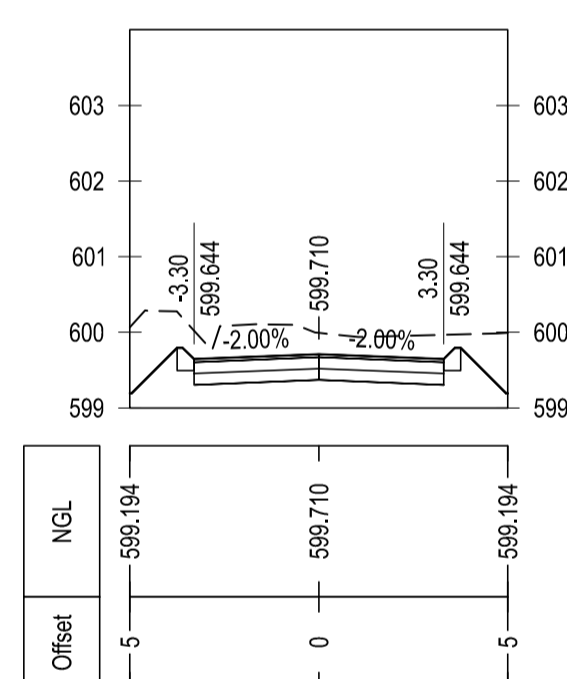
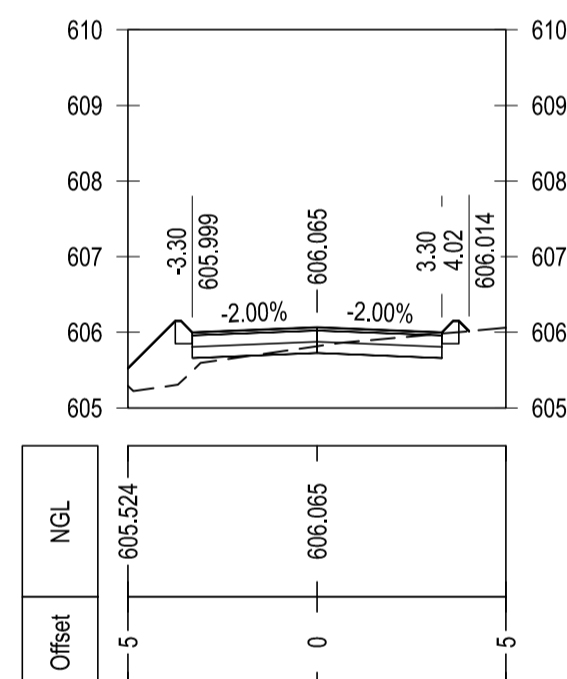
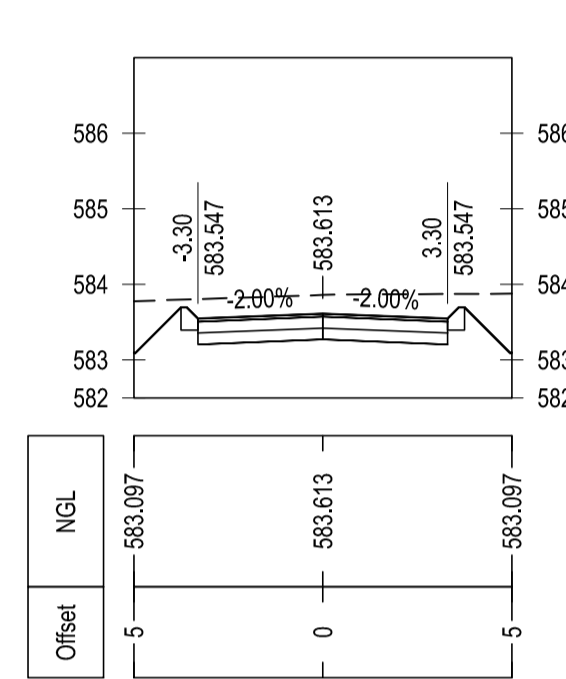
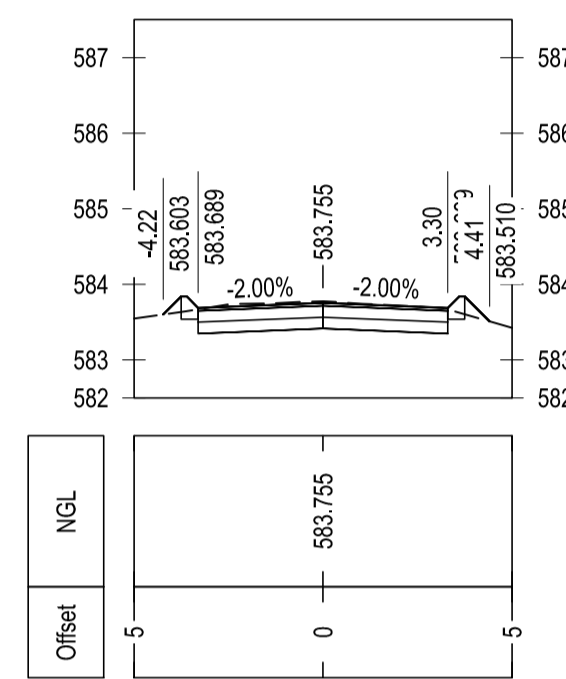
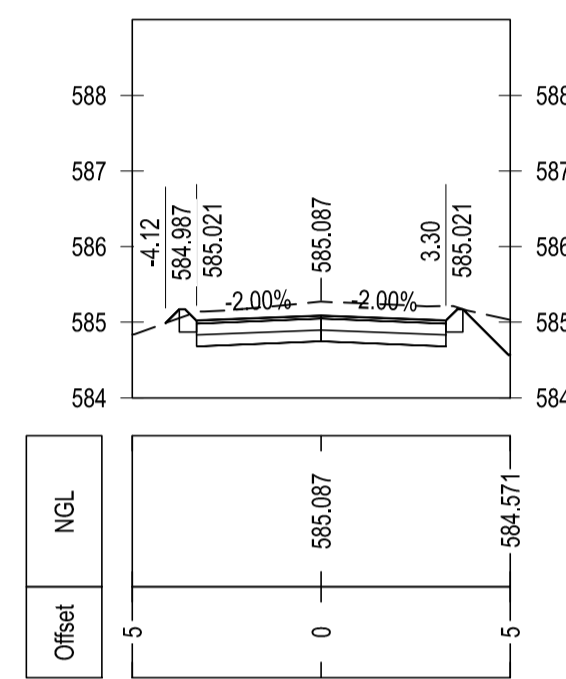
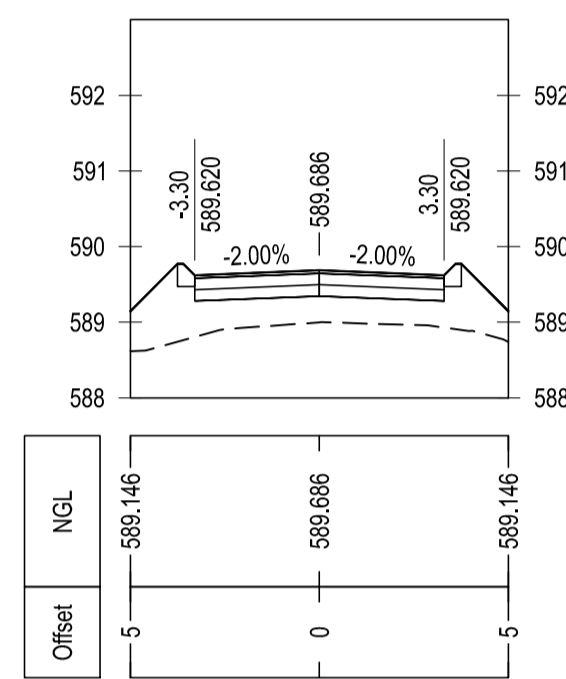
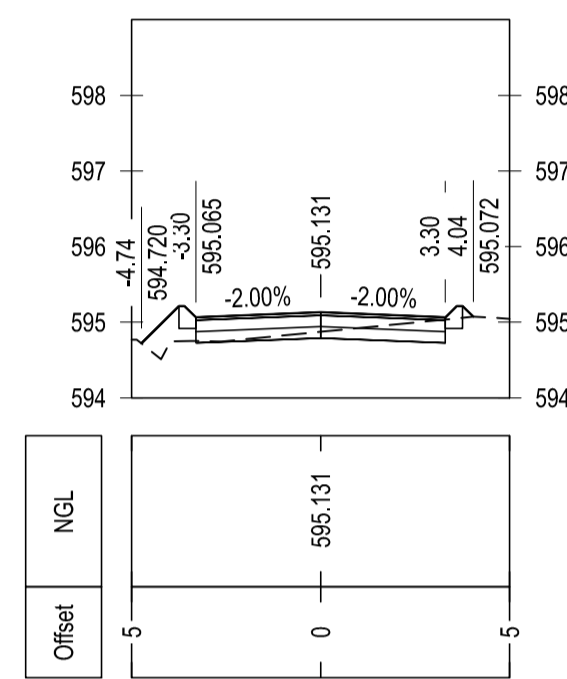
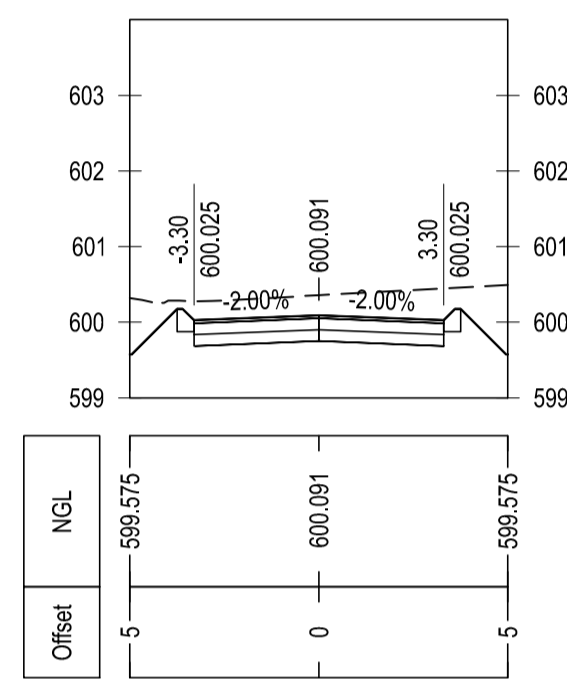
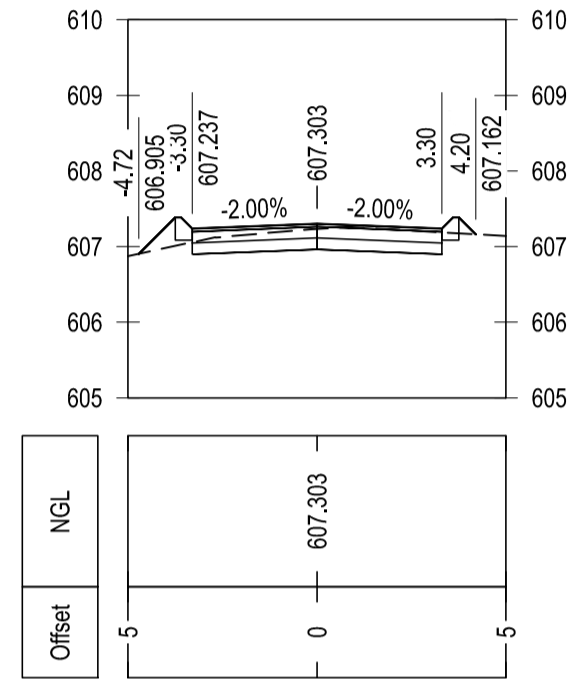
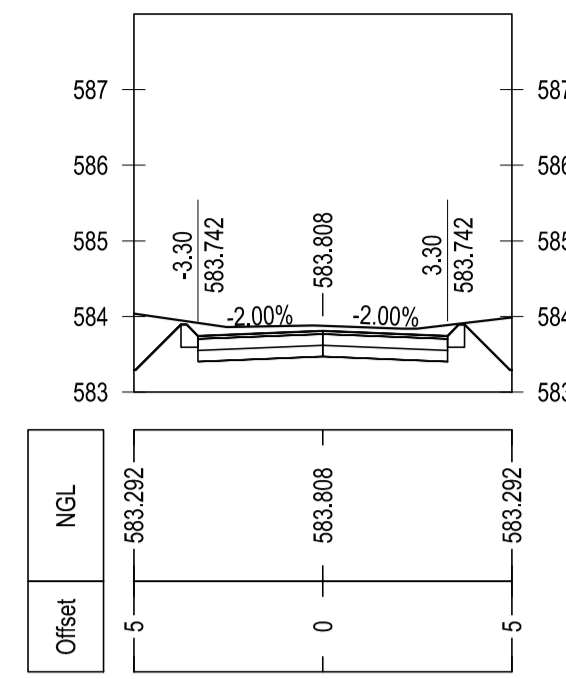
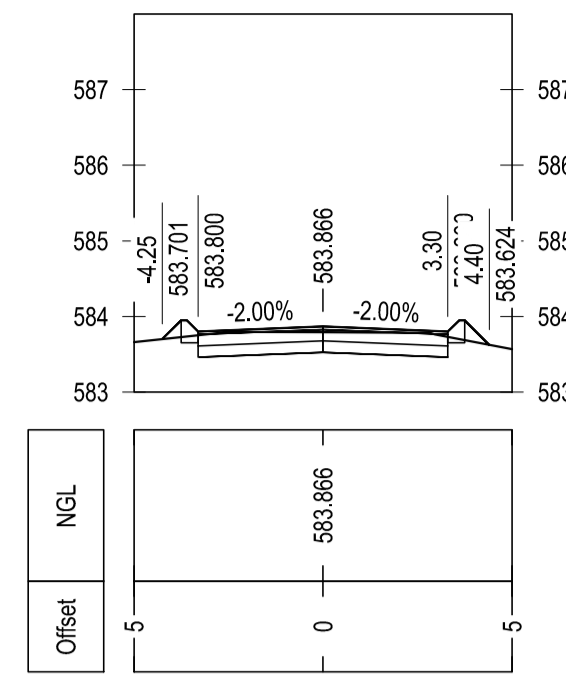
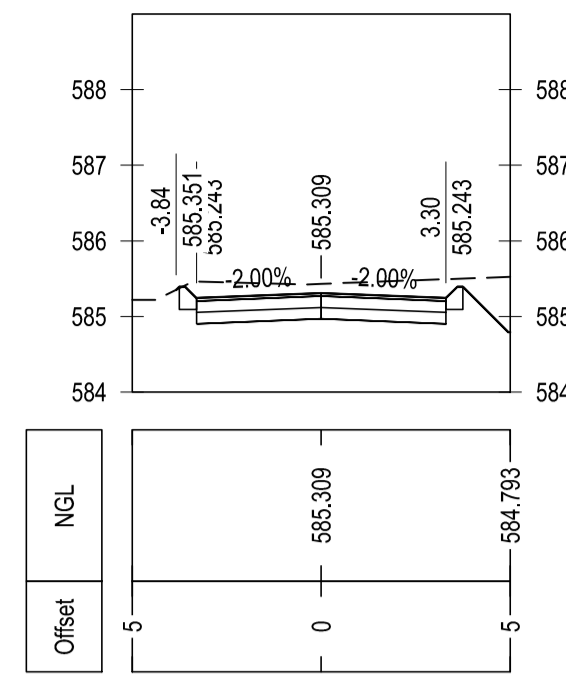
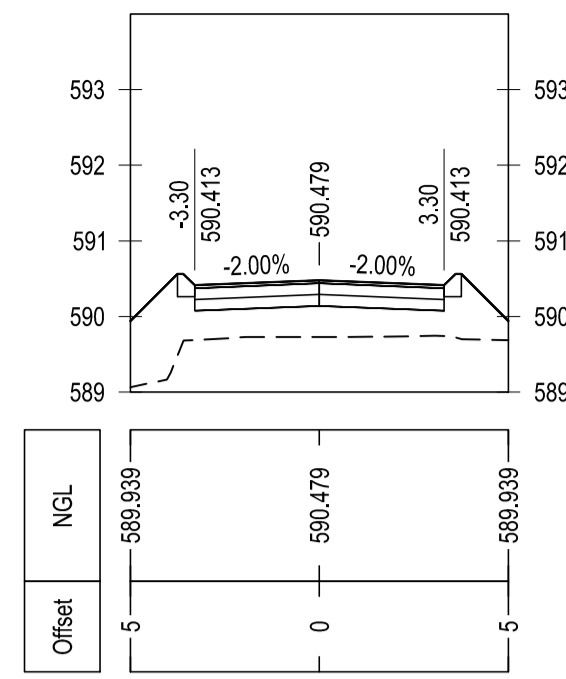
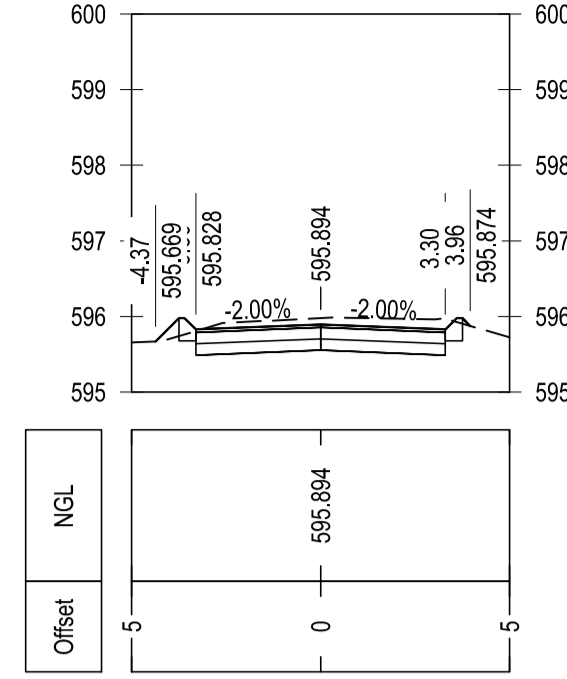
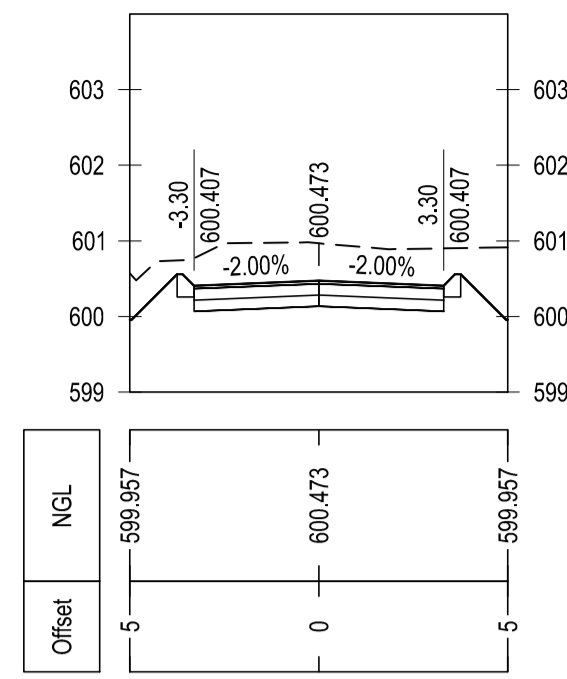
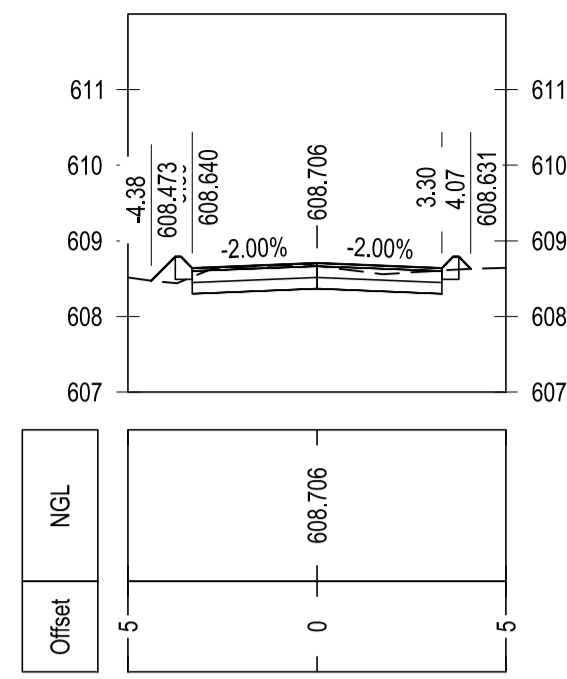


24 A RISSIK STREET
POLOKWANE
0699

TEL: 015 297 0744
FAX: 088 246 0744
EMAIL: admin@hwaeng.co.za

PROJECT NAME	REHABILITATION OF LORRAINE ACCESS ROAD
DRAWING TITLE	HORIZONTAL AND VERTICAL ALIGNMENT DETAILS

DRAWING No.	22002-03	SCALE	AS SHOWN
REVISION No.	A	SHEET No.	SHEET 4 of 4
CONTRACT No.	MLC/SCM/65/2024		



No	DATE	REVISION	CONSULT	DIR
A	02/2024	FOR TENDER	F.M	

NOTES

DESIGNED BY	D.M.M
CHECKED BY	F.M
DRAWN BY	D.M.M
CHECKED BY	F.M

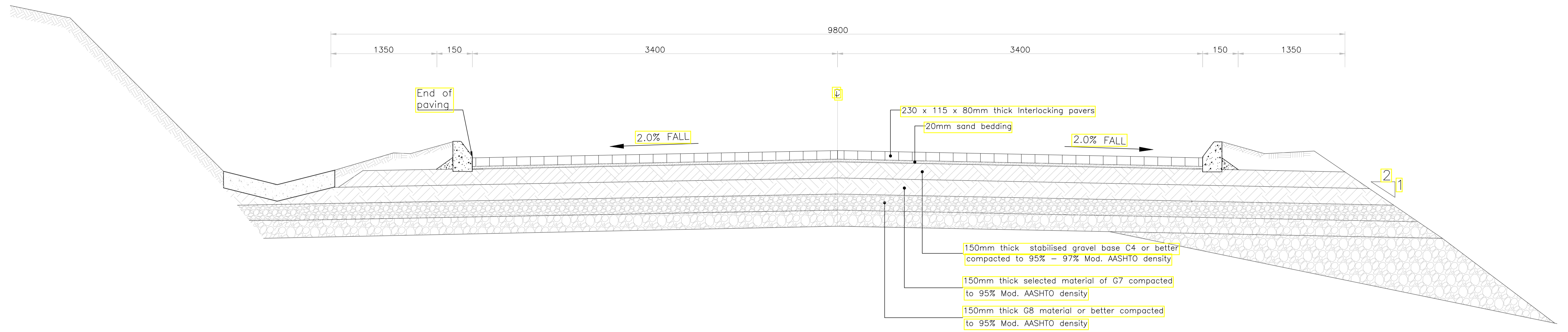
CLIENT
MARULENG MUNICIPALITY
 64 SPRINGBOK STREET
 HOEDSFRUIT 1380
 TEL: 015 811 6300
 FAX: 015 812 4301
 EMAIL:

CONSULTANT

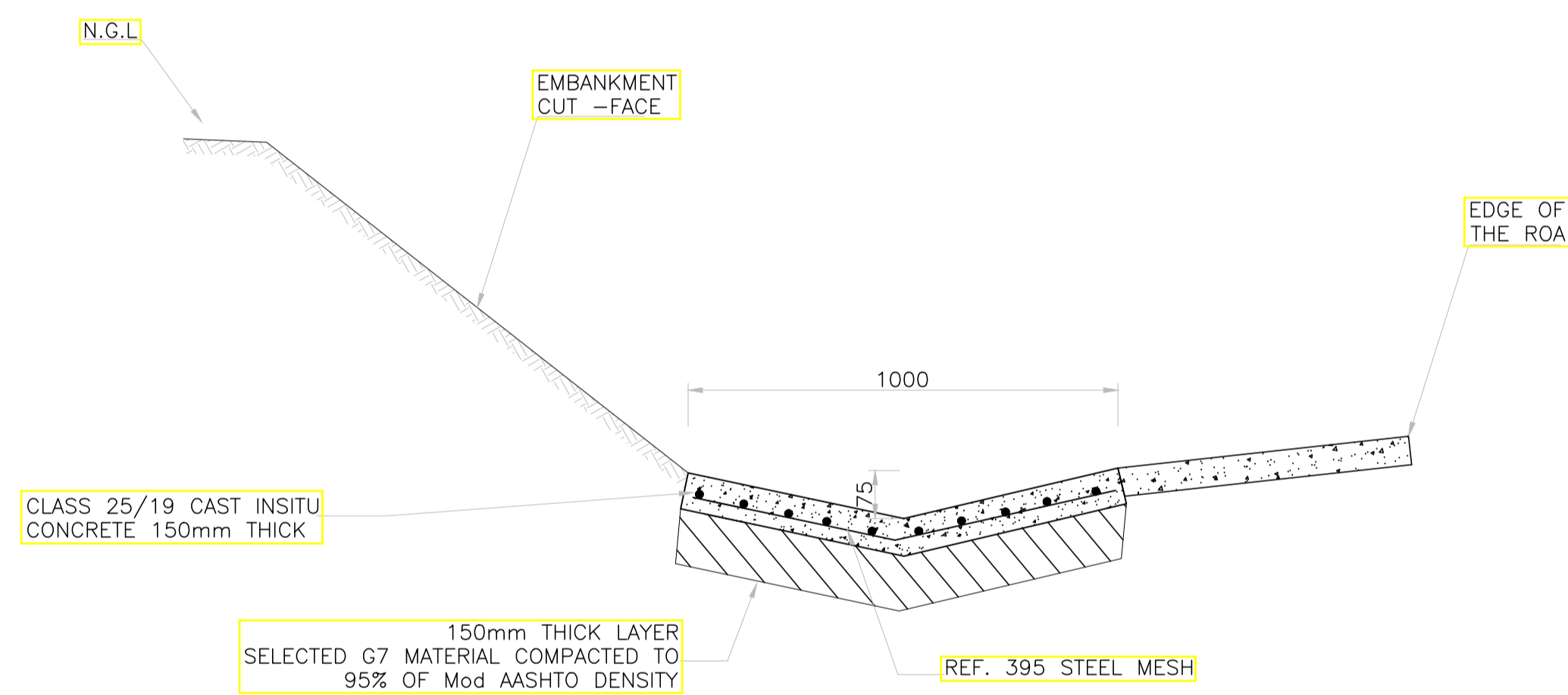
 24 A RISSIK STREET
 P.O. BOX 1000
 0699
 TEL: 015 297 0744
 FAX: 086 246 0744
 EMAIL: admin@hwaeng.co.za

PROJECT NAME
REHABILITATION OF LORRAINE ACCESS ROAD
 DRAWING TITLE
CROSS SECTIONS

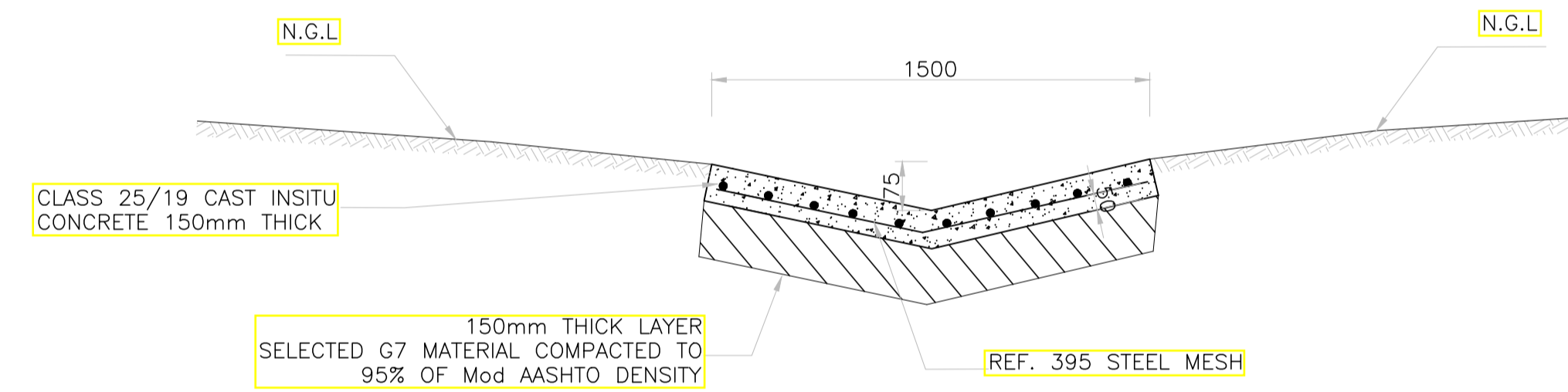
DRAWING No.	22002-04	SCALE	N.T.S
REVISION No.	A	SHEET No.	SHEET 1 of 2
CONTRACT No.	MLC/SCM/65/2024		



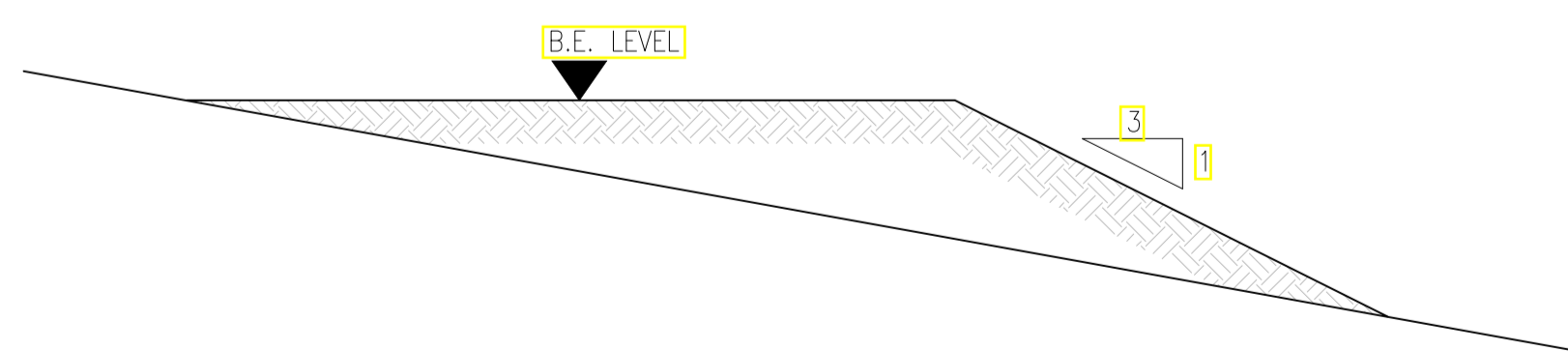
CROSS SECTION DETAILS
SCALE 1:20



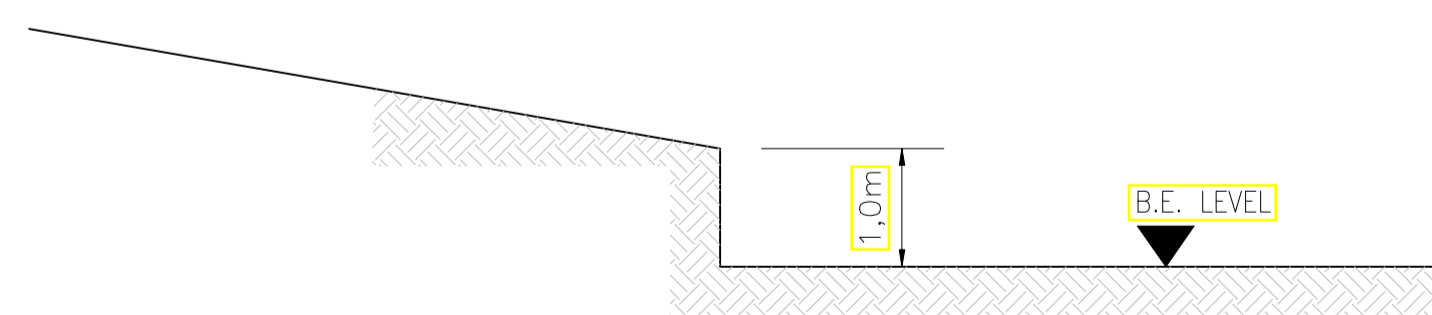
STANDARD CUT-DRAIN DETAIL
SCALE 1:25



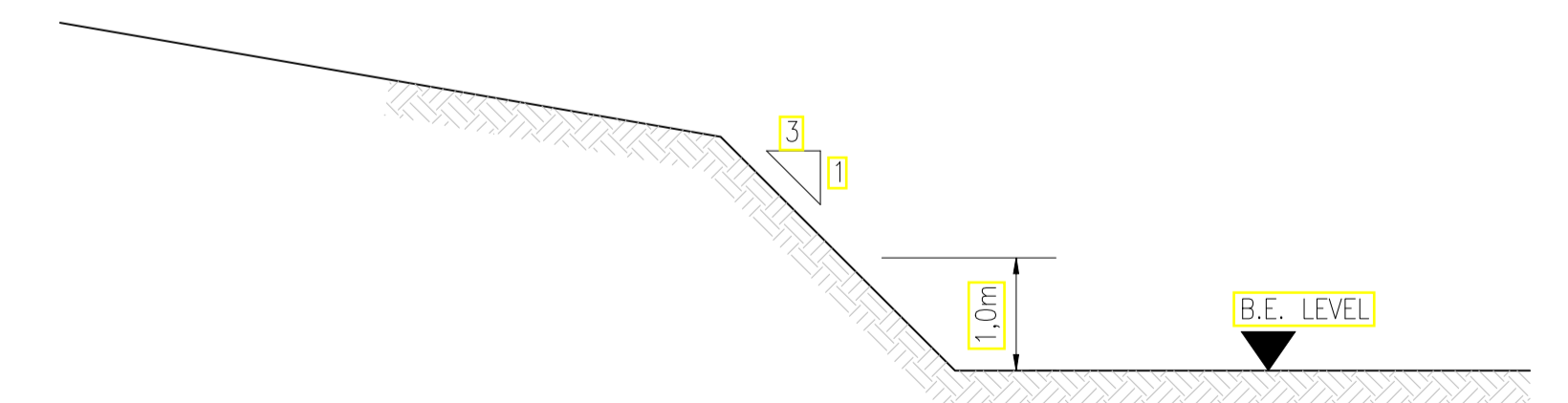
STANDARD DRAIN DETAIL
SCALE 1:25



PERMANENT EMBANKMENT DETAIL
SCALE 1:10



TYPICAL SECTION FOR EXCAVATION UP TO 1m
SCALE 1:10



TYPICAL SECTION FOR DEPTH EXCEEDING 1m EMBANKMENTS
SCALE 1:10

No	DATE	REVISION	CONSULT	DIR
A	02/2024	FOR TENDER	F.M	

DESIGNED BY	D.M.M
CHECKED BY	F.M
DRAWN BY	D.M.M
CHECKED BY	F.M

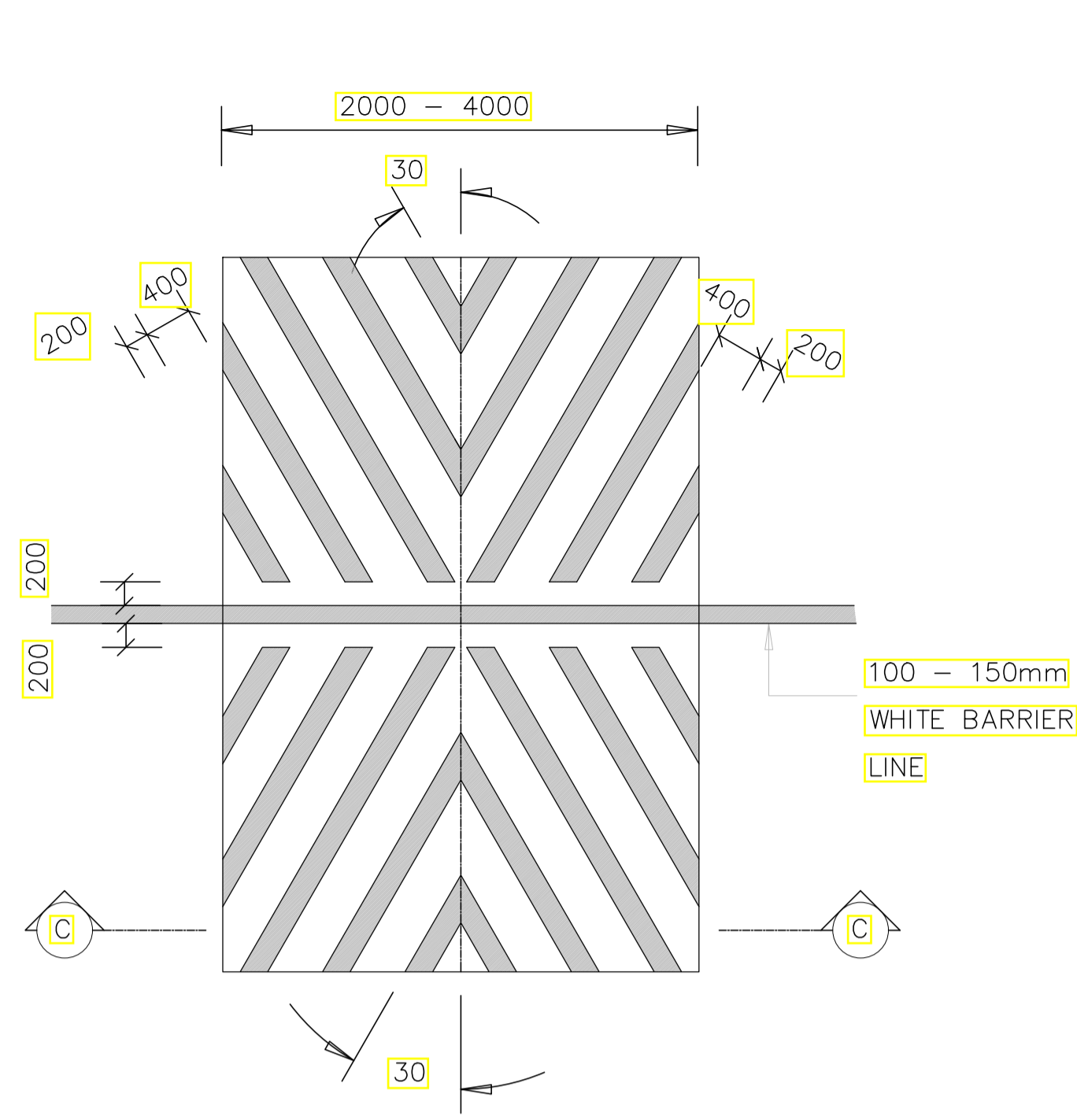
CLIENT	MARULENG LOCAL MUNICIPALITY 64 SPRINGBOK STREET HOEDSPRUIT 1380
--------	--

CONSULTANT	HWA 24 A RISSIK STREET POLOKWANE 0699
------------	--

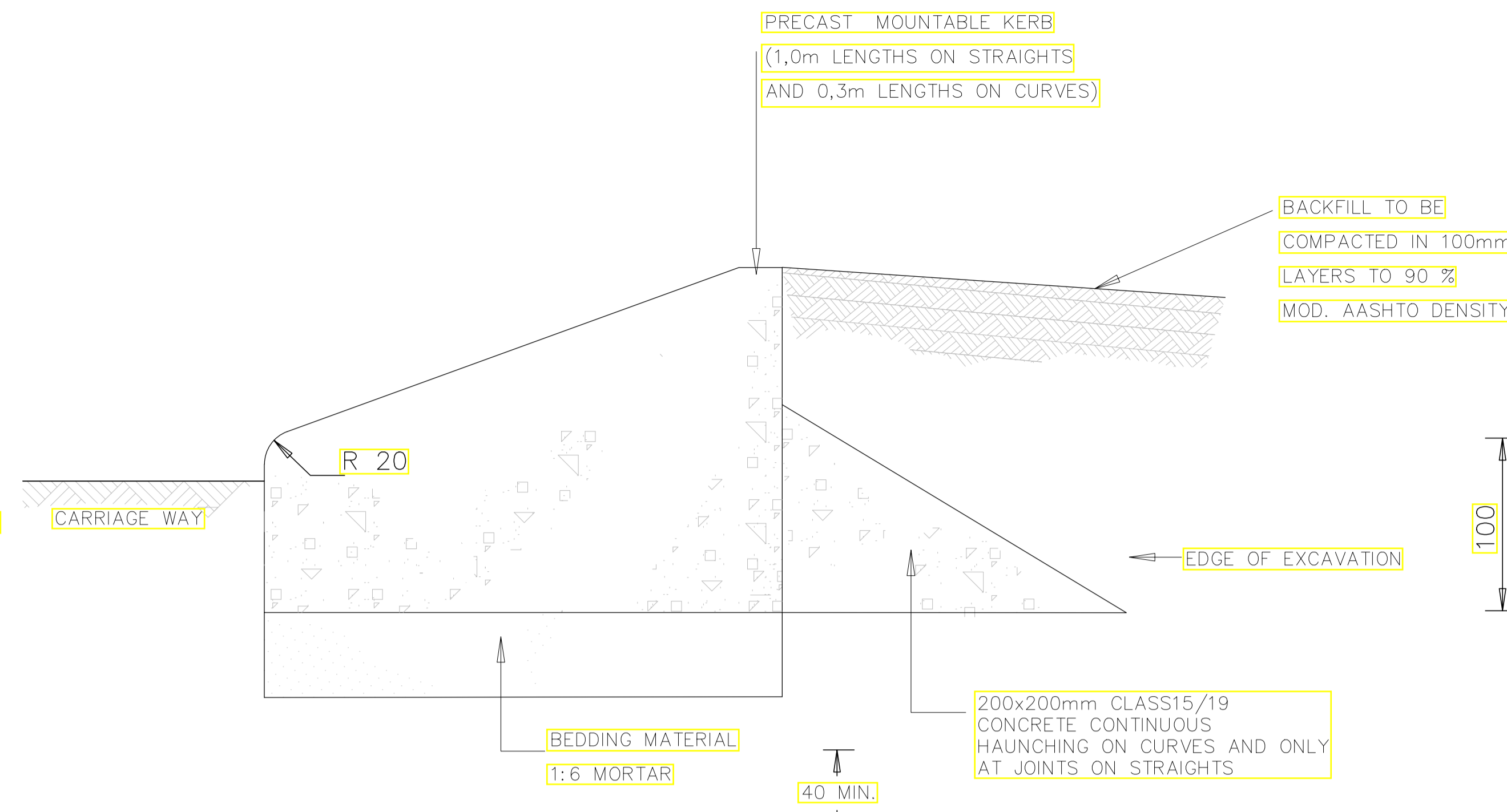
PROJECT NAME	REHABILITATION OF LORRAINE ACCESS ROAD
DRAWING TITLE	TYPICAL CROSS SECTION DETAILS

DRAWING No.	22002-05
REVISION No.	A
CONTRACT No.	MLC/SCM/65/2024

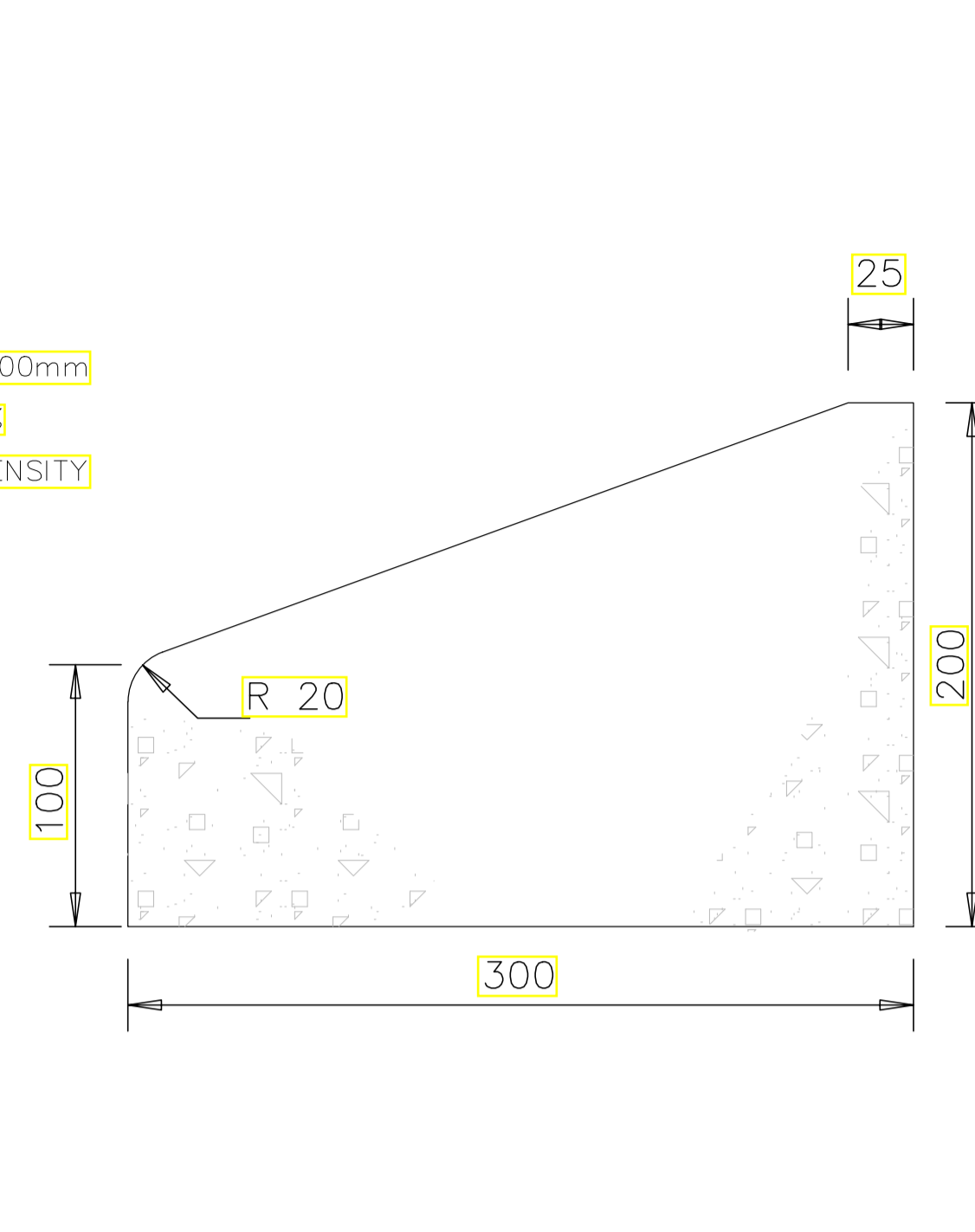
SCALE	N.T.S
SHEET No.	SHEET 1 of 1



DETAIL OF SPEED HUMP
SCALE 1:500



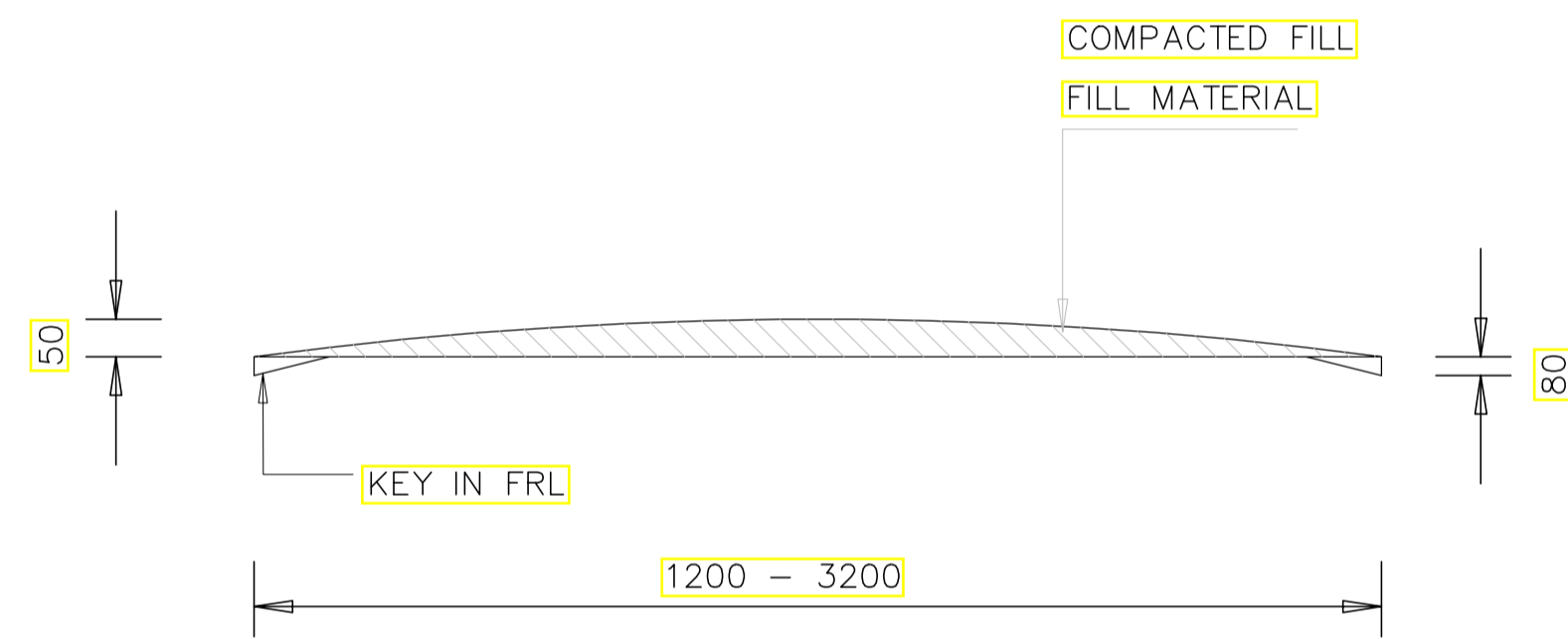
DETAIL OF MOUNTABLE KERB (FIG. 8C)
SCALE 1:500



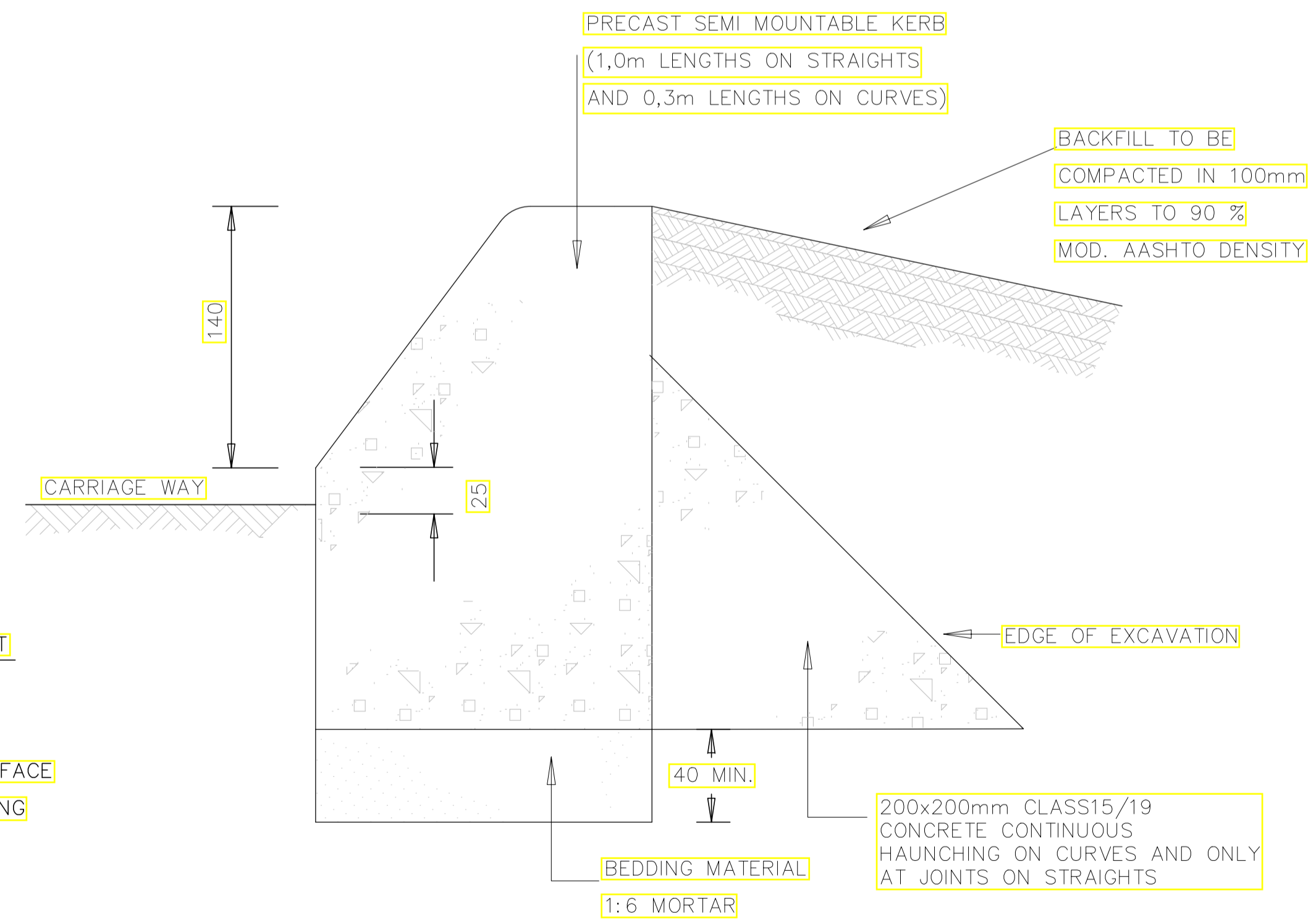
MOUNTABLE KERB SABS (FIG. 8C)
SCALE 1:500

- NOTES:
1. ALL KERB SHAPES AND STRENGTH TO COMPLY WITH SABS 927.
 2. ALL KERBING ON CURVES TO BE CONTINUOUSLY HAUNCHED, KERBS ON STRAIGHT SECTIONS HAUNCHED ONLY AT JOINTS.
 3. REFLECTIVE KERBING TO BE USED WHERE EXTRA SAFETY IS REQUIRED

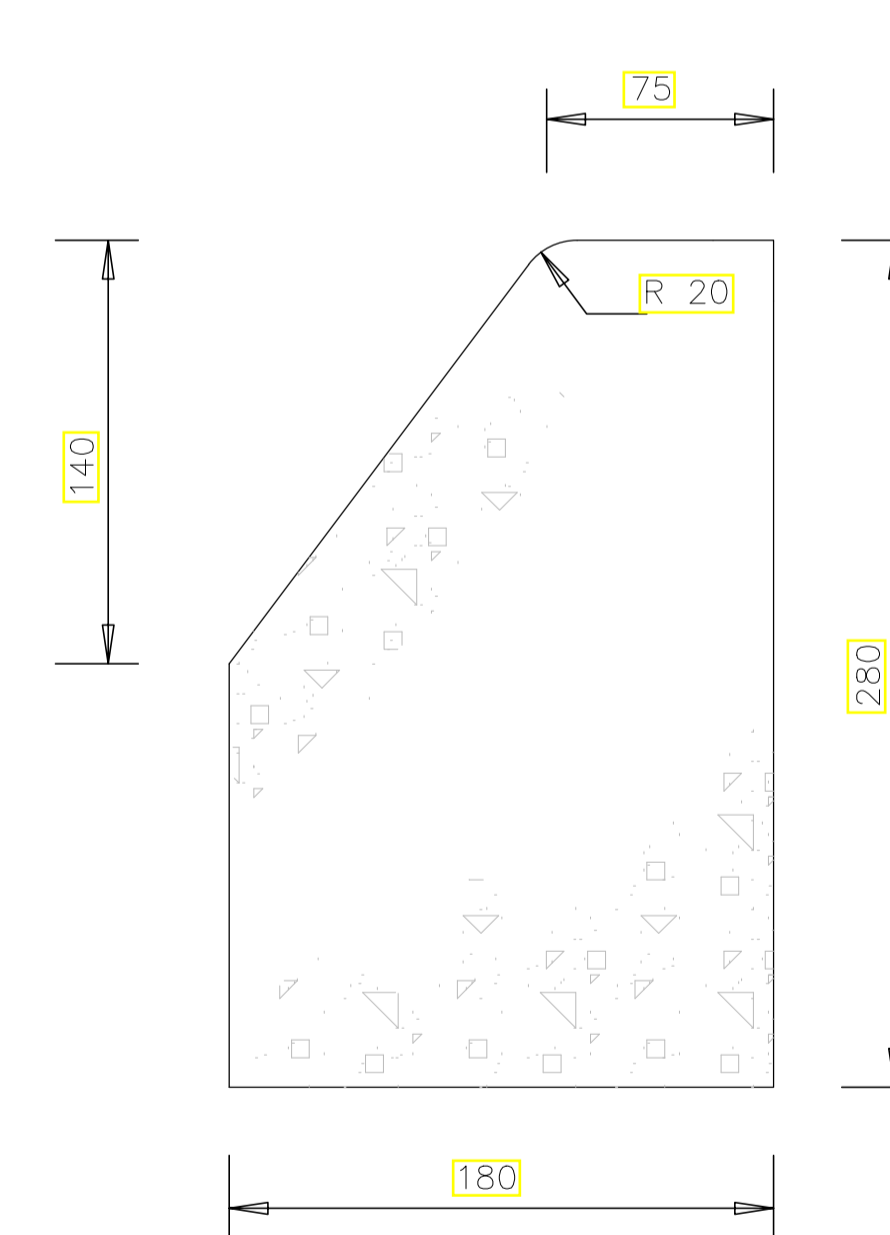
DETAIL OF SPEED HUMP
SCALE 1:500



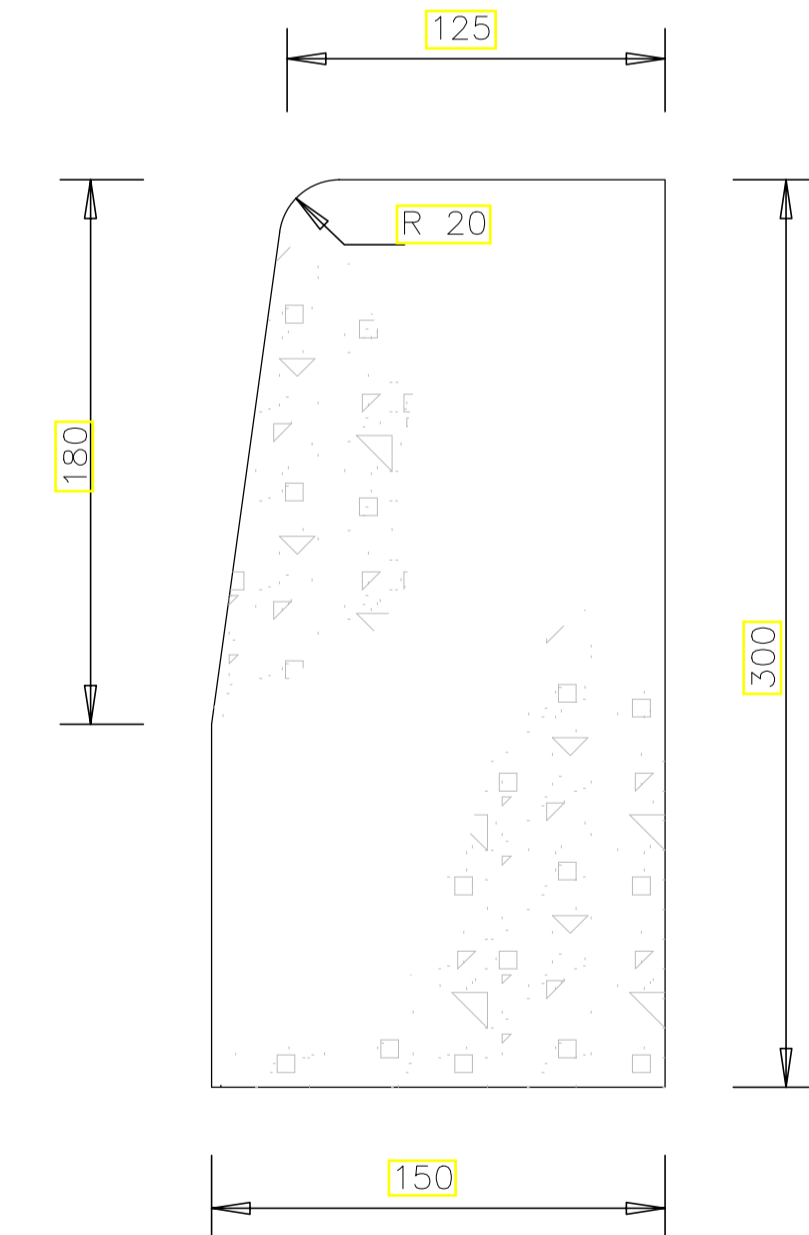
CONSTRUCTION DETAIL OF SPEED HUMP
SCALE 1:500



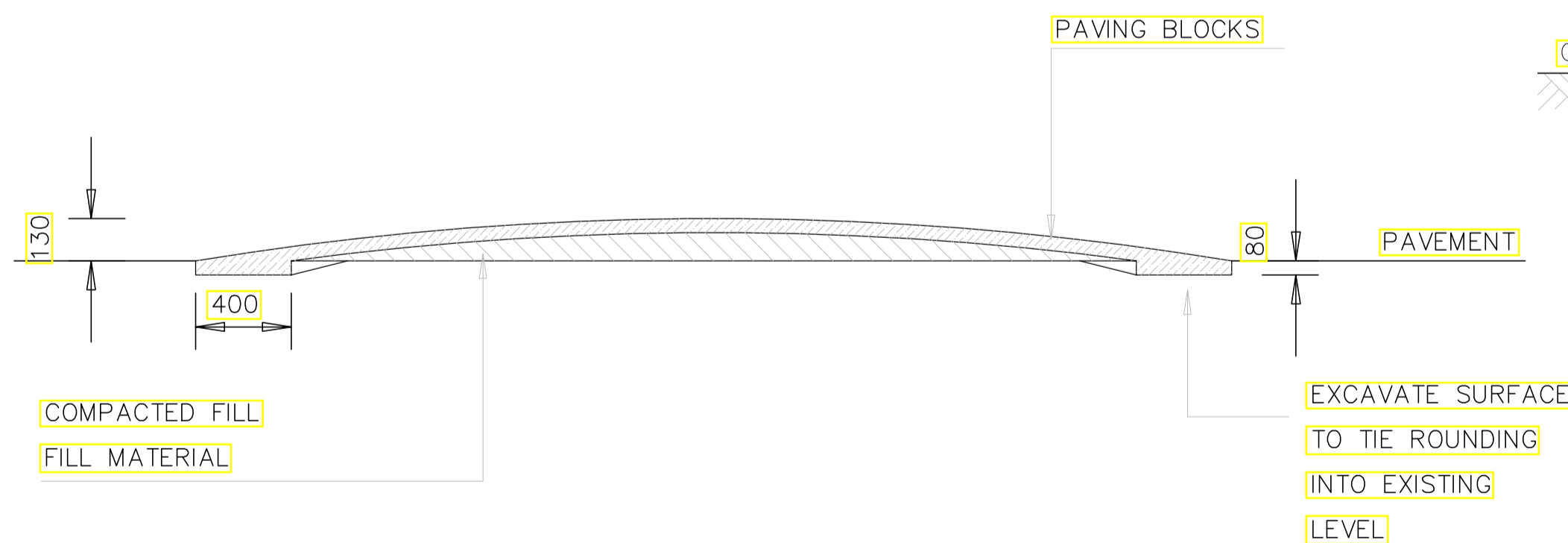
DETAIL OF SEMI-MOUNTABLE KERB (FIG. 7)
SCALE 1:500



SEMI-MOUNTABLE KERB SABS (FIG. 7)
SCALE 1:500



BARRIER KERB SABS (FIG.3)
SCALE 1:500



SECTION C-C
SCALE 1:500

No	DATE	REVISION	CONSULT	DIR
A	02/2024	FOR TENDER	F.M	

DESIGNED BY	D.M.M
CHECKED BY	F.M
DRAWN BY	D.M.M
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CONSULTANT	HWA
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PROJECT NAME	REHABILITATION OF LORRAINE ACCESS ROAD
DRAWING TITLE	SPEED HUMP AND KERB DETAILS

DRAWING No.	22002-06
REVISION No.	A
SHEET No.	SHEET 1 of 1

CONTRACT No.	MLC/SCM/65/2024
SCALE	N.T.S

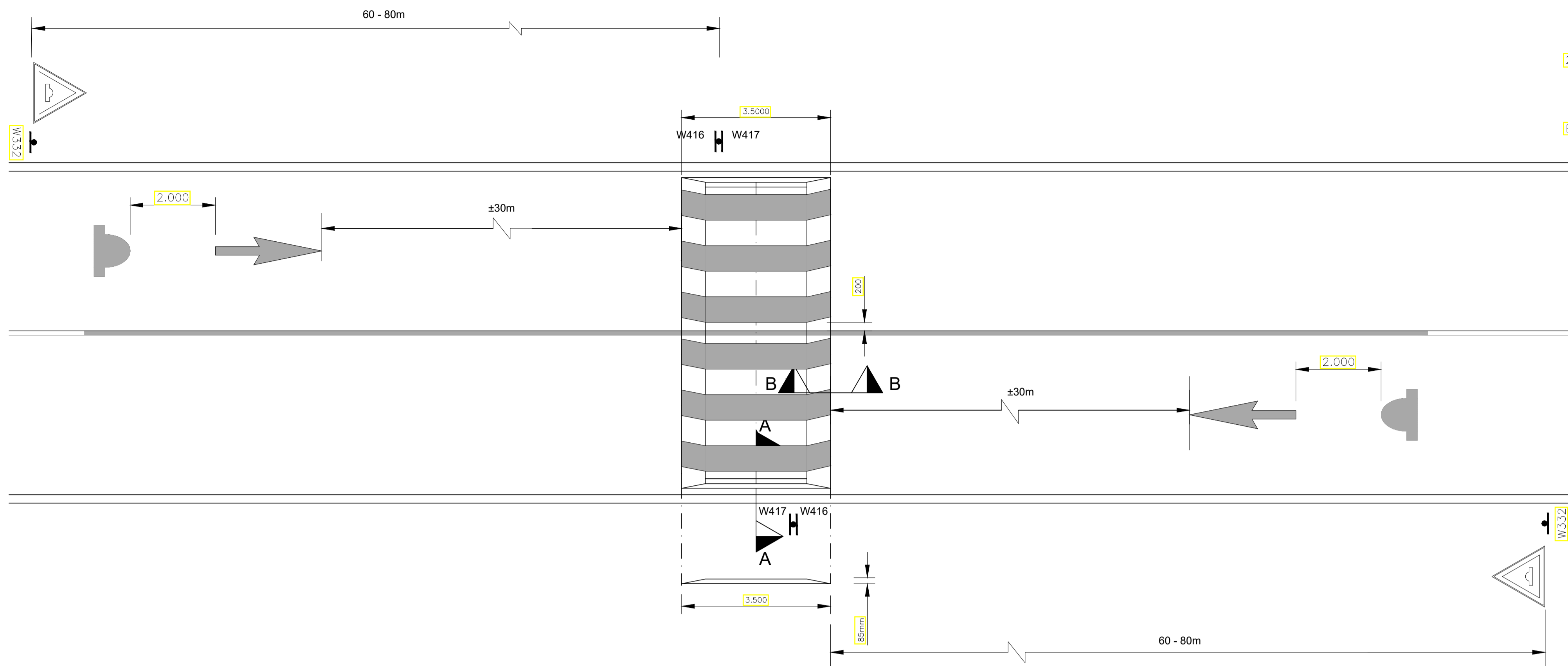
NOTES

1. Traffic Signs:
2. Only galvanised bolts and nuts to be used on W and R series (no uni-struts)
3. All signs must be according to the Road Traffic Signs Manuals but use 900Φ STOP (60km/h zone) for 3-way and 4-way stops
4. All signs excluding R1 series must have rounded edges
4. **ROADMARKINGS:**
All new road markings in thermoplastic

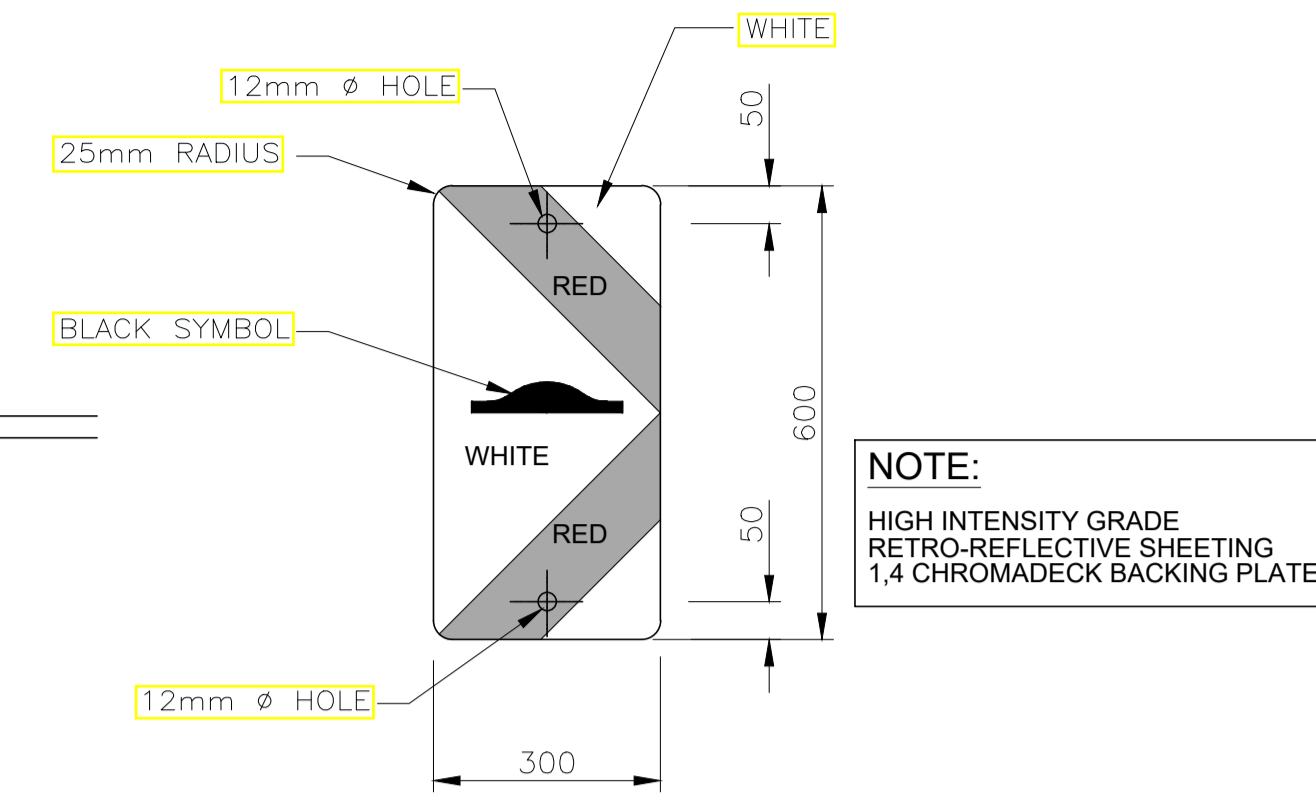
NOTE:

The Traffic Engineering and Operation section must always be consulted to assist with the setting out of speed humps.

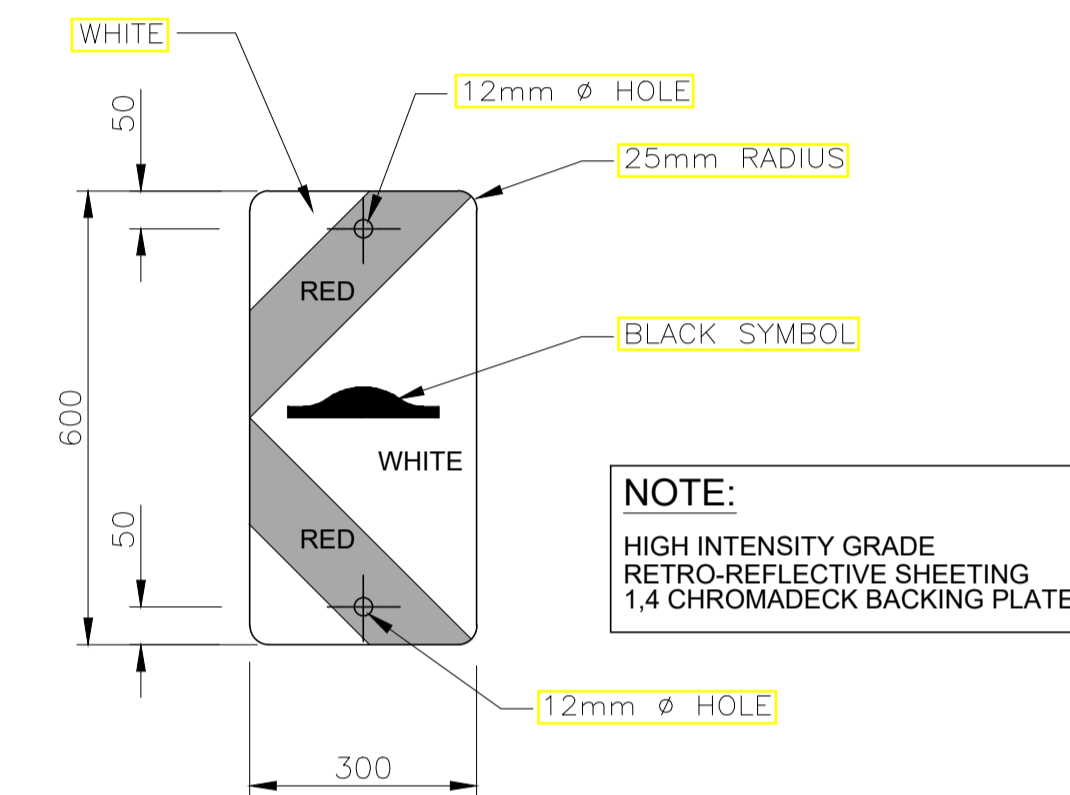
Colour	Paint application rate (mm)	Premix bead application rate (%)	Initial coefficient of retro-reflective (minicandelas/lux/m)
WHITE	1.2	35	200
YELLOW	1.2	35	135



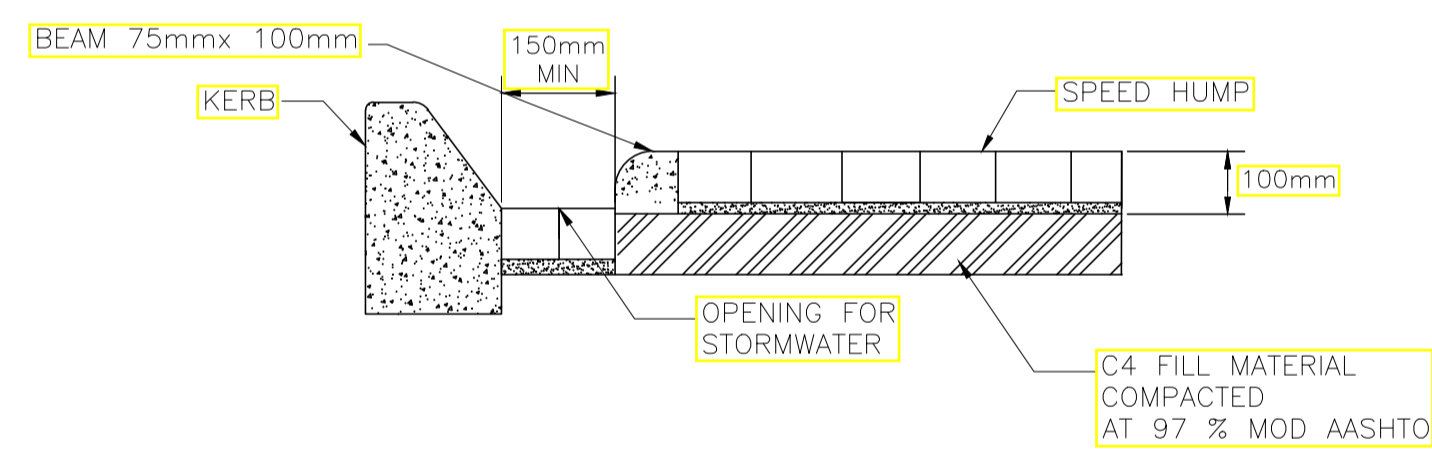
PLAN OF SPEED HUMP
SCALE 1:100



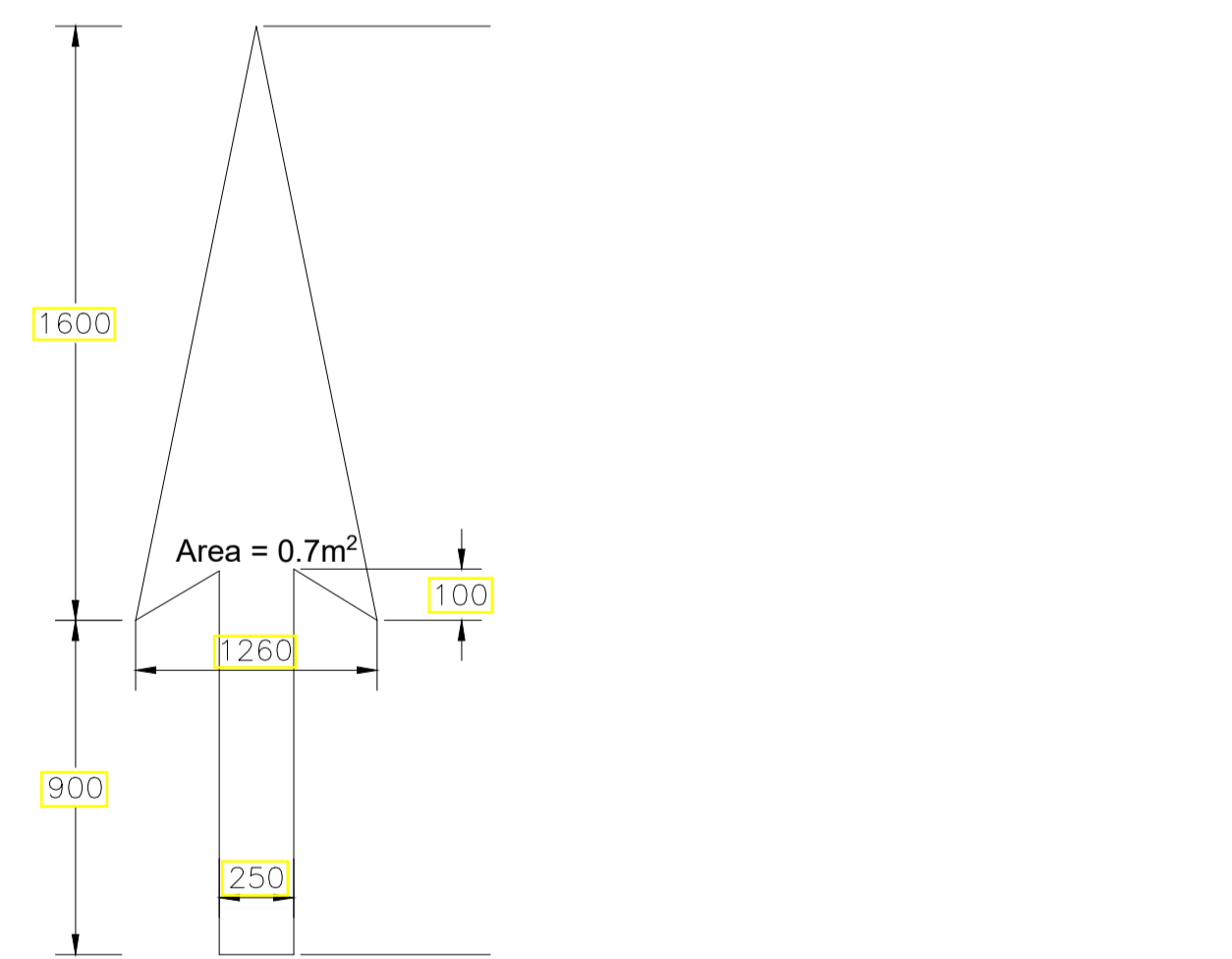
DANGER PLATE SPEEDHUMP (LEFT)
W416
SCALE 1:10



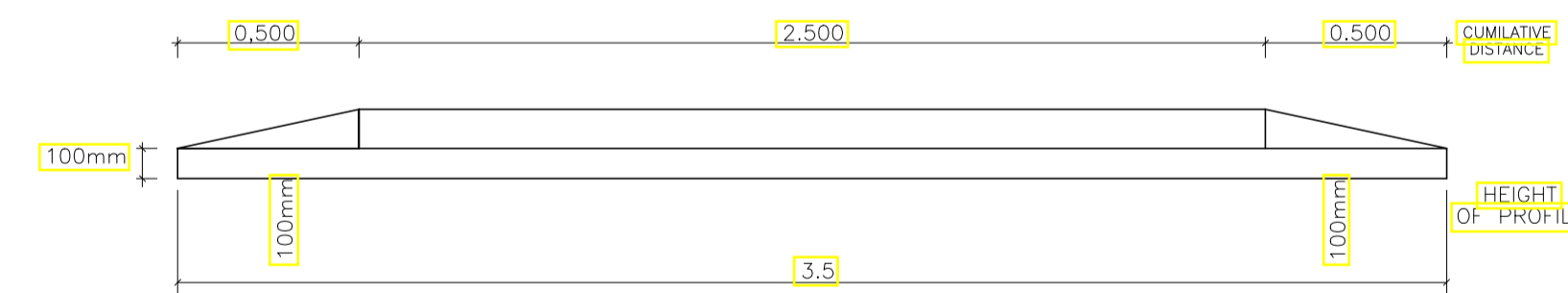
DANGER PLATE SPEEDHUMP (RIGHT)
W417
SCALE 1:10



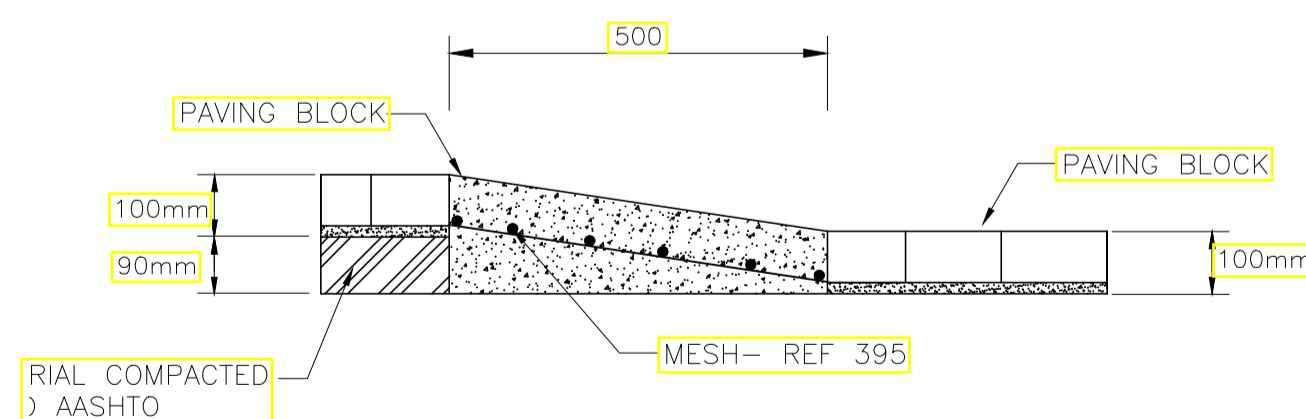
SECTION A-A:
CONSTRUCTION DETAIL OF SPEED HUMP
SCALE 1: 100
50/60 Km/h



DETAIL OF SPEED HUMP ROAD MARKING
SCALE 1: 20



SIDE ELEVATION



SECTION B-B:
CONSTRUCTION DETAIL OF SPEED HUMP
SCALE 1: 100

NOTES

No	DATE	REVISION	CONSULT	DIR
A	02/2024	FOR TENDER	F.M	

DESIGNED BY	D.M.M
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CLIENT



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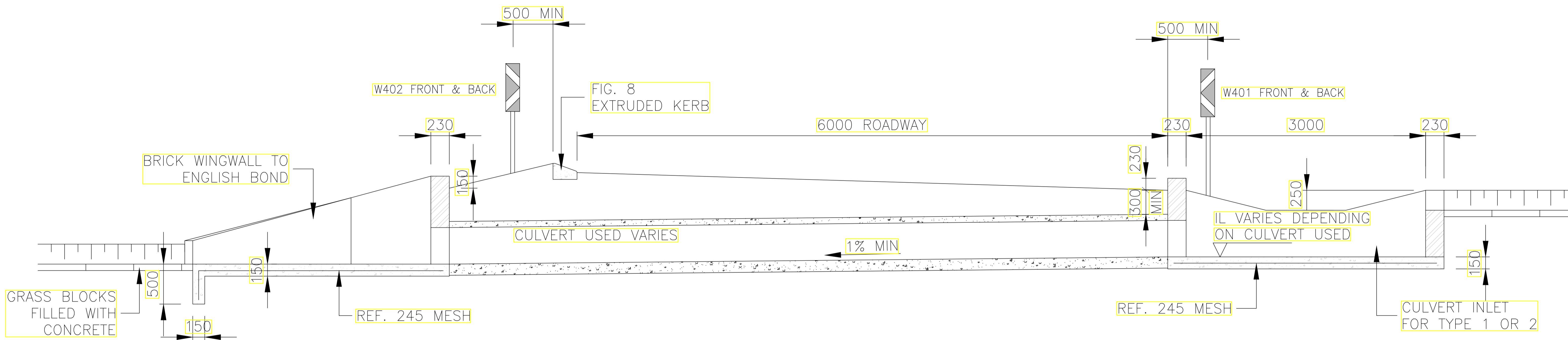


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PROJECT NAME	REHABILITATION OF LORRAINE ACCESS ROAD
DRAWING TITLE	ROAD SIGNS DETAILS

DRAWING No.	22002-07	SCALE	AS SHOWN
REVISION No.	A	SHEET No.	SHEET 1 of 1
CONTRACT No.	MLC/SCM/65/2024		





TYPICAL CULVERT LONG SECTION

SCALE 1:50

No	DATE	REVISION	CONSULT	DIR
A	02/2024	FOR TENDER	F.M	



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CHECKED BY	F.M
DRAWN BY	D.M.M
CHECKED BY	F.M

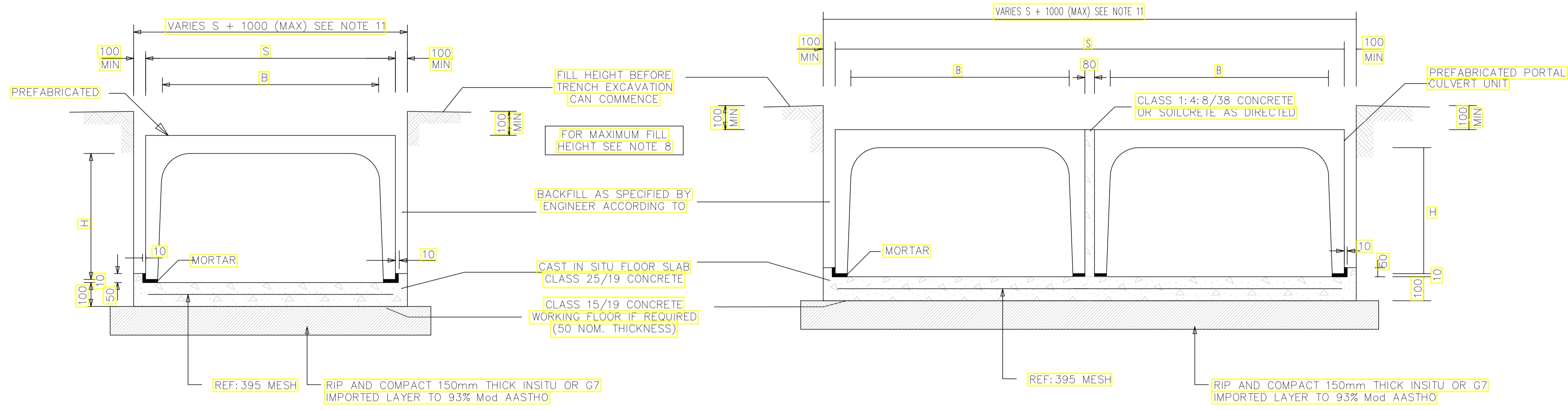
CLIENT	 MARULENG LOCAL MUNICIPALITY 64 SPRINGBOK STREET HOEDSPRUIT 1380
CONSULTANT	 24 A RISSIK STREET POLOKWANE 0699

PROJECT NAME	REHABILITATION OF LORRAINE ACCESS ROAD
DRAWING TITLE	TYPICAL CULVERT DETAILS

DRAWING No.	22002-08
REVISION No.	A
CONTRACT No.	MLC/SCM/65/2024
SCALE	N.T.S
SHEET No.	SHEET 1 of 2

DESIGNED BY	D.M.M
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DRAWN BY	D.M.M
CHECKED BY	F.M

CLIENT	 MARULENG LOCAL MUNICIPALITY 64 SPRINGBOK STREET HOEDSPRUIT 1380
CONSULTANT	 24 A RISSIK STREET POLOKWANE 0699

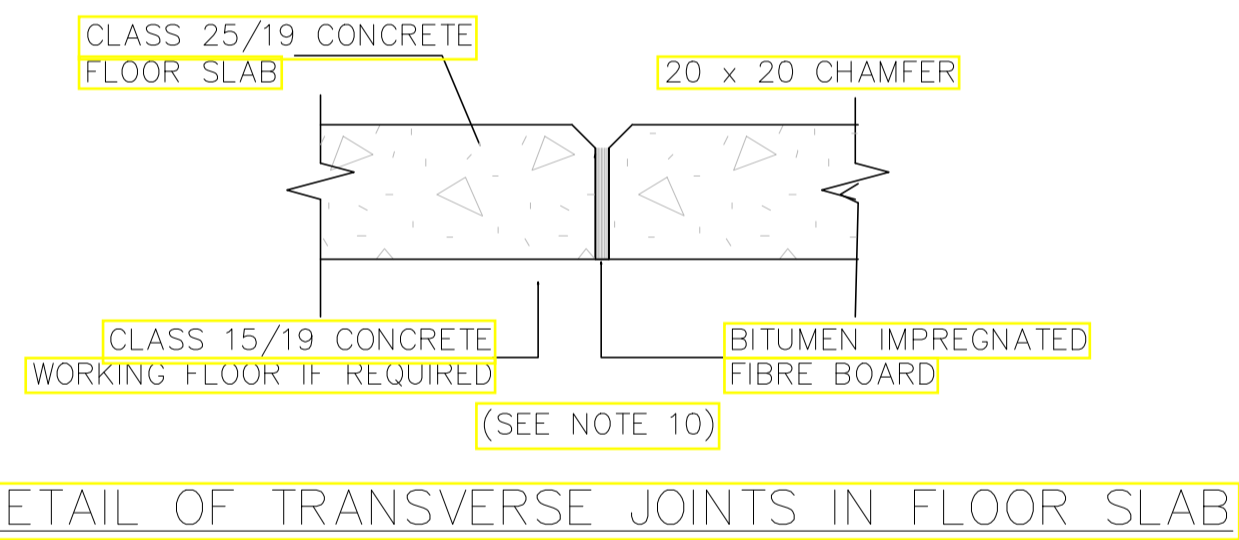


TYPICAL CROSS-SECTION OF SINGLE PORTAL CULVERT UNIT

TYPICAL CROSS-SECTION OF MULTIPLE PORTAL CULVERT UNITS

CULVERT SIZE SPAN&HEIGHT (mm) x (mm)	FOUNDATION CONDITIONS			
	1 & 2		3 & 4	
	CULVERT CLASS	FILL	CULVERT CLASS	FILL
450 x 300	200 S	11,2	200 S	6,0
450 x 375		12,2		6,4
450 x 450		13,0		6,8
600 x 300	200 S	10,2	200 S	5,6
600 x 450		11,0		6,0
600 x 600		12,0		6,4
750 x 300	175 S	8,7	175 S	4,9
750 x 450		9,2		5,2
750 x 600		10,0		5,5
750 x 750		10,5		5,8
900 x 300		8,6		4,8
900 x 450		9,0		5,1
900 x 600	175 S	9,5	175 S	5,3
900 x 750		10,0		5,6
900 x 900		10,2		5,8

NOTE:
 CONDITION 1: CULVERTS IN TRENCH ON UNYIELDING FOUNDATION WITH NO PROJECTION.
 CONDITION 2: CULVERTS INTRENCHED ON YIELDING FOUNDATION.
 CONDITION 3: CULVERTS INTRENCHED ON UNYIELDING FOUNDATION FOR $h \geq 1,7b$.
 CONDITION 4: CULVERT INTRENCHED ON UNYIELDING FOUNDATION FOR $h \geq 1,7b$.
 WHERE: h = FILL HEIGHT IN METRES.
 b = OVERALL TRENCH WIDTH OR IF UNTRENCHED OVERALL CULVERT WIDTH, IN METRES.

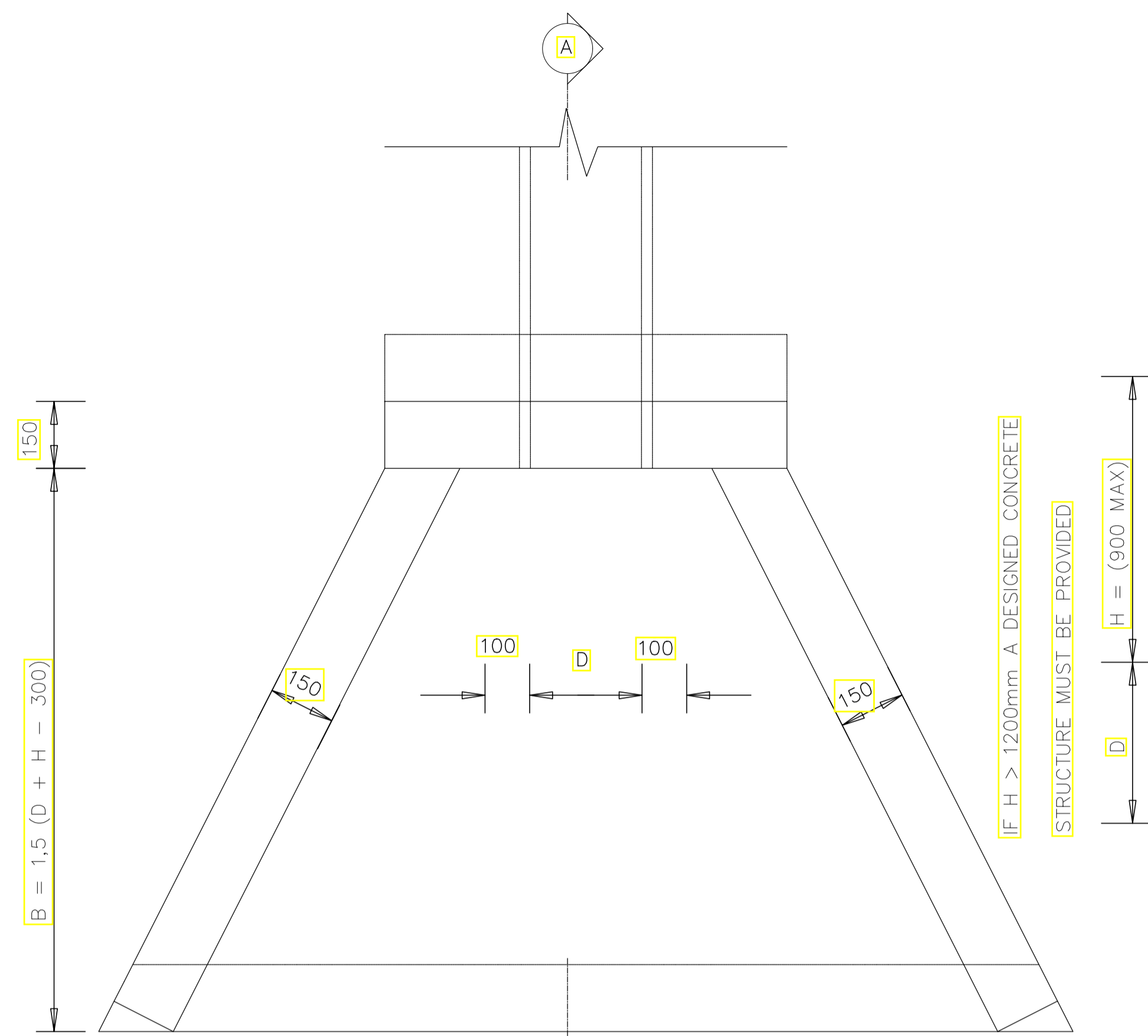


DETAIL OF TRANSVERSE JOINTS IN FLOOR SLAB

LOAD STATEMENT
1) PREFABRICATED PORTAL CULVERTS WITH NOMINAL SIZE "n x B x H" ARE LOADED IN ACCORDANCE
2) ALL PREFABRICATED PORTAL CULVERTS ARE CLASS 200S ACCORDING TO SABS 986.
3) THE MAXIMUM HEIGHT OF FILL ABOVE PORTAL CULVERTS MAY NOT EXCEED THE VALUES GIVEN IN NOTE 8(a).

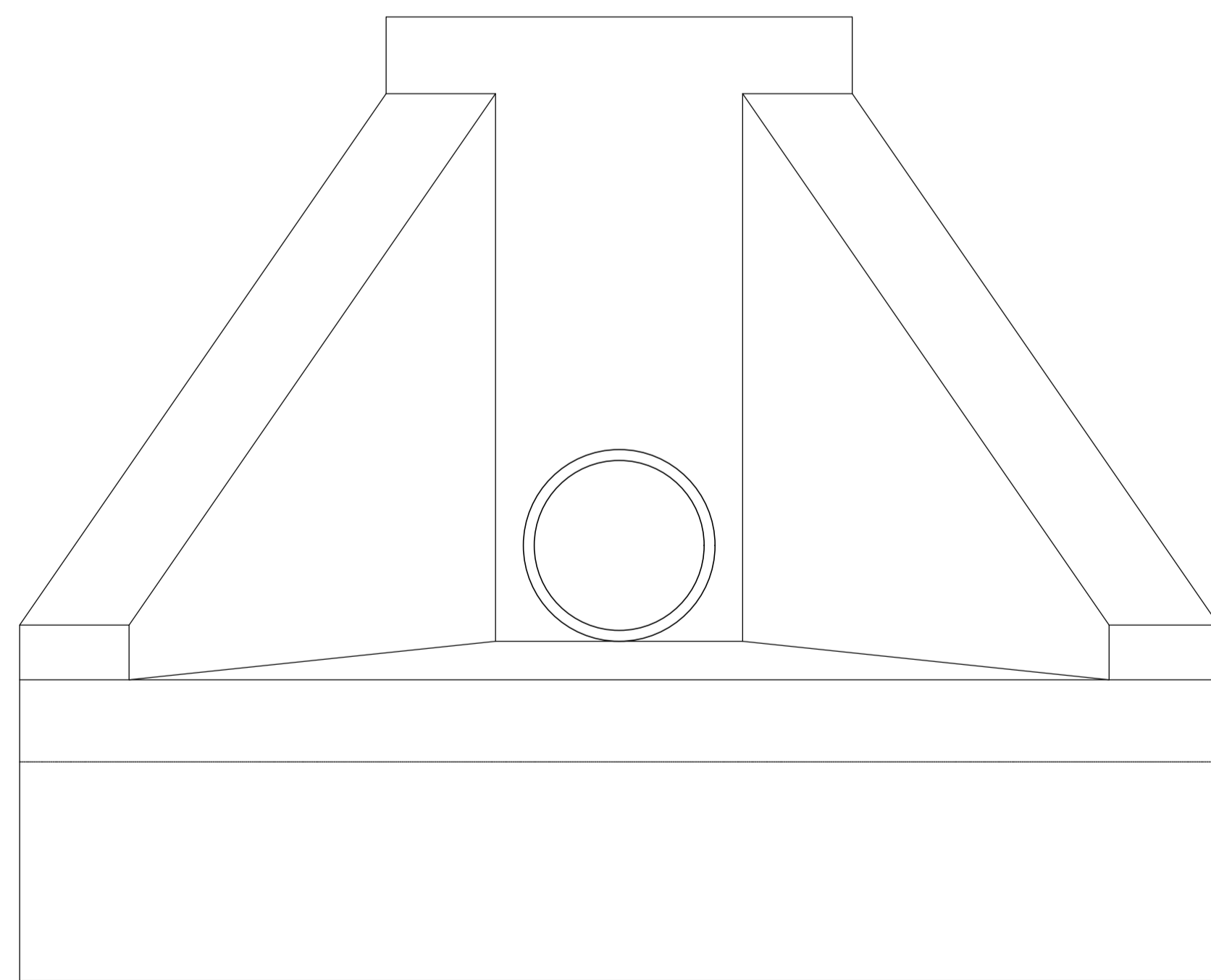
NOTES:	
1) STRUCTURAL CONCRETE IS CLASS 25/19.	
2) MIN CONCRETE COVER TO STEEL IS 40mm.	
3) DESIGN DENSITY OF FILL IS 1900 kg/m ³ .	
4) LOAD FACTOR FOR PROOF LOAD OF SABS 986 = 1,5.	
5) PREFABRICATED PORTAL CULVERTS SHALL COMPLY WITH THE REQUIREMENTS OF SABS 986 AS WELL AS THE ADDITIONAL TEST LOADING AND CRITICAL TEST LOAD COMBINATION FOR THE TEST OF SHEAR RESISTANCE.	
6) DIMENSIONS AND REINFORCEMENT DETAILS FOR CAST IN SITU FLOOR SLABS ARE VALID ONLY:	
a) IF THE HEIGHT OF FILL IS LESS THAN SPECIFIED BELOW.	
DIMENSION B	HEIGHT OF FILL
450mm	6,4m
600mm	6,0m
750mm	5,0m
900mm	4,0m
1200mm	3,0m
1500mm	2,5m
1800mm	2,0m
b) WHERE THE TYPE OF MATERIAL UNDER THE BASE SLAB IS NOT ROCK.	
7) THE DIMENSIONS IN THE TABLE MAY NOT CONFORM TO ALL MARKETED UNITS AND IT MAY BECOME NECESSARY TO REVISE TABULATED DIMENSIONS.	
8) MAXIMUM SPACING OF TRANSVERSE JOINTS IN FLOOR SLABS IS 10m.	
9) THE EXCAVATION WIDTH MAY BE VARIED BY THE ENGINEER DEPENDING ON THE TYPE OF BACKFILL USED.	
10) FOR HANDLING AND INSTALLATION OF CULVERTS REFER TO "CONCRETE PIPE AND PORTAL CULVERT INSTALLATION MANUAL" FROM THE CONCRETE SOCIETY OF SOUTHERN AFRICA.	
11) WHEN THE HEIGHT OF THE PORTAL CULVERT IS 1,5m OR MORE, TEMPORARY PROPS MUST BE PLACED BETWEEN THE LEGS DURING THE BACKFILLING OPERATION.	

TYPICAL DETAILS OF CAST IN SITU FLOOR SLABS FOR PREFABRICATED PORTAL CULVERTS

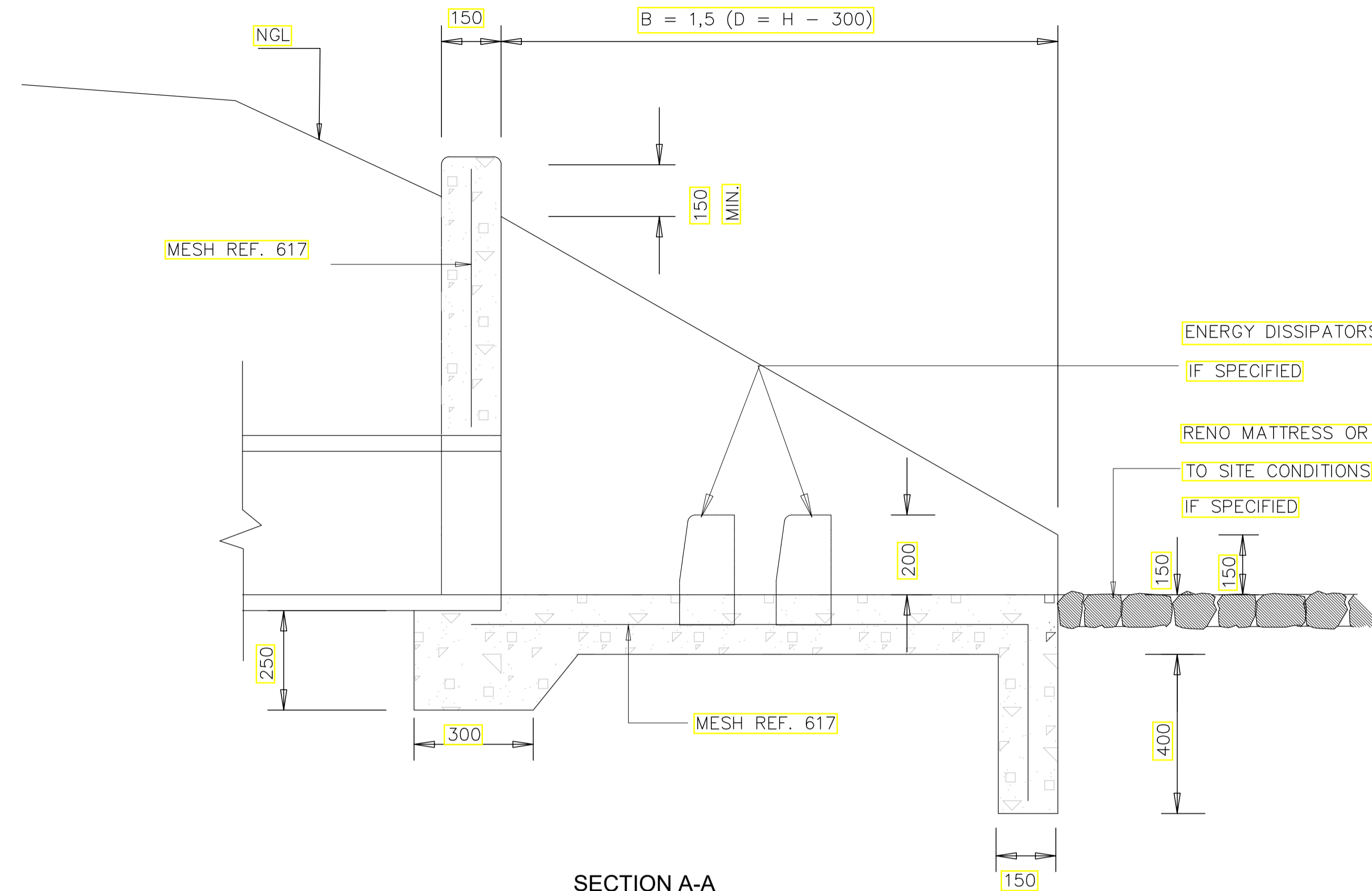


PLAN
SCALE 1:500

IF H > 1200mm A DESIGNED CONCRETE STRUCTURE MUST BE PROVIDED



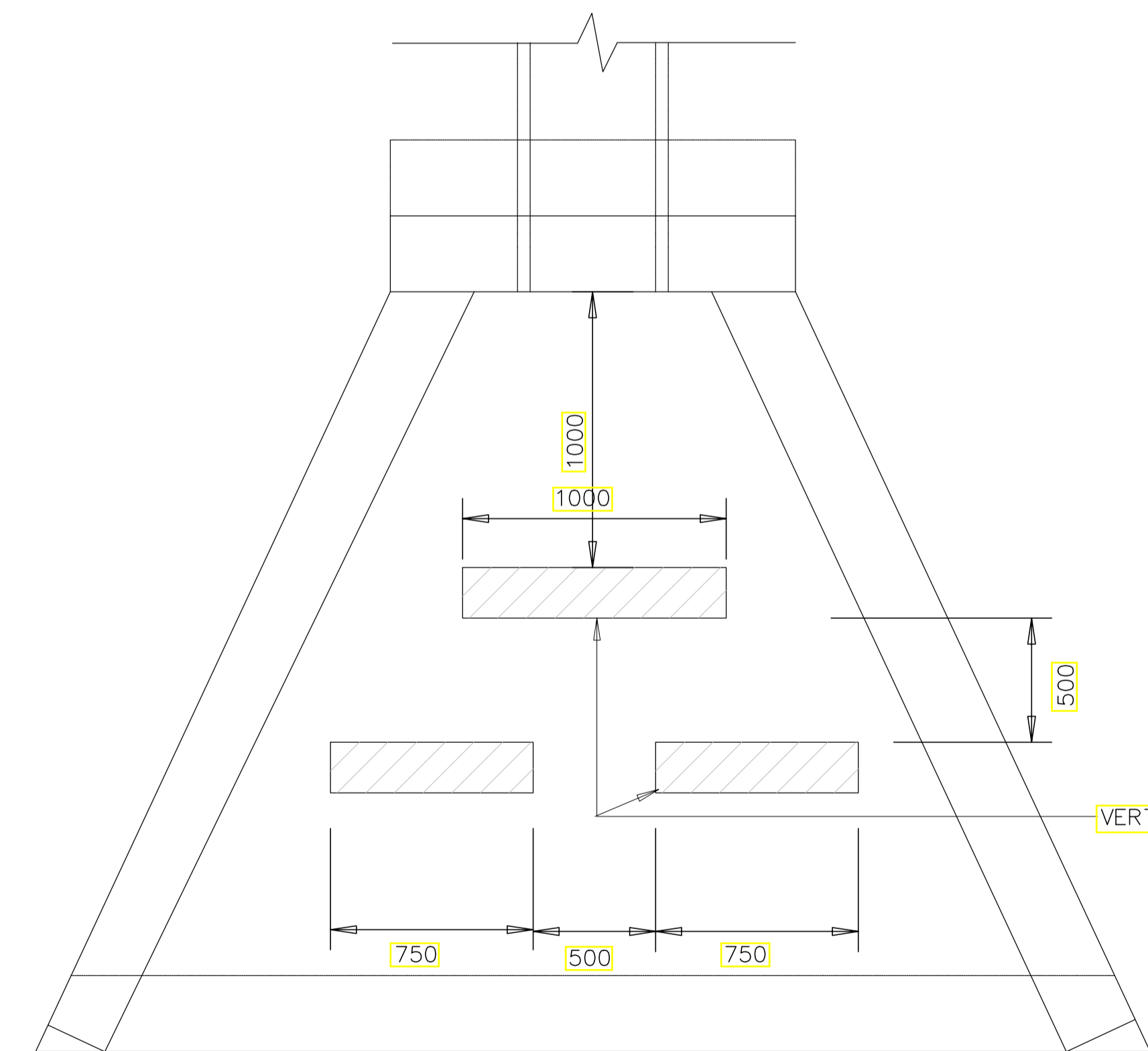
FRONT ELEVATION
SCALE 1:500



SECTION A-A
SCALE 1:500

NOTES:

1. ALL CONCRETE IN INLET AND OUTLET STRUCTURE TO BE CLASS 20/19 WITH A WOOD FLOAT FINISH.
2. MINIMUM COVER TO REINFORCEMENT = 25mm
3. ALL ROAD WORKS TO COMPLY WITH SABS 1200 SPECIFICATIONS.



(SPECIAL STORMWATER OUTLET FOR USE WHEN OUTLET VELOCITY EXCEEDS 2.0 m/s)

PLAN
SCALE 1:500

VERTICAL KERBING, FIG. 3

No	DATE	REVISION	CONSULT	DIR
A	02/2024	FOR TENDER	F.M	

DESIGNED BY	D.M.M
CHECKED BY	F.M
DRAWN BY	D.M.M
CHECKED BY	F.M

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CONSULTANT	HWA
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PROJECT NAME	REHABILITATION OF LORRAINE ACCESS ROAD
DRAWING TITLE	TYPICAL STORMWATER INLET AND OUTLET DETAILS

DRAWING No.	22002-09
REVISION No.	A
CONTRACT No.	MLC/SCM/65/2024

SCALE	N.T.S
SHEET No.	SHEET 1 of 1