



DR JS MOROKA LOCAL MUNICIPALITY

CONTRACT NUMBER: JSM R01/24-25W22

TENDER DOCUMENT

CONSTRUCTION OF RADJOKO BUS AND TAXI ROUTE PHASE 3

PREPARED BY:	PREPARED FOR:
DIKGATO ENGINEERING CONSULTANTS (Pty)Ltd 3 Skurweberg Street, Noordwyk Ext.6 MIDRAND 1687 Tel: (011) 318 1698 Email: dikgatoc@dikgato.co.za	 EXPANDED PUBLIC WORKS PROGRAMME Creating opportunities towards human fulfilment The Municipal Manager Dr J.S. Moroka Local Municipality P/Bag X 4012 SIYABUSWA 0472 Tel: (013) 973 9126/7/8/9 Fax: (013) 973 9132/3

NAME OF BIDDER (BIDDING ENTITY)
(FULL NAME, i.e. (CC, (PTY) LTD, LTD, JV, SOLE PROPRIETOR etc.)

TEL NUMBER

FAX NUMBER

CSD NO.

FAX NUMBER

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THE OFFERED TOTAL OF THE PRICES INCLUDING VALUE ADDED TAX IS:

R (In figures)

BIDDER:

DR. JSMLM:

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Initial: Authorized signatory/ies:

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Initial: DR. JSMLM

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VERY IMPORTANT NOTICE ON DISQUALIFICATIONS:

A bid not complying with the peremptory requirements stated hereunder will be regarded as not being an "Acceptable bid", and as such will be rejected.

"Acceptable bid" means any bid which, in all respects, complies with the conditions of bid and specifications as set out in the bid documents, including conditions as specified in the Preferential Procurement Policy Framework Act of 2022 including any other amendments made thereafter, in terms of which provision is made for this policy.

1. If a tax clearance pin or copy thereof (or in the case of a joint venture, of all the partners in the joint venture) has not been submitted with the bid document on closing date of the bid.
2. If any pages have been removed from the bid document, and have therefore not been submitted, or a copy of the original bid document has been submitted.
3. Failure to complete the schedule of quantities as required including the sub-contractors schedule of quantities.
4. Scratching out, writing over or painting out rates, without initialling next to the amended rates or information, affecting the evaluation of the bid.
5. The use of correction fluid (i.e. tippex) or any erasable ink, e.g. pencil.
6. Non-attendance of mandatory/compulsory:
 - o Site inspections or;
 - o Information/Clarification meetings
7. The Bid has not been properly signed by a party having the authority to do so, according to the example of "Authority for Signatory"
8. No authority for signatory submitted – See example, where it is stated that a duly signed and dated original or certified copy of the company's relevant resolution (for each specific bid) of their members or their board of directors on the company letter head, must be submitted.
9. Particulars required in respect of the bid have not been completed, except if information required on Preferencing Schedule in respect of HDI Equity and Equity Ownership Forms, is not completed, the bid will not be disqualified but no preference points will be awarded.
10. The bidder attempts to influence, or has in fact influenced the evaluation and/or awarding of the contract
11. The bid has been submitted either in the wrong bid box or after the relevant closing date and time
12. Failure to provide a valid certificate from the Department of Labour, or a declaration (Specific goals – "Equity ownership") by a designated employer that it complies with the Employment Equity Act 55 of 1998.
13. If any municipal rates and taxes or municipal service charges owed by the bidder or any of its directors to the municipality, or to any other municipality or municipal entity, are in arrears for more than one month.
14. If any bidder who during the last five years has failed to perform satisfactorily on a previous contract with the municipality, municipal entity or any other organ of state after written notice was given to that bidder that performance was unsatisfactory.
15. The accounting officer must ensure that irrespective of the procurement process followed, no award may be given to a person –
 - (a) who is in the service of the state, or;
 - (b) if that person is not a natural person, of which any director, manager, principal shareholder or stakeholder, is a person in the service of the state; or;
 - (c) Who is an advisor or consultant contracted with the municipality in respect of contract that would cause a conflict of interest.
16. Failure to provide:
 - (a) Written proof of **registration** with the CIDB, in an appropriate contractor grading designation (category), as required in the bid documentation (if applicable); or
 - (b) Written proof of **application** to the CIDB **for registration** as a contractor in an appropriate designation (category), as required in the bid documentation (if applicable).

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17. Bid offers will be rejected if the bidder or any of his directors is listed on the Register of Bid 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.
18. Bid offers will be rejected if the bidder has abused the DR. JSMLM's Supply Chain Management System.
19. Failure to attach a copy of a valid signed Joint Venture/Consortium agreement (if applicable) to the bid document.
20. Form of offer not completed and signed by the authorised signatory.
21. Not signing all pages on the space provided
22. Attach CV of Contracts Manager, Site Agent and Safety Officer
23. Certified copies of Qualification of Contracts Manager (Minimum qualification in Civil / Roads related projects), Site Agent and Safety Officer (Relevant Certificate)
24. Proof of Foreign Qualification approved from SAQA (if applicable)
25. Proof of Employment, letter confirming employment on the company letter head (Contracts Manager, Site Agent and Safety Officer)
26. Proof of relevant working experience for the bidder (copies of appointment letter and completion certificate)
27. Recent audited 3 year financial statements stating that the business is a going concern in line with Municipal Supply Chain Management Regulations are to be submitted.
28. In case where the bidder fails to prove beyond reasonable doubt that the project will be completed with the amount stated on the form offer. The bidder in the latter case will be given an opportunity to present the facts for risk mitigation purposes.
29. The municipality also reserves the right not to appoint the lowest bidder and to appoint the bid in whole or in parts. The municipality also reserves the right to appoint the bid based on its risk assessment.

NOTE:

IN THIS DOCUMENT AND OTHER DOCUMENTS REFERRED TO BUT NOT ATTACHED, THE FOLLOWING WORDS ARE SYNONYMOUS WITH EACH OTHER.

1. CLIENT, EMPLOYER, DR. JS MOROKA LOCAL MUNICIPALITY (DR. JSMLM).
2. BID, TENDER AND VARIATIONS THEREOF
3. JOINT VENTURE / CONSORTIUM

BIDDER:

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DR. JS MOROKA LOCAL MUNICIPALITY

DEPARTMENT NAME: *TECHNICAL SERVICES*

CONTRACT NO: JSM/R01/24 - 25W22

FOR THE

CONSTRUCTION OF RADIJOKO BUS AND TAXI ROUTE PHASE 3

SUMMARY FOR BID OPENING PURPOSES

NAME OF BIDDING ENTITY:.....

PHYSICAL STREET ADDRESS:	POSTAL ADDRESS:

TELEPHONE NUMBER :

FAX NUMBER :

E-mail ADDRESS :

CONTRACT PRICE : R
 (Amount brought forward from the Form of Offer and Acceptance) *

.....

Signed by authorised representative of the Bidding Entity DATE

- Should any discrepancy occur between this figure and that stated in the Form of Offer and Acceptance, the latter shall take precedence and apply.

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DEPARTMENT NAME: *TECHNICAL SERVICES*

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FOR THE **CONSTRUCTION OF RADJOKO BUS AND TAXI ROUTE PHASE 3**

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DR. JS MOROKA LOCAL MUNICIPALITY

DEPARTMENT NAME: *TECHNICAL SERVICES*

CONTRACT NO: JSM/R01/24 - 25W22

FOR THE

CONSTRUCTION OF RADIJOKO BUS AND TAXI ROUTE PHASE 3

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DR. JS MOROKA LOCAL MUNICIPALITY

DEPARTMENT NAME: *TECHNICAL SERVICES*

CONTRACT NO: JSM R01/24 – 25/W22

FOR THE ***CONSTRUCTION OF RADIJOKO BUS AND TAXI ROUTE PHASE 3***

PART T1	BIDDING PROCEDURES	PAGE(S)
T1.1	BID NOTICE AND INVITATION TO BID	8
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BIDDER:

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T1.1 BID NOTICE AND INVITATION TO BID



DR JS MOROKA LOCAL MUNICIPALITY

INVITATION TO CONTRACTORS

Tenders are hereby invited from Contractors with necessary experience and compliance documents, have an active **CIDB grading of a minimum 5CE or 4CEPE or Higher** and are in good standing with the South African Revenue Services for the **CONSTRUCTION OF RADJOKO BUS AND TAXI ROUTE PHASE 3**.

Tender documents will only be available from **03 JULY 2024** and may be obtained from Dr JS Moroka Municipal Head Quarters at the cashier offices situated 2601/3 Bongimfundo Street, Siyabuswa during working hours 09h00 to 15h00 (Monday to Friday), upon payment of a non-refundable fee of **R3 220.00 per document** or on E-Tenders. Only cash or bank guaranteed cheques will be accepted and cheques are to be made payable to Dr JS Moroka Municipality. No tender documents will be sold beyond these dates.

A Compulsory Site meeting and Inspection will be held on 04 JULY 2024 at DR JS Moroka Ga-Phaahla Community Hall, commencing at 11h00 (According to Municipality's time) after which Tenderers will be taken to site where project's construction will be taking place. Only tenders from Tenderers who attend the above tender meeting and have signed attendance register shall be considered.

All tenders and supporting documents shall be sealed in an envelope or package clearly marked **"Contract No: JSM/R01/24 – 25/W22 for CONSTRUCTION OF RADJOKO BUS AND TAXI ROUTE PHASE 3**.

Duly completed tenders shall be placed in the tender box situated at the main entrance of Dr JS Moroka Local Municipality at 2601/3 Bongimfundo Street, Siyabuswa. No Fax or Late tenders will be accepted. Tenders will be evaluated on a 80/20 point system in terms of Dr JS Moroka Municipality's Supply Chain Management Policy in line with Preferential Procurement Framework Act 5 of 2000 including any other amendments made thereafter.

Technical Enquiries: Mr. MZ Skosana on (013) 973 9130; SCM Enquiries: Mr. A Masilela on (013) 9731101 from 07H45 to 16H15 Monday to Friday.

In all cases Tenders shall reach the stipulated address not later than 11h00 on 01 August 2024 when tenders shall be opened and read in public.

**Ms. MM Mathebela– Municipal Manager
Dr JS Moroka Local Municipality**

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T1.2 BID DATA

The **Standard Conditions of Bid** for Procurements makes several references to the bid data for details that apply specifically to this bid. The bid data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the standard conditions of bid.

Clause number	Data
F.1.1 ACTIONS	The Employer is: The Municipal Manager Dr. JS Moroka Local Municipality 2601/3 Bongimfundo Street Private Bag X4012 Siyabuswa 0472
F.1.2 TENDER DOCUMENTS	The bid documents issued by the Employer comprise: THE BID Part T1 Bidding procedures Part T1.1 Bid notice and invitation to bid Part T1.2 Bid data Part T2 Returnable documents Part T2.1 List of returnable documents Part T2.2 Returnable schedules THE CONTRACT Part C1 Agreements and contract data C1.1 Form of offer and acceptance C1.2 Contract data C1.3 Form of Guarantee C1.4 Agreement in terms of Occupational Health and Safety Act, 1993 Part C2 Pricing Data C2.1 Pricing Instructions C2.2 Bill of Quantity Part C3 Scope of Works C3 Scope of Works Part C4 Site Information C4 Site Information
F.1.4 COMMUNICATION AND EMPLOYER'S AGENT	(Compiler: DIKGATO ENGINEERING CONSULTANTS (Pty) Ltd) The Employer's agent is: Name: Mr. T. LETSOALO Address: 3 Skurweberg Street , MIDRAND, 1687 Tel : 011 318 1698 Email: dikgatoc@dikgato.co.za

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Clause number	Data
F.2.1 ELIGIBILITY	Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, for a 5CE or 4CEPE class of construction work, are eligible to have their tenders evaluated up to a maximum of R10.0 million. Joint Ventures are eligible to submit tenders provided that: 1. Every member of the joint venture is registered with the CIDB; 2. The lead partner has a contractor grading designation in the 5CE or 4CE PE class of construction work; and 3. 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 or 5CE class of construction work or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations. Accept that only those tenderers with a bank rating of not less than a "C" can be considered for evaluation.
F.2.7 CLARIFICATION MEETING	The arrangements for a compulsory/non-compulsory clarification meeting are: Location: Dr JS Moroka Ga-Phaahla Community Hall. Date: 04 JULY 2024 @ 11H00
F.2.13.2 SUBMITTING A TENDER OFFER	Each tenderer is required to return the complete set of documents as listed in the Tender data with all the required information supplied and completed in all respects.
F.2.13.3 SUBMITTING A TENDER OFFER	The <u>whole original</u> bid document, as issued by the DR. JSMLM, shall be submitted. No copies will be accepted. Bids may only be submitted on the Bid documentation issued by the Dr. JSMLM.
F.2.13.5 SUBMITTING A TENDER OFFER	The Employer's address for delivery of bid offers and identification details to be shown on each bid offer package are: Location of bid box: Main Gate Physical address: Dr. JS Moroka Local Municipality 2601/3 Bongimfundo Street Private Bag X4012 Siyabuswa 0472 Identification details: Contract Number: "Contract No: JSM/R01/24 - 25W22 for CONSTRUCTION OF RADJOKO BUS AND TAXI ROUTE PHASE 3"

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Clause number	Data
F.2.15 CLOSING TIME	The Closing Time for submission of bid offers is: 11h00, 01 AUGUST 2024 Telephonic, telegraphic, telex, facsimile or e-mailed bid offers will not be accepted.
F.2.16 TENDER OFFER VALIDITY	The bid offer validity period is 90 days
F.2.18 PROVIDE OTHER MATERIAL	The bidder 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 Labour-intensive portion of the works together with satisfactory evidence that such staff members satisfy the eligibility requirements
F.2.19 INSPECTIONS, TESTS AND ANALYSIS	Access must be provided for the inspection of the tenderer's offices if required.
F.2.23 CERTIFICATES	The bidder is required to <i>submit with his bid.</i> (1) a copy of the valid Certificate of Contractor Registration issued by the Construction Industry Development Board in terms of the Construction Industry Development Board Act (Form F006); and (2) an original Tax Clearance Pin or copy thereof, issued by the South African Revenue Services (3) a copy of the valid National Diploma Certificate for Contractor's Safety Officer in terms of OH/S Act (85/1993) section 16(2)
F3.4 OPENING OF BID SUBMISSIONS	The time and location for opening of the bid offers are: Immediately after the closing time for submission of bid. Location: Dr. JS Moroka Local Municipality 2601/3 Bongimfundo Street Private Bag X4012 Siyabuswa, 0472
F.3.5 TWO-ENVELOPE SYSTEM	A two-envelope procedure will not be followed.
F.3.9 3.9.1 ARITHMETICAL ERRORS	Replace the contents of the clause with the following: "Check responsive tender offers for arithmetical errors, correcting them in the following manner: a) Where there is a discrepancy between the amounts in figures and in words, the amount in figures shall govern. b) If bills of quantities (or schedule 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, <u>the rate shall govern and the line item total shall be corrected.</u> c) Where there is an error in the total of the prices either as a result of

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3.9.2	corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall be adjusted to reflect the arithmetically correct summation of corrected line item totals. Consider the rejection of a tender offer if the tenderer does not accept the correction of the arithmetical errors in the manner described above.”
F.3.11 EVALUATION OF BID OFFERS	The preference procedure for evaluation of responsive bid offers shall be the 80/20 point preference system, in full compliance with Form 2.3.3. Technical and general criteria will be evaluated in terms of paragraph 2.3.3.10
F.3.13.1 ACCEPTANCE OF BID OFFER	Bids containing any one or more of the errors or omissions, or bids not having complied with any one of the peremptory bid conditions as detailed on page 2 of this bid document, shall not be considered and shall automatically be rejected.
F.3.18 PROVIDE COPIES OF THE CONTRACTS	The number of paper copies of the signed contract to be provided by the Employer is one .
ADDITIONAL CONDITIONS APPLICABLE TO THIS BID	The additional conditions of bid are: 1 The Employer may also request that the bidder provide written evidence that his financial, labour and other resources are adequate for carrying out the contract. 2 The Employer reserves the right to appoint a firm of chartered accountants and auditors and/or execute any other financial investigations on the financial resources of any bidder. The bidder shall provide all reasonable assistance in such investigations. 3 The bidder shall be required to complete the Form of Offer and Acceptance (C1.1) and Bills of Quantity for all the region or regions for which they intend to bid for. 4 The bid document shall be submitted as a whole and shall not be taken apart. 5 List of returnable documents (PART T2) must be completed in full. (A bidder's company profile will not be used by the DR. JSMLM to complete PART T2 on behalf of the bidder) NB: If PART T2 is not completed in full by the bidder, this offer will be rejected.

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Annex F (Normative) Standard Conditions of Tender

Note: 1 These Standard Conditions of Tender are identical to that contained In Annex F of SANS 294: 2004, *Construction Procurement Processes, Procedures and Methods*.

2 Annex E of SANS 294, *Construction Procurement Processes, Procedures and Methods*, and SAICE's Practice Manual #1, *The use of South African National Standards in Construction Procurement*, provide guidance on referencing these Standard Conditions of Tender in procurement documents.

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 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

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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 satisfies 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.

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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, where required, 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 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) might 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 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.

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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 Mack 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 tender document together with all returnable documents as one package. The 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 returnable documents 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 will 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.

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Witness:



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 than the closing time 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 competitive position of tenderers or substance of the tender offer is sought, offered, or permitted.

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), preferencing 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

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

1.

Initial: DR. JSMLM

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Witness:



for the employer to issue the contract. 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.2.22 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 before 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 that tender documents are available 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, shall then notify 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 meeting 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 advice 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 more than the minimum number of points

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

1.

Initial: DR. JSMLM

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Witness:



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 Nondisclosure

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

F.3.8.1 Determine, after opening and before detailed evaluation, whether each tender offer properly received:

- a) complies with 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.

F.3.8.2 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:

- a) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work,
- b) change the Employer's or the tenderer's risks and responsibilities under the contract, or
- c) 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

F.3.9.1 Check responsive tender offers for arithmetical errors, correcting them in the following manner:

- a) Where there is a discrepancy between the amounts in figures and in words, the amount in words shall govern.
- b) If bills of quantities (or schedule 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

BIDDER:

DR. JSMLM:

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Initial: DR. JSMLM

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Witness:



there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as quoted shall be corrected and the unit rate shall govern.

- c) 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 bills of quantities apply) to achieve the tendered total of the prices.

F.3.9.2 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 in F.3.9.1.

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

Evaluation Criteria

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

1.

Initial: DR. JSMLM

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Witness:



MBD 6.1

PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2023

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, 2023

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.

b) 80/20 preference point system will be applicable in this tender. The lowest/ highest acceptable tender will be used to determine the accurate system once tenders are received.

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	80
SPECIFIC GOALS	20
Total points for Price and SPECIFIC GOALS	100

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

1.

Initial: DR. JSMLM

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Witness:



The specific goals based on the IDP for Dr JS Moroka local municipality are as per following.

- a) Empowerment of women
- b) Empowerment of youth
- c) Empowerment of previously disadvantaged communities
- d) BBBEE status level of contribution
- e) Empowerment of business established in the municipal jurisdiction.

For this Tender, specific goals shall be awarded as follows:

- a) Empowerment of business established in the municipal jurisdiction (5 points)
- b) Empowerment of youth (5 points)
- c) BBBEE status level of contribution (10 points)

- 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) including any other amendments made thereafter.

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

1.

Initial: DR. JSMLM

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Witness:



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:

$$\begin{array}{ccc} \text{80/20} & \text{or} & \text{90/10} \\ P_s = 80 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right) & \text{or} & P_s = 90 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right) \end{array}$$

Where

P_s = Points scored for price of tender under consideration

P_t = Price of tender under consideration

$P_{\min}$ = Price of lowest acceptable tender

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

POINTS AWARDED FOR PRICE

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

$$\begin{array}{ccc} \text{80/20} & \text{or} & \text{90/10} \\ P_s = 80 \left(1 + \frac{P_t - P_{\max}}{P_{\max}} \right) & \text{or} & P_s = 90 \left(1 + \frac{P_t - P_{\max}}{P_{\max}} \right) \end{array}$$

Where

P_s = Points scored for price of tender under consideration

P_t = Price of tender under consideration

$P_{\max}$ = 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:

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

1.

Initial: DR. JSMLM

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Witness:



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—

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

1.

Initial: DR. JSMLM

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Witness:



- (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 (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)

BIDDER:

Initial: Authorized signatory/ies:

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DR. JSMLM:

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2.

Initial: DR. JSMLM

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Witness:



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.

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

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Initial: DR. JSMLM

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Witness:



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SIGNATURE(S) OF TENDERER(S)

SURNAME AND NAME:

DATE:

ADDRESS:

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Points will be awarded to the tenderer for attaining the B-BBEE status level of contributor in accordance with the table below.

B-BBEE Status Level of Contributor	Number of points (90/10)
1	10
2	9
3	8
4	5
5	4
6	3
7	2
8	1
Non-compliant contributor	0

B-BBEE Status Level of Contributor	Number of points (80/20)
1	10
2	9
3	8
4	7
5	6
6	5
7	3
8	2
Non-compliant contributor	0

In the event of a Joint Venture (JV) Tender:

A Joint venture will qualify for points for their B-BBEE status level as an unincorporated entity, provided that the entity submits their consolidated B-BBEE scorecard as if they were a group structure and that such a consolidated B-BBEE scorecard is prepared for every separate tender.

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

1.

Initial: DR. JSMLM

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Witness:



PLEASE REMEMBER:

- **TO ATTACH A VALID TAX CLEARANCE PIN**
- **IN CASE OF A JOINT VENTURE, THE VALID TAX CLEARANCE PIN OF EACH PARTNER, THIS MUST BE SUBMITTED WITH THE BID DOCUMENT**

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 complies with 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:

- addenda issued during the tender period,
- inclusion of some of the returnable documents,
- other revisions agreed between the employer and the successful tenderer, and
- 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.

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

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Initial: DR. JSMLM

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Witness:



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.

BIDDER:

Initial: Authorized signatory/ies:

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DR. JSMLM:

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Initial: DR. JSMLM

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Witness:



DR. JS MOROKA LOCAL MUNICIPALITY

DEPARTMENT NAME: *TECHNICAL SERVICES*

CONTRACT NO: JSM/R01/24 - 25W22

FOR THE **CONSTRUCTION OF RADIJOKO BUS AND TAXI ROUTE PHASE 3**

PART T2	LIST OF RETURNABLE DOCUMENTS	PAGE(S)
<i>The bidder must complete the following returnable documents.</i>		
T2.1	RETURNABLE SCHEDULES REQUIRED FOR BID EVALUATION PURPOSES.....	30
T2.2	OTHER DOCUMENTS REQUIRED FOR BID EVALUATION PURPOSES.....	45
T2.3	RETURNABLE SCHEDULES THAT WILL BE INCORPORATED IN THE CONTRACT	64

NOTE:

Although the documents under Part T2 is headed “Returnable Documents” in line with the CIDB model, these are not the only documents to be returned together with the bid. **All** the documents indicated on Part T1, must be completed and signed where applicable and submitted as a **complete set of documents**.

BIDDER:

Initial: Authorized signatory/ies:

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DR. JSMLM:

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Initial: DR. JSMLM

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Witness:



T2.1 RETURNABLE SCHEDULES REQUIRED FOR BID EVALUATION PURPOSES

CONTENTS	PAGE(S)
PART T2 LIST OF RETURNABLE DOCUMENTS	
<i>The bidder must complete the following returnable documents.</i>	
FORM 2.1.1 SCHEDULE OF EQUIPMENTS REQUIRED FOR THE CONTRACT	31
FORM 2.1.2: SIZE OF ENTERPRISE AND CURRENT WORKLOAD	32
FORM 2.1.3: STAFFING PROFILE	33
FORM 2.1.4: PROPOSED KEY PERSONNEL	34
FORM 2.1.5: SCHEDULE OF PREVIOUS WORK CARRIED OUT BY BIDDER	35
FORM 2.1.6: FINANCIAL ABILITY TO EXECUTE THE PROJECT	36
FORM 2.1.7: AUTHORITY FOR SIGNATORY	37
FORM 2.1.8: SCHEDULE OF PROPOSED SUB CONTRACTORS.....	39
FORM 2.1.9: FINANCIAL REFERENCES (not required if CIDB grading applies)	40
FORM 2.1.10 DETAILS OF ALTERNATIVE BIDS SUBMITTED	42
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BIDDER:

Initial: Authorized signatory/ies:

1.

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Witness:

DR. JSMLM:

Initial: DR. JSMLM



FORM 2.1.1 SCHEDULE OF EQUIPMENTS REQUIRED FOR THE CONTRACT

The Bidder shall state below what Equipment will be available for the work should he be awarded the Contract.

DESCRIPTION, SIZE, CAPACITY	NUMBER

BIDDER:

Initial: Authorized signatory/ies:

1.

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Witness:

DR. JSMLM:

Initial: DR. JSMLM

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FORM 2.1.2

SIZE OF ENTERPRISE AND CURRENT WORKLOAD

What was your turnover in the previous financial year? R _____

What is the estimated turnover for your current financial year? R _____

Physical facilities:

Provide information on offices, factories, yards and warehouses occupied by your enterprise (attach details if the space provided is not enough)

Description	Address	Area (m ²)

List your current contracts and obligations:

Description	Value (R)	Start date	Duration	Expected completed date

Do you have the capacity to supply the goods and services described in this bid, should the contract be awarded to you?

BIDDER:

Initial: Authorized signatory/ies:

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Witness:

DR. JSMLM:

Initial: DR. JSMLM

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Provide information on the staff that you have available to execute this contract (attach a separate list if the space provided is insufficient)

[illegible]

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FORM 2.1.4 PROPOSED KEY PERSONNEL

The Bidder shall list below the key personnel (including first nominee and the second choice alternate), whom he proposes to employ on the project should his Bid 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 OF	NATIONALITY:	SUMMARY OF		HDI Status Yes/No	NQF 7 Certified Yes/No
	(i) NOMINEE (ii) ALTERNATE		QUALIFICA- TIONS	EXPERIENCE AND PRESENT OCCUPATION		
<u>HEADQUARTERS</u> Partner/director						
Project Manager						
Other key staff (give designation)						
<u>PROJECT MONITORING</u> Site(s) Supervisors						
Other key staff (give designation)						

BIDDER:

Initial: Authorized signatory/ies:

1.

2.

Witness:

DR. JSMLM:

Initial: DR. JSMLM



FORM 2.1.5 SCHEDULE OF PREVIOUS WORK CARRIED OUT BY BIDDER

Provide the following information on **relevant previous experience**. Indicate comparable projects of similar or larger size. This information is material to the award of the Contract.

No points will be awarded if reference cannot be reached or if it refuses to supply information. Give at least two (2) names and telephone numbers and e-mail address per reference.

EMPLOYER (Name, tel no and fax no)	CONSULTING ENGINEER (Name, tel no and fax no)	NATURE OF WORK CARRIED OUT PREVIOUSLY	VALUE OF WORK	YEAR OF COMPLETION

BIDDER:

Initial: Authorized signatory/ies:

1.

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2.

Witness:

DR. JSMLM:

Initial: DR. JSMLM

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FORM 2.1.6 FINANCIAL ABILITY TO EXECUTE THE PROJECT

Provide details on the surety you will provide if the bid is awarded to you

AMOUNT

Which of the following institutions will provide surety?

- Bank registered in terms of the Bank Act 1990 (Act 94 of 1990): _____
- Insurance Company registered in terms of the Short Term Insurance Act 1998 (Act 53 of 1998): _____
- Cash: _____

Provide the estimated cash flow on the project in terms of submissions of payment certificates or payment schedules to the Employer

Month no	Amount (VAT included)			
	a Received	b Payments made	a – b Net cash flow	Cumulative cash flow
1			d	j=d
2			e	j+e=k
3			f	k+f=l
4			g	l+g=m
5			h	m+h=n
6			Etc.	Etc.
7				
8				
Maximum negative cash flow: Take the largest negative number in the last column and write it in here → → → → → →				

Notes:

- (i) Value added tax to be included in all amounts
- (ii) Assume payment of certificates within 30 days of approval of certificate

From what sources will you fund the above amount (e.g. Funds internally available, bank overdraft, loan, etc)

BIDDER:

Initial: Authorized signatory/ies:

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DR. JSMLM:

Initial: DR. JSMLM

Witness:



FORM 2.1.7 AUTHORITY FOR SIGNATORY

All signatories, including sole proprietors, shall confirm their authority by attaching to the last page of this bid a duly signed and ***dated original or certified copy*** of the relevant resolution of their members or their board of directors, as the case may be on the company letterhead.

An ***example*** for “COMPANIES / PARTNERSHIPS / CLOSE CORPORATIONS is shown below:

"By resolution of the board of directors passed on 12 February 2010, Mr M W Thomson has been duly authorised to sign all documents in connection with the Bid for Contract number 000/2010 and any Contract, which may arise there from on behalf of the Bidding Entity, namely, NMP (PTY) LTD"

SIGNED ON BEHALF OF THE BIDDING ENTITY: B.J. JONES

IN HIS CAPACITY AS: DIRECTOR / PARTNER / MEMBER

DATE: 12 February 2010

AUTHORISED PERSON'S SIGNATURE: M W Thomson

AS WITNESS: 1. M.A Ntuli

An ***example*** for “JOINT VENTURES” is shown below:

We, the undersigned are submitting this bid offer in Joint Venture and hereby authorize Mr. B. BROOK, authorised signatory of the company “ABCD (PTY) LTD”, acting in the capacity of lead partner, to sign all documents in connection with the bid for Contract number 000/2010 and any contract resulting from it on our behalf.

NAME OF FIRM	ADDRESS	DULY AUTHORIZED SIGNATORY
(Lead partner, i.e. “ <u>ABCD (PTY) LTD</u> ”)	P.O. Box 111 Springs 1560	Signature : Name : Designation :
Name of 2 nd Company	Address of 2 nd Company	Signature : Name : Designation :
Name of 3 rd Company	Address of 3 rd Company	Signature : Name : Designation :

BIDDER:

Initial: Authorized signatory/ies:

1.

2.

Witness:

DR. JSMLM:

Initial: DR. JSMLM



An **example** for “**SOLE PROPRIETOR**” is shown below:

“I hereby certify that I’m the sole proprietor of the Bidding Entity, namely, “**MACADOO**” and therefore duly authorised to sign the bidding documents”

SIGNATURE OF SOLE PROPRIETOR: **M W Thomson**

IN HIS CAPACITY AS: **SOLE PROPRIETOR**

DATE: **12 February 2010**

AUTHORISED PERSON’S SIGNATURE: **M W Thomson**

AS WITNESS: 1. **M A Ntuli**

BIDDER:

Initial: Authorized signatory/ies:

1.

.....

2.

Witness:

DR. JSMLM:

Initial: DR. JSMLM

.....



SCHEDULE OF PROPOSED SUBCONTRACT WORK

Type of work to be sub-contracted	Quantities
Total % of sub-contract	

Witness:



FORM 2.1.9

FINANCIAL REFERENCES

FINANCIAL STATEMENTS

I/We agree, if required, to furnish an audited copy of the latest set of financial statements together with my/our Directors' and Auditors' report.

DETAILS OF BIDDING ENTITY'S BANK

If the bidder is a Joint Venture or partnership, the information requested below is required for each member / partner.

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 BIDDER
Name of bank	
Contact person	
Branch name	
Branch code	
Street address	
Postal address	
Telephone number	()
Fax number	()
Account number	
Type of account, (i.e. cheque account)	

BIDDER:

Initial: Authorized signatory/ies:

1.

2.

Witness:

DR. JSMLM:

Initial: DR. JSMLM



BIDDER'S TAX DETAILS

Bidder's VAT vendor registration number:

Bidder's SARS tax reference number:

DESCRIPTION OF BANK DETAIL	BANK DETAILS APPLICABLE TO BIDDER
Name of bank	
Contact person	
Branch name	
Branch code	
Street address	
Postal address	
Telephone number	()
Fax number	()
Account number	
Type of account, (i.e. cheque account)	

BIDDER'S TAX DETAILS

Bidder's VAT vendor registration number:

Bidder's SARS tax reference number:

BIDDER:

Initial: Authorized signatory/ies:

1.

2.

Witness:

DR. JSMLM:

Initial: DR. JSMLM



See condition of bid.

DESCRIPTION

.....

2.

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FORM 2.1.11 AMENDMENTS AND QUALIFICATIONS BY BIDDER

See condition of bid

PAGE	DESCRIPTION

BIDDER:

Initial: Authorized signatory/ies:

1.

.....

2.

Witness:

DR. JSMLM:

Initial: DR. JSMLM

.....



**FORM 2.1.12 LABOUR-ENHANCED METHODS: PROPOSED PLANNED ACTIONS OF BIDDER
RESULTING IN DEVIATIONS FROM SPECIFIED WORK**

ACTIVITY OR PAY ITEM	DESCRIPTION OF PLANNED ACTION RESULTING IN DEVIATION FROM SPECIFIED WORK

Compliance with Employment Equity Act 55 of 1998

Attach a valid certificate from the Department of Labour, or a declaration (refer to “Form 2.3.5 – Specific goals”) by the **designated employer**, that the employer complies with the relevant chapters of the Employment Equity Act.

Definitions in terms of the last mentioned Act.

“designated employer” means-

- an employer who employs 50 or more employees;
- an employer who employs fewer than 50 employees, but has a total annual turnover that is equal to or above the applicable annual turnover of a small business in terms of Schedule 4 to this Act.”

“Schedule 4”

TURNOVER THRESHOLD APPLICABLE TO DESIGNATED EMPLOYERS

Sector or sub sector in accordance with the Standard Industrial Classification	Total annual turnover
Agriculture	R 2,00 m
Mining and Quarrying	R 7,50 m
Manufacturing	R 10,00 m
Electricity, Gas and Water	R 10,00 m
Construction	R 5,00 m
Retail and Motor Trade and Repair Services	R 15,00 m
Wholesale Trade, Commercial Agents and Allied Services	R 25,00 m
Catering, Accommodation and other Trade	R 5,00 m
Transport, Storage and Communications	R 10,00 m
Finance and Business Services	R 10,00 m
Community, Social and Personal Services	R 5,00 m

BIDDER:

Initial: Authorized signatory/ies:

1.

2.

DR. JSMLM:

Initial: DR. JSMLM

Witness:



DR. JS MOROKA LOCAL MUNICIPALITY

DEPARTMENT NAME: *TECHNICAL SERVICES*

CONTRACT NO: JSM/R01/24 - 25W22

FOR THE **CONSTRUCTION OF RADIJOKO BUS AND TAXI ROUTE PHASE 3**

T2.2 OTHER DOCUMENTS REQUIRED FOR BID EVALUATION PURPOSES

CONTENTS	PAGE(S)
FORM 2.2.1: CERTIFICATE OF BIDDER'S ATTENDANCE AT THE SITE/ CLARIFICATION MEETING	46-47
FORM 2.2.2: TAX CLEARANCE PIN OR COPY	48
FORM 2.2.3 PROOF OF REGISTRATION WITH CONSTRUCTION INDUSTRY REGULATION AUTHORITY	49
FORM 2.2.4 DECLARATION	50
FORM 2.2.5 DECLARATION OF INTEREST	51
FORM 2.2.6 DECLARATION FOR PROCUREMENT ABOVE R10 MILLION.....	52
FORM 2.2.7 DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS	53

BIDDER:

Initial: Authorized signatory/ies:

1.

2.

DR. JSMLM:

Initial: DR. JSMLM

46

Witness:



FORM 2.2.1 COMPULSORY SITE INSPECTIONS / INFORMATION / CLARIFICATION MEETINGS

Where Compulsory Site Inspections and Compulsory Information, Briefing or Clarification Meetings are to be held, it shall be subject to the following conditions:

1. Necessity for Compulsory Site Inspection and Compulsory Information / Briefing / Clarification Meetings

Compulsory Inspections / Meetings must only be held where the nature of the contract is such that it requires either an inspection of a site or a briefing session. The Bid Specification Committee should indicate to the Bid Office that such a compulsory inspection or briefing is regarded as a necessity.

2. Attendance Register

An attendance register of potential bidders and the firms they represent shall be kept and signed by attendees. A copy of such Attendance Register shall immediately after the inspection/briefing be sent to the Bid Office.

3. Confirmation Notes of Inspection/Briefing Sessions

Confirmation Notes of the Compulsory Inspection or Briefing Session shall be held by or on behalf of the contact person of the Department for whom the Bid is being advertised. A copy of the notes shall be sent to each firm that was represented at the inspection/meeting as soon as possible after the inspection or meeting and before the closing date of the bid. A copy of the notes shall also be sent to the Bid Office. The relevant Department will ensure that the notes are submitted to the Bid Evaluation Committee and to the Bid Adjudication Committee.

4. Bid Documents

The bid documentation shall clearly state that where the inspection of a site or the attendance of a briefing session is compulsory, non-attendance thereof will lead to the disqualification of the bidder in question. The bid documentation shall further clearly state that if bid documents are obtained **after** the compulsory briefing session or site inspection, it will only be made available to firms that were represented at the meeting. The mere fact that a firm that was not represented at a compulsory site inspection/meeting, but nevertheless submitted to the municipality a set of bidding documents, should not be construed as creating any expectations that a bid will be considered by the Municipality.

BIDDER:

Initial: Authorized signatory/ies:

1.

2.

DR. JSMLM:

Initial: DR. JSMLM

Witness:



FORM 2.2.1 CERTIFICATE OF BIDDER'S ATTENDANCE AT THE COMPULSORY SITE/CLARIFICATION MEETING

This is to certify that I, **(NAME IN PRINT)**

representative of (Bidder)

of (address)

Telephone number

Fax number

visited and inspected the Site / Attended Clarification Meeting on (date)

in the company of (Engineer/Engineer's Representative)

SIGNATURE OF BIDDER'S REPRESENTATIVE:

DR JS MOROKA LOCAL MUNICIPALITY
OFFICIAL STAMP WITH DATE

BIDDER:

Initial: Authorized signatory/ies:

1.

2.

DR. JSMLM:

Initial: DR. JSMLM

Witness:



FORM 2.2.2 TAX CLEARANCE PIN

A VALID TAX CLEARANCE PIN OR COPY THEREOF, OBTAINED FROM SARS TO BE SUBMITTED WITH BID DOCUMENTS.

BIDDER:

Initial: Authorized signatory/ies:

1.

.....

2.

Witness:

DR. JSMLM:

Initial: DR. JSMLM

.....



FORM 2.2.3 PROOF OF REGISTRATION WITH CONSTRUCTION INDUSTRY DEVELOPMENT BOARD

The bidder is to affix to this page either:

- Written proof of registration with the CIDB as a Category **4CEPE / 5CE OR HIGHER**.

Or

- Written proof of application to the CIDB for registration as a contractor in the category listed above.

Note:

1. Failure to affix such documentation as prescribed to this page shall result in this bid not being further considered for the award of the contract.
2. Should this bid be considered for award of the contract, based on proof of submission of application for registration in the appropriate category with the CIDB, and should proof of such subsequent registration not be forthcoming to the employer before the end of business, at the last working day, prior to evaluation by the Tender Evaluation Committee of the contract, then this bid will no longer be considered for the award of the contract.

BIDDER:

Initial: Authorized signatory/ies:

1.

.....

2.

Witness:

DR. JSMLM:

Initial: DR. JSMLM

.....



FORM 2.2.4 DECLARATION:

I/We, the undersigned:

- (a) bid to supply and deliver to the DR. JS Moroka Local Municipality [hereafter "DR. JSMLM"] all or any of the supplies and to render all or any of the articles, goods, materials, services or the like described both in this and the other Schedules to this Contract;
- (b) agree that we will be bound by the specifications, prices, terms and conditions stipulated in those Schedules attached to this bid document, regarding delivery and execution;
- (c) further agree to be bound by those conditions, set out in, "PARTS T1; T2; C1; C2; C3 and C4", attached hereto, should this bid be accepted in whole or in part;
- (d) confirm that this bid may only be accepted by the DR. JSMLM by way of a duly authorised Letter of Acceptance;
- (e) declare that we are fully acquainted with the Bid document and Schedules, and the contents thereof and that we have signed the Bill of Quantities and completed the Returnable Schedules and declarations, attached hereto;
- (f) declare that all amendments to the bid document have been initialled by the relevant authorised person and that the document constitutes a proper contract between the DR. JSMLM and the undersigned;
- (g) certify that the item/s mentioned in the bid document, qualifies/qualify for the preference(s) shown.;
- (h) acknowledge that the information furnished is true and correct;
- (i) accept that in the event of the contract being awarded as a result of preference claimed in this bid document, I may be required to furnish documentary proof to the satisfaction of the DR. JSMLM that the claims are correct. If the claims are found to be inflated, the DR. JSMLM may, in addition to any other remedy it may have, recover from me all cost, losses or damages incurred or sustained by the DR. JSMLM as a result of the award of the contract and/or cancel the contract and claim any damages which the DR. JSMLM may suffer by having to make less favourable arrangements after such cancellation;
- (j) declare that no municipal rates and taxes or municipal service charges owed by the bidder or any of its directors to the municipality, or to any other municipality or municipal entity, are in arrears for more than three (3) months; and
- (k) declare that I have not failed to perform satisfactorily during the last five (5) years on a previous contract with the Municipality, Municipal entity or any other organ of state, after written notice was given to me that my performance was unsatisfactory.

Signed at this day of

Authorised Signature: _____

Name of Bidding Entity: _____

Date: _____

As witness: 1. _____

BIDDER:

Initial: Authorized signatory/ies:

1.

.....

2.

DR. JSMLM:

Initial: DR. JSMLM

.....

Witness:



FORM 2.2.5 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 and/or take an oath declaring his/her interest.
3. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.
 - 3.1 Full Name:
 - 3.2 Identity Number:
 - 3.3 Company Registration Number:
 - 3.4 Tax Reference Number:
 - 3.5 VAT Registration Number:
 - 3.6 Are you presently in the service of the state* YES / NO
 - 3.6.1 If so, furnish particulars.
.....
.....
 - 3.7 Have you been in the service of the state for the past twelve months? YES / NO
If so, furnish particulars.
.....
.....
 - 3.8 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
 - 3.8.1 If so, furnish particulars.
.....

* MSCM 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.

BIDDER:

Initial: Authorized signatory/ies:

1.

.....

2.

DR. JSMLM:

Initial: DR. JSMLM

Witness:



3.9 Are you, aware of any relationship (family, friend, other) between a 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

3.9.1 If so, furnish particulars

.....
.....

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

3.10.1 If so, furnish particulars.

.....
.....

3.11 Are any spouse, child or parent of the company's directors, managers, principle shareholders or stakeholders in service of the state? YES / NO

3.11.1 If so, furnish particulars.

.....
.....

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.

SHOULD THE INFORMATION REQUIRED ON THIS FORM NOT DULY BE SUPPLIED, THIS BID WILL BE REJECTED.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidding Entity

BIDDER:

Initial: Authorized signatory/ies:

1.

.....

2.

DR. JSMLM:

Initial: DR. JSMLM

.....

Witness:



FORM 2.2.6 DECLARATION FOR PROCUREMENT ABOVE R10 MILLION

DECLARATION FOR PROCUREMENT ABOVE R10 MILLION (VAT INCLUDED)

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

1. Are you by law required to prepare annual financial statement for auditing? **YES / NO**
 - 1.1 If yes, submit audited annual financial statements for the past three years or since since the date of establishment if established during the past three years.
.....
.....
2. Do you have any outstanding undisputed commitments for municipal services toward a municipality 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 municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days.
 - 2.2 If yes, provide particulars.
.....
.....
.....
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
.....
.....

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 Bidde
.....	

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

1.

Initial: DR. JSMLM

.....

2.

.....

Witness:



DR. JS MOROKA LOCAL MUNICIPALITY

DEPARTMENT NAME: *TECHNICAL SERVICES*

CONTRACT NO: JSM/R01/24 - 25W22

FOR THE ***CONSTRUCTION OF RADIJOKO BUS AND TAXI ROUTE PHASE 3***

T2.3 RETURNABLE SCHEDULES THAT WILL BE INCORPORATED IN THE CONTRACT

CONTENTS	PAGE(S)
FORM 2.3.1 RECORD OF ADDENDA TO BID DOCUMENTS	65
FORM 2.3.2 CONDITIONS PERTAINING TO TARGETED PROCUREMENT	66

BIDDER:

Initial: Authorized signatory/ies:

.....

DR. JSMLM:

1.

2.

Initial: DR. JSMLM

.....

55

Witness:

.....



FORM 2.3.1

RECORD OF ADDENDA TO BID DOCUMENTS

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

	Date	Title or Details
1		Confirmatory notes of compulsory site/clarification meeting
2		
3		
4		
5		
6		
7		
8		

Attach additional pages if more space is required.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

1.

Initial: DR. JSMLM

56

.....

2.

.....

Witness:



FORM 2.3.2 CONDITIONS PERTAINING TO TARGETED PROCUREMENT

- 2.3.2.1 PREAMBLE
- 2.3.2.2 DEFINITIONS
- 2.3.2.3 LEGISLATIVE BASE
- 2.3.2.4 SCOPE
- 2.3.2.5 PURPOSE
- 2.3.2.6 OBJECTIVES
- 2.3.2.7 GENERAL PRINCIPLES GOVERNING THE MUNICIPALITY IN ITS
INTERACTION WITH BIDDERS
- 2.3.2.8 ADJUDICATION OF BIDS
- 2.3.2.9 ADJUDICATION USING A POINT SYSTEM
- 2.3.2.10 IMPLEMENTATION FRAMEWORK
- 2.3.2.11 COMPLAINTS/DISQUALIFICATIONS
- 2.3.2.12 DISQUALIFICATIONS

BIDDER:

Initial: Authorized signatory/ies:

DR. JSMLM:

1.

Initial: DR. JSMLM

57

2.

Witness:



DR. JS MOROKA LOCAL MUNICIPALITY

BID DOCUMENT

2.3.3 CONDITIONS PERTAINING TO TARGETED PROCUREMENT

1. EVALUATION OF TENDERS

Evaluation Criteria

Municipal Supply Chain Management Policy will be used for evaluation of Prospective Service Provider as per the approved scoring system by the specification committee.

The evaluation will be done as per Preferential Procurement Regulations, 2023 issued in terms of section 5 of PPPFA, Act No. 5 of 2000.

The Construction Firm's tender responsiveness in relation to points is therefore summarized as follows:

Organising and Staffing	25
Plant	15
Experience of Firm	40
Safety, Health, environmental, Risk and quality management plan	20
Sub-Total	100

A firm must obtain a minimum of 60 points out of the 100 points above to be considered for price and BBB-EE evaluation/The functionality points shall be distributed as follows below:

BIDDER:

Initial: Authorized signatory/ies:

DR. JSMLM:

1.

Initial: DR. JSMLM

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2.

Witness:



Project Manager / Contracts Manager (Maximum points obtainable 10; minimum 2)

Name:

Note: It must be noted that total points of **10** are obtainable. Points will be allocated for the highest academic qualification only. Failure to submit evidential documents is an elimination factor **and** a Zero point will be scored.

Evaluation Criteria	Minimum Required	Elimination Factor	Points obtainable	Points Claimed
Academic Qualifications	NQF7-Degree in Civil Engineering or equivalent	Yes	5	
Academic Qualifications	Diploma in Civil Engineering or equivalent	Yes	4	
Academic Qualifications	Diploma in Project Management or NQF 6 or equivalent	Yes	4	
	Professional Registration (ECSA) PrEng/ Tech/ Techni	Yes	2	
Sub-total			7	
Experience of in similar projects		Elimination Factor		
Involvement in comparable projects (Technical)	0	Yes	0	
	1 – 2	Yes	0	
	3 – 4	No	2	
	5 upwards	No	3	
Sub-total			3	
Total			10	

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

1.

Initial: DR. JSMLM

59

2.

Witness:



Site Agent: *(Maximum Points obtainable 5, minimum 2)*

Name:

valuation Criteria	Minimum Required	Elimination Factor	Points obtainable	Points Claimed
Academic Qualifications	Diploma in Civil Engineering or Equivalent	Yes	2	
Academic Qualifications	No formal Education in Construction	Yes	0	
Sub-total			2	
Years of experience in similar projects	0 – 4	Yes	0	
	5 – 9	No	2	
	10 and above	No	3	
Sub-total			3	
Total			5	

Note: Should the Site Agent be the same as Contractor Manager zero points will be allocated.

Site Foreman: *(Maximum Points obtainable 5; minimum 2)*

Name:

Evaluation Criteria	Minimum Required	Elimination Factor	Points obtainable	Points Claimed
Academic Qualifications (Note 10)Form L	N6 in Civil Engineering or Equivalent	No	2	
Academic Qualifications	Matric	Yes	1	
Sub-total			2	
Years of experience after qualification	0-3	Yes	0	
	4 – 9	No	2	
	10 upwards	No	3	
Sub-total			3	
Total			5	

Note: Should the Site Foremen be the same Site Agent and Team leader zero points will be allocated

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

1.

Initial: DR. JSMLM

60

2.

Witness:

.....



Safety Officer: (Maximum Points obtainable 5; minimum 2)

Name:

Evaluation Criteria	Minimum Required	Elimination Factor	Points obtainable	Points Claimed
Academic Qualifications	Certificate in Occupational Health and Safety or OHS Safety Accredited Certificate	Yes	2	
	Professional registration (SACPCMP) in OHS	No	1	
Sub-total			3	
Years of experience after qualification	0-3	Yes	0	
	4-9	No	1	
	10 upwards	No	2	
Sub-total			2	
Total			5	

Note: Should the Safety Officer be the same as Team leader, Site Agent, Site Foreman zero points will be allocated.

ORGANISING AND STAFFING/PERSONNEL		
PERSONNEL	TOTAL	SCORES
Construction Manager/Team Leader	10	
Site Agent	5	
Health and Safety Officer	5	
Site Foreman	5	
TOTAL	25	

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

1.

Initial: DR. JSMLM

61

2.

Witness:



PLANT (Maximum Points obtainable 15)

It must be noted that total points of **15** are obtainable by the Construction Firm in relation to the requirements as mentioned on the table below, failure to submit evidential supporting documents is not an eliminating factor **BUT** a zero point will be scored. Letter of intent or quotation from the lessor must be attached.

Evaluation Criteria	Minimum Required	Elimination Factor	Points obtainable (Own)	Points obtainable (leased)	Points Claimed
Firm's plant and equipment – Note: proof of ownership of the firm's equipment must be attached and failure to do so will result in forfeiting the plant points	Excavator x1	No	3	1.5	
	Grader	No	3	1.5	
	Roller	No	3	1.5	
	Water Tanker	No	3	1.5	
	TLB	No	2	1	
	Bakkie	No	1	0.5	
Sub-total			15	7.5	
Total			15	7.5	

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

1.

Initial: DR. JSMLM

62

2.

Witness:



Safety, Health, Risk, Environmental and quality management plan

It must be noted that total points of **20** are obtainable in construction firm in relation to the requirement as mentioned on the table below, failure to submit evidential documents is an elimination factor **and** a Zero point will be scored.

Evaluation Criteria	Minimum Required	Elimination Factor	Points Obtained (own)	Points Claimed
	Health and Safety Plan	Yes	5	
	Baseline Risk Assessment	Yes	5	
	Environment Management Plan	Yes	5	
	Quality Management Plan	Yes	5	
Sub-total			20	
Total			20	

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

1.

Initial: DR. JSMLM

63

.....

2.

.....

Witness:



EXPERIENCE OF FIRM (Maximum Points obtainable 40)

Note: Company's previous completed projects

It must be noted that the experience of the firm carries a maximum of **40 points** as indicated in the table below. If proof of testimonials and appointment letters, in reference to Form E is not provided, then the bidder shall obtain zero point on the experience of the firm.

Provide proof of the company's previous completed projects which is in the form appointment letters and completion certificates. Verifiable references (**appointment letters and completion certificates**) with contact details must be attached.

Similar projects are for Roads and Stormwater Projects. (including vat)-(scope must include Earthworks, Road Layerworks, Concrete lined side drain, Kerbing and Concrete Block Paving)

Evaluation Criteria	Evaluation Criteria	Elimination Factor	Points obtainable	Points Claimed
Company experience in terms of projects of similar scope completed (Max 4 projects) Undertaken in the last 10 years	Project of similar scope with minimum value R3m – R5m 5 points each	Yes	20 (Max)	
	Project similar scope with minimum value of R5m – 8m 8 points each	Yes	30 (Max)	
	Project of similar scope with minimum value of R8m 10 points each	Yes	40 (Max)	
Sub-Total			40	
TOTAL			40	

TOTAL SCORE _____ /100

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

1.

Initial: DR. JSMLM

64

.....

2.

.....

Witness:

.....



The score points are distributed as follows:

10 – POINTS (FOR PRICE):

ITEM No.	DESCRIPTION	ALLOCATED POINTS
1.	Price Competitiveness	80

In relation to Tendered Price, the points allocated to the Tender Price will be calculated using the following formula:

$$N_p = \frac{80 * [1 - (T_s - T_m)]}{T_m}$$

Where: N_p = number of tender adjudication points awarded in relation to price
 T_s = Tender Sum

20 – POINTS (FOR BBBEE):

B-BBEE Status Level of Contributor	Number of points (80/20)
1	10
2	9
3	8
4	7
5	6
6	5
7	4
8	3
Non-compliant contributor	0

In the event of a Joint Venture (JV) Tender:

A Joint venture will qualify for points for their B-BBEE status level as an unincorporated entity, provided that the entity submits their consolidated B-BBEE scorecard as if they were a group structure and that such a consolidated B-BBEE scorecard is prepared for every separate tender.

PLEASE REMEMBER:

- TO ATTACH A VALID TAX PIN
- IN CASE OF A JOINT VENTURE, THE VALID TAX PIN OF **EACH PARTNER**, THIS MUST BE SUBMITTED WITH THE BID DOCUMENT
- TO ATTACH A B-BBEE CERTIFICATE

BIDDER:

Initial: Authorized signatory/ies:

.....

Witness:

.....

DR. JSMLM:

1.

2.

Initial: DR. JSMLM

.....



DR JS MOROKA LOCAL MUNICIPALITY



CONTRACT NO: JSM/R01/24 - 25W22: CONSTRUCTION OF RADIJOKO BUS AND TAXI ROUTE PHASE 3

THE CONTRACT

Part C1: Agreements and Contract Data

- C1.1 Form of Offer and Acceptance
- C1.2 Contract Data
- C1.3 Form of Guarantee
- C1.4 Agreement in Terms of Occupational Health and Safety Act, 1993 (Act No 85 Of 1993)

Part C2: Pricing Data

- C2.1 Pricing Instructions
- C2.2 Bills of quantities

Part C3: Scope of Work

- C3 Scope of Work

Part C4: Site Information

- C4 Site Information

Part C5 : Additional Relevant Documents

- C5.1 Dr JS Moroka Local Municipality Supply Chain Management Policy.
- C5.2 The preferential procurement policy framework Act, 2000: preferential procurement regulations, 2023 including any other amendments made thereafter and including the following:
- C5.3 JSM health and safety specifications
- C5.4 Guidelines for the Implementation of Labour Intensive Infrastructure projects under the Expanded Public Works Programme (EPWP)
- C5.5. Photo Record and site Locality
- C5.6. Tender Drawings
- C5.7 Name Board
- C5.8. Environmental Checklist/ Penalties

BIDDER:

Initial: Authorized signatory/ies:

.....

DR. JSMLM:

1.

2.

Initial: DR. JSMLM

.....

Witness:

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DR JS MOROKA LOCAL MUNICIPALITY



**CONTRACT NO: JSM/R01/24 - 25W22: *CONSTRUCTION OF RADIJOKO BUS AND TAXI ROUTE*
*PHASE 3***

C1 AGREEMENTS AND CONTRACT DATA

C1.1 Form of Offer and Acceptance

C1.2Contract Data

C1.3Form of Guarantee

C1.4Agreement in Terms of Occupational Health and Safety Act, 1993 (Act No 85 Of 1993)

BIDDER:

Initial: Authorized signatory/ies:

.....

Witness:

.....

DR. JSMLM:

1.

2.

Initial: DR. JSMLM

.....



C1.1 FORM OF OFFER AND ACCEPTANCE

C1.1 FORM OF OFFER AND ACCEPTANCE

FORM OF OFFER AND ACCEPTANCE (AGREEMENT)

OFFER

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract in respect of the following works: **CONSTRUCTION OF RADIJOKO BUS AND TAXI ROUTE PHASE 3**

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

By the representative of the Bidder, deemed to be duly authorised, signing this apart of this Form of Offer and Acceptance, the Bidder 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 OFFERED TOTAL 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 Bidder before the end of the period of validity stated in the Bid Data, whereupon the Bidder becomes the party named as the Contractor in the Conditions of Contract identified in the Contract Data.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the Bid documents and the receipt by the Bidder 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 BIDDER:

Signature(s)

Name(s)

Capacity

(Name and address of organization)

Name and signature of Witness

Date

BIDDER:

Initial: Authorized signatory/ies:

DR. JSMLM:

1.

Initial: DR. JSMLM

2.

Witness:



ACCEPTANCE

By signing this part of this Form of Offer and Acceptance, the Employer identified below accepts the Bidder'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 Bidder's Offer shall form an agreement, between the Employer and the Bidder 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 Site Information

and drawings and documents or parts thereof, which may be incorporated by reference into Parts C1 to C4 above.

Deviations from and amendments to the documents listed in the Bid Data and any addenda thereto listed in the Bid Schedules as well as any changes to the terms of the Offer agreed by the Bidder 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 Bidder 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. Failure to fulfil 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 Bidder receives one fully completed original copy of this document, including the Schedule of Deviations (if any). Unless the Bidder (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.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the Bid documents and the receipt by the Bidder 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 CLIENT:

Signature(s) _____

Name(s) _____

Capacity _____

DR. JS MOROKA LOCAL MUNICIPALITY
(Name and address of organization)

Name and signature of witness _____

Date _____

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

1.

Initial: DR. JSMLM

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2.

Witness:



SCHEDULE OF DEVIATIONS

Notes:

1. The extent of deviations from the bid documents issued by the Employer prior to the bid closing date is limited to those permitted in terms of the Conditions of Bid.
2. A Bidder's covering letter shall not be included in the final contract document. Should any matter in such, letter, which constitutes a deviation as aforesaid become the subject of agreements reached during the process of, offer and acceptance, the outcome of such agreement shall be recorded here.
3. Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change to the bid documents and which it is agreed by the Parties becomes an obligation of the contract shall also be recorded here.
4. Any change or addition to the bid documents arising from the above agreements and recorded here, shall also be incorporated into the final draft of the Contract.

1	Subject	_____
	Details	_____
2	Subject	_____
	Details	_____
3	Subject	_____
	Details	_____
4	Subject	_____
	Details	_____
5	Subject	_____
	Details	_____
6	Subject	_____
	Details	_____

By the duly authorised representatives signing this Schedule of Deviations, the Employer and the Bidder agree to and accept the foregoing Schedule of Deviations as the only deviations from and amendments to the documents listed in the Bid Data and addenda thereto as listed in the Bid Schedules, as well as any confirmation, clarification or change to the terms of the offer agreed by the Bidder 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 bid documents and the receipt by the Bidder of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this Agreement.

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

1.

Initial: DR. JSMLM

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2.

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Witness:

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FOR THE BIDDER:

Signature(s) _____

Name(s) _____

Capacity _____

(Name and address of organisation)

Name and signature of Witness _____

Date _____

FOR THE EMPLOYER:

Signature(s) _____

Name(s) _____

Capacity _____

DR JS MOROKA LOCAL MUNICIPALITY
(Name and address of organisation)

Name and signature of Witness _____

Date _____

BIDDER:

Initial: Authorized signatory/ies:

.....

Witness:

DR. JSMLM:

1.

2.

Initial: DR. JSMLM

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C1.2 CONTRACT DATA

The General Conditions of Contract for Construction Works, Third Edition, 2015, published by the South African Institution of Civil Engineering, Private Bag X200, Halfway House, 1685, is applicable to this Contract and is obtainable from www.saice.org.za.

The following Contract Specific Data, Variations and Additional Clauses referring to the General Conditions of Contract for Construction Works, Third Edition, 2015, are applicable to this Contract.

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

PART 1: DATA PROVIDED BY THE EMPLOYER

CONTRACT SPECIFIC DATA	
Clause	Data
1.1.1.13	The Defects liability Period is 12 Months .
1.1.1.14	The time for achieving Practical Completion is 6 Months
1.1.1.15	The Name of the Employer is Dr. JS Moroka Local Municipality
1.1.1.26	The Pricing Strategy is Re-measurement Contract.
1.2.1.2	The address of the Employer is: Physical Address: 2601/3 Bongimfundo Street Postal Address : Private bag x 4012, Siyabuswa 0472 Tel No : (013) 973 9126/7 Fax No : (013) 973 9312/3
1.1.1.16	The Name of the Engineer is: Dikgato Engineering Consultants (Pty) Ltd
1.2.1.2	The address of the Engineer is: Physical Address : 3 Skurweberg Street, Noordwyk Ext.6, MIDRAND,1687 Postal Address : 3 Skurweberg Street, Noordwyk Ext.6, MIDRAND,1687 E-mail Address : dikgatoc@dikgato.co.za Tel : 011 318 1698
*3.2.3	The Engineer shall obtain the specific approval of the Employer before executing any of his functions or duties according to the following Clauses of the General Condition of Contract: Clause Description 6.3 Variations

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

1.

Initial: DR. JSMLM

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Witness:

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CONTRACT SPECIFIC DATA	
Clause	Data
5.3.1	The documentation required before commencement with Works execution are : Health and Safety Plan (Refer to Clause 4.3) Initial program (Refer to Clause 5.6) Security (Refer to Clause 6.2) Insurance (Refer to Clause 8.6) All the Provisional Sums items are to subjected to submission of three quotation and approval from the Municipality prior to any appointment.
5.3.2	The time to submit the documentation required before commencement with Works execution is 14 days.
5.4.2	The access and possession of Site shall not be exclusive to the Contractor but as set out in the Site Information.
5.8.1	The non-working days are Sundays. The special non-working days are : (i) South African public holidays; (ii) The year-end break commencing on 15 December and ending on 10 January.
5.12.2.2	Extension of time due to abnormal rainfall will be determined in accordance with the principles as set out in Annexure D to the Scope of Works: Extension of time due to abnormal rainfall.
5.13.1	The penalty for failing to complete the works is R5 000/day. Penalties will only be applied for a maximum of 2 months and termination process will take place thereafter.
5.16.3	The latent defect liability period is 10 years.
6.2.2	Additional retention in lieu of performance guarantee will not apply. The Contractor shall submit the selected security to the Employer before commencement with Works execution.
6.8.3	Price adjustments for variations in the costs of special materials are allowed.
6.10.1.5	The percentage advance on materials not yet built into the Permanent Works is 80%.
6.10.3	The limit of retention money is 10%.
6.10.4	The limit of contingencies shall be 5% and shall form part of the contract amount.
6.10.5	The Community Liaison Officer will be on site until the issue of Completion Certificate.
6.10.6	Labourers shall be paid using the recent labour rate determined by the SA Department of employment and labour.

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

1.

Initial: DR. JSMLM

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Witness:

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8.6.1.1.2	The value of Plant and materials supplied by the Employer to be included in the insurance sum is Nil.
8.6.1.1.3	The amount to cover professional fees for repairing damage and loss to be included in the insurance sum is R250 000.00.

CONTRACT SPECIFIC DATA	
Clause	Data
8.6.1.3	The limit of indemnity for liability insurance is R10 000 000.00.
10.5.3	The number of Adjudication Board Members to be appointed is one.
10.7.1	The determination of disputes shall be in line with the General Conditions of Contract for Construction Work (GCC), 3 rd Edition, 2015.

BIDDER:

Initial: Authorized signatory/ies:

DR. JSMLM:

1.

Initial: DR. JSMLM

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Witness:



PART 2: DATA PROVIDED BY THE CONTRACTOR

Clause	Data														
1.1.1.9	The name of the Contractor is :														
1.2.1.2	The address of the Contractor is : Physical address: _____ Postal address : _____ E-mail address : _____ Fax : _____														
6.2.1	<table border="1"><thead><tr><th>Type of security (Value Added Tax is excluded from the Contract Sum and the value of the Works for calculating the amount of the security)</th><th>Contractor's choice. Indicate "Yes" or "No"</th></tr></thead><tbody><tr><td>Cash deposit of 10% of the Contract Sum</td><td>Not applicable</td></tr><tr><td>Deductions of 10% security from payment claims/ Work done</td><td>Not applicable</td></tr><tr><td>Performance guarantee of 10 % of the Contract</td><td></td></tr><tr><td>Retention of 10% of the value of the Works.</td><td>Not applicable</td></tr><tr><td>Cash deposit of 5% of the Contract Sum plus retention of 5% of the value of the Works.</td><td>Not applicable</td></tr><tr><td>Performance guarantee of 5% of the Contract Sum plus</td><td>Not applicable</td></tr></tbody></table>	Type of security (Value Added Tax is excluded from the Contract Sum and the value of the Works for calculating the amount of the security)	Contractor's choice. Indicate "Yes" or "No"	Cash deposit of 10% of the Contract Sum	Not applicable	Deductions of 10% security from payment claims/ Work done	Not applicable	Performance guarantee of 10 % of the Contract		Retention of 10% of the value of the Works.	Not applicable	Cash deposit of 5% of the Contract Sum plus retention of 5% of the value of the Works.	Not applicable	Performance guarantee of 5% of the Contract Sum plus	Not applicable
Type of security (Value Added Tax is excluded from the Contract Sum and the value of the Works for calculating the amount of the security)	Contractor's choice. Indicate "Yes" or "No"														
Cash deposit of 10% of the Contract Sum	Not applicable														
Deductions of 10% security from payment claims/ Work done	Not applicable														
Performance guarantee of 10 % of the Contract															
Retention of 10% of the value of the Works.	Not applicable														
Cash deposit of 5% of the Contract Sum plus retention of 5% of the value of the Works.	Not applicable														
Performance guarantee of 5% of the Contract Sum plus	Not applicable														
6.5.1.2.3	The percentage allowance to cover overhead charges is _____														
6.8.3	<table border="1"><thead><tr><th>Type of special material</th><th>Unit</th><th>Rate or price</th></tr></thead><tbody><tr><td>_____</td><td>_____</td><td>_____</td></tr></tbody></table>	Type of special material	Unit	Rate or price	_____	_____	_____								
Type of special material	Unit	Rate or price													
_____	_____	_____													

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

1.

Initial: DR. JSMLM

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2.

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Witness:

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General Conditions of Contract for Construction Works, Third Edition, 2015 PRO

FORMA

PERFORMANCE GUARANTEE

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

GUARANTOR DETAILS AND DEFINITIONS

“Guarantor” means: _____

Physical address: _____

“Employer” means: _____

“Contractor” means: _____

“Engineer” means: _____

“Works” means: _____

“Site” means: _____

“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.

BIDDER:

Initial: Authorized signatory/ies:

DR. JSMLM:

1.

Initial: DR. JSMLM

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2.

Witness:



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 and 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 Guaranteed 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 acknowledges 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 intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship;
 - 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 up 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 or 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.

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

1.

Initial: DR. JSMLM

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Witness:



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 transferable 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 having 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) _____

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

1.

Initial: DR. JSMLM

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Witness:



General Conditions of Contract for Construction Works, Third Edition, 2015

PRO FORMA

ADJUDICATION BOARD MEMBER AGREEMENT

Please note that words in italics within brackets are items which should be stated.

This Agreement is entered into between:

Adjudication Board Member: *(Name, physical address, postal address, e-mail address, fax number, telephone number and mobile number).*

Contractor: *(Name, physical address, postal address, e-mail address, fax number, telephone number and mobile number).*

Employer: *(Name, physical address, postal address, e-mail address, fax number, telephone number and mobile number).*

The Contractor and the Employer will hereinafter be collectively referred to as the Parties.

The Parties entered into a Contract for *(name of project)* which provides that a dispute under or in connection with the General Conditions of Contract for Construction Works, Third 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 Conditions 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 traveling :
 - a. A monthly retainer of *(amount)* for *(number)* of months, and/or
 - b. A daily fee of *(amount)* based on a *(number)* hour day, and/or
 - c. A hourly fee of *(amount)*, and/or

BIDDER:

Initial: Authorized signatory/ies:

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DR. JSMLM:

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Initial: DR. JSMLM

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Witness:

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- d. A non-recurrent appointment fee of *(amount)* 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 *(Contractor/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 name: _____

Place: _____

Date: _____

** Delete the inapplicable party*

BIDDER:

Initial: Authorized signatory/ies:

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DR. JSMLM:

1.

2.

Initial: DR. JSMLM

.....

Witness:



C1.4 AGREEMENT IN TERMS OF THE OCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT NO 85 OF 1993)

THIS AGREEMENT made at _____
on this the _____ day of _____ in the year _____

between **THE DR. JS MOROKA LOCAL MUNICIPALITY** (hereinafter called "**the Employer**") of the one part,

herein represented by

in his capacity as _____

and

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

in his capacity as _____

WHEREAS the Employer is desirous that certain works be constructed, viz **CONTRACT NO: JSM/R01/24 - 25W22**

and has accepted a Bid 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 Approval Certificate issued in terms of Clause 5.16 of the General Conditions of Contract (hereinafter referred to as "**the GCC**"),
 - (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;

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

1.

Initial: DR. JSMLM

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2.

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Witness:



- (iii) Section 37 : Acts or omissions by employees or mandataries, and
- (iv) Subsection 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 33 of the GCC and all relevant requirements of the above-mentioned Volume 3, the Mandatory agrees to execute all the Works forming part of this Contract and to operate and utilise 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 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 Occupational Health and Safety 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 Occupational Health and Safety 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 inquiry conducted in terms of section 32 of the Occupational Health and Safety 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 1
NAME (IN CAPITALS)

SIGNED FOR AND ON BEHALF OF THE MANDATORY:

WITNESS 1
NAME (IN CAPITALS)

BIDDER:

Initial: Authorized signatory/ies:

.....

DR. JSMLM:

1.

2.

Initial: DR. JSMLM

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Witness:



**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.

An example is given below:

"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 1

NAME (IN CAPITALS)

BIDDER:

Initial: Authorized signatory/ies:

.....

DR. JSMLM:

1.

2.

Initial: DR. JSMLM

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Witness:

.....



DR JS MOROKA LOCAL MUNICIPALITY



**CONTRACT NO: JSM/R01/24 - 25W22: CONSTRUCTION OF RADIJOKO BUS AND TAXI
ROUTE PHASE 3**

C2 PRICING DATA

C2.1 Pricing Instructions

C2.2 Bill of Quantities

BIDDER:

Initial: Authorized signatory/ies:

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DR. JSMLM:

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2.

Initial: DR. JSMLM

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Witness:



DR JS MOROKA LOCAL MUNICIPALITY



CONTRACT NO: JSM/R01/24 - 25W22: CONSTRUCTION OF RADJOKO BUS AND TAXI ROUTE PHASE 3

C2.1 PRICING INSTRUCTIONS

1. The Tender Data the Scope of Work and the Drawings are to be read in conjunction with the Schedule of Quantities.
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 to insert 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 payment 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 rate for the operations specified.
3. Descriptions in the Schedule of Quantities are abbreviated. The schedule has been drawn up generally in accordance with the latest issue of "Civil Engineering Quantities". 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 or, when relevant "Civil Engineering Quantities", the requirement of the Standardized, Project or Particular Specification, as applicable, shall prevail.
4. Unless otherwise stated, items are measured net in accordance with the Drawings, and no allowance has been made for waste.
5. The prices and rates to be inserted in the Schedule of Quantities are to be the full inclusive prices to the Employer for the work described under the several items. The prices and rates shall be exclusive of Value Added Tax. 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

BIDDER:

Initial: Authorized signatory/ies:

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DR. JSMLM:

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Initial: DR. JSMLM

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Witness:

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tender is based.

6. A price or rate is to be entered, in **BLACK INK**, against each item in the Schedule of Quantities.
7. In the event of the Tenderer failing to price any item it will be held that the Tenderer has made adequate allowance under other items for all labour, material and costs required for the execution, not only of the quantum of work covered by the unpriced item but also for any increase in the said quantum which may have to be undertaken during the course of the Contract.

BIDDER:

Initial: Authorized signatory/ies:

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DR. JSMLM:

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Initial: DR. JSMLM

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Witness:



DR JS MOROKA LOCAL MUNICIPALITY



CONTRACT NO: JSM/R01/24 - 25W22: *CONSTRUCTION OF RADIJOKO BUS AND TAXI ROUTE PHASE 3*

C2.2 BILL OF QUANTITIES

BIDDER:

Initial: Authorized signatory/ies:

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DR. JSMLM:

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Initial: DR. JSMLM

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Witness:



Item No.	LI	Description	Unit	Quantity	Rate	Amount
Section 1200		GENERAL REQUIREMENTS AND PROVISIONS				
B12.01		Protection, removal, realignment and replacement of services				
(a)	LI	Locating existing services (known and unknown)	No	20,00		
(b)	LI	Relocating or lowering of measured by length services				
i.		Relocating or lowering water services	km	0,50		
ii.		Relocating or lowering of sewer services	km	0,50		
iii.		Relocating or lowering of other services (eg. Electricity & Telkom)	Prov Sum	1,00	35 000,00	R 35 000,00
iv.		Handling cost and profit in respect of sub item B12.01(b) above	%	35 000,00		
(c)		Protection of existing services	m	40,00		
B12.02		Community Liaison Officer				
(a)		Community liaison officer (s) (R 6 000,00 per month for 6 months)	Prov Sum	36 000,00		R 36 000,00
(b)		Contractor's charge to allow for handling costs and all other charges in respect of subitems C12.01 (a)	%	36 000,00		
B12.03		Engineering student on-job / (in-service) Training (R 6000 per month)				
(a)		Provisional allowance paid to one (1) Engineering student/s undergoing on-job / (in-service) training for a period of not less than 6 months	Prov Sum	36 000,00		R 36 000,00
(b)		Contractor's charge to allow for handling costs and all other charges in respect of subitem B12.03 (a)	%	36 000,00		
1200		TOTAL CARRIED FORWARD TO SUMMARY				

BIDDER:

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Initial: Authorized signatory/ies:

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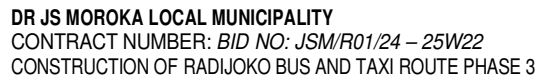
Initial: DR. JSMLM

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Witness:



<u>BIDDER:</u>		<u>DR. JSMLM:</u>	
Initial: Authorized signatory/ies:	1.	Initial: DR. JSMLM	
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Witness:			



Item No.	LI	Description	Unit	Quantity	Rate	Amount
Section 1400		OFFICES FOR THE ENGINEER'S SITE PERSONNEL				
14.01		Office and laboratory accommodation:				
(e)		Ablution units	m ²	24,00		
(g)		Conference room	m ²	36,00		
14.02		Office and laboratory furniture:				
(a)		Chairs	no	24,00		
(f)		Conference tables (to seat up to 18 persons)	no	4,00		
14.03		Office and laboratory fittings, installations				
(a)		Items measured by number:				
(i)		220/250 volt power points	no	2,00		
(iii)		Double 80 watt fluorescent-light fittings	no	2,00		
(xi)		Air-conditioning units with 2,2 kW minimum	no	2,00		
(b)		Prime cost items and items paid for in lump				
(ix)		Provision of Cellphone service, including the cost of calls in connection with contract administration and cellphone rental	Prime Cost	1,00	9 000,00	R 9 000,00
(x)		Provision of telephone services with fax facility including the cost of calls and fax transmission in connection with contract administration and telephone rental	Prime Cost	1,00	6 000,00	R 6 000,00
(xi)		Handling cost and profit in respect of subitem B14.03(b)(ix) and B14.03(b)(x) above	%	15 000,00		
14.08		Services:				
(a)		Services at offices and laboratories:				
(i)		Fixed costs	Lump Sum	1,00		
(ii)		Running costs	Mth	6,00		
14.10		Photostat and Fax Facilities:				
		Provision of photostat and faxing facilities	Mth	6,00		
		CARRIED FORWARD				

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

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Initial: DR. JSMLM

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Witness:



Item No.	LI	Description	Unit	Quantity	Rate	Amount
		BOUGHT FORWARD				
B14.12		Provision of survey equipment and assistant for exclusive use by the Engineer				
(a)		Dumpy level	day	132,00		
(b)		Tachometer	day	30,00		
(c)		Survey assistant	pd	132,00		
B14.13		Contract Notice Board (See Drawing STD-001)	no	2,00		
B14.14		Rehabilitation of Borrow Pit				
(a)		Maintenance and rehabilitation of borrow pit	Prov-Sum	60 000,00		R 60 000,00
(b)		Handling cost and profit in respect of sub item B13.01(a)(i) above	%	60 000,00		
B14.15		Compensation to private properties for servitudes				
(a)		Compensation for the laying of Stormwater Pipes in private properties	Prov-Sum	120 000,00		R 120 000,00
(b)		Handling cost and profit in respect of sub item B13.01(a)(i) above	%	120 000,00		
1400		TOTAL CARRIED FORWARD TO SUMMARY				

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

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Initial: DR. JSMLM

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Witness:

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<u>BIDDER:</u>		<u>DR. JSMLM:</u>	
Initial: Authorized signatory/ies:	1.	Initial: DR. JSMLM	
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Witness:			



<u>BIDDER:</u>		<u>DR. JSMLM:</u>	
Initial: Authorized signatory/ies:	1.	Initial: DR. JSMLM	
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Witness:			



<u>BIDDER:</u>	<u>DR. JSMLM:</u>
Initial: Authorized signatory/ies:	Initial: DR. JSMLM
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Witness:	



Item No.	LI	Description	Unit	Quantity	Rate	Amount
Section 2200		PREFABRICATED CULVERTS				
22,01		Excavation:				
(a)	LI	Excavate soft material situated within the following depth ranges below the surface level:				
(i)		0m to 1.5m	m³	126,00		
(i)		Exceeding 1.5m and up to 3.0m	m³	634,00		
(i)		Exceeding 3,0m and up to 4,5m	m³	Rate only		
(b)		Extra over subitem 22.01 (a) for excavation in hard material, irrespective of depth	m³	108,00		
22,02		Backfilling:				
(a)		Using excavated material:	m³	433,00		
(b)		Using imported material	m³	182,00		
(c)		Extra over subitem 22.02 (a) and (b) for soil cement backfill	m³	60,00		
22,03		Concrete pipe culverts:				
		Class B bedding/ Class 100D				
(a)		900 diameter	m	190,00		
22,17		Manholes, catchpits, precast inlet and outlet structures complete				
(a)		Field Inlet see drawing STD 04	No	1,00		
(b)		Precast Inlet and outlet structure, see drawing STD 05	No	1,00		
(c)		Manholes Complete see drawing STD 03	No	4,00		
(d)		Junction Box Complete, see drawing STD 03	No	1,00		
2200		TOTAL CARRIED FORWARD TO SUMMARY				

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

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Initial: DR. JSMLM

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Witness:



Item No.	LI	Description	Unit	Quantity	Rate	Amount
Section 2300		CONCRETE KERBING, CONCRETE CHANNELLING, OPEN CONCRETE CHUTES AND CONCRETE LININGS FOR OPEN DRAINS				
		Please note the item 23.01 (a) (i) and (ii) are to be executed by local Sub-Contractors as per per DR JS Moroka Local Municipality`s Instruction				
23,01						
(a)		Prefabricated battered concrete kerb:				
i		SABS Fig. 8c (1060m length)	Prov-Sum	1,00	227 484,48	R 227 484,48
ii		SABS Fig. 3 (1162m length)	Prov-Sum	1,00	249 374,50	R 249 374,50
(b)		Contractor`s charge to allow for handling and all other charges in respect of subitem 23.01 (a) (i) and (ii)	%	476 858,98		
B23.02		Concrete kerbing-channelling combination:				
(b)	LI	Cast in situ concrete in edge beam using 30/19 concrete measuring 300 x 300mm	m	16,00		
23,07		Triming of excavation for concrete-lined oped drains				
(a)		In soft material	m²	2 011,00		
(b)		In hard material	m²	759,00		
23,08		Concrete lining for open drains:				
(a)		Cast in situ concrete lining (Class 25/19 Type 3 Side Drain as indicated on 0148-03U01)	m³	415,50		
(b)		Class F2 surface finish to cast in situ concreteType 3 Side Drain as indicated on 0148-03U01	m²	2 770,00		
(c)		Cast in situ concrete drift (Class 30/19 Concrete as indicated on 0148-03U01)	m³	51,30		
(d)		Class F2 surface finish to cast in situ Concrete Drift Drain as indicated on 0148-03U01	m²	250,80		
2300		CARRIED FORWARD				

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

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Witness:



<u>BIDDER:</u>		<u>DR. JSMLM:</u>	
Initial: Authorized signatory/ies:	1.	Initial: DR. JSMLM	
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Witness:			

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Item No.	LI	Description	Unit	Quantity	Rate	Amount
Section 3300		MASS EARTHWORKS				
33,01		Cut and borrow to fill, including free-haul up to 0,5km:				
(a)		Material (G7 min) in compacted layer thickness of 200mm and less:				
(i)		Compaction to 93% of modified AASHTO density	m ³	430,00		
(c)		Rockfill processing and compaction	m ³	Rate-only		
B33.02		Fill constructed from gravel obtained from commercial sources or approved sources provided by the Contractor, including all haul				
(a)		G6 min compacted to 95% mod. AASHTO density (200mm thick)	m ³	150,00		
(b)		G5 min compacted to 97% mod. AASHTO density (150mm thick)	m ³			
33,04		Cut to spoil, including free-haul up to 5km. Material obtained from:				
(a)		Soft material	m ³	1 569,00		
(b)		Intermediate material	m ³	3 139,00		
(c)		Hard material	m ³	523,30		
(d)		Boulder material class A	m ³	rate only		
(e)		Boulder material class B	m ³	rate only		
33,09		Material bladed to windrow	m ³	-		
33,10		Roadbed preparation and the compaction of material				
(a)		Compaction to 93% mod. AASHTO density	m ³	1 220,00		
33,14		Extra over item 33.01 for excavating material from pavement and fills of existing roads:				
(a)		Non-cemented material	m ³			
33,17		Extra over items 33.04 for spoiling material excavated from benches constructed for widening existing fills	m ³			
3300		TOTAL CARRIED FORWARD TO SUMMARY				

BIDDER:

DR. JSMLM:

Initial: Authorized signatory/ies:

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Initial: DR. JSMLM

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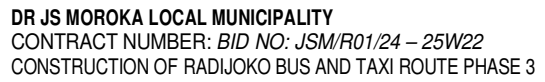
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Witness:



<u>BIDDER:</u>	<u>DR. JSMLM:</u>
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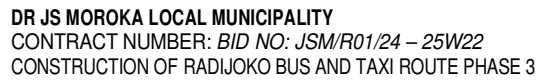
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<u>BIDDER:</u>		<u>DR. JSMLM:</u>	
Initial: Authorized signatory/ies:	1.	Initial: DR. JSMLM	
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Witness:			

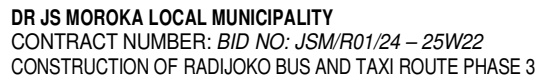


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Initial: Authorized signatory/ies:	1.	Initial: DR. JSMLM	
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Witness:			



<u>BIDDER:</u>		<u>DR. JSMLM:</u>	
Initial: Authorized signatory/ies:	1.	Initial: DR. JSMLM	
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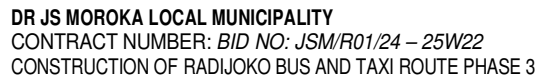
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Witness:			



<u>BIDDER:</u>		<u>DR. JSMLM:</u>	
Initial: Authorized signatory/ies:	1.	Initial: DR. JSMLM	
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Witness:			



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Witness:	



<u>BIDDER:</u>		<u>DR. JSMLM:</u>	
Initial: Authorized signatory/ies:	1.	Initial: DR. JSMLM	
.....	2.		
Witness:			



Section No.	Description	Amount
Section 1200	GENERAL REQUIREMENTS AND PROVISIONS	
Section 1300	CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS	
Section 1400	OFFICES FOR THE ENGINEER'S SITE PERSONNEL	
Section 1500	ACCOMMODATION OF TRAFFIC	
Section 1700	CLEARING AND GRUBBING	
Section B1800	DAYWORKS	
Section 2100	DRAINS	
Section 2200	PREFABRICATED CULVERTS	
Section 2300	CONCRETE KERBING, CONCRETE CHANNELLING, OPEN CONCRETE CHUTES AND CONCRETE LININGS FOR OPEN DRAINS	
Section 3200	SELECTION, STOCKPILING AND BREAKING-DOWN THE MATERIAL FROM BORROW PITS, CUTTINGS AND EXISTING PAVEMENT LAYERS, AND PLACING AND COMPACTING THE GRAVEL LAYERS	
Section 3300	MASS EARTHWORKS	
Section 3400	PAVEMENT LAYERS OF GRAVEL MATERIAL	
Section 3500	STABILISATION	
Section 5200	GABIONS	
Section 5600	ROAD SIGNS	
Section 5700	ROAD MARKINGS	
Section 7300	CONCRETE BLOCK PAVING FOR ROADS	
Section 8100	SPECIAL TESTS	
TOTAL SCHEDULE A		
Section C	OCCUPATIONAL HEALTH AND SAFETY AND ENVIRONMENTAL MANAGEMENT	
Section E	STRUCTURED TRAINING	
SUB -TOTAL 1 (Schedule A + Section C + Section E)		
5% CONTINGENCIES (5% of Subtotal 1)		
SUB -TOTAL 2 (5% Contingencies + Subtotal 1)		
15 VAT (15% of Subtotal 2)		
TOTAL CONSTRUCTION COST - CARRIED TO FORM OF OFFER (Subtotal 2 + 15% VAT)		

BIDDER:

Initial: Authorized signatory/ies:

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Witness:

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DR. JSMLM:

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Initial: DR. JSMLM

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DR JS MOROKA LOCAL MUNICIPALITY



CONTRACT NO: JSM/R01/24 - 25W22: *CONSTRUCTION OF RADIJOKO BUS AND TAXI ROUTE PHASE 3*

TOTAL BROUGHT FORWARD	
PLUS 5% CONTINGENCIES	
SUB – TOTAL 1	
PLUS 15% VALUE ADDED TAX	
TOTAL CARRIED FORWARD TO FORM OF OFFER	

BIDDER:

Initial: Authorized signatory/ies:

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DR. JSMLM:

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Initial: DR. JSMLM

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Witness:



DR JS MOROKA LOCAL MUNICIPALITY



**CONTRACT NO: JSM/R01/24 - 25W22: CONSTRUCTION OF RADIJOKO BUS AND
TAXI ROUTE PHASE 3**

C3 Scope of Work

BIDDER:

Initial: Authorized signatory/ies:

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DR. JSMLM:

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Initial: DR. JSMLM

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Witness:



SCOPE OF WORK AND SPECIFICATIONS

1. PROJECT OBJECTIVE

The objective of the Employer is to appoint a service provider that is going to successfully construct Radijoko Bus and Taxi Route Phase 3 and also considering the stormwater drainage system.

For Expanded Public Works Programme (The employer's objectives are to deliver public infrastructure using labour intensive methods. A minimum of 20 Employees are to be from the local community.

2. PROJECT LOCATION

The project entails the construction of Radijoko Bus and Taxi Route Phase3. The project is located in Lefiswane Village, in Mpumalanga within Dr. J.S Moroka Local Municipal jurisdiction around the following coordinates:

- Construction of Radijoko Bus and Taxi Route starts from the end of the concrete block paved section, the end of Phase 2 of the Radijoko Bus and Taxi Route and it spans for a length of 1km in the South-Northerly direction towards and informal intersection with an unknown gravel road. Start coordinates are 24°56'29"S and 28°50'46"E, to end coordinates, 24°56'00"S, and 28°51'05"E.
- The project is located, under the jurisdiction of the Dr. J.S Moroka Local Municipality. Radijoko Road starts at the intersection of Provincial Road D 2927, has a total length of approximately 6.4km of which 2.4km has already been paved as part of the Phase 1 and Phase 2 of the project.
- The intersection with Provincial Road D2927 is a formalised surfaced intersection giving access to Radijoko Road.

BIDDER:

Initial: Authorized signatory/ies:

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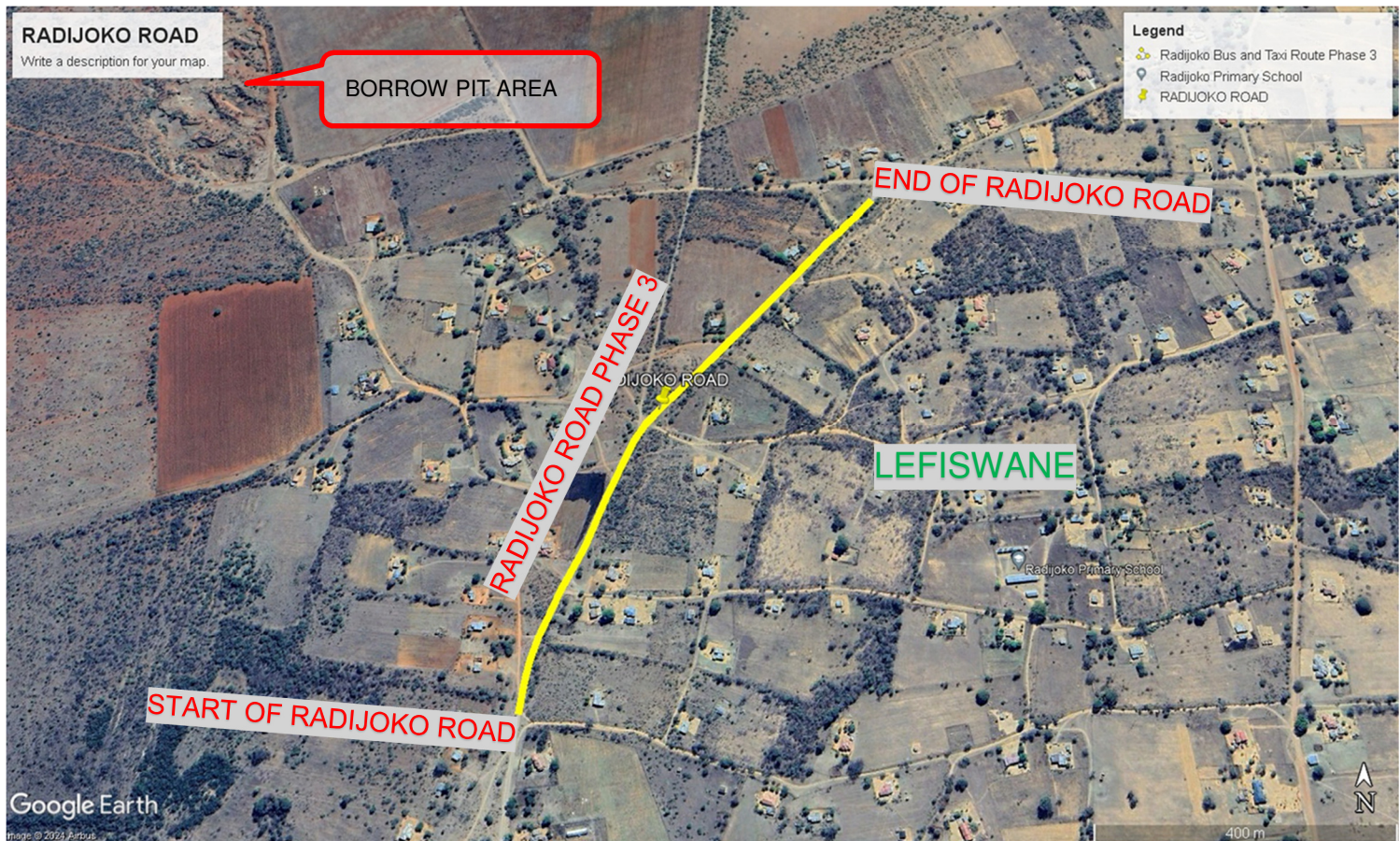
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Initial: DR. JSMLM

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3. SCOPE OF WORK

3.1. Overview of the works

The works will comprise:

- The construction of Radijoko Bus and Taxi Route Phase 3, which starts at the end of an existing concrete block paved road, totaling a length of 1.00 km;
- The construction of a 2.5m wide concrete side drain which allows even access; and
- Stormwater attenuation pond.

3.2. Extent of the works

The works entails the following:

- Contractor's site establishment, maintenance thereof and removal after completion;
- Accommodation of traffic;
- Clearing and grubbing of the road and road reserve;

BIDDER:

Initial: Authorized signatory/ies:

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Witness:

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DR. JSMLM:

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- Mass earthworks;
- Roadbed preparation by rip and compaction of 150mm thick;
- Construction of layer works. (Selected, Cement Stabilised Sub base, Bedding Sand and 80mm Segmental Paving Blocks);
- Construction of layer works. (Upper Selected, Sub base and Cement Stabilised Base);
- Construction of kerbs (Fig.8c & Fig.3) kerbs;
- Construction of 600mm dia. stormwater concrete pipes;
- Construction of concrete side drain of 2.5m top width x 0.7m bottom width x 0.1m and 0.25m depths;
- Installation of road signs and painting of road markings;
- Rehabilitate the site, finish-off site and surroundings and clean-up site of all excess materials; and
- Dealing with a nominated CLO and local Project Steering Committee regarding social aspects and local labour recruitment.

3.3. Temporary works

The following items shall generally form most temporary works required under this Contract, however, shall not be limited to such, and might be expanded or changed by the Engineer should circumstances on site validate such decisions.

These works will be as follows:

- Clearing site and surroundings to create accessible working areas as required;
- Provide temporary fencing around Contractor's camp site and Contractor's site office;
- Provide Contractor's Camp site and Contractor's site office;
- Provide site and administrative personnel, including security staff etc. as required;
- Setting out of the works by the Contractor;
- Monitor and report levels as construction progresses;
- Manage all site staff, CLO and local labourers, plant, equipment and materials etc.;
- Manage all required quality control procedures as specified and as instructed by Engineer;
- Provide all personnel, equipment, clothing, accessories etc. in order to adhere to the OHS Act;
- Attend official Site Meetings scheduled and chaired by the Engineer and managed sufficient additional meetings on site with all personnel and CLO to ensure compliance with the OHS Act and to ensure progress on site according to the accepted Construction programme.

BIDDER:

Initial: Authorized signatory/ies:

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DR. JSMLM:

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Initial: DR. JSMLM

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Witness:



3.4. ENGINEERING

3.4.1 DESIGN

- a) The Employer is responsible for the design of the Permanent Works as reflected in the Contract Documents unless otherwise stated.
- b) The Contractor is responsible for the design of the Temporary Works and their compatibility with the permanent Works.
- c) The Contractor shall supply all details necessary to assist the Engineer in the compilation of the as-built drawings.

3.5. EMPLOYER'S DESIGN

- 3.5.1 The Employer is responsible for the design of the entire scope of works, including site works.

3.6. CONTRACTOR'S DESIGN

- 3.6.1 Where Contractor is to supply the design of designated parts of the permanent Works or temporary Works he shall supply full working drawings supported by a professional engineer's design certificate.

4. DRAWINGS

- 4.1. 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, on 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.
- 4.2. The Contractor shall ensure that accurate as-built records are kept of all infrastructure installed or relocated during the contract. The position of pipe bends, junction boxes, duct ends and all other underground infrastructure shall be given by either co-ordinates or stake value 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.
- 4.3. 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.

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4.4. The Drawings prepared by the Employed for the permanent Works are listed and bound at the back of this volume. The Employer reserves the right to issue amended and/or additional drawings during the Contract.

4.5. The following drawings are attached to the document:

CONSTRUCTION OF RADIJOKO BUS AND TAXI ROUTE PHASE 3:

LIST OF DRAWINGS

DRAWING No.	DRAWING DESCRIPTION
-------------	---------------------

0148-03U00	DRAWING LIST
0148-03U01	GENERAL ROAD LAYOUT PLAN
0148-03L01	ROAD LAYOUT PLAN WITH LONG SECTION (SHEET 1OF2)
0148-03L02	ROAD LAYOUT PLAN WITH LONG SECTION (SHEET 2OF2)
0148-05L01	STORMWATER LAYOUT PLAN & LONG SECTION
0148-03X01	ROAD CROSS SECTION
STD01	KERBING DETAILS: SLOPING KERB, SEMI-VERTICAL KERBS & EDGE BEAM
STD03	JUNCTION BOX AND MANHOLE DETAILS MANHOLE
STD04	STORMWATER OUTLET & FIELD INLET STRUCTURE DETAILS FOR LOW-COST DEVELOPMENT DRAINAGE STRUCTURES
STD05	STORMWATER CULVERT OUTLET (TYPE 1 & 1A) & ALTERNATIVE OUTLETS (TYPE 1 & 2)
STD08	MANHOLE DETAILS: TYPICAL DIMENSIONING
STD09	TYPICAL CROSS SECTIONS ROAD RESERVE, STORMWATER PIPELINE & FURROW
STD13	KERB, CHANNEL & DRIFT DETAILS

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4.6. DESIGN PROCEDURES

4.6.1 New and existing infrastructure will be considered under this contract.

5. SUBCONTRACTING

5.1. The contractor will be required to sub-contract at least of 30% of the value of the construction work to designated local sub-contractors, suppliers and/ or SMME's identified by the engineer on behalf of and/ or in liaison with the employer, which will be selected from a local database.

6. CONSTRUCTION

6.1. GENERAL SPECIFICATION

6.1.1 This section of the Contract documents should be read together with all other sections and Standardized and Particular Specifications included in the Contract documents or Standardized Specifications mentioned in the Contract documents, but separately available. The documents should be read and interpreted jointly to determine the full requirements of the Contract.

6.2. SITE ESTABLISHMENT

6.2.1 The Contractor is responsible for Site Establishment. The construction yard will not be serviced, and the Contractor shall make arrangements to connect all necessary services to specific points. The Contractor shall bring to the Site all his necessary construction equipment and install all stationary construction equipment and plant at locations and in the manner accepted by the Engineer. The Contractor shall submit sufficiently detailed plans showing the proposed locations of such stationary equipment and other pertinent data. No installation of such stationary equipment shall be undertaken unless the corresponding plans have been accepted by the Engineer.

7. SERVICES AND FACILITIES PROVIDED BY THE EMPLOYER

7.1. Source of water supply

7.1.1 The Contractor shall make his own arrangements for the supply of water for construction and testing purposes. The Contractor will be required to supply, install, operate, and maintain at his cost, such temporary pipework and storage facilities as may be necessary to ensure sufficient supply. The supply shall be metered. The Contractor will also be required to pay all connection fees, cost of water drawn from the water supply authority's system at the ruling tariffs in force at the time as well as include all such requirements throughout the duration of the Contract.

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7.2. Source of power supply

7.2.1 The Contractor shall make his own arrangements temporary power supply for construction purposes. The Contractor will be required to make his own arrangements with, and pay all the requisite connection and consumption charges for whatever temporary power supplies he may require for his use on the site as well as include all such requirements throughout the duration of the Contract.

8. FACILITIES PROVIDED BY THE CONTRACTOR

8.1. Contractor's camp

8.1.1 On this Site, the Contractor shall be responsible in establishing the final grade for his site establishment requirements including; construction offices, storage areas, warehouse, machine and repair shops, fuel tanks, storage tanks, power and water distribution lines and provide such related facilities and sanitary conveniences that are necessary for maintaining health, peace and order, and safety in the work areas. The positions of all buildings constructed by the Contractor for his own use will be subject to the acceptance of the Engineer. Temporary and permanent fencing around the Contractor's Site establishment areas and electrical and mechanical apparatus connected to the electrical supply shall be erected by the Contractor where needed. On completion of work on Site, buildings constructed by the Contractor for his own use shall be demolished, including foundations, and the ground reinstated. Underground services to these buildings shall be removed.

8.1.2 The Contractor shall be responsible for all temporary services required by him both for the site establishment area, camp site and for construction purposes, including water, electricity, sewage, and communication facilities.

8.1.3 Covered accommodation for perishable or corrodible materials, fittings and the like shall be adequate and suitable for their purpose and, particularly in the case of cement stores, shall be well ventilated, weatherproof and waterproof with floors raised off the ground, so as to keep the materials perfectly dry and freely aerated. All such accommodation shall be subject to the approval of the Engineer who shall always have free access to the premises.

8.1.4 In addition to the above, the Contractor shall provide one toilet per 10 workmen. Portable toilet facilities shall be made available to workers of both male and female genders, the number provided to be in proportion to the ration of the sexes. The toilets shall be in the vicinity of the work site, shall be screened from public view and the use thereof shall be enforced. The Contractor shall, where applicable, make the necessary arrangements for the regular removal of night soil. The Contractor is to ensure portable toilet facilities are cleaned on a regular basis.

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8.2. Storage and laboratory facilities

- 8.2.1 The Contractor shall provide all storage and laboratory facilities required for the proper execution of the works.

8.3. Other services and facilities

- 8.3.1 The requirements of the Engineer's Site establishment are detailed in Project Specification PSA and PSAB.

8.4. Disposal of refuse

- 8.4.1 The Contractor shall be responsible for the disposal of refuse and waste generated by his staff daily. The site is to be kept clean, neat, and tidy, to the Employer's satisfaction.

8.5. Telephone facilities

- 8.5.1 The Contractor is to provide his own telephone facilities as well as facilities for the use of the Engineer, or his representative for the duration of the Contract.

8.6. Housing facilities

- 8.6.1 The Contractor will not be required to provide housing facilities for the Engineer's staff. No accommodation for the Contractor's employees will be permitted on site.

8.7. Notice boards

- 8.7.1 The Contractor will be permitted to display two notice boards advertising his Contract on or near the Site or access points to the project area. The notices shall be of a form and in a position accepted by the Engineer and shall include details of other parties involved (including the Employer) as well as the Contractor. No advertisement shall be displayed without the acceptance of the Engineer.

8.8. Site usage

- 8.8.1 Working with road reserves, Eskom servitudes, etc.

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- 8.8.2 The Contractor is to confine his activities strictly to the indicated working areas and to the spoil sites and the direct access roads to these. He shall not work outside his designated working areas except with the prior approval of the Employer, in writing. It is advised that the Contractor takes note of damaged structures or parts thereof and report these to the Engineer in writing before work starts at or near an existing structure to prevent possible disputes with the occupant or owner.
- 8.9. Site safety and precautions against nuisance
- 8.9.1 The Works is to be conducted within residential areas with pedestrian and vehicular traffic. The watching, barricading, lighting, and traffic control on site shall be carried out where required in strict compliance with these specifications. The Contractor shall ensure that all safety measures are strictly adhered to.
- 8.9.2 Plant used on the Works shall be as efficiently silenced as possible and noisy operations will be permitted between the hours of 07:00 and 17:00 only. Any work outside normal working hours requires written approval by the Engineer 24 hrs in advance.
- 8.9.3 Dust suppression is required for all earthworks activities prone to form excessive dust. Any rock or debris falling from trucks on any haul road shall be removed immediately. Precautions shall be taken to prevent fouling of the site and public roads by trucks. The Engineer may instruct the Contractor to clean roads where any material or debris deposited by any construction vehicle may constitute a danger to the public.
- 8.9.4 The Contractor is solely responsible for the security of his camp, plant, and materials. The Contractor is to familiarise himself with the locality of the proposed site and allow sufficient security measures to protect the works. The Employer will not be held responsible for any damages, theft or
- 8.10. Permits and wayleaves
- 8.10.1 The Employer will make the arrangements for all security access permits and wayleaves necessary within the Works.
- 8.11. Alterations, additions, extensions, and modifications to existing works
- 8.11.1 Interfaces with existing works are indicated on the relevant drawings as far as possible. The Contractor shall take note of these and make appropriate allowances for dealing with, and where necessary, making modifications or tying into these services.

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8.12. Inspection of adjoining properties

8.12.1 The Contractor will be required to inspect all properties within 50m radius of any excavation on site before and after completion of the works. A detailed written and photographic record of the inspections is to be submitted to the Engineer and Client prior to excavation activities commence.

8.13. Water for construction purposes

8.13.1 The Contractor is required to construct and maintain standpipes for construction water.

8.14. Survey control and setting out of works

8.14.1 Before commencing the operations, the Contractor shall locate and mark all survey pegs and beacons and shall immediately submit a written report in duplicate of any missing or damaged pegs and beacons to the Engineer's Representative, who shall verify the facts and return a countersigned copy of the report to the Contractor. Other than in the case of setting out pegs, the Contractor will be held responsible for the replacement by a registered land surveyor of all beacons or pegs found damaged or missing on completion of the Works which were not reported as such by the Contractor before commencing operations.

8.14.2 Survey records of beacons, bench marks, etc., replaced shall be submitted to the Engineer. Attention in this regard is drawn to Sections 35(1) and (2) of the Land Survey Act of 1927 which lays down the penalties applicable to those who are responsible for interfering with permanent survey beacons, bench marks, reference marks or trigonometric stations.

9. PLANT & MATERIALS

9.1. Materials supplied by the Employer

9.1.1 No materials will be supplied by the Employer. The construction yard will not be serviced, and the Contractor shall arrange to connect all necessary services.

9.2. Materials, samples, and shop drawings

9.2.1 All materials required for incorporation into the permanent works are to be supplied by the Contractor. Where possible, these materials shall be sourced from within the area, considering

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availability of supply, price, and continuity of supply. In-situ material can be used where suitable.

Spoiling and spreading of material will not be permitted on site and suitable temporary stockpile areas must be identified by the Contractor and approved by the Engineer prior to stockpiling.

10. CONSTRUCTION EQUIPMENT

10.1. The Contractor shall provide all construction equipment and plant necessary to complete the works.

10.2. Requirements for equipment

10.2.1 All construction equipment shall be used for the purpose that it was designed for, should be in good working condition and shall be used in a safe manner and shall comply with all relevant legal and roadworthy aspects.

10.3. Equipment provided by the Employer

10.3.1 The Employer will not provide any plant and equipment required for construction purposes. All equipment and plant required shall be provided by the Contractor.

11. EXISTING SERVICES

11.1. Known services

11.1.1 The position of the known existing services is indicated on the layout drawings as far as reasonably possible. The Contractor shall, however, take note of the fact that this is a developed site which is adjoined and crossed by many services. The Contractor must therefore make provision for suitable means of locating and accommodating all services, including those not known or shown on the drawings. This, however, does not relieve the Contractor from responsibility of verifying if any additional services are present in the area by searching and probing the terrain in question for any existing services or indications of the presence of such services. The Contractor shall at all times exercise the utmost care when working in their vicinity and shall take all necessary steps to protect any existing services whatsoever against damage which

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may arise as a result of his operations on site. The Contractor shall bear the cost of the repair of damage to any service the possible existence of which could reasonably have been ascertained by him in good time. All cables and pipes shall be considered "live" unless confirmed otherwise by the relevant service authority.

11.2. Treatment of existing services

11.2.1 Work will be carried out in the vicinity of existing services and all such services shall remain in operation at all times, except where arrangements have been made for the interruption of the service for the purposes of carrying out the Works under this Contract.

11.2.2 Existing overhead and underground services may be indicated on drawings held by the respective service providers. Should the Contractor find evidence of possible buried services, he shall notify the Engineer immediately thereof. The Engineer will assess the situation and instruct the Contractor on an appropriate course of action to be taken.

11.2.3 The Contractor shall be responsible for checking the locations of all services and to ensure that no damage is caused by construction operations.

11.2.4 The Contractor, before starting any excavations or where indicated in the scope of work or site information that underground services either cross or are located adjacent to the Works that is to be constructed, such services shall be exposed by hand ahead of trenching operations to enable any changes that might be needed in the design of the pipelines to be made timeously. Care shall be taken in exposing such services to avoid damaging them. An item has been allowed for in the Bill of Quantities for hand excavation or other methods to search for existing services.

11.2.5 All cables and pipes shall be considered "live" unless confirmed otherwise by the relevant service authority.

11.3. Use of detection equipment for the location of underground services

11.3.1 The Contractor shall be allowed to use non-intrusive equipment for the location of existing services if so agreed. Should excavation be required to identify and or expose any services this shall be for the account of the contractor and shall only proceed once the relevant permits or approvals have been issued by the Employer.

11.4. Damage to services

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- 11.4.1 Should any existing services be damaged by the Contractor, the Engineer shall be informed immediately. The Contractor shall repair the damaged service if so instructed by the Engineer or shall assist in the repair of the service as instructed by the Engineer at the Contractor's own cost.

C3.4 CONSTRUCTION

C3.4.1 WORKS SPECIFICATIONS

C3.4.1.1 Applicable COLTO Standardized Specifications

The following specifications shall apply for the construction of the Works.

COLTO Standard Specifications for Road and Bridge Works for State Road Authorities 1998 edition.

Various other specifications specified in the Project Specifications.

The applicable standardized specifications for this Contract shall be the following:

Section 1100	Definitions
Section 1200	General Requirements and Provisions
Section 1300	Contractor's Site Establishment on Site and General Obligations
Section 1400	Housing, Offices and Laboratories for the Engineer's Site Personnel
Section 1500	Accommodation of Traffic
Section 1700	Clearing and Grubbing
Section B1800	Dayworks
Section 2100	Drains
Section 2200	Prefabricated Culverts
Section 2300	Concrete Kerbing, Concrete Channelling, Chutes and Down pipes and Concrete Linings for Open Drains
Section 3200	Selection, stockpiling and breaking-down the material from borrow pits, cuttings and existing pavement layers, and placing and compacting the gravel layers
Section 3300	Mass Earthworks
Section 3400	Pavement Layers of Gravel Material
Section 3500	Stabilisation
Section 5200	Gabions
Section 5600	Road Signs

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Section 5700	Road Markings
Section 7300	Concrete Block Paving for Roads
Section 8100	Special Tests

The term "project specification" must be replaced by "scope of works" wherever it appears in these standardized specifications.

C3.4.1.2 Particular Specifications

The following Particular Specifications for work not covered by the COLTO Standardized Specifications are also included hereunder:

PLI: Generic Labour Intensive Specification

C3.4.1.3 National and International Standards

Not Applicable.

C3.4.2 VARIATIONS AND ADDITIONS TO THE COLTO STANDARDIZED SPECIFICATIONS

C3.4.2.1 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 refers to the number of the relevant clause or payment item in the standard specifications.

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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.

Standard specifications that are applicable to this contract can be seen below. Variations to these standard specifications can be seen in the following section:

Section	1200	General Requirements and Provisions
Section	1400	Housing, Offices and Laboratories for the Engineer's Site Personnel
Section	1500	Accommodation of Traffic
Section	1700	Clearing and Grubbing
Section	2100	Drains
Section	2200	Prefabricated Culverts
Section	2300	Concrete Kerbing, Concrete Channelling, Chutes and Down pipes and Concrete Linings for Open Drains
Section	3200	Selection, stockpiling and breaking-down the material from borrow pits, cuttings and existing pavement layers, and placing and compacting the gravel layers
Section	3300	Mass Earthworks
Section	3400	Pavement Layers of Gravel Material
Section	7300	Concrete Block Paving for Roads

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PROJECT SPECIFICATIONS

PART B VARIATIONS AND ADDITIONS TO THE STANDARDIZED SPECIFICATIONS AND PARTICULAR SPECIFICATIONS

1200: GENERAL REQUIREMENTS AND PROVISIONS

B1202 SERVICES

Delete and replace the following words in the last paragraph:

“...Clause 15 of the general conditions of contract” in the first sentence of the eleventh paragraph with “Clause 5.6 of the General Conditions of Contract for construction works 2015 edition.”

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 as a contribution of the first paragraph

“In drawing up the programme the contractor shall make allowance for all special non-working days”

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:

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- 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)
- Requirements regarding the training of labourers and Emerging Contractors (EC's).
- The requirements for work to be undertaken by labourers and work to be undertaken by EC's.

(b) Programme of work for upgrading of roads work

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

Insert the following after the first sentence of the second paragraph:

“The programme shall include the following details;

- i) A work breakdown structure that identifies all major activities
- ii) Scheduled start and end dates for each activity
- iii) Linkages between activities that clearly identify sequence, floats and critical path
- iv) Intended working hours and resource allocations (plant and labour).
- v) Monthly cashflow projections
- vi) Key dates in respect of information required or due delivery

Add the following subclause

(a) “Programme revisions

The programme will be reviewed at the monthly site meetings at which the Contractor shall provide sufficient details that will allow the comparison of completed work per activity against the original approved programme. The Contractor shall indicate what resources and programme changes he/she intends to implement in order to remedy any activity that has fallen behind. The Engineer may demand from the Contractor a major revision of the programme. Such a revision shall be submitted for approval within fourteen days of the demand.”

B1205 WORKMANSHIP AND QUALITY CONTROL

Add the following:

“Quality control (Scheme 1) as detailed in Section 8200 will be used for determining the acceptance levels with respect to the properties of the materials and workmanship executed by the contractor.”

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

Replace “clause 14” in the paragraph with “clause 4.7”

Delete “and of clause 14 of the general conditions of contract” in the sixth paragraph

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 to the first paragraph:

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

(c) The meaning of certain phrase in payment clause

(i) Procuring and furnishing.... (material)

Add the following

“Payment for procuring and furnishing material from commercial sources shall include all transports costs irrespective of distance hauled”

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(e) Materials on the site

Replace “clause 52” in the first line with “subclause 6.10”

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."

B1210 CERTIFICATE OF PRACTICAL COMPLETION OF THE WORKS

Delete and replace the words in the first paragraph:

"Clause 54 of the general conditions of contract" in the fourth line of the first sentence with "Clause 5.14.1 of the General Conditions of Contract for construction works 2015 edition".

B1212 ALTERNATIVE DESIGNS AND OFFERS

Add the following to the end of sub clause (m):

"The provision for contract price adjustment in the original tender summary must not under any circumstances be altered in an alternative tender"

B1215 EXTENSION OF TIME RESULTING FROM ABNORMAL RAINFALL

Delete and replace the words in the first paragraph:

"Clause 45 of the general conditions of contract" in the first line of the first sentence with "Clause 5.12 of the general conditions of contract for construction works 2015, third edition".

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Add the following after the first paragraph:

Method (ii) (Critical-path method) shall be used on this contract.

Method (ii) (Critical-path method)

Delete and replace the words in the second paragraph with the following:

Replace the word "five-day" in the second paragraph with "six-day".

The value of "n" is zero (0).

- (a) Extension of time in respect of delays resulting from wet climatic conditions on the Site will only be considered in respect of abnormally wet climatic conditions and shall be determined for each calendar month or part thereof, in accordance with the formula given below:

$$V = (Nw - Nn) + (Rw - Rn)/X$$

in which formula the symbols shall have the following meanings:

V	=	Potential extension of time in calendar days for the calendar month under consideration: If V is negative and its absolute value exceeds Nn, then V shall be taken as equal to minus Nn. When the value of V for any month exceeds the number of days in the particular month, V will be the number of days in the month.
Nw	=	Actual number of days in the calendar month under consideration on which a rainfall of Y mm or more was recorded on the Site
Nn	=	Average number of days, derived from existing records of rainfall in the region of the Site, on which a rainfall of Y mm or more was recorded for the calendar month
Rw	=	Actual rainfall in mm recorded on the Site in an approved rain gauge for the calendar month under consideration
Rn	=	Average rainfall in mm for the calendar month, derived from existing records of rainfall in the region of the Site

The factor (Nw - Nn) shall be deemed to be a fair allowance for variations from the average number of days during which the rainfall exceeds Y mm.

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The factor $(R_w - R_n)/X$ shall be deemed to be a fair allowance for variations from the average number of days during which the rainfall did not exceed Y mm but wet conditions prevented or disrupted work.

- (b) The rainfall records at rainfall station number 0551103 Rus De Winter - IRR for the period 2014 to 2023 are reproduced in the accompanying table, and the monthly averages (R_n and N_n) for this period shall, for the purposes of this Contract be taken as normal and as the values to be substituted for R_n and N_n in the formula above. The values of X and Y shall be 20 and 10 respectively.

The potential extension of time V has been calculated for each month and year of the period concerned to indicate the possible effect of the rainfall formula. The values of V were obtained by applying the rainfall formula and using the actual rainfall figures and the calculated values of R_n and N_n indicated in the table.

- (c) The Contractor shall, at his own cost, provide and erect on the Site at a location approved by the Engineer, an approved rain gauge, which shall be fenced off in a manner which will prevent any undue interference by workmen and others. The Contractor shall, at his own cost, arrange for the reading of the rain gauge on a daily basis for the duration of the Contract. The gauge readings, as well as the date and time at which the reading was taken shall be recorded in a separate record book provided by the Contractor for this purpose. All entries in the rainfall record books shall be signed by the person taking the reading and the gauge shall be properly emptied immediately after each reading has been taken. If required by the Engineer, the Engineer shall be entitled to witness the reading of the gauge.
- (d) The Contractor's claims in terms of Subclause 5.12.1 of the Conditions of Contract for extension of time in respect of delays resulting from wet climatic conditions on the Site during each month, shall be submitted in writing to the Engineer monthly; provided always that
- (i) the period allowed to the Contractor in terms of Clause 10.1 of the Conditions of Contract in which to submit his claim for each month shall be reduced to seven (7) days, calculated from the last day of the month to which the claim applies; and
 - (ii) the 28-day period allowed to the Engineer in terms of Subclause 5.12.1 of the Conditions of Contract in which to give his ruling on the claim, shall be reduced to fourteen (14) days.

The Contractor's monthly claim shall be accompanied by a copy of the signed daily rainfall readings for the applicable month.

BIDDER:

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Witness:

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Table 5.1: Statistical rainfall

STATISTICAL INFORMATION: RUS DE WINTER Last ten years		
Month	RAINFALL	
	Nn = Actual number of days during the calendar months in which a rainfall of more than Y-mm has been received	Rn = Average monthly rainfall
January	6.4	87.6
February	6.1	80.2
March	4.1	43.1
April	3.8	45.8
May	1.0	15.8
June	0.3	2.5
July	0.2	0.5
August	0.1	0.2
September	0.9	6.5
October	4.4	35.1
November	7.6	80.2
December	8.6	102.5
TOTAL	43.4	499.7

- (e) The extent of any extension of time which may be granted to the Contractor in respect of wet climatic conditions (whether normal or abnormal) shall be determined as the algebraic sum of the "V" values for each month between the Commencement Date and the Due Completion Date of the Contract, calculated in accordance with subclause C3.4.2.6(a) above; provided always that
- (i) rainfall occurring within the period of the Contractor's Christmas shut-down period (referred to in Subclause 1.6 of the Conditions of Contract) shall not be taken into account in the calculation of the monthly "V" values;
 - (ii) rainfall occurring during any period during which the Contractor was delayed due to reasons other than wet climatic conditions on the Site, and for which delay an extension of time is granted by the Engineer, shall not be taken into account in the calculation of the monthly "V" values;

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- (iii) if the algebraic sum of the "V" values for each month is negative, the time for completion will not be reduced on account of subnormal rainfall, and
 - (iv) where rainfall is recorded only for part of a month, the "V" value shall be calculated for that part of the month using pro rata values for N_n and R_n .
- (f) The Engineer shall, simultaneous with granting any extension of time in terms of this clause, revise the Due Completion Date of the Contract to reflect an extension of time having been granted in respect of wet climatic conditions, to the extent of the algebraic sum of all the "V" values for all the preceding months of the Contract, less the aggregate of the " N_n " values for the remaining (unexpired) months of the Contract (viz less aggregate of the potential maximum negative "V" values for the remaining Contract Period). Thus, provided that where such period is negative, the Due Completion Date shall not be revised.
- (g) Any extension of time in respect of wet climatic conditions granted in terms of this clause shall not be deemed to take into account delays experienced by the Contractor in repairing or reinstating damage to or physical loss of the Works arising from the occurrence of abnormal climatic conditions. Extension of time in respect of any such repairs or reinstatement regarding damage shall be the subject of a separate application for extension of time in accordance with the provisions of Clause 5.12 and Clause 10.1 of the Conditions of Contract.

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

Delete and replace the words in the first paragraph:

"Clause 35 of the general conditions of contract" in the second line of the first sentence with "Clause 8.1 of the General Conditions of Contract for construction works 2015, third edition".

B1224 THE HANDING-OVER OF THE ROAD RESERVE

Add the following:

"The full extent of the road reserve will be handed over to the Contractor at the beginning of the contract. He shall be responsible for the maintenance along this portion of the road until completion of the contract".

BIDDER:

Initial: Authorized signatory/ies:

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Witness:

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B1229 SABS CEMENT SPECIFICATIONS

The standard cement specifications SABS 471, SABS 626, SABS 831 and SABS 1466 have been withdrawn and are replaced by the new SANS 50197-1 and -2: Common cements, and SANS 50413-1 and -2: Masonry cement. These specifications will be applicable to this contract, and the descriptions and types of cements specified, will be based on the designations as defined in these specifications.

Add the following subclause:

“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 Contractor shall attach to form RDP 1(E) basic details of his proposed in-service training programme, which details shall inter alia include the following:

- the details of training to be provided
- the manner in which the training is to be delivered
- the number and details of trainers to be utilised.

(ii) 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.

(iii) 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.

(iv) All labourers shall be remunerated in respect of all time spent undergoing training.

(v) 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:

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Witness:		



- the name of the Contractor
- the name of the employee
- the name of the project/contract
- the nature of the work satisfactorily executed by the worker and the time spent thereon
- the nature and extent of training provided to the worker
- 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”.

Add the following clause:

“B1231 COMMUNITY LIAISON OFFICER (CLO)

The Contractor or his appointed agent will appoint a Community Liaison Officer (CLO) after consultation with the Ward Councillor and 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:

- To be available on site daily between the hours of 07:00 and 17:00 and at other times as the need arises. His normal working day will extend from 07:00 in the morning until 17:00 in the afternoon.
- To determine, in consultation with the Contractor, the needs of the temporary labour for relevant skills training. He/she will be responsible for the identification of suitable trainees and will attend one of each of the training sessions.

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- 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 R 6 000.00/month unless otherwise advised 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.

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Add the following clause:

“B1232 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:

“B1232 CARE OF WORKS, DAMAGE, INJURY AND INSURANCE

Compliance with Road Traffic Act:

When a service necessitates vehicles or plant travelling or working on a public road the following shall apply:

- The vehicles and plant shall be licensed in terms of the National Road Traffic Act 1996 (Act No. 93 of 1996) as amended.
- Every driver and operator of a vehicle or an item of plant shall be in possession of a valid permit in respect of the class of vehicle or item of plant he is driving or operating.

The contractor shall provide, erect and maintain sufficient road signs, barricades, fencing and guarding as may be necessary or required by the Engineer or by any act, regulation or statutory authority in order to minimise the danger and inconvenience caused to vehicle and pedestrian traffic.

The Contractor by accepting this contact shall be deemed to have indemnified the Employer and the Engineer against any claims, damages and / or costs that may arise in this regard

Add the following clause:

“B1233 MEASUREMENT AND PAYMENT

Add the following items:

BIDDER:	DR. JSMLM:	
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Witness:		



ITEM UNIT

B12.01 Protection, removal, realignment and replacement of services

(a) Utility services

(i) Locating existing services (known and unknown)No

(ii) Relocating of measured by length services

a) Relocating water serviceskm

b) Relocating sewer services.....km

(iii) Relocate other services (eg. Eskom, Telkom).....Prov Sum

(iv) Handling cost and profit in respect of sub item B12.01 (a)(iii) above).....percentage (%)

Locating (including use of detection devices) all services including water sewer, electricity and gas.

The rate should be used as instructed by the Engineer, for the supply or hiring of specialised detecting equipment, for the use of such equipment and for drawing up plans of the located services as specified and the physical movement of such services as necessary. Alternatively, an approved specialist firm may be employed to carry out the works

B12.02 Community Liaison Officer Unit

a) Community Liaison Officer.....Provisional (Prov) Sum

b) Project Steering Committee.....Provisional (Prov) Sum

c) Contractor's charge to allow for handling costs and all other charges
in respect of subitems B12.02 (a) and (b).....percentage (%)

Measurement and payment shall be in accordance with the general conditions of contract.”

The Tendered percentage is a percentage of the amount actually spent under the sub-items B12.01 and B12.02 which shall include full compensation for the handling costs of the contractor, and the profit.

The provisional and prime cost sums shall be paid in accordance with the provisions of the general

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Conditions of Contract. The Tendered percentage is a percentage of the amount actually spent under the prime cost items, which shall include full compensation for the profit in connection with providing the specified service.”

ITEM

UNIT

“B12.03 Engineering student on-job / (in-service) training

- a) Provisional allowance paid to the Engineering student undergoing on-job / (in-service) training for a period of not less than 06 months
..... Provisional (Prov) Sum
- b) Contractor's charge to allow for handling costs and all other charges in respect of subitems C12.03 (a)..... percentage (%)

The provisional sum provided to cover the allowance paid to the Engineering student undergoing on-job student / (in-service) training for a period of not less than 06 months.

1300: CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS

B1302 GENERAL REQUIREMENTS

- (a) Camps, constructional plant and testing facilities

Add the following:

"(d) Contractor's ablution facilities

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 (10) workers 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."

Add the following after the last paragraph:

"The combined total Tendered for Item 1300 sub-items (a), (b) and (c) and Item 1400 shall not exceed 15% of the Tender sum, excluding VAT.

BIDDER:

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Witness:



Should the Contractor be of the opinion that 15% is inadequate to cover his costs in terms of section 1300 & 1400, he shall indicate separately with his Tender where such costs have been allowed for in his Tender. If no such indication is given, the Contractor shall not at any stage during the contract for any reason whatsoever claim additional compensation under this item.”

BIDDER:

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Witness:



1400: HOUSING, OFFICES AND LABORATORIES FOR THE ENGINEER'S SITE PERSONNEL

B1402 OFFICES AND LABORATORIES

(a) General

Add the following new subclause:

“(i) Computers and printers

When instructed by the Engineer, the Contractor shall provide approved new computer equipment, including software, and printers for use by the Engineer's site personnel. The type of equipment and software shall be as instructed by the Engineer and payment for equipment and maintenance shall be made through item B14.11.

All equipment provided shall be kept fully serviceable at all times by the Contractor. The Contractor shall repair/replace any defective equipment within 48 hours after notification by the Engineer's staff. The Contractor shall also be responsible to provide all paper and ink cartridges required by the Engineer.

At the end of the Contract, the equipment and software shall revert back to the contractor”

Add the following new subclause:

“(j) Survey Equipment and Assistants

Survey equipment shall be provided, maintained and insured by the Contractor for the duration of the Contract and shall consist of a theodolite and an automatic level each fitted with an optical plumb as well as the necessary tripods, metric staffs with built-in plumb bubbles, ranging rods and tapes.

The instruments and accessories shall be approved by the Engineer and shall be serviced and adjusted for accuracy prior to bringing them onto the Site. A certificate stating that this has been done shall be provided.

The equipment shall be for the exclusive use of the Engineer's supervisory staff and shall, when no longer required, be returned to the Contractor.

The Contractor shall also make available to the Engineer's supervisory staff at least two capable survey assistants as and when required.”

BIDDER:

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B1406 MEASUREMENT AND PAYMENT

Add the following sub-item:

ITEM	UNIT
“B14.12 Provision of survey equipment and assistants	
a) Dumpy level.....	day
b) Tachometer.....	day
c) Survey assistants.....	per day (pd)

The unit of measurement shall be the day for the item of equipment or personnel. Non-working days shall not be measured. The day shall be taken from the day that the personnel and/or equipment start until depart.

The Tendered rates for labour under item B14.12(c) shall include full compensation to cover leave pay, bonuses, subsistence, allowances, employer's contributions, additional payment for overtime where applicable, insurances, housing, operative and contingent costs, relating to the supply of personnel.

The Tendered rates for equipment under item B14.12(a) & B14.12(b) shall be an all-inclusive hire charge for the use of the equipment and shall apply only to equipment nominated in writing by the Engineer.

Add the following sub-item:

ITEM	UNIT
“B14.13 Contract Notice Board.....	No.

The unit of measurement shall be the number of units supplied in accordance with the specification, drawings and the Engineer's instruction.

The Tendered rates shall include full compensation for supply, transport to site and erect contract notice board as directed on drawings or as indicated by the Engineer.

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Witness:	



Add the following sub-item:

ITEM	UNIT
“B14.14 Rehabilitation of Borrow Pit.....Lum-Sum.	

The unit of measurement shall be the number of units supplied in accordance with the specification, drawings and the Engineer’s instruction.

The Tendered rates shall include full compensation for supply, transport to site and the full rehabilitation of the section of the borrow-pit where the Contractor has worked on and as indicated and directed by the Engineer.

Add the following sub-item:

ITEM	UNIT
“B14.15 Compensation for the laying of stormwater pipes in private propertiesLum-Sum.	

The unit of measurement shall be the number of units supplied in accordance with the specification, drawings and the Engineer’s instruction.

The Tendered rates shall include full compensation for supply, transport to site and the full compensation to the owners of private properties where stormwater pipes are laid to a stormwater outlet structure as a discharge point.

Add the following after the fifth paragraph:

"The combined total Tendered for Item 1300 sub-items (a), (b) and (c) and Item 1400 shall not exceed 15% of the Tender sum, excluding VAT.

Should the Contractor be of the opinion that 15% is inadequate to cover his costs in terms of section 1300 & 1400, he shall indicate separately with his Tender where such costs have been allowed for in his Tender. If no such indication is given, the Contractor shall not at any stage during the contract for any reason whatsoever claim additional compensation under this item.”

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1500: ACCOMMODATION OF TRAFFIC

B1501 SCOPE

Add the following to Clause 1501:

The scope of this section shall also include the preparation and submission to the Engineer for approval of traffic management plans. The traffic management plans shall demonstrate how the Contractor intends accommodating and controlling traffic through the site. The plans must incorporate all the requirements of the specifications in respect of the accommodation of traffic, including the traffic control devices and the personnel involved. A traffic safety officer shall be specifically named in the Plan together with 24 hr contact details. Copies of the plans shall be made available to the Engineer, the Employer, Local Authorities, the Police and Emergency Services.

The accommodation of traffic shall generally be undertaken in the following manner:

- (a) Via gravel diversions, where practical in terms of space and the terrain.
- (b) By dealing with traffic under construction where no diversions are possible.
- (c) By diverting traffic along the existing road where the route is being realigned.

B1502 GENERAL REQUIREMENTS

(b) Providing Temporary Deviations

Add to Sub-clause 1502(b) the following:

The contractor shall keep the provincial traffic police, the municipal traffic departments and the Engineer fully informed with regard to any changes in the normal traffic flow and obtain their approval for these changes.

During the non-working hours, all unnecessary obstructions to the traffic shall be removed and all signs no longer applicable to the situation shall be removed or effectively covered.'

It is a condition of this contract that not more than 1.5 km of deviation should be open to public traffic at any one time, and that not more than three separate deviations should be open at any one time. No additional payments will be made where situations arise that the contractor has deviations cross over the roadway under construction.

BIDDER:

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Witness:

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(i) Traffic Safety Officer

Add to Sub-clause 1502(i) the following:

The Contractor shall submit a CV of the candidate to the Engineer for approval before the Traffic Safety Officer is appointed. The Traffic Safety Officer shall be made available to discuss road safety and traffic accommodation matters whenever required by the Engineer.

Delete Sub-clause 1502(ii) and (iii) and replace with the following:

- (ii) Record on neat and dimensioned sketches and submit to the Engineer the position and sign reference number where applicable of each sign, barricade, delineator, cone, amber flicker light, guardrail and permanent or temporary painted road marking feature. The position of each unit shall be adequately referenced to identifiable permanent features located along the site of the works.

These records shall also show the date and time at which the recorded traffic accommodation features are certified correct by the Traffic Safety Officer, and shall be signed by the Traffic Safety Officer before being submitted to the Engineer.

The records shall be amended whenever changes are made in the field and the revised detailed sketches shall be submitted to the Engineer. This shall include the recording of the position of flagmen and stop/go control men and their associated traffic accommodation equipment wherever they are used.”

- (iii) Personally inspect the position and condition of each traffic accommodation feature on the whole site of works twice each day by 9:30 and by 16:30, to record all irregularities discovered and the remedial action taken, and to sign off as correct and submit to the Engineer such record sheets by 10:00 and by 17:00 each day. The traffic Safety Officer shall keep a duplicate book for this specific purpose.

The Traffic Safety Officer shall also submit to the Engineer by 10:00 each morning, a record of all matters pertinent to site safety and traffic accommodation throughout the site of works the previous day. He shall also record the daily labour returns of flagmen, stop/go and traffic signal control men employed.

The traffic safety officer shall be equipped with a cellular telephone and shall have a vehicle and 3 labourers at his disposal 24 hrs a day and he shall be directly answerable to the Contractor’s Site Agent. The Traffic Safety vehicle shall be a truck with a capacity of 5 tons and shall be equipped with a high visibility rear panel as shown on Figure 24 of Road Signs Note No.13. The traffic Safety

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Officer shall have a direct line of communication at all times with the police and traffic officers responsible for the area within limits of the Contract. The provision of the Road Safety Vehicle, driver, three labourers and the cost of the cellular telephone shall be deemed to be included in the rates tendered for the Contractor's establishment on site.

Add to Sub-clause 1502(i) the following new sub-sub-clauses:

- (viii) Ensure that all obstructions, soil and gravel heaps, related to the Contractors activities be removed before nightfall where applicable and as instructed by the Engineer and that the roads are safe for night traffic.
- (x) The Traffic Safety Officer shall, in addition to the duties listed in Clause 1502 (i), also be responsible for removal of broken down vehicles off the roadway and implementing actions requested by the traffic authorities with regard to the work to be carried out, and shall be responsible for the erection and maintenance of all traffic signs necessary for the accommodation of traffic."

Add the following new Sub-clauses to Clause 1502:

(j) Public traffic

The contractor must plan and conduct his activities so as to bring about the least possible disruption to the traffic on the road. All halting of traffic will require the prior approval of the Engineer and must be pre-arranged with the appropriate traffic authorities.

In all dealings with the public the Contractor shall bear in mind the public's right to enjoy the use of the road, and the Employer's desire to interfere as little as possible with this right. At all points of contact with the public, the Contractor shall deal with deliberate courtesy and understanding in any discussions or disputes.

(k) Failure to comply with provisions

The failure or refusal of the Contractor to provide barricades or traffic signs at the proper time, or to take the necessary precautions for the safety and convenience of public traffic as specified or instructed by the Engineer, shall be sufficient cause for the suspension of all work under this Contract without any additional compensation to the Contractor until the required accommodation of traffic has been completed to the satisfaction of the Engineer. The above shall be sufficient cause for the Engineer to deduct penalties as follows:

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- A fixed penalty of R5 000,00 per occurrence shall be deducted for each and every occurrence of non-compliance with any of the requirements of Section 1500 of the standard specifications and section B1500 of the Project Specifications.
- In addition, a time-related penalty of R500,00 per hour over and above the fixed penalty shall be deducted for non-compliance to rectify any defects in the accommodation of traffic within the allowable time after an instruction to this effect has been given by the Engineer. The Engineer's instruction shall state the allowable time, which shall be the time in hours for reinstatement of the defects. Should the Contractor fail to adhere to this instruction, the time-related penalty shall be applied from the time the instruction was given.

The penalties shall be deducted from the payment certificate for the month in which the non-compliance occurs.

Payment will also be deducted in accordance with Payment Item B15.01 of these Project Specifications.

(l) Access to work area

Construction traffic will only be permitted to enter or leave the work area at points approved by the Engineer and as clearly indicated on the traffic management plans. When any access point is in use, flagmen shall be provided for each such point. At least two flagmen shall be stationed at the access point to control the movement of construction traffic, and to warn public traffic on both lanes of the existing road. It is not the purpose of these flagmen to stop public traffic flow.

(m) Extension of time for completion

Accommodation of public traffic on the works or any delays caused thereby, as well as any suspensions due to failure by the Contractor to comply with the provisions for the accommodation of traffic, will not be regarded as special circumstances for an extension of time.

B1503 TEMPORARY TRAFFIC-CONTROL FACILITIES

Delete and replace the words in the first sentence of the first paragraph of Clause 1503 with the following:

“South African Road Traffic Signs Manual” to read “South African Road Traffic Signs Manual in conjunction with the latest edition of Road Signs Note No.13 Roadworks”.

BIDDER:

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Replace the third paragraph of Clause 1503 with the following:

The type of construction, spacing and placement of traffic-control devices shall be in accordance with the latest edition of Road Signs Note No.13, Roadworks, these special provisions, the drawings and the South African Road Signs Manual. The recommended arrangements of the traffic control devices illustrated in Appendices 1 to 6 of Road Signs Note No.13 and/or drawings shall not be departed from without prior approval of the Engineer. Typical arrangements expected to be used in the Contract are given on the tender drawings.

However, this shall not absolve the Contractor of his obligations in preparing traffic management plans as per this Project Specification.

The details shown for spacing and placement of traffic-control facilities may however, be revised at the discretion of the Engineer where deemed necessary to accommodate local site geometry and traffic conditions

(b) Road signs and barricades

Add to Sub-clause 1503(b) the following:

The Contractor shall be responsible for the protection and maintenance of all signs, and shall at his own cost replace any that have been damaged, or lost, or stolen.

All temporary road signs shall be mounted on portable supports for the easy moving of signs to temporary positions. The only permitted method of ballasting the sign supports shall consist of durable sandbags filled with sand of adequate mass to prevent signs from being blown over by wind. The cost of the sandbags shall be included for in the tendered rates for the various types of temporary road signs.

The traffic-control devices, temporary signs and devices required in the Contract are those designated in Road Signs Note No.13.

The covering of permanent road signs, if applicable, shall be by utilising a hessian bag, which shall be pulled over the sign in the form of a hood and fastened to the sign posts. Plastic bags or other materials and fastening by means of adhesive tape shall not be permitted. The cost of covering of permanent road signs shall be deemed to be covered by the tendered rates of items B15.03.

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No work may proceed on any section where accommodation of traffic is required until such time as the relevant requirements with regards to signposting are met and written approval of the Engineer is obtained. The Contractor shall keep sufficient surplus signs, delineators and barricades on the site to allow for the immediate replacement of damaged or missing items, in any case, within three hours of instructions having been given by the Engineer. Delineators shall be of the flexible plastic reversible variety and not of the rigid metal variety.

Should the Contractor fail to respond to an instruction to re-erect a road sign within the designated time or fail to comply with the requirements, the work on that section will be suspended without any compensation to the Contractor.

(c) Channelisation devices and barricades

Add to Sub-clause 1503(c) the following:

Delineators shall be of plastic and shall be capable of withstanding winds caused by passing traffic in typical working conditions without falling over. To achieve this, the base shall be ballasted using sand bags.

Traffic cones manufactured in a fluorescent red-orange or red plastic material shall be used only at short term lane deviations during daylight. Cones used on all deviations shall be 750 mm high. Lane closures which continue into the night time shall be demarcated by delineators only.

The use of steel drums as channelization devices will not be allowed on this Contract unless instructed by the Engineer. Channelization shall be effected by the use of delineators or cones as detailed in Road Signs Note No. 13 - Roadworks.

(e) Warning devices

Add to Sub-clause 1503(e) the following:

All construction vehicles and plant used on the works shall be equipped with rotating amber flashing lights and warning boards as specified. All vehicles and plant shall obtain a clearance permit from the Engineer before being allowed onto the site.

Rotating lights shall have an amber lens of minimum height of 200 mm and shall be mounted to ensure clear visibility from all directions. The lights on construction vehicles shall not be switched on while vehicles are being operated on unrestricted sections of a public road, but shall be switched on while construction vehicles are operating within the accommodation of traffic area, as the vehicles decelerate to enter a

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construction area, and as the vehicles accelerate to the general speed when entering the road from a construction area. Lights on plant shall operate continuously while the plant is working alongside sections of road open to public traffic.

All LDV's and cars operating on site shall also be equipped with rotating amber flashing lights which shall be placed so as to be clearly visible and operated continuously while the vehicles are maneuvering in or out of traffic or are travelling or parked alongside roads open to public traffic.

Rotating lights and the "Construction Vehicle" signs on the Contractor's vehicles and plant shall not be paid for separately but shall be included in the rates covering the use of the vehicles.

The Contractor shall apply and maintain lights together with temporary mounting brackets, to the approval of the Engineer. Vehicles and plant that do not comply with these requirements shall be removed from the site.

The Contractor shall ensure that all his personnel, excluding those who are permanently office bound, are equipped with reflective safety jackets and that these are worn at all times when working on or near to the travelled way. Any person found not wearing a reflective jacket under these circumstances shall be removed from the site until such time as he is in possession of and wearing a reflective jacket. Reflective safety jackets shall be kept in good condition and any jackets that are, in the opinion of the Engineer, ineffective shall be immediately replaced by the Contractor.

Add the following New Sub-clauses to Clause 1503:

(g)Other signs and facilities

The Engineer may instruct the Contractor to provide any other road sign, reflective tape, etc not measured in standard pay items. The road signs shall conform to the requirements of the South African Traffic Signs Manual, Road Note 13 or specification provided by the Engineer.

The Contractor shall inform the general public of the intended road works, construction period and accommodation of traffic proposal through press releases in local and provincial newspapers."

Cones shall be manufactured and positioned in accordance with the details specified on the drawings.

All traffic cones and road signs shall be kept clean and visible at all times. All bituminous or other foreign material shall be removed by the Contractor, or the dirty traffic cones and road signs shall be replaced with new ones at the cost of the Contractor, as directed by and to the satisfaction of the Engineer.

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(h) Safety jackets

The Contractor will be responsible to ensure that all construction workers, staff of the Engineer and visitors shall wear safety jackets when moving around on site. The jackets shall be of an approved type, orange in colour and shall be to the approval of the Engineer. The Contractor shall provide the Engineer with two jackets. Payment for Engineer's jackets will be as indicated in item B15.03 in the bill of quantities.

B1517 MEASUREMENT AND PAYMENT

Add the following item:

ITEM	UNIT
“B15.14 Penalties to be deducted for non-compliance with requirements for accommodation of traffic	
a) Fixed penalty per occurrence.....	Number (No)
b) Time related penalty.....	Hour (h)

Failure or refusal on the part of the contractor to take necessary steps to ensure the safety and convenience of the public traffic, accommodation of traffic, plant and personnel in accordance with these specifications or as required by statutory authorities or ordered by the engineer, shall be sufficient cause for the engineer to deduct penalties as follows:

A fixed penalty of R10 000,00 shall be deducted for each and every occurrence of non-compliance with any of the requirements of section 1500 of the standard specifications and section B1500 of the project specifications.

In addition, a time-related penalty of R500,00 per hour over and above the fixed penalty shall be deducted for non-compliance to rectify any defects in accommodation of traffic within the allowable time after an instruction to this effect has been given by the engineer. The engineer's instruction shall state the allowable time, which shall be the time in hours for reinstatement of the defects. Should the contractor fail to adhere to this instruction, the time related penalty shall be applied from the time the instruction was given.”

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1700: CLEARING AND GRUBBING

B17.04 MEASUREMENT AND PAYMENT

Add the following new item:

“ITEM	UNIT
B17.07	Demolish and spoil material for structures, buildings etc.
a) 100mm thick un-reinforced concrete paving.....	m ²
b) 150mm thick un-reinforced concrete paving	m ²
c) 100mm thick reinforced concrete paving	m ²
d) 150mm thick reinforced concrete paving	m ²

The unit of measurement shall be the square meter of material removed from the paving or apron as instructed by the engineer.

The Tendered rate shall include full compensation for all work necessary for breaking or demolishing and removing all undesirable material from structures, transport and dispose of these materials, all as specified in this section.”

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Add new section B1800:

1800: DAYWORK SCHEDULE

Note: This is a new section added to the Standard Specifications.

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

ITEM	UNIT
------	------

B18.01 Personnel during normal working hours:

- a) Unskilled labour hour (h)
- b) Semi-skilled labour hour (h)
- c) Skilled labour hour (h)
- d) Ganger hour (h)

ITEM	UNIT
------	------

B18.02 Personnel outside normal working hours:

(a) Outside normal hours and Saturdays

- i) Unskilled labour \ hour (h)
- ii) Semi-skilled labour hour (h)

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iii) Skilled labour hour (h)

iv) Ganger hour (h)

v) Foreman..... hour (h)

ITEM

UNIT

B18.04 Materials:

(a) Procurement of materialsProvisional (Prov) Sum

(b) Contractor's handling costs, profit and all other charges in respect of
Sub-item B18.04(a) percentage (%)

The unit of measurement for items B18.01 and B18.02 shall be the hour for the item of equipment or personnel. Non-working hours for transport breakdown, lack of operator or any other reason shall not be measured. The time shall be taken from the time that the personnel and/or equipment depart until return.

The Tendered rates for labour under item B18.01 shall include full compensation to cover overhead charges and profit, leave pay, bonuses, subsistence, allowances, employer's contributions, additional payment for overtime where applicable, insurances, housing, site supervision, use of small hand tools and appliances, non -mechanical plant and equipment and consumable stores, for all administrative, supervisory, operative and contingent costs, relating to the supply of personnel.

The Tendered rates for plant for item B18.02 shall be an all-inclusive hire charge for the use of the vehicle and driver or plant/equipment and operator and shall apply only to vehicles plant and equipment nominated in writing by the engineer, for all administrative, supervisory, operative and contingent cost, and profit relating to the running of the plant.

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2100: DRAINS

B21.07 MEASUREMENT AND PAYMENT

Amend the following sub-items as follows:

“ITEM	UNIT
-------	------

B21.01 Excavation for open drains

- (b) Extra over subitem 21.01 (a) for excavation in hard material, irrespective of depth (the rate should be inclusive of other methods of excavation/drilling/rock breaking)m³

2200: PREFABRICATED CULVERT

B22.18 MEASUREMENT AND PAYMENT

Amend the following sub-items as follows:

“ITEM	UNIT
-------	------

B22.01 Excavation:

- (b) Extra over subitem 22.01 (a) for excavation in hard material, irrespective of depth (the rate should be inclusive of other methods of excavation/drilling/rock breaking)m³

Add the following new sub-item:

“ITEM	UNIT
-------	------

B22.17 Manholes, catchpits, precast inlet and outlet structures complete

- (f) Wingwall outlet structure complete with cast-in site floor slab, see drawing
STD 05No

The unit of measurement shall be the complete unit as shown on the drawings, including all concrete, brickworks and other accessories.

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The Tendered rate shall include full compensation for all work necessary for procuring, furnishing and installing, and laying where applicable, the complete unit including excavation and backfilling.”

2300: CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES AND CONCRETE LININGS FOR OPEN DRAINS

B2301 SCOPE

B2304 CONSTRUCTION

(e) Cast in situ kerbs and channels

Add the following:

"Cast in situ kerbs, channels and edge beams shall be provided with a contraction joint every 2 m and an expansion joint every 20 m. The contact area of the contraction joint shall be painted with two coats of bitumen. Alternatively, joints may be cut and finished to a depth of 50 mm. The expansion joint shall consist of 12 mm thick Flexcell or an approved equivalent placed between adjoining concrete sections. The top part of the joint shall be sealed with a 12 mm x 12 mm silicone sealant. All joints shall be provided for the full depth of the concrete."

"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."

(i) Construction sequence

Replace paragraphs (i), (ii) and (iii) with the following:

"In all cases where kerbing and/or channelling and/or concrete edge beams constructed at intersections and access points adjoin the bituminous surface of the road, the kerbing and/or channelling and/or concrete edge beams may only be constructed after the bituminous surface has been completed.

Before commencing with the kerbing and/or channelling and/or concrete edge beams, 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.

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B23.07 MEASUREMENT AND PAYMENT

Amend the following sub-items as follows:

“ITEM	UNIT
B23.07 Trimming of excavation for concrete-lined open drains:	
(b) In hard material (the rate should be inclusive of other methods of excavation/drilling/rock breaking)	m ³

3300: MASS EARTHWORKS

B33.12 MEASUREMENT AND PAYMENT

Amend the following sub-items as follows:

“ITEM	UNIT
B33.01 Cut and borrow to fill, including free-haul up to 10km:	
B33.04 Cut to spoil, including free-haul up to 10km. Material obtained from:	
(c) Hard material (the rate should be inclusive of other methods of excavation/drilling/rock breaking)	m ³

BIDDER:

Initial: Authorized signatory/ies:

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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."

Add the following at the end of the second paragraph:

"For chemically stabilised layers the material shall conform to the requirements in table B3402/5."

Add the following after the second paragraph:

"Distinction shall be made between crushed and natural G4, G5 and G6 materials. Where the crushing and/or screening of these materials have been specified, the combined grading shall conform to the grading limits specified for G4 class material in Table 3402/1."

Replace Table 3402/5 with:

"TABLE B3402/5:

REQUIREMENTS FOR CHEMICALLY STABILIZED LAYERS

Classification	C1	C2	C3	C4
Material before treatment	At least G2 quality	At least G4 quality	At least G5 quality	At least G6 quality
PI after treatment	Non-plastic	Non-plastic	6 max. *(1)	6 max. *(1)
UCS (MPa) *(2)	6 min.	4 min.	1,50 min.	0,75 min.
ITS (kPa) *(3)	-	-	250 min.	200 min.
WDD (% loss) *(4)	5 max.	10 max.	20 max.	30 max.

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Note *

- * (1) For materials derived from the basic crystalline rock group, the Plasticity Index after stabilisation shall be non-plastic.
- * (2) Unconfined Compressive Strength @ 100% Mod. AASHTO density
- * (3) Indirect tensile Strength @ 100% Mod. AASHTO density
- * (4) Wet/Dry Durability according to Method B 8110"

(b) Compaction requirements

"The minimum in situ dry density for the various layers shall be as indicated on the drawings and Pricing Schedule."

B34.07 MEASUREMENT AND PAYMENT

Amend the following item:

ITEM	UNIT
------	------

B34.01 Pavement layers constructed from gravel obtained from cut or borrow, including free-haul up to 10km:

Add the following new item:

ITEM	UNIT
------	------

B34.14 Pavement layers constructed from gravel obtained from Commercial sources or approved sources (borrow pits) provided by the Contractor, including all haul:

- a) Gravel selected layer (unstabilised-G7) compacted to 93% mod.
AASHTO density (specify compacted layer thickness) cubic metre (m³)
- b) Gravel sub-base (G6 min. unstabilised material) compacted to
95% mod. AASHTO density (specify compacted layer thickness) cubic metre (m³)

The Contractor shall locate and prove his own sources of material for pavement layers.

The unit of measurement shall be the cubic meter of compacted pavement layer and the quantity shall be calculated from the authorized dimensions of the completed layer.

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The Tendered rate shall include full compensation for procuring the material from commercial sources or approved sources (borrow pits), breaking down, placing and compacting the material, including transporting the material over an unlimited free-haul distance, protection and maintenance of the layer and the conducting of control tests, all as specified.”

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B3500: STABILISATION

B3502 MATERIALS

(a) Chemical stabilizing agents

Delete subclauses "(ii) Ordinary Portland cement" and "(iii) Portland blast-furnace cement" and replace with the following:

"Cement shall comply with the relevant requirements of SANS 50197-1:2000. The use of strength classes greater than 32,5 shall not be permitted."

Add the following:

"The Contractor must receive confirmation from the Engineer on the type and quantity of stabilizing agent before ordering."

(e) Water

Add the following before the first paragraph:

"Water used in the compaction and curing of stabilised layers shall comply with the requirements of Water Quality Code H3 as specified in table B1219."

B3503 CHEMICAL STABILISATION

(b) Applying the stabilizing agent

Add the following to the first paragraph:

"The Contractor's spreading method must be submitted to and approved by the Engineer before any spreading can take place."

(d) Mixing in the stabilizing agent

Add the following:

"The Contractor shall prepare a trial section for each type of material without any extra payment to demonstrate his proposed mixing process before extensive mixing commences. The cost of the trial section shall be deemed to be included in the rates Tendered."

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After approval has been obtained, the mixing process and equipment shall remain unaltered unless otherwise instructed by the Engineer.

The fact that the Engineer has approved the mixing process shall not relieve the Contractor of his obligations in respect of the mixing specified elsewhere in the Specifications. It will serve only as a guideline to ensure that the specified mixing requirements can actually be met."

B3507 CONSTRUCTION OF TRIAL SECTION

Add the following to the last paragraph:

"The fact that the Engineer has approved the mixing process shall not relieve the Contractor of his obligations in respect of the mixing specified elsewhere in the specifications. It will serve only as a guideline to ensure that the specified mixing requirements can actually be met."

/

B3509 QUALITY OF MATERIALS AND WORKMANSHIP

Add the following paragraphs:

"The Engineer shall be notified in good time to enable him to conduct or witness tests himself. Spreading shall only commence when the Engineer is satisfied that the correct quantity of stabilizing agent has been placed on the layer and has given permission that the stabilizing agent may be spread."

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7300: CONCRETE BLOCK PAVING FOR ROADS

B73.04 MEASUREMENT AND PAYMENT

Add the following new item:

“ITEM

UNIT

B73.04 Construction of Speed Hump complete

(Description of type with reference to a drawing)Number (No)

The unit of measurement shall be the number of speed humps constructed complete as specified on the drawings.

The Tendered rate shall include full compensation for the procuring the material from commercial sources, furnishing and installation of all the items required for a complete speed hump, excavation, placing and compacting the material, including transporting the material over an unlimited free-haul distance, protection and maintenance of the layer and the conducting of control tests, all as specified.”

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C3.5 PROJECT MANAGEMENT

C3.5.1 Management of works

C3.5.1.1 Planning and programming

The Contractor shall ensure that he:

- is well informed about the Employer's overall implementation programme for construction and investigative projects and makes available resources as required to efficiently complete required services; and
- compiles designs, documentation, reports, and drawings timeously as not to unnecessarily delay the implementation of the construction or investigative projects.

The programme shall at minimum contain:

- Time Scale (minimum): Days, where the project period does not exceed three months. Weeks, where the project period exceeds three months.
- Time Scale (maximum): Months, where the project period does not exceed one year. Years, where the project period exceeds one year.
- Tasks: All construction tasks and activities shall be shown. Where phases or stages are anticipated, this shall be the highest level of division and all tasks related to the successful accomplishment of that phase of the project shall be grouped. Resources allocation and task dependency shall be indicated.
- Multiple Project Programming: Where multiple projects are part of the same Contract documentation, the Contractor shall provide a programme per project. However, where interdependency exists the programmes shall be integrated, but divided on the highest level per project followed subsequently by further divisions per phase or stage.
- Start and Finish Dates: All tasks shall have specific start and finish dates.
- Critical Path: All tasks forming the programme line that will establish any delays in the overall project period shall be clearly indicated and an indication of their sensitivity characteristics shall be provided.
- Progress Tracking: The Contractor shall be required to periodically (at minimum monthly) indicate the project progress per task graphically and on a percentage basis.
- Non-working Time: All South African public holidays, weekends, and the local traditional annual builder's break (as identified in the contract data) shall be incorporated in the programme.

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The Contractor's Programme shall include:

- Dates for submission (by the Contractor) of designs and or design documents.
- Dates for ordering of special and/or long delivery items.
- Dates for issue of or approval of drawings for planning purposes.
- Dates for issue of or approval of drawings for manufacture and construction purposes requiring the approval of the Engineer.
- Dates for the placement of orders for material, receipt of material, fabrication, and manufacture, works (factory) testing, shipment, erection and commissioning.
- Dates showing start and completion of site construction of each section and each major component of the permanent works.
- Dates showing the delivery of all built-in steelwork, anchor bolts, etc.
- Dates for start and completion of Engineering Design (including allowances for review/approval by the Engineer).
- Dates for submittal and acceptance of drawings.
- Dates for submittal of operation and maintenance manuals.
- Dates for submittal of commissioning check lists and detailed commissioning schedules for acceptance (3 months before the commencement of commissioning).
- Dates for submittal of commissioning check lists and detailed schedules of approval (3 months before the commencement of commissioning).
- Dates for submission of complete schedules for all manufactured items.
- Dates for Test on Completion as defined in the Contract Data.

Activities shall be timed in week units except for commissioning or similar detailed programmers, which shall have activities, specified in days. Activities on which it is intended to operate multiple shifts working shall be clearly defined.

Method and resources statements are required for all critical items to prove that the period allocated to them fits the overall programme and that the Contractor's plant and labour are consistent with the time allowed. Critical items shall include (as a minimum) all reinforced, structural steelwork, pipework, tie-ins to existing services and specialist work.

The Contractor shall update and revise the Programme once a week or when required by the Engineer.

The submission to and acceptance by the Engineer of such updated and revised Programme, shall not relieve the Contractor of any of his duties or responsibilities under the Contract and existing laws.

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Sequence of the Works

Whenever work being done by other Contractors is contiguous or related to the Works included in this Contract, the sequence of handling the Works shall be such that the least delay possible will result to each Contractor and such sequence may be determined by the Engineer. The Engineer will establish the respective rights of the various interests involved to secure the completion of the various portions of the Works in general harmony.

The Contractor shall be responsible for the co-ordination and proper execution of the Works, including co-ordination with other Contractors and organizations to the extent specified in the Contract Documents. The Contractor shall, as specified in the Contract Documents, afford all reasonable opportunities for carrying out their work to:

- any other Contractors employed by the Employer,
- the staff and workmen of the Employer, and
- the staff and workmen of any legally constituted public authorities who may be employed in the execution on or near the site of any work not included in the Contract, which the Employer may require.

The Contractor shall obtain, co-ordinate and submit to the Engineer for his information all details (including details of work to be carried out off the Site) from Sub-contractors. The Contractor shall be responsible for the locations of their work or materials, in order to ensure that there is no conflict with the work of other Sub-contractors, the Contractor or other Contractors.

The Contractor shall give the works the constant attention necessary to facilitate the progress thereof and shall cooperate with the Engineer and other Contractors in every way possible.

C3.5.1.2 Software application for programming

Only the “Microsoft Project” software package will be accepted.

The Contractor shall make the programme available in MS Project format and in print version. The Contractor shall also ensure that all necessary hardware and software in this regard are always available on site and that at least one member of the permanent site staff is competent on their operation.

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C3.5.1.3 Methods and procedures

C3.5.1.3.1 Monthly report

The Contractor shall prepare and submit to the Engineer within 15 days after the first day of every month a written progress report together with a monthly progress schedule summarizing the progress of the various sections of the work both at the place of manufacture and at site. Three (3) copies of the monthly progress report shall be submitted in accordance with the correspondence procedures.

Such progress reports shall indicate accurately the status of different activities covering design, material procurement, manufacture, works (factory) tests, shipping, erection, testing and commissioning and shall be related to key dates identified in the programmes referred to in the conditions of contract. The report shall also include data on labour strength and equipment employed. The programme submitted with the monthly report shall show cumulative progress towards scheduled completion, expressed as a percentage, of all items shown in the contract schedule.

The reports shall indicate the degree of criticality on each section of the Work, together with the slippage or impending slippage on any key event and shall be directly related to the contract schedule and supporting detail program for sections of work.

The monthly progress report shall be in the format acceptable to the Engineer and written in the English language and shall include:

- Photographs and detailed descriptions of progress, including each stage of design (if applicable), procurement, manufacture, delivery to the Site, construction, erection, testing and commissioning.
- Charts showing the status of construction documents, drawings, purchase orders, manufacture, and construction.
- For the manufacture of each main item of plant and materials, the name of manufacturer, manufacture location, percentage progress, and the actual or expected dates of commencement of manufacture, Contractor's inspections, tests and delivery.
- Records of personnel and Contractor's equipment on the Site.
- Copies of quality assurance documents, test results and certificates of materials.
- Safety statistics, including details of any hazardous incidents and activities relating to environmental aspects and public relations; and
- Comparisons of actual and planned progress, with details of any aspects which may jeopardize the completion in accordance with the Contract, and the measures being (or to be) adopted to overcome such aspects.
- Financial status of Contract.

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C3.5.1.3.2 Weekly report

The Contractor's Site Manager shall prepare a weekly summary report covering all the site activities and submit it to the Engineer. This report shall include projected work activities for at least 2 weeks ahead of those being reported upon. In addition, this report shall include a weekly site labour return giving imported and local labour and each Sub-Contractor's labour, broken down into trades. Full details of site labour disputes (or off-site disputes affecting the Contract) shall be reported to the Engineer immediately. The weekly statement shall give details of all construction plant machinery, offices, and materials. The Contractor shall submit three (3) copies of weekly report to the Engineer which shall include:

- Summary of progress.
- Potential problems and proposed solutions.
- Project schedule update.
- Project permit status.
- Construction photographs.
- Status of orders and procurement.
- Drawing list.
- Plant test schedule.
- Construction schedule (critical path method, S-curve).

The Contractor shall submit to the Engineer a weekly return detailing the numbers of the various classes of workmen employed by him on the Site, the plant and Contractor's equipment on the Site or on order and any other information that may reasonably be required.

C3.5.1.3.3 Detailed programme and progress reports

Detailed monitoring of the progress of the Contract by the Contractor is to be achieved using critical path network planning and review techniques.

Following approval of the Programme, the Contractor shall submit within thirty (30) days, detailed program for all work to be executed during the Contract. These programs, which shall embrace design, supply, manufacture, and site construction shall be based on the Contract Programme and be used as target program and may be subject to revision. Further detailed program for progressive stages of the Contract shall be prepared by the Contractor as required by the Engineer.

The Contractor shall, whenever required by the Engineer, also provide in writing for his information a general description and drawing or sketch of the arrangements and methods which the Contractor proposes to adopt for the execution of the Works.

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The Contractor shall plan in detail his section of the work using bar charts to record progress of the design, manufacturing, and delivery elements and using the critical path network procedure for work on site. The issue and approval of drawings shall be covered in detail using appropriate check points in the detailed programme, including design information interface events with others. The manufacturing work shall be broken down into check points in the detailed programme. The manufacturing work shall be broken down into sufficient detail for the information supplied to relate correctly to the erection detailed programme on which the activity durations shall not exceed four weeks. Activities shall cover all aspects for which the Contractor or his Sub-contractors are responsible and indicate site access, points at which terminals and access will be available to or required from others and services required from the Employer.

The Contractor shall ensure that the resources required to meet these programs are available to him and his Sub-contractors. A table shall be prepared indicating the expected level of each type of resource for the duration of the site work.

The detailed programs must be analyzed by the Contractor, either manually or by computer, and three copies of the following tabulations presented:

- A schedule tabulated in order of increasing total float showing for each activity:
 - event numbers,
 - brief description of activity and responsibility,
 - duration,
 - early and late starting and finishing dates,
 - total float.
- A schedule tabulated in order of early start date by total float for eight weeks ahead of the 'up-date' date. The information given in this schedule shall be the same as that indicated above.

All programs and progress reports shall be provided by the Contractor in a form acceptable to the Engineer. Full access shall be made available to the Engineer to visit the Contractor's and Sub-contractor's works to verify the status of design and manufacture.

Other requirements in respect of programs are given in the Conditions of Contract.

C3.5.1.3.4 Progress meetings

The Contractor will be required to attend regular formal construction progress meetings with the Engineer during manufacture and on site. The site meetings will also involve the other Contractors so that the progress of construction both on this Contract and the entire Project may be reviewed. Such meetings may be monthly and may require the up-dating of the Contractor's Contract and detailed Programs, in which case three copies of the up-dated programme shall be submitted to the Engineer within 7 days of the agreed up-dating.

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The Contractor shall also attend informal weekly meetings with the Engineer on site and provide a weekly estimate of the work anticipated on each work section.

The updated programme, if necessary, after reconciliation and incorporation of changes, shall become the new basis for further execution of the Works without any modification of the Contract's completion date. The updating of the programme shall not give rise either to any extension of time or to any entitlement for any additional payment.

C3.5.1.3.5 Interface meetings

The Contractor shall hold regular interface meetings with all other contractors who may be performing work on behalf of the Employer and with representatives of the Employer involved with the activities related to or in the vicinity of the works to be performed under this Contract.

The purpose of the interface meetings shall be to ensure that the work the Contractor is performing on the project is efficiently and effectively coordinated without duplication or miscommunication and that there is full compatibility between sections that are designed and constructed by the various contractors.

C3.5.1.4 Quality plans and control

C3.5.1.4.1 General

The Contractor shall have a well-organized Quality Control and Assurance System (QAS) based on ISO 9000 Series or equivalent (Quality System Model for Quality Assurance in design/development, production, installation and servicing) to assure that items and services, including subcontracted items and services, comply with the Works Information.

This clause specifies the minimum requirements necessary to ensure that proper attention is given to the materials used, the standard of workmanship, the manufacturing and construction processes, and the quality of all components.

The Contractor shall include in all his orders to Sub-contractors a note stating that materials and plant covered are subject to inspection by the Engineer.

C3.5.1.4.2 Quality Control and Assurance System

All design, manufacturing, processing, testing and inspection operations affecting the plant or material shall be governed by Quality Assurance procedures in accordance with the directives of the ISO 9001 standards while the production and installation shall be governed by quality assurance procedure in accordance with

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the directives of the ISO 9002 standards or equivalent. These may be subject to surveillance by the Engineer. A tentative QAS shall be submitted together with the tender and shall meet the requirements stated in the Design Procedure. Within thirty (30) days of the Commencement Date, the Contractor shall submit six (6) copies of his complete quality control and assurance procedures, manuals for review and acceptance by the Engineer. The manual shall include pro-forma checklists for all requirements of the Contractor's quality control and assurance program and those called for in the Works Information.

The Quality Control and Assurance System to be submitted shall include but not necessarily be limited to the following:

- Programme requirements for materials and plant procurement and manufacture with description of design control, purchased material control, quality verification tools, manufacturing control, materials and components selection, handling, and packaging, etc.
- Programme requirements for plant production with detailed description of Quality Assurance organization of the Contractor, Quality Assurance Functions and Procedures and Performance Monitoring.
- Quality Assurance Programme Tests with detailed description of the test procedures to be conducted.
- Quality Assurance Programme requirements for installation and commissioning (for turnkey Contracts with detailed description of Quality Assurance Organization of the Contractor, Quality Assurance Functions and Procedures, etc.).
- In addition to the requirements of these ISO Standards or their equivalents the Contractor shall:
- Establish procedures for adequate planning and resourcing of all quality related activities including the preparation of quality plans.
- Establish measures for the identification and control of items throughout all stages of the Contract. This shall include measures to maintain traceability as identified in agreed quality plans.
- Arrange for the protection of quality of the product to include delivery to the specified destination.
- Control their measuring and test equipment in accordance with established procedures for measurements and calibration systems and ensure that such equipment that may be used by Sub-contractors to verify work is similarly controlled.

Where any site installation and/or test and commissioning work is involved, the Contractor shall prepare contract specific quality assurance procedures in agreement with the Engineer prior to commencements of such works.

The Contractor shall be responsible for specifying the quality assurance requirements to his Sub-contractors, for approving Sub-contractor's quality assurance programme and for ensuring compliance with the requirements.

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The Contractor shall ensure that all appropriate technical information is extracted from the Contract documents and specifications and passed on to the Sub-contractors.

The Contractor shall ensure that all computer systems and software to be utilized on the project is qualified for the application under consideration and such qualification is documented.

The following surveillance requirements shall be included for affirmation by the Engineer or his representative:

Record (R). Documentary evidence of the activity and statistical analysis of the data to be retained and copied to the Engineer.

Verification (V). The Engineer or his representative will not necessarily be present during the activity but documentary evidence to permit verification of compliance with the requirements is generated, retained, and copied to the Engineer.

Witness (W). The Engineer or his representative requires notification to permit witnessing of the activity. The notice period shall be agreed to depending on the nature of the activity and shall be reviewed from time to time. Documentary evidence shall be retained and copied to the Engineer.

Hold (H). The Contractor may not proceed to the following activity until the Engineer or his representative has approved the proceeding activity. Documentary evidence shall be retained and copied to the Engineer.

Random (R). Construction monitoring by random inspection. Random construction monitoring may be carried out at any stage of the activity or preparation for the activity. Documentary evidence shall be retained and copied to the Engineer.

Categorization

The following categories shall apply in determining the requirement for a Quality Control Plan:

Category	Clarification	Quality Control Plan
Critical	A component, group of components, structure, the failure of which to comply with the specifications may affect the performance of the works of which it is a part	Required for all components.

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Category	Clarification	Quality Control Plan
	and /or will cause a detrimental environmental impact, and /or may result in hazardous or unsafe conditions.	
Major	A component, group of components, structure, element of a structure or facility, other than categorized as critical, the failure of which to comply with the specifications may compromise the performance of the works of which it is a part, result in increased , maintenance and/or impact negatively on the quality of the works.	As determined by the Contractor and to the approval of the Engineer.
Minor	All items other than those categorized as critical or major and which are visible and capable of rectification during routine inspections.	As determined by the Contractor

C3.5.1.4.3 Quality management audit

The Contractor shall carry out periodic assessments of the adherence to the Quality Plan and Quality Control Plans by senior qualified staff who are not normally employed on the Site. The Engineer and/or his representative shall be invited to attend at the periodic assessments meeting and be afforded the opportunity to report on the implementation of the Quality System at the Site. The assessment reports shall be copied to the Engineer.

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C3.5.1.4.4 Corrective action

The Contractor's quality assurance programme shall provide for prompt detection and correction of all events and conditions adversely affecting quality, including failures, malfunctions, incidents, trends, deficiencies, deviations, non-conformances, and defective materials.

The Contractor shall establish and maintain methods for verifying and determining the cause of an adverse condition and for initiating necessary improvement and corrections to preclude repetition. Quality trends shall be analyzed to furnish a basis for improvement in work performance. The Contractor's corrective action system shall extend to the performance of other participating Contractors and Sub-contractors when necessary and shall provide for the interchange of corrective action information. Identification of the adverse condition, its cause, and the corrective action taken shall be recorded and reported to appropriate levels of management.

The Contractor shall establish and implement procedures for reporting, verifying, analyzing, and correcting failures, including those that occur during development and qualification testing. The procedure shall provide assurance that the cause and mode of each failure are determined that the potential safety and availability implication is evaluated, and that corrective action is taken.

A failure report shall be prepared to identify the failed item and its origin or source of manufacture and shall describe the failure, the test status at time of failure, and the probable cause and mode of failure, and recommended corrective action.

Failure to confirm to the specified requirements will result in the issuing by the Engineer of a Corrective Action Request. Failure to rectify the deficiencies covered by a Corrective Action Request within the period stated will result in the Engineer invoking the provisions of GCC.

C3.5.1.4.5 Design revision and substitution of material

Any revision affecting the design and manufacturing of the Works, or any substitution of materials that is deemed necessary shall be notified by the Contractor to the Engineer for the latter's review and approval.

C3.5.1.4.6 Contractor's responsibility

Acceptance by the Engineer of the Contractor's quality assurance programme, quality plans and inspection and test plans, or of those of his Sub-contractors will not relieve the Contractor of his obligation to provide goods and services which meet the requirements of the Contract.

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C3.5.1.5 Environment

The Contractor shall strictly comply with the requirements of the EMP issued for this Works. He shall be liable for any damages/destruction to the environment including penalties that will be imposed by the relevant government agency arising from non-compliance of the requirements of EMP occasioned in any manner by his acts or neglect, or his agents, employees, or workmen in the execution of the works.

C3.5.1.6 Accommodation of traffic on public roads occupied by the Contractor

The Contractor shall draft a traffic accommodation plan and submit to the Engineer prior to commencement of work on any road. The approval by the Engineer shall not relieve the Contractor of any of his responsibilities or obligation in terms of the legislation and plan.

C3.5.1.7 Other Contractors on site

The Contractor needs to take note that other contractors may also be working on the same site and allow therefore in his planning/work scheduling.

C3.5.1.8 Testing, completion, commissioning, and correction of defects

C3.5.1.8.1 General requirements

The Contractor shall be responsible for conducting all testing as described herein. Work under this section shall include all labour, materials, and support services required to completely test all hardware and software.

If a type of equipment does not meet the specifications or requirements as stated in these Specifications or the System Design Document, it shall be the Contractor's responsibility to correct the problem in all units of that equipment furnished, at no additional cost to the Employer.

All the components, sub-systems, interfaces and systems processes constituting the works shall be tested individually and together to demonstrate that they meet the contract requirements and provide a system that functions in accordance with the contract.

The Contractor shall be responsible for the performance of all the tests described below to satisfy the objectives of each testing phase as determined by the Engineer.

The Employer shall have the right to witness all tests.

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Test plans shall be submitted to the Engineer a minimum twenty-one (21) days prior to the planned start of testing. Testing shall not commence until the plans have been approved.

Unless otherwise specified, all test plans shall include at a minimum the following:

- Overview of test including test objectives
- Pass/fail criteria
- Traceability matrix listing of all requirements and specifications from the Contract that are included/to be verified in the test and their cross-reference to the Specifications and System Design Document.
- Test setup and test measuring equipment (including descriptive diagrams)
- Listing of tools, test applications, simulators, etc. required to perform the test
- Entry/start-up conditions
- Exit/closing conditions
- Test procedures and scripts to be executed
- Test recording form
- Test comments form
- Signatures and verification form

The Employer reserves the right to direct, at no additional cost, the following changes to the test plans:

- The addition of procedural changes and other reasonable tests to reasonably assure System performance and conformance.
- Investigation into any apparent troubles or anomalies with respect to the System
- An audit of all test reports and verification of any or all previous tests and Measurements.

The Contractor shall provide written notification of readiness to test for all required test stages a minimum of two (2) weeks in advance of the testing.

Upon successful completion of any test, the Contractor shall prepare and submit within two (2) weeks a report summarizing the results with relevant test records appended. All such test reports will be reviewed by the Engineer.

C3.5.1.8.1 Test suspension criteria and defect resolution

The Contractor shall maintain a database of and shall track the status of all defects.

The Contractor shall develop and maintain a standard set of regression tests for each device or subsystem. Regression tests shall be run for any affected device or subsystem if any testing is halted and restarted in accordance with the requirements of the defect resolution.

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C3.5.1.9 Training

C3.5.1.9.1 General

The Contractor needs to take note that the Employer aims to use the infrastructure contracts to expose students from various institutions to construction activities as part of their training programme. Full support needs to be provided by the Contractor in this programme to obtain maximum benefits for the students allocated to the contract.

The Contractor shall be responsible to train the Employer's designated personnel according to the requirements specified herein. The Contractor shall be responsible for the supply of all training materials including, at a minimum:

- a Training setups of equipment, including mounting and all power supplies and simulators required to simulate normal operation.
- b Instructor guides.
- c Student guides.
- d Operations manuals.
- e Training presentations.
- f Training handouts.
- g Quick reference guides.
- h Interactive videos or demonstrations.
- i Course and instructor comments sheets.

A Training Program shall be developed and submitted a minimum forty-five (45) days before delivery of training materials that describes:

- Each course to be conducted.
- An overview of delivery methods for each course, including hands-on and group work experience.
- The course objectives for trainees.
- An evaluation plan, including criteria for success of the course, based upon the goals and objectives, and evaluation steps and instruments to be employed.
- A proposed schedule for each class, keyed to the installation process and constrained by availability of trainees away from regular duties.
- A plan for developing or customizing course material.
- Resumes of personnel proposed to be trainers for each class, demonstrating that they are experienced, effective training professionals.

Training shall include course development, providing instructors, and supplying all handouts, materials, classroom aids, etc. required to conduct the training. Training shall take place at the site facilities. Practical training on equipment shall occupy a significant portion of all training classes. The training presentations and material shall be in English.

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C3.5.1.10 Recording of weather

The Contractor shall be permitted to take his own rainfall measurements on site subject to the Engineer's approval, but access to the measuring gauge(s) shall be under the Engineer's control. The Contractor is to provide and install all the necessary equipment for accurately measuring the rainfall as well as to provide, erect and maintain a security fence plus gate, padlock, and keys at each measuring station, all at his own cost.

C3.5.1.11 Format of communications

All Contract communication shall be in English and in writing (letters, faxes, and electronic mail).

C3.5.1.12 Key personnel

The Contractor shall be required to allocate sufficiently experienced personnel to execute the Contract successfully.

C3.5.1.13 Management meetings

The Contractor and such other persons as may be nominated by the Engineer shall be required to attend periodic site meetings, the date and place for which will be set by the Engineer in consultation with the Employer and Contractor.

A main purpose of the site meetings will be to review and discuss progress and programme, and all persons attending the site meetings must be empowered to act on behalf of the firms they represent.

C3.5.1.14 Forms for contract administration

The Contractor shall maintain a file or files (hard copy and electronically) per Contract project, which shall contain:

- the details of the Sub-contractors, if any;
- project programme, with commencement and completion date;
- procurement information;
- progress reports, minutes, letters, faxes, emails of all project or project related correspondence;
- record documentation, reports, designs, and drawings;
- a copy of the Health and Safety Plan and the Environmental Management Plan;
- record of cost implications, variations, claims and disputes; and
- empowerment records.
- copy of quality (QMS) plan and all related documentation/procedures.

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At the end of this Period of Performance the Contractor shall hand-over such hard copy files to the Employer, including all electronic records, documentation, reports, designs, and drawings.

C3.5.1.15 Daily records

The Contractor is to provide a site diary, which is to be kept on site, for the purpose of keeping daily records in respect of work performed on the site. This shall be made available to the Engineer upon request.

C3.5.1.16 Bonds and guarantees

If the Tenderer, when notified of the acceptance of his tender, fails to provide a guarantee within the period stipulated in the Contract Data and the Employer elects to cancel the contract on that ground, the Employer may demand a sum of R1 000 per day, or the Employer may take other action whether by way of a claim for loss or damage suffered by the Employer arising out of such breach.

C3.5.1.17 Payment certificates

The Contractor shall be required to complete a progress report before he will be allowed to complete the standard payment certificate required to be submitted with his tax invoice.

C3.5.1.17.1 Measurement of work for payment

All measurements for the purpose of payment shall be made by the Contractor and accepted by the Engineer. The Contractor shall be responsible for obtaining the Engineer's acceptance not later than one week after the measurements have been made.

C3.5.1.18 Permits

The Contractor shall acquire all permits, approvals and/or licenses from all local or national government authorities or public service undertakings in South Africa and abroad, which such authorities or undertakings require the Contractor to obtain and which are necessary for the performance of the Contract, including without limitation, visas for the Contractor's and Sub-Contractor's personnel and entry permits for all imported Contractor's plant and equipment.

C3.5.1.20 Lock-out procedure

Lock-out systems consist of isolation of electrical, hydraulic, pneumatic, mechanical systems and isolating valve and pipeline systems. Where the Contractor uses his own procedure, this procedure will be forwarded to the Engineer for review prior to commencement of work.

A lock-out procedure shall be available at all electrical distribution boards. Valves isolated shall be locked

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and the Contractor shall be in possession of the keys. The Contractor and his employees shall be trained in accordance with this procedure and declared competent by the Contractor to lock out electrical equipment. They shall always adhere to the procedure's requirements.

C3.5.1.21 Permit to work

A system shall be implemented to control identified high risk activities. The Contractor shall ensure that the proper permit is issued as agreed upon and authorized by an appointed competent person before commencing with the work.

Some of the activities that may require a permit to work within a construction or plant area are:

- Cold work in areas where operational plant or equipment can pose a threat
- Radiographic works
- Working in confined spaces
- Excavation work (cable clearance permit)
- Blasting
- Piling
- Work being done within 50 m of an overhead power line
- Use of a hazardous substance, e.g. lead

Contractors are to ensure that all personnel who will be signing on work permits within the Site are trained in the work permit procedures and declared competent.

C3.5.1.22 Use of documents by the Employer

All information (communications, designs, drawings, documents, or reports) provided to the Employer by the Contractor, in the course of performing the service required for this Contract, are intended to ensure that the projects are implemented successfully.

C3.5.1.23 Property provided for the service provider's use

The Contractor shall provide all physical resources, including properties, for the successful execution of the project.

C3.5.1.24 Proof of compliance with the law

The Contractor shall ensure that he complies to all prevailing legislation that applies to the provision of his services as part of this Contract and indemnifies the Employer where he deliberately neglects compliance with such legislation.

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C3.5.2 Health and safety

C3.5.2.1 Health and safety requirements and procedures

The Contractor shall comply with the Employer's Occupational Health and Safety requirements detailed in the Contract.

In addition, the Contractor shall comply with the following requirements in respect to Health and Safety.

The Contractor shall comply with the Occupational Health and Safety Act (OHS Act No 85 of 1993) and the Construction Regulations, 2003 as amended (Gazette 10113 of 7/02/2014). The "minimum safety requirements" referred to above shall be those contained in the Construction Regulations, 2003 of the OHS Act. Furthermore, the Contractor shall comply with any additional current statutory requirements of any relevant Government Departments regarding health and safety and specifically environmental health issues.

The Contractor shall establish and enforce rules to ensure the health and safety of his own employees and those of its Sub-contractors so that high standards of personnel health and safety are achieved and maintained. The Contractor shall exercise and enforce all necessary care and measures to preclude exposure of personnel, labour and nearby residents (if any) to potential health hazards and environmental pollutants. The Contractor shall, in collaboration with and to the requirements of the local health authorities, ensure that medical and first aid staff, first aid facilities, sick bay and ambulance service are available at the accommodation and on the Site at all times, and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics. The Contractor shall maintain records and make reports concerning health, safety and welfare of persons, and damage to property, as the Engineer may reasonably require.

The Contractor shall appoint a member of his staff at the Site to be responsible for maintaining the safety, and protection against accidents, of personnel on the Site. This person shall be qualified for his work shall have the authority to issue instructions and take protective measures to prevent accidents. The Contractor shall send in addition to the legislated parties, to the Engineer, details of any accident as soon as possible after its occurrence.

Except for the Employer's risks, as defined in the conditions of contract, the Contractor is solely responsible for the safety, protection, and security of his personnel, third persons, the works, Plant, installations, and the like. Accordingly, the Contractor shall comply faithfully with all pertinent South African laws, decrees, regulations and ordinances, and shall take all necessary safeguards to prevent occurrences of accidents, loss or damage of any kind during the execution of the works. He shall provide, erect, and maintain all necessary and suitable barricades and sufficient warning lights, danger signals and other signs and shall take all necessary precautions for the protection of the works and the safety of his personnel and the public.

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C3.5.2.2 Contractor's Health and Safety System

The Contractor shall submit to the Engineer its Health and Safety Management System documentation for acceptance and shall implement its system prior to the start of the construction.

The Health and Safety Management System shall cover but not be limited to the following:

- Skills and qualifications required by employees.
- Training and supervision of employees.
- Auditing of and reporting on health and safety practices and performance.
- Reporting and investigation of incidents.
- Identification and removal of hazards.
- Provision and use of protective equipment and clothing.
- Proper use and care of tools and equipment.
- Informing employees and Sub-contractors of health and safety hazards they may be exposed to, including hazards that may be created by other Contractors.
- Development and implementation of emergency procedures.
- Development and implementation of maintenance isolation systems and procedures to ensure the safety of personnel while working on plant which could be energized, activated, or made hazardous by other means.
- Provision of access zones for employees which are appropriately designated (e.g. "hard hat area", "out of bounds", "ear protection must be worn", "eye protection must be worn").
- Provision of safety engineers and provision of suitably qualified first aiders.
- Provision of first aid facilities equipped to a standard sufficient to cope with minor injuries and provide care and comfort before treatment by professional medical staff for more serious cases.

C3.5.2.3 Safety Officer

The Contractor shall formally appoint a suitably qualified member of his staff to be responsible for safety aspects of the work on site and shall ensure compliance with all safety requirements. Particular attention shall be given by the Contractor to such aspects as risk assessment for individual tasks, lighting, and handrails and especially around dangerous openings, access stairs, toe plates and general cleanliness. Regular safety meetings will be held. The Contractor shall take appropriate action immediately following any instructions which the Engineer may make concerning matters of safety. The relevant OH&S procedures and specification developed for the project shall be strictly adhered to during execution of Works forming part of the project. The specifications and procedures form part of this tender document. The work under this contract is defined as "Construction Work" and regulated under the Occupational Health and Safety Act, 1993 (latest amendment) and the Contractor shall adhere to all the legislative requirements as per Construction Regulations 2003.

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The Contractor shall provide for the cost of the health and safety measures in the Bill of Quantities.

The Contractor shall notify the Provincial Director in writing of the construction activities before work commences, if required.

The Site representative shall be present on site during working hours and any orders or instructions, which the Engineer may give to the Site Representative, shall be deemed to have been given to the Contractor.

The Contractor shall develop and demonstrate to the Engineer a suitable and sufficiently documented Health and Safety plan based on the safety specification.

The Contractor shall if called upon to do so, submit a preliminary Health and Safety Plan, failing to do so may lead to the disqualification of this tender.

C3.5.2.4 Risk management

The Contractor ensures that his risks are managed to enable the successful execution of the project.

The Contractors' risk that occurs or develops during construction is brought to the Employer's attention in writing immediately. A risk register must be kept for the duration of the project.

A general risk analyses is performed prior to starting with the construction work, which must form part of the Safety Plan. All work will be carried out in conformance to the Occupational Health and Safety Act, 1993 (latest amendment) and the Contractor shall adhere to all the legislative requirements as per Construction Regulations 2003.

C3.5.2.5 Health and safety specification (Employers)

- The Contractor shall appoint and notify the Engineer in writing, a competent Site representative, with the duty of supervising the construction work.
- The Contractor shall appoint, and notify the Engineer in writing, a competent person to perform a risk assessment before construction work commences, during construction work and which shall form part of the Health and Safety Plan.
- The Contractor shall appoint and notify the Engineer in writing, a competent person responsible for the preparation of a fall protection plan, amending, maintaining and adherence thereto.
- The Contractor shall execute the necessary steps to prevent uncontrolled collapse of new or existing structures and no part shall be loaded in a manner that would render it unsafe.
- The Contractor shall appoint and notify the Engineer in writing, a competent person responsible that all formwork and support work structures are adequately designed, erected, supported, braced and maintained.
- The Contractor shall appoint and notify the Engineer in writing, a separate competent person with relevant experience for each of the operations whose first duty will be to, and who shall, supervise all stages in the operation. The operations are:

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- i) Excavation, blasting and trimming of the excavations, backfilling and formation of embankments.
- ii) Supply of concrete aggregates and the batching, mixing, transporting, placing, compacting and curing of concrete.
- iii) Loading, unloading, transport and installation of steel pipes including areas where pipe jacking has occurred.
- iv) Cutting and welding of steel pipes
- v) Installation of valves, dirt boxes and water meters

- All scaffolding shall comply with the Occupational Health and Safety Act 1993 (latest amendment).
- The Contractor shall appoint and notify the Engineer in writing, a competent person responsible for suspended platform and that all erectors, operators and inspectors are competent to carry out their work.
- Every material hoist and its tower shall be constructed of sound material in accordance to the Construction Regulations 2003 (latest amendments).
- All explosive power tools shall comply to and be in accordance to Construction Regulations 2003 (latest amendment).
- Notwithstanding the provisions of the Driven Machinery Regulations (Government Notice No R533, latest amendment), the Contractor shall ensure that work is carried out in a safe manner where tower cranes are used.
- The Contractor shall ensure that all construction vehicles and mobile plant are maintained, operated and used in a safe manner by competent operators.
- Notwithstanding the provision of the Electrical Installations Regulations (Government Notice R2920 latest amendment) and the Electrical Machinery Regulations, (Government Notice R1953 latest amendment), the Contractor shall take the necessary steps to provide a safe environment for construction work to proceed.
- Notwithstanding the provisions for the use and storage of flammable liquids as determined in the General Safety Regulations (Government Notice No R1031, latest amendment), flammable liquids shall be stored in such a manner to prevent fires and explosions.
- The Contractor shall provide lifejackets for workers where construction work is done near or over water.
- Notwithstanding the provisions of the Environment Regulations for Workplaces (Government Notice No R2281, latest amendment), implement and maintain suitable housekeeping.
- Notwithstanding the provisions for the stacking of articles in the General Safety Regulations (Government Notice R1031, latest amendment) the Contractor shall appoint a competent person in writing, responsible for supervising all stacking and storage on site.
- Subject to the provisions of the Environment regulations for Workplaces (Government Notice No R2281, latest amendment), the Contractor shall take appropriate measures to avoid risk of fire.
- Notwithstanding the provisions of the Facilities Regulations (Government Notice No R1593, latest amendment), the Contractor shall provide clean and maintained facilities as required.
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- The Contractor shall take all reasonable steps to ensure co-operation between all Sub-contractors to enable each Sub-contractor to comply with provisions of the Act.

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C3.7.5: PART E: OHSA 1993 HEALTH AND SAFETY SPECIFICATION

E1. SCOPE

This specification covers the health and safety requirements to be met by the Contractor to ensure a continued safe and healthy environment for all workers, employees and subcontractors under his control and for all other persons entering the site of works.

This specification shall be read with the Occupational Health and Safety Act (Act No 85 and amendment Act No 181) 1993, and the corresponding Construction Regulations 2003, and all other safety codes and specifications referred to in the said Construction Regulations.

In terms of the OHSA Agreement in Section C1.2.4 of the Contract document, the status of the Contractor as mandatory to the Employer (client) is that of an employer in his own right, responsible to comply with all provisions of OHSA 1993 and the Construction Regulations 2003.

This safety specification and the Contractor's own Safety Plan as well as the Construction Regulations 2003, shall be displayed on site or made available for inspection by all workers, employees, inspectors and any other persons entering the site of works.

The following are possible risks associated with this project:

- Working high above the ground on top and below the bridge, most of the time in a restricted environment with limited landings (working platforms)
- Working above a continuously flowing river and in an flood plain environment subject to flooding
- Lifting and lowering of materials and equipment from the ground to the bridge and vice versa, exposed to cross winds
- Steep and restricted access to the lower flood plain below the bridge
- Potentially dangerous existing services, i.e. gas lines, water and sewerage mains, electrical high voltage cables, on the bridge, buried and overhead
- Deep excavations in soils requiring shoring or reducing of slopes
- Blasting of hard rock or demolition of concrete
- High pressure during testing of the new rising main, which could result in potentially dangerous situations in the event of the pipeline or fittings failing
- Potentially harmful gasses when tying into the existing sewer mains
- Movement of construction vehicles on site, taking into consideration steep slopes, other traffic and existing services
- Exposure to possible injuries due to mishandling or failure of power and hand tools
- Falling debris, tools and materials from bridge
- Non-conformance to specifications with regards to fasteners and materials
- Risks related to general safety and security on site

Additional risks may arise from specific methods of construction selected by the Contractor which are not necessary covered in the above.

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E2. DEFINITIONS

For the purpose of this contract the following shall apply:

- (a) *“Employer” where used in the contract documents and in this specification, means the Employer as defined in the General Conditions of Contract and it shall have the exact same meaning as “client” as defined in the Construction Regulations 2003. “Employer” and “client” is therefore interchangeable and shall be read in the context of the relevant document.*
- (b) *“Contractor” wherever used in the contract documents and in this specification, shall have the same meaning as “Contractor” as defined in the General Conditions of Contract.*

In this specification the terms “principal contractor” and “contractor” are replaced with “Contractor” and “subcontractor” respectively.

For the purpose of this contract the Contractor will, in terms of OHSA 1993, be the mandatory, without derogating from his status as an employer in his own right.

“Engineer” where used in this specification, means the Engineer as defined in the General Conditions of Contract. In terms of the Construction Regulations the Engineer may act as agent on behalf of the Employer (the client as defined in the Construction Regulations).

E3. TENDERS

The Contractor shall submit the following with his tender:

- (a) *a documented Health and Safety Plan as stipulated in Regulation 5 of the Construction Regulations. The Safety Plan must be based on the Construction Regulations 2003 and will be subject to approval by the Employer;*
- (b) *a declaration to the effect that he has the competence and necessary resources to carry out the work safely in compliance with the Construction Regulations 2003;*
- (c) *a declaration to the effect that he made provision in his tender for the cost of the health and safety measures envisaged in the Construction Regulations.*
- (d) *Failure to submit the foregoing with his tender, will lead to the conclusion that the Contractor will not be able to carry out the work under the contract safely in accordance with the Construction Regulations.*

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E4. NOTIFICATION OF COMMENCEMENT OF CONSTRUCTION WORK

After award of the contract, but before commencement of construction work, the Contractor shall, in terms of Regulation 3, notify the Provincial Director of the Department of Labour in writing if the following work is involved:

- (a) *the demolition of structures and dismantling of fixed plant of height of 3,0m or more;*
- (b) *the use of explosives;*
- (c) *construction work that will exceed 30 days or 300 person-days;*
- (d) *excavation work deeper than 1,0 m; or*
- (e) *working at a height greater than 3,0 m above ground or landings.*

The notification must be done in the form of the pro forma included under Section 9 (Forms to be Completed by Successful Tenderer) of the tender document.

A copy of the notification form must be kept on site, available for inspection by inspectors, Employer, Engineer, employees and persons on site.

E5. RISK ASSESSMENT

Before commencement of any construction work during the construction period, the Contractor shall have a risk assessment performed and recorded in writing by a competent person. (Refer Regulation 7 of the Construction Regulations 2003).

The risk assessment shall identify and evaluate the risks and hazards that may be expected during the execution of the work under the contract, and it shall include a documented plan of safe work procedures to mitigate, reduce or control the risks and hazards identified.

The risk assessment shall be available on site for inspection by inspectors, Employer, Engineer, subcontractors, employees, trade unions and health and safety committee members, and must be monitored and reviewed periodically by the Contractor.

E6. APPOINTMENT OF EMPLOYEES AND SUBCONTRACTORS

6.1 Health and Safety plan

The Contractor shall appoint his employees and any subcontractors to be employed on the contract, in writing, and he shall provide them with a copy of his documented Health and Safety Plan, or relevant sections thereof. The Contractor shall ensure that all subcontractors and employees are committed to the implementation of his Safety Plan.

6.2 Health and safety induction training

The Contractor shall ensure that all employees under his control, including subcontractors

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and their employees, undergo a health and safety induction training course by a competent person before commencement of construction work. No visitor or other person shall be allowed or permitted to enter the site of the works unless such person has undergone health and safety training pertaining to hazards prevalent on site.

The Contractor shall ensure that every employee on site shall at all times be in possession of proof of the health and safety induction training issued by a competent person prior to commencement of construction work.

E7. APPOINTMENT OF SAFETY PERSONNEL

7.1 Construction Supervisor

The Contractor shall appoint a full-time Construction Supervisor with the duty of supervising the performance of the construction work.

He may also have to appoint one or more competent employees to assist the construction supervisor where justified by the scope and complexity of the works.

7.2 Construction safety officer

Taking into consideration the size of the project and the hazards or dangers that can be expected, the Contractor shall appoint in writing a full-time or part-time Construction Safety Officer if so decided by the Inspector of the Department of Labour. The Safety Officer shall have the necessary competence and resources to perform his duties diligently.

Provision shall be made by the Contractor in his rates, to cover the cost of this dedicated construction safety officer appointed after award of the contract.

7.3 Health and safety representatives

In terms of Section 17 and 18 of the Act (OHSA 1993) the Contractor, being the employer in terms of the Act for the execution of the contract, shall appoint a health and safety representative whenever he has more than 20 employees in his employment on the site of the works. The health and safety representative must be selected from employees who are employed in a full-time capacity at a specific workplace.

The number of health and safety representatives for a workplace shall be at least one for every 100 employees.

The function of health and safety representative(s) will be to review the effectiveness of health and safety measures, to identify potential hazards and major incidents, to examine causes of incidents (in collaboration with his employer, the Contractor), to investigate complaints by employees relating to health and safety at work, to make representations to the employer (Contractor) or inspector on general matters affecting the health and safety of employees, to inspect the workplace, plant, machinery etc. on a regular base, to participate in consultations with inspectors and to attend meetings of the health and safety committee.

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7.4 Health and safety committee

In terms of Sections 17 and 18 of the Act (OHSA 1993) the Contractor (as employer), shall establish one or more health and safety committee(s) where there are two or more health and safety representatives at a workplace. The persons selected by the Contractor to serve on the committee shall be designated in writing.

The function of the health and safety committee shall be to hold meetings at regular intervals, but at least once every three months, to review the health and safety measures on the contract, to discuss incidents related to health and safety with the Contractor and the inspector, and to make recommendations regarding health and safety to the Contractor and to keep record of recommendations and reports made by the committee.

7.5 Competent persons

In accordance with the Construction Regulations the Contractor has to appoint in writing competent persons responsible for supervising construction work on each of the following work situations that may be expected on the site of the works.

- (a) Risk assessment and induction training as described in Regulation 7 of the Construction Regulations;
- (b) Fall protection as described in Regulation 8;
- (c) Formwork and support work as described in Regulation 10;
- (d) Excavation work as described in Regulation 11;
- (e) Demolition work as described in Regulation 12;
- (f) Scaffolding work as described in Regulation 14;
- (g) Suspended platform operations as described in Regulation 15;
- (h) Material hoists as described in Regulation 17;
- (i) Batch plant operations as described in Regulation 18;
- (j) Explosive powered tools as described in Regulation 19;
- (k) Cranes as described in Regulation 20;
- (l) Construction vehicle and mobile plant inspections on a daily basis by a competent person as described in Regulation 21(1);
- (n) Control of all temporary electrical installation on the construction site as described in Regulation 22;
- (o) Stacking and storage on construction sites as described in Regulation 26; and
- (p) Inspections of fire equipment as described in Regulation 27.

A competent person may be appointed for more than one part of the construction work with the understanding that the person must be suitably qualified and able to supervise at the same time the construction work on all the work situations for which he has been appointed.

The appointment of competent persons to supervise parts of the construction work does not relieve the Contractor from any of his responsibilities to comply with all requirements of the Construction Regulations.

E8. RECORDS AND REGISTERS

In accordance with the Construction Regulations the Contractor is bound to keep records and registers related to health and safety on site for periodic inspection by inspectors, the Engineer, the Employer, trade union officials and subcontractors and employees. The following records and registers must be kept on site and shall be available for inspection at all times.

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- (a) A copy of the OHSA 1993 Construction Regulations 2003;
- (b) A copy of this Health and Safety Specification;
- (c) A copy of the Contractor's Health and Safety Plan (Regulation 4);
- (d) A copy of the Notification of Construction Work (Regulation 3);
- (e) A health and safety file in terms of Regulation 5(7) with inputs by the Construction Safety Officer (Regulation 6(7));
- (f) A copy of the risk assessment described in Regulation 7;
- (g) A full protection plan and the corresponding records of evaluation and training of employees working from elevated positions as described in Regulation 8;
- (h) Drawings pertaining to the design of structures (Regulation 9(3)) and formwork and support work structures (Regulation 10(d)) must be kept on site;
- (i) Pronouncement of the safety of excavations must be recorded in a register to be kept on site (Regulation 11(3)(h));
- (j) A copy of the certificate of the system design for suspended platforms (Regulation 15(3));
- (k) A notice must be affixed around the base towers of material hoists to indicate the maximum mass load, which may be carried at any one time by material hoists (Regulation 7(5));
- (l) Maintenance records of material hoists and inspection results must be kept in a record book to be kept on site (Regulation 17(8));
- (m) A record of any repairs to or maintenance of a batch plant must be kept on site (Regulations 18(9));
- (n) A warning notice must be displayed in a conspicuous manner when and wherever an explosive powered tool is used (Regulation 19(2));
- (o) A register for recording of findings by the competent person appointed to inspect construction vehicles and mobile plant (Regulation 21(1)(j)).

E9. CONTRACTORS RESPONSIBILITIES

For this contract the Contractor will be the mandatory of the Employer (Client), as defined in the Act (OHSA 1993), which means that the Contractor has the status of employer in his own right in respect of the contract. The Contractor is therefore responsible for all the duties and obligations of an employer as set out in the Act (OHSA 1993) and the Construction Regulations 2003.

Before commencement of work under the contract, the Contractor shall enter into an agreement with the Employer (Client) to confirm his status as mandatory (employer) for the contract under consideration.

The Contractor's duties and responsibilities are clearly set out in the Construction Regulations 2003, and are not repeated in detail but some important aspects are highlighted hereafter, without relieving the Contractor of any of his duties and responsibilities in terms of the Construction Regulations.

- (a) Contractor's position in relation to the Employer (Client) (Regulation 4)

In accordance with Section 4 of the Regulations, the Contractor shall liaise closely

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with the Employer or the Engineer on behalf of the Employer, to ensure that all requirements of the Act and the Regulations are met and complied with.

(b) *The Principal Contractor and Contractor (Regulation 5)*

The Contractor is in terms of the definition in Regulation 2(b) the equivalent of Principle Contractor as defined in the Construction Regulations, and he shall comply with all the provisions of Regulation 5.

Any subcontractors employed by the Contractor must be appointed in writing, setting out the terms of the appointment in respect of health and safety. An independent subcontractor shall however provide and demonstrate to the Contractor a suitable, acceptable and sufficiently documented health and safety plan before commencement of the subcontract. In the absence of such a health and safety plan the subcontractor shall undertake in writing that he will comply with the Contractor's safety plan, the health and safety specifications of the Employer and the Construction Regulations 2003.

(c) *Supervision of construction work (Regulation 6)*

The Contractor shall appoint the safety and other personnel and employees as required in terms of Regulation 6 and as set out in paragraph 7 above. Appointment of those personnel and employees does not relieve the Contractor from any of the obligations under Regulation 6.

(d) *Risk assessment (Regulation 7)*

The Contractor shall have the risk assessment made as set out in paragraph 7 above before commencement of the work and it must be available on site for inspection at all times. The Contractor shall consult with the health and safety committee or health and safety representative(s) etc. on a regular basis to ensure that all employees, including subcontractors under his control, are informed and trained by a competent person regarding health hazards and related work procedures.

No subcontractor, employee or visitor shall be allowed to enter the site of works without prior health and safety induction training, all as specified in Regulation 7.

(e) *Fall protection (Regulation 8)*

Fall protection, if applicable to this contract shall comply in all respects with Regulation 8 of the Construction Regulations.

(f) *Structures (Regulation 9)*

The Contractor will be liable for all claims arising from collapse or failure of structures if he failed to comply with all the specifications, project specifications and drawings related to the structures, unless it can be proved

that such collapse or failure can be attributed to faulty design or insufficient design standards on which the specifications and the drawings are based.

In addition the Contractor shall comply with all aspects of Regulation 9 of the

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(g) Formwork and support work (Regulation 10)

The Contractor will be responsible for the adequate design of all formwork and support structures by a competent person.

All drawings pertaining to formwork shall be kept on site and all equipment and materials used in formwork, shall be carefully examined and checked for suitability by a competent person.

The provisions of Regulation 10 of the Construction Regulations shall be followed in every detail.

(h) Excavation work (Regulation 11)

It is essential that the Contractor shall follow the instructions and precautions in the Standard Specifications and Project Specifications as well as the provisions of the Construction Regulations to the letter as unsafe excavations can be a major hazard on any construction site. The Contractor shall therefore ensure that all excavation work is carried out under the supervision of a competent person, that inspections are carried out by a Professional Engineer or Technologist, and that all work is done in such a manner that no hazards are created by unsafe excavations and working conditions.

Supervision by a competent person will not relieve the Contractor from any of his duties and responsibilities under Regulation 11 of the Construction Regulations.

(i) Demolition work (Regulation 12)

Whenever demolition work is included in a contract, the Contractor shall comply with all the requirements of Regulation 12 of the Construction Regulations. The fact that a competent person has to be appointed by the Contractor does not relieve the Contractor from any of his responsibilities in respect of safety of demolition work.

(j) Tunneling (Regulation 13)

The Contractor shall comply with Regulation 13 wherever tunnelling of any kind is involved.

(k) Scaffolding (Regulation 14)

The Contractor shall ensure that all the provisions of Regulation 14 of the Construction Regulations are complied with. [Note: Reference in the Regulations to "Section 44 of the Act" should read "Section 43 of the Act"].

(l) Suspended platforms (Regulation 15)

Wherever suspended platforms will be necessary on any contract, the Contractor shall ensure that copies of the system design issued by a Professional Engineer are submitted to the Engineer for inspection and approval. The Contractor shall appoint competent persons as supervisors and competent scaffold erectors, operators and

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inspectors and ensure that all

work related to suspended platforms are done in accordance with Regulation 15 of the Construction Regulations.

(m) Boatswain's chains (Regulation 16)

Where boatswain's chains are required on the construction site, the Contractor shall comply with Regulation 16.

(n) Material Hoists (Regulation 17)

Wherever applicable, the Contractor shall comply with the provisions of Regulation 17 to the letter.

(o) Batch plants (Regulation 18)

Wherever applicable, the Contractor shall ensure that all lifting machines, lifting tackle, conveyors, etc. used in the operation of a batch plant shall comply with, and that all operators, supervisors and employees are strictly held to the provisions of Regulation 18. The Contractor shall ensure that the General Safety Regulations (Municipality Notice R1031 of 30 May 1986), the Driven Machinery Regulations (Municipality Notice R295 of 26/2/1988) and the Electrical Installation Regulations (Municipality Notice R2271 of 11/10/1995) are adhered to by all involved.

In terms of the Regulations, records of repairs and maintenance shall be kept on site.

(p) Explosive powered tools (Regulation 19)

The Contractor shall ensure that, wherever explosive-powered tools are required to be used, all safety provisions of Regulation 19 are complied with.

It is especially important that warning notices are displayed and that the issue and return of cartridges and spent cartridges be recorded in a register to be kept on site.

(q) Cranes (Regulation 20)

Wherever the use of tower cranes becomes necessary, the provisions of Regulation 20 shall be complied with.

(r) Construction vehicles and mobile plant (Regulation 21)

The Contractor shall ensure that all construction vehicles and plant are in good working condition and safe for use, and that they are used in accordance with their design and intended use. The vehicles and plant shall only be operated by workers or operators who have received appropriate training, all in accordance with all the requirements of Regulation 21.

All vehicles and plant must be inspected on a daily basis, prior to use, by a competent

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person and the findings must be recorded in a register to be kept on site.

(s) *Electrical installation and machinery on construction sites (Regulation 22)*

The Contractor shall comply with the Electrical Installation Regulations (Municipality Notice R2920 of 23 October 1992) and the Electrical Machinery Regulations (Municipality Notice R1953 of 12 August 1993). Before commencement of construction, the Contractor shall take adequate steps to

ascertain the presence of, and guard against dangers and hazards due to electrical cables and apparatus under, over or on the site.

All temporary electrical installations on the site shall be under the control of a competent person, without relieving the Contractor of his responsibility for the health and safety of all workers and persons on site in terms of Regulation 22.

(t) *Use of temporary storage of flammable liquids on construction sites (Regulation 23)*

The Contractor shall comply with the provisions of the General Safety Regulations (Municipality Notice R1031 of 30 May 1986) and all the provisions of Regulation 23 of the Construction Regulations to ensure a safe and hazard-free environment to all workers and other persons on site.

(u) *Water environments (Regulation 24)*

Where construction work is done over or in close proximity to water, the provisions of Regulation 24 shall apply.

(v) *Housekeeping on Construction sites (Regulation 25)*

Housekeeping on all construction sites shall be in accordance with the provisions of the environment Regulations for workplaces (Municipality Notice R2281 of 16 October 1987) and all the provisions of Regulation 25 of the Construction Regulations.

(w) *Stacking and storage on construction sites (Regulation 26)*

The provisions for the stacking of articles contained in the General Safety Regulations (Municipality Notice R1031 of 30 May 1986) as well as all the provisions Regulation 26 of the Construction Regulations shall apply.

(x) *Fire precautions on construction sites (Regulation 27)*

The provisions of the Environmental Regulations for Workplaces (Municipality Notice R 2281 of 16 October 1987) shall apply.

In addition the necessary precautions shall be taken to prevent the incidence of fires, to provide adequate and sufficient fire protection equipment, sirens, escape routes etc. all in accordance with Regulation 27 of the Construction Regulations.

(y) *Construction welfare facilities (Regulation 28)*

The Contractor shall comply with the construction site provisions as in the Facilities

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Regulations (Municipality Notice R1593 of 12 August 1988) and the provisions of Regulation 28 of the Construction Regulations.

(z) *Non-compliance with the Construction Regulations 2003*

The foregoing is a summary of parts of the Construction Regulations applicable to all construction projects.

The Contractor, as employer for the execution of the contract, shall ensure that all provisions of the Construction Regulations applicable to the contract under consideration are complied with to the letter.

Should the Contractor fail to comply with the provisions of the Regulations 3 to 28 as listed in Regulation 30, he will be guilty of an offence and will be liable, upon conviction, to the fines or imprisonment as set out in Regulation 30. The Contractor is advised in his own interest to make a careful study of the Act and the Construction Regulations as ignorance of the Act and the Regulations will not be accepted in any proceedings related to non-conformance to the Act and the Regulations.

E10. MEASUREMENT AND PAYMENT

10.1 Principles

It is a condition of this contract that Contractors, who submit tenders for this contract, shall make provision in their tenders for the cost of all health and safety measures during the construction process. All associated activities and expenditure are deemed to be included in the Contractor's tendered rates and prices.

(a) *Safety personnel*

The Construction Supervisor, the Construction Safety Officer, Health and Safety Representatives, Health and Safety Committee and Competent Persons shall be members of the Contractor's personnel, and no additional payment will be made for the appointment of such safety personnel.

(b) *Records and Registers*

The keeping of health and safety-related records and registers as described in 8 is regarded as a normal duty of the Contractor for which no additional payment will be considered, and which is deemed to be included in the Contractor's tendered rates and prices.

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Risk and Quality Management Plan:

1. Risk Identification:

- a) Weather conditions: Mitigation measures include tracking weather forecasts and scheduling construction activities accordingly.
- b) Soil instability: Actions involve conducting soil tests, implementing stabilization techniques, and ensuring proper compaction.
- c) Borrow pit permission issues: This risk can be mitigated by obtaining necessary permits in advance and exploring alternative sources.
- d) Community unrest: Close collaboration with the community, effective communication, and addressing their concerns proactively can help manage this risk.
- e) Insufficient drainage with Hydroseeding: Ensuring proper design and implementation of hydroseeding earth drains and monitoring their effectiveness.

2. Risk Assessment and Prioritization:

- a) Likelihood and impact: Assess the likelihood and impact of each risk on a scale of high, medium, and low.
- b) Critical risks: Identify risks critical to the success of the project.
- c) Immediate attention: Prioritize risks that require immediate mitigation measures, such as community issues.

3. Risk Mitigation and Response:

- a) Community and social facilitation: Engage with the community, address concerns, and involve them in labor-intensive activities to foster positive relations.
- b) Responsibility: All stakeholders (Municipality, Contractor, Consultant) should be responsible for implementing risk mitigation measures.
- c) Documentation and communication: Risk response plans should be documented in a comprehensive manner, including the identified risks, mitigation measures, responsibilities, and timelines. This documentation should be communicated to all relevant stakeholders to ensure everyone is aware of the plan.

4. Quality Control:

- a) Quality standards and specifications: The construction of the Concrete Block Paving should adhere to specified layer-works, compaction levels, and hydroseeding requirements, as outlined in the project specifications.
- b) Monitoring and assessment: Regular inspections by the Contractor, Consultant, and Employer's Agent should be conducted to ensure compliance with quality standards. Inspection requests should be issued for each completed task, and any deviations or defects should be addressed promptly.

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5. Quality Assurance:

- a) Compliance assurance: No approval should be issued for works not inspected, and all defects or deviations from specifications should be rectified.
- b) Reporting and rectification: The Engineer should keep records of methods used for each task and issue instructions for rectifying any identified defects or deviations.

6. Resource Planning:

- a) Resource identification and procurement: Ensure that the necessary equipment (such as excavator, grader, roller), materials, and skilled labor have been identified and procured for the project.
- b) Risk assessment: Continuously assess the availability and reliability of resources, identifying any potential risks, and have contingency plans in place to address them.

7. Communication and Reporting:

- a) Communication channels: Formal communication among project team members, stakeholders, and contractors should be facilitated through the Consultant, who acts as the Employer's Agent.
- b) Reporting mechanisms: Regular progress reports, both weekly and monthly, should be provided to update stakeholders about risk and quality management activities.

8. Training and Competency:

- a) Skilled labour: The contractor should ensure that the project team members and contractors possess the necessary skills and knowledge to meet the project's quality requirements. Additional on-the-job training may be provided, if needed.
- b) Entrepreneur skills training: The contractor should provide formal entrepreneur skills training to local residents, empowering them to improve their small construction-related businesses.

9. Documentation and Record-Keeping:

- a) Project documentation management: Design specifications, quality checklists, risk registers, audit reports, and other relevant documents should be managed and maintained. Files should be kept on-site, with copies available at the Employer's Agent's office.

10. Contingency Planning:

- a) Contingency fund allocation: Allocate 10% of the project construction cost for unforeseen circumstances and changes crucial to the project's successful completion.

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- b) Crisis management: Have a plan in place to address potential disruptions, delays, or changes that may impact the project timeline and quality. Thorough record-keeping and investigation into any issues should guide the response.

11. Continuous Improvement:

- a) Feedback and lessons learned: Establish a process to collect feedback and lessons learned throughout the project. Regular report writing and updates to the site diary can facilitate this process.

12. Review and Monitoring:

- a) Frequency of review: The Risk and Quality Management plan should be reviewed on a weekly basis to track progress and identify any necessary updates.
- b) Responsibility for oversight: The Site Agent and Resident Engineer should be responsible for overseeing and monitoring the implementation of the plan.
- c) Key performance indicators: Consider establishing key performance indicators (KPIs) or milestones to track progress, ensure compliance with the plan, and measure the overall success of the project.

This comprehensive Risk and Quality Management Plan outlines the necessary steps, responsibilities, and mitigation measures to ensure the successful construction of the Concrete Block Paving. It considers risks associated with weather conditions, soil instability, community concerns, and other factors. Quality control measures, resource planning, communication protocols, and continuous improvement strategies are also outlined. Regular review, monitoring, and documentation will help ensure compliance with quality standards and address any potential risks or issues that may arise throughout the project.

BIDDER:

Initial: Authorized signatory/ies:

.....

DR. JSMLM:

1.

2.

Initial: DR. JSMLM

.....

Witness:



DR JS MOROKA LOCAL MUNICIPALITY



CONTRACT NO: JSM/R01/24 - 25W22: *CONSTRUCTION OF RADIJOKO BUS AND TAXI ROUTE PHASE 3*

C4 SITE INFORMATION

- C4.1 CONDITIONS ON SITE: GEOTECHNICAL REPORT
- C4.2 EXISTING SERVICES REPORT

BIDDER:

Initial: Authorized signatory/ies:

.....

DR. JSMLM:

1.

2.

Initial: DR. JSMLM

.....

Witness:



C4.1 CONDITIONS ON SITE: GEOTECHNICAL REPORT

4.1 Soil types and method of treatment:

The soil profile of the centerline soil survey undertaken along the entire project road to a depth of 1.0m indicated **unsuitable** material that require cut to spoil down to roadbed level.

The following sequential procedure can be used for the roadbed preparation and construction of pavement layers:

- Excavate and remove the in-situ unsuitable material to a depth as indicated on the longsection.
- Scarify the in-situ to a depth of 150mm and then mix and compact to 90% of the Modified AASHTO.
- Introduce the borrow pit material and compact to 93% of the modified AASHTO as Road bed layer.
- Place the same borrow pit material and compact to 95% of the modified AASHTO as subbase layer.
- Finally, import G6 quality material that will require cement stabilization to achieve C4 and compact to at least 97% of the modified AASHTO maximum Dry Density at optimum moisture content + or – 1%.

Results obtained from the field investigations carried out on the project road, indicate that;

- Most of the materials are unsuitable for road construction in their current state.
- Basing on these findings, we conclude that most the in-situ soils should be cut to spoil.

BIDDER:

Initial: Authorized signatory/ies:

.....

Witness:

.....

DR. JSMLM:

1.

2.

Initial: DR. JSMLM

.....

C4.2 EXISTING SERVICES REPORT

All known services will be shown to the tenderers and others will be exposed during construction.

BIDDER:

Initial: Authorized signatory/ies:

.....

DR. JSMLM:

1.

2.

Initial: DR. JSMLM

.....

Witness:



DR JS MOROKA LOCAL MUNICIPALITY



**CONTRACT NO: JSM/R01/24 - 25W22: CONSTRUCTION OF RADJOKO BUS AND TAXI
ROUTE PHASE 3**

C5: ADDITIONAL RELEVANT DOCUMENTATION

- C5.1 Dr. J.S Moroka Local Municipality Supply Chain Management Policy.
- C5.2 The preferential procurement policy framework Act, 2000: preferential procurement regulations, 2023 including any other amendments made thereafter and including the following:
- C5.3 DR JSMLM health and safety specifications
- C5.4 Guidelines for the Implementation of Labour – Intensive Infrastructure projects under the Expanded Public Works Programme (EPWP)
- C5.5. Photo Record and site Locality
- C5.6. Tender Drawings
- C5.7. Name Board
- C5.8. Environmental Checklist/ Penalties

BIDDER:

DR. JSMLM:

Initial: DR. JSMLM

Initial: Authorized signatory/ies:

1.

.....

2.

.....

206

Witness:



DR JS MOROKA LOCAL MUNICIPALITY



CONTRACT NO: JSM/R01/24 - 25W22: *CONSTRUCTION OF RADIJOKO BUS AND TAXI ROUTE PHASE 3*

C6: TENDER DRAWINGS

The following drawings are attached in this Tender document:

CONSTRUCTION OF RADIJOKO BUS AND TAXI ROUTE PHASE 3:

LIST OF DRAWINGS

DRAWING No.	DRAWING DESCRIPTION
0148-03U00	DRAWING LIST
0148-03U01	GENERAL ROAD LAYOUT PLAN
0148-03L01	ROAD LAYOUT PLAN WITH LONG SECTION (SHEET 1 OF 2)
0148-03L02	ROAD LAYOUT PLAN WITH LONG SECTION (SHEET 2 OF 2)
0148-05L01	STORMWATER LAYOUT PLAN & LONG SECTION
0148-03X01	ROAD CROSS SECTION
STD01	KERBING DETAILS: SLOPING KERB, SEMI-VERTICAL KERBS & EDGE BEAM
STD03	JUNCTION BOX AND MANHOLE DETAILS MANHOLE
STD04	STORMWATER OUTLET & FIELD INLET STRUCTURE DETAILS FOR LOW-COST DEVELOPMENT
	DRAINAGE STRUCTURES
STD05	STORMWATER CULVERT OUTLET (TYPE 1 & 1A) & ALTERNATIVE OUTLETS (TYPE 1 & 2)
STD08	MANHOLE DETAILS: TYPICAL DIMENSIONING
STD09	TYPICAL CROSS SECTIONS ROAD RESERVE, STORMWATER PIPELINE & FURROW
STD13	KERB, CHANNEL & DRIFT DETAILS

BIDDER:

DR. JSMLM:

Initial: DR. JSMLM

Initial: Authorized signatory/ies:

1.

.....

2.

.....

207

Witness:



DR J.S MOROKA LOCAL MUNICIPALITY
ROADS AND STORMWATER DIVISION



CONSTRUCTION OF RADIJOKO BUS AND TAXI ROUTE PHASE 3:

CONTRACT No.: JSM/R01/24 - 25W22

PRIVATE BAG X4012
SIYABUSWA
0472

TEL: (013) 973 9126
FAX: (013) 973 9132

TENDER DRAWINGS
JULY 2024

CONSTRUCTION OF RADIJOKO BUS AND TAXI ROUTE PHASE 3:

LIST OF DRAWINGS

DRAWING No.

DRAWING DESCRIPTION

0148-03U00

DRAWING LIST

0148-03U01

GENERAL ROAD LAYOUT PLAN

0148-03L01

ROAD LAYOUT PLAN WITH LONG SECTION (SHEET 1OF2)

0148-03L02

ROAD LAYOUT PLAN WITH LONG SECTION (SHEET 2OF2)

0148-05L01

STORMWATER LAYOUT PLAN & LONG SECTION

0148-03X01

ROAD CROSS SECTION

STD01

KERBING DETAILS: SLOPING KERB, SEMI-VERTICAL KERBS & EDGE BEAM

STD03

JUNCTION BOX AND MANHOLE DETAILS MANHOLE

STD04

STORMWATER OUTLET & FIELD INLET STRUCTURE DETAILS FOR LOW-COST DEVELOPMENT

DRAINAGE STRUCTURES

STD05

STORMWATER CULVERT OUTLET (TYPE 1 & 1A) & ALTERNATIVE OUTLETS (TYPE 1 & 2)

STD08

MANHOLE DETAILS: TYPICAL DIMENSIONING

STD09

TYPICAL CROSS SECTIONS ROAD RESERVE, STORMWATER PIPELINE & FURROW

STD13

KERB, CHANNEL & DRIFT DETAILS

NOTES AND SPECIFICATIONS

LEGEND

PROPOSED:	EXISTING:
FENCELINE	
SEWERLINE	SWR-LINE
POWERLINE	POWERLINE
LIGHT POLE	LP ○
TELEPHONE POLE	TP ○
WATER METER	WM ○
SEWER MANHOLE	SWR-MH ○
ELECTRIC POLE	EP ○
ELECTRIC BOX	EB □
SIGNBOARD	RS ○
BENCHMARK	KS △

ASPHALT PAVING



SURFACING



LEGEND

PROPOSED:	EXISTING:
STORMWATER PIPE	
JB □	JB □
KI □	KI □
MH# ●	MH ○
STORMWATER MANHOLE	
WINGWALL OUTLET	
PROPOSED EARTH POND	
PROPOSED CONCRETE CHANNEL	

TENDER DRAWING

SHEET LAYOUT

PROJECT STATUS

☐ CONCEPT DRAWING	☒ TENDER DRAWING	☐ APPROVAL FOR CONSTRUCTION	☐ AS-BUILT DRAWING
PROJECT ENGINEER		DATE	
INITIALS AND SURNAME		SIGNATURE & PR NUMBER	
INSPECTOR OF WORKS		DATE	
REMARKS		ORIGINAL PAPER SIZE:	
		A0	
DRAWING NO.		SHEET NO.	
0148 - 03U00		10F1	

AMENDMENTS				
NR.	DATE	APPROVED	DESCRIPTION	PAR.

CONSULTANTS DETAILS

DIKGATO ENGINEERING CONSULTANTS
3 SKURWEBERG STREET
NOORDWYK EXT.8
MIDRAND
1687

TEL : 011 318 1698
FAX : 011 318 1891
eMAIL: dikgato@dikgato.co.za



DR J.S MOROKA LOCAL MUNICIPALITY

ROADS AND STORMWATER DIVISION

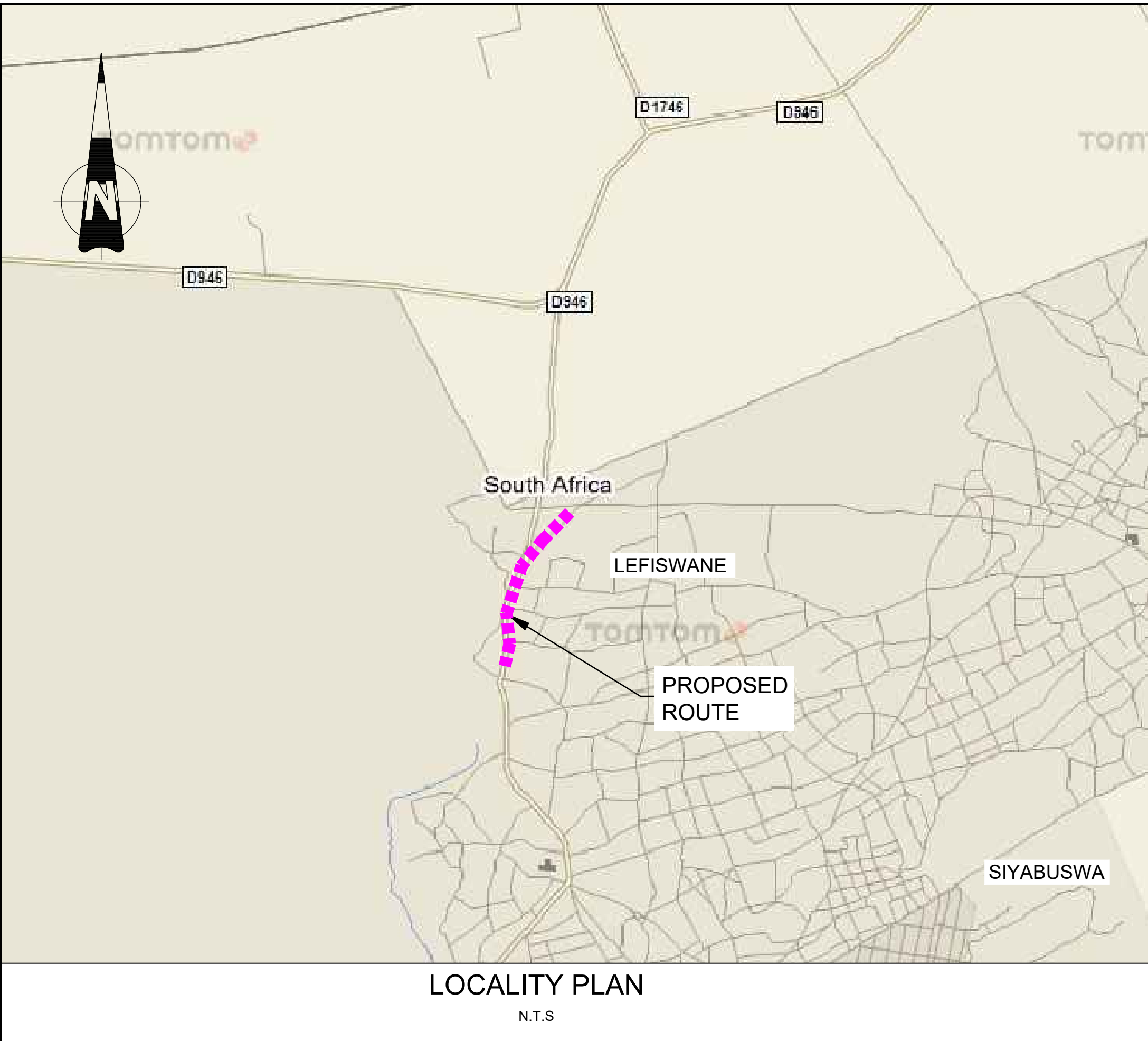
PRIVATE BAG X4012
SIYABUSWA
0472

TEL: (013) 973 9126
FAX: (013) 973 9132

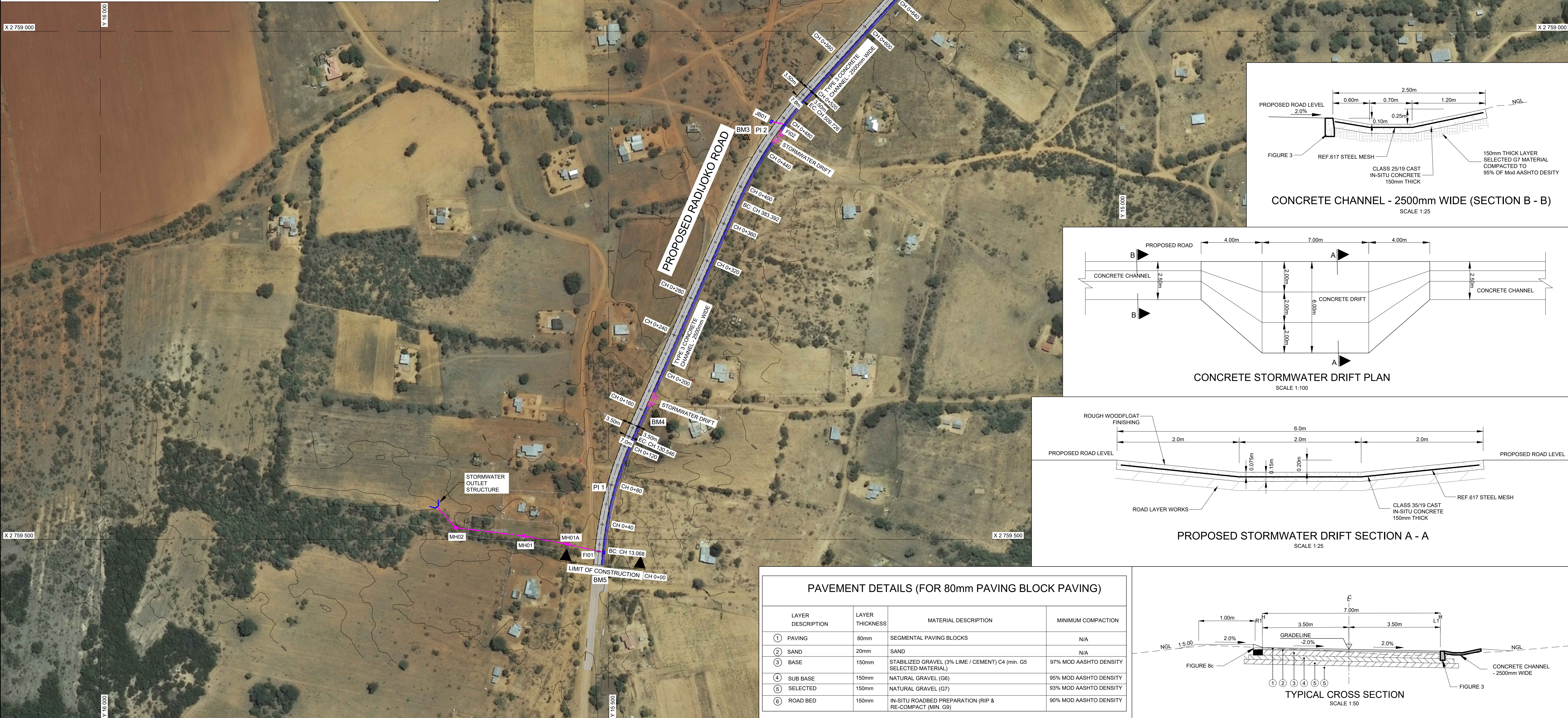


DESIGNED BY T. LETSOALO	DATE
DRAWING CHECKED BY L. NGCOBO	DATE
DRAWN BY M. NKOSI	DATE
CIVIL DRAUGHTING SERVICES T. M. NGCOBO	DATE
DRAWING APPROVED BY PMO MANAGER	DATE
DATE	DATE

LOCATION OF PROJECT: MPUMALANGA: LEFISWANE	DESCRIPTION OF PROJECT: CONSTRUCTION OF RADIJOKO BUS AND TAXI ROUTE PHASE 3: DRAWING LIST
CONTRACT NO.: JSM/PSP/R01/24-27/W00	PROJECT No.: 0148
SCALE: 1:1000	DATE: MAY 2024



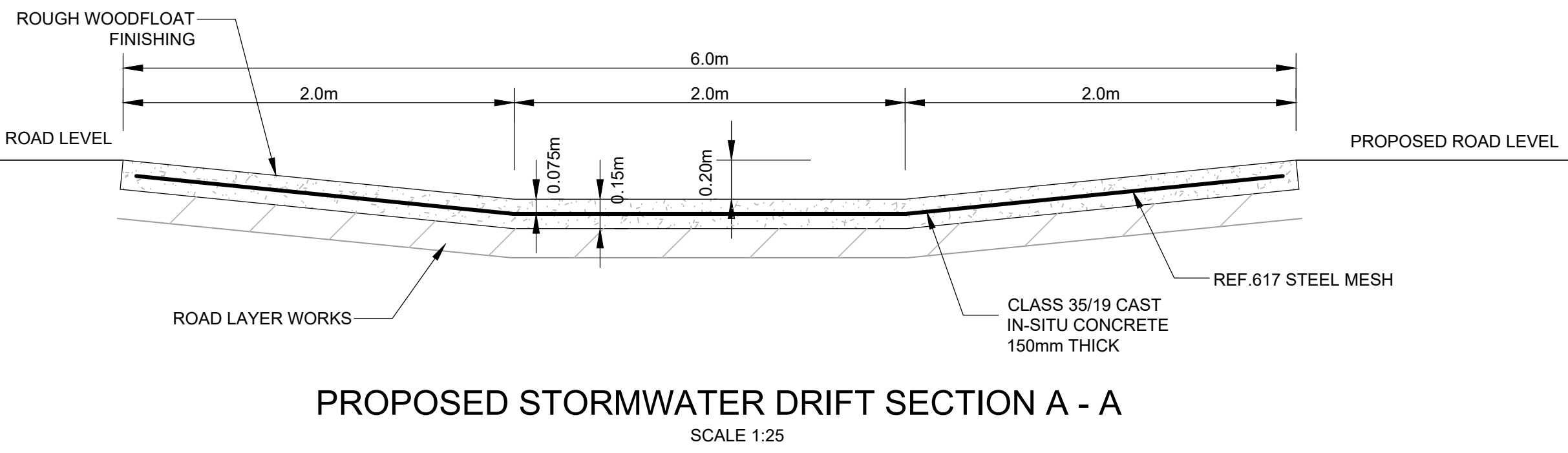
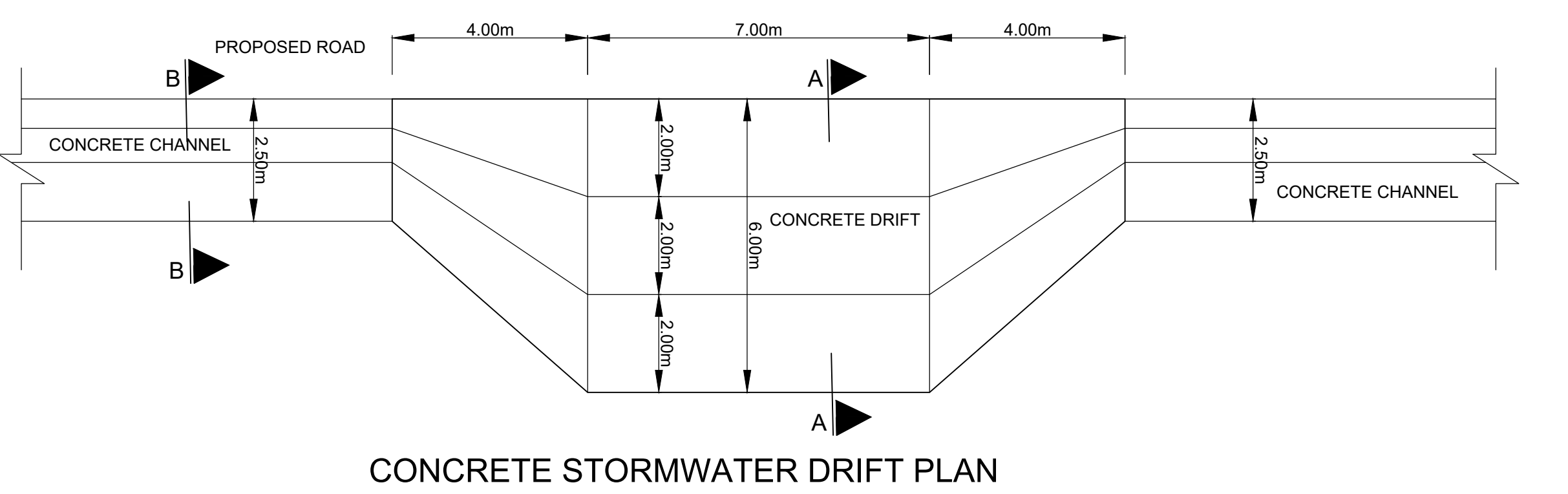
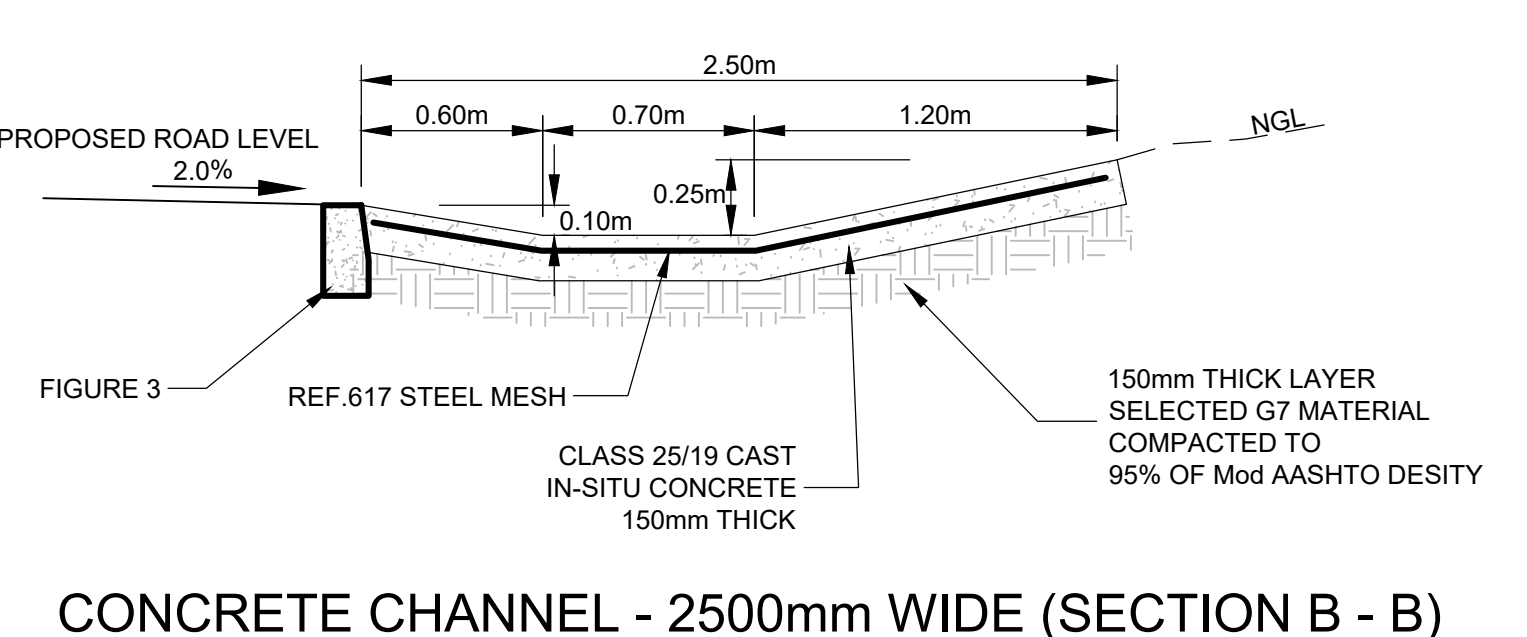
RADIJOKO ROAD: ROAD SETTING OUT DETAILS								
PI No.	Y-COORD	X-COORD	RAD (m)	BC (m)	EC (m)	DA (m)	TL (m)	AL (m)
CONST:								
START	15 510 945	2 759 525 008						
PI1	15 504 238	2 759 452 986	360	13 070	130 55	204 01 04	59 266	117 479
PI2	15 351 276	2 759 109 715	400	383 39	509 730	222 06 50	63 697	126 334
END	14 979 780	2 758 698 771						



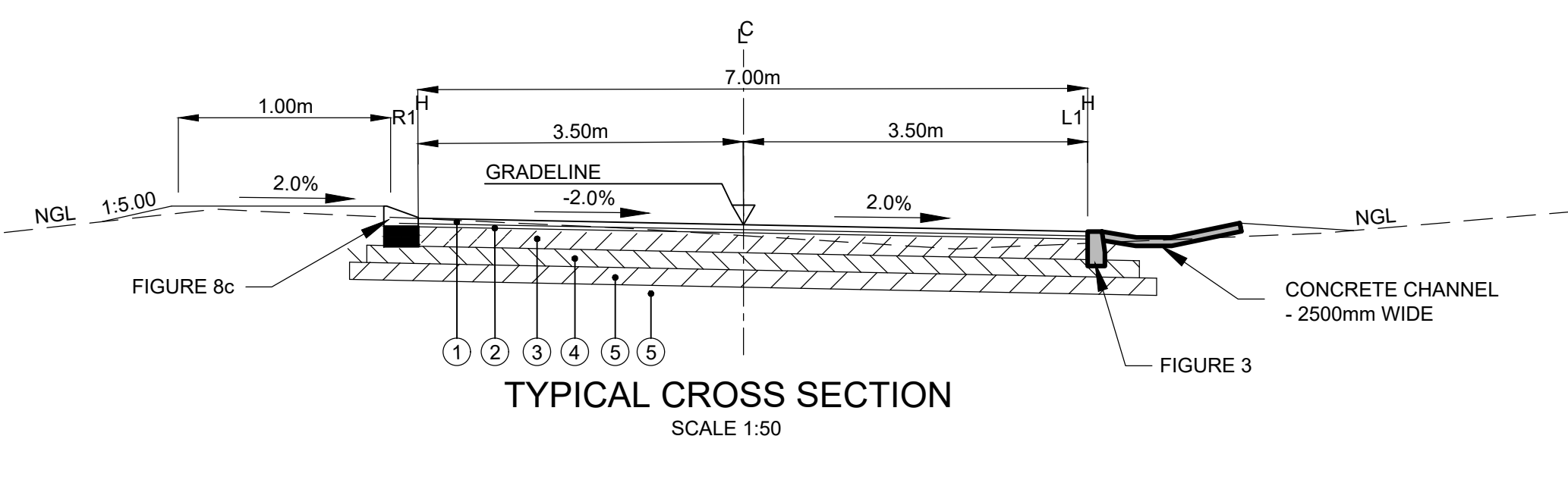
BENCH MARKS			
NAME	Y	X	DESCRIPTION
BM1	14 944 541	2 758 652 141	1 024 780 12MM CONC.
BM2	15 129 422	2 758 896 675	1 023 094 12MM CONC.
BM3	15 371 314	2 759 099 318	1 020 992 12MM CONC.
BM4	15 456 953	2 759 368 550	1 019 008 12MM CONC.
BM5	15 508 360	2 759 539 749	1 016 932 12MM CONC.

NOTES AND SPECIFICATIONS	
PROPOSED:	EXISTING:
FENCELINE	SWR-LINE
SEWERLINE	POWERLINE
POWERLINE	LP
LIGHT POLE	TP
TELEPHONE POLE	VM
WATER METER	SWR-MH
SEWER MANHOLE	EP
ELECTRIC POLE	EB
ELECTRIC BOX	RS
SIGNBOARD	KS
BENCHMARK	
ASPHALT PAVING	SURFACING

LEGEND	
PROPOSED:	EXISTING:
JB	JB
KI	KI
MH#	MH
WINGWALL OUTLET	
PROPOSED EARTH POND	
PROPOSED CONCRETE CHANNEL	



PAVEMENT DETAILS (FOR 80mm PAVING BLOCK PAVING)			
LAYER DESCRIPTION	LAYER THICKNESS	MATERIAL DESCRIPTION	MINIMUM COMPACTION
① PAVING	80mm	SEGMENTAL PAVING BLOCKS	N/A
② SAND	20mm	SAND	N/A
③ BASE	150mm	STABILIZED GRAVEL (3% LIME / CEMENT) C4 (min. G5 SELECTED MATERIAL)	97% MOD AASHTO DENSITY
④ SUB BASE	150mm	NATURAL GRAVEL (G6)	95% MOD AASHTO DENSITY
⑤ SELECTED	150mm	NATURAL GRAVEL (G7)	93% MOD AASHTO DENSITY
⑥ ROAD BED	150mm	IN-SITU ROADBED PREPARATION (RIP & RE-COMPACT (MIN. G9)	90% MOD AASHTO DENSITY



AMENDMENTS				
NR.	DATE	APPROVED	DESCRIPTION	PAR.

CONSULTANTS DETAILS	
DIKGATO ENGINEERING CONSULTANTS 3 SKURWEDEG STREET NOORDWYK EXT.8 MIDRAND 1687	
TEL : 011 318 1698 FAX : 011 318 1891 EMAIL: dikgato@dikgato.co.za	

DR J.S MOROKA LOCAL MUNICIPALITY
ROADS AND STORMWATER DIVISION

PRIVATE BAG X4012
SIYABUSWA
0472

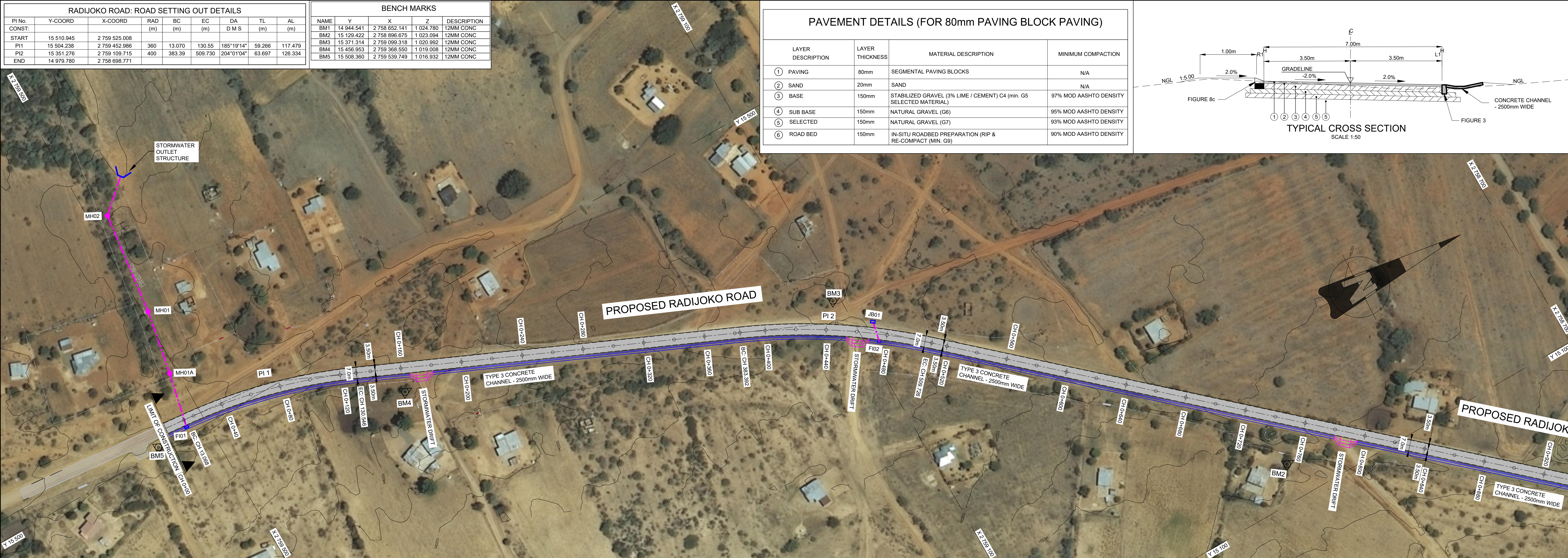
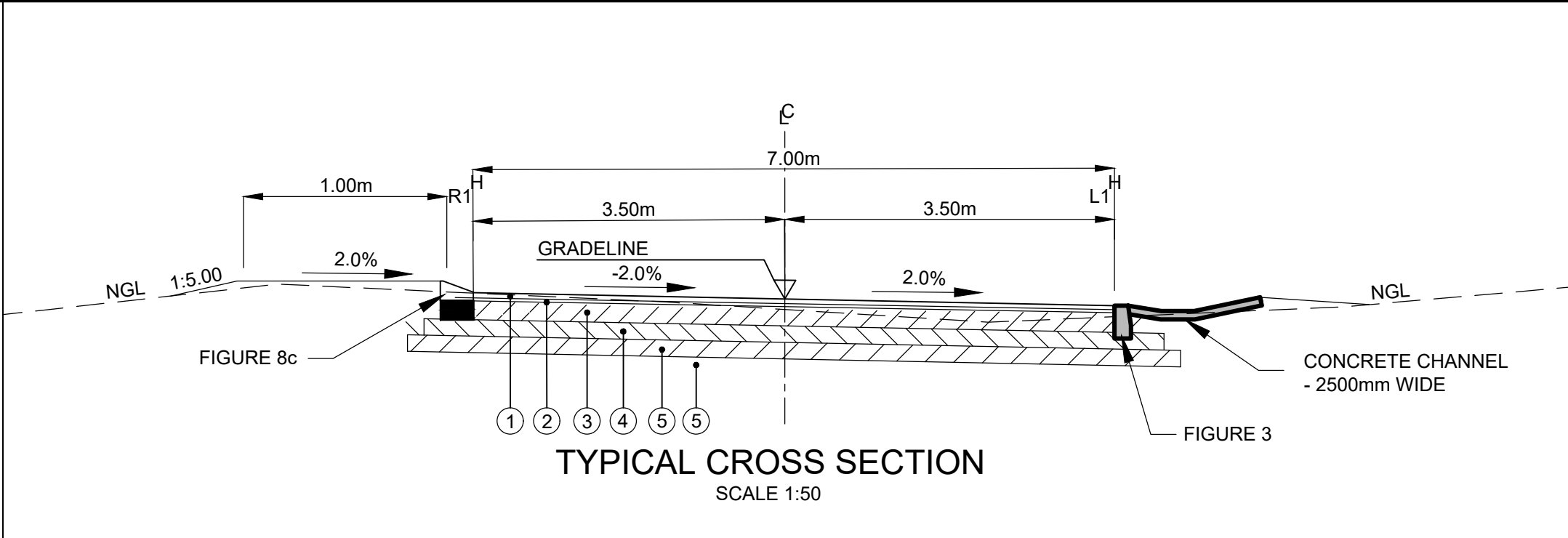
TEL: (013) 973 9126
FAX: (013) 973 9132

T. LETSISOLO DRAWING CHECKED BY L. NGCOBO DRAWN M. NKOSI CIVIL DRAUGHTING SERVICES T. M. NGCOBO DRAWING APPROVED BY PM/MANAGER		LOCATION OF PROJECT: MPUMALANGA: LEFISWANE	
DESCRIPTION OF PROJECT: CONSTRUCTION OF RADIJOKO BUS AND TAXI ROUTE PHASE 3: GENERAL ROAD LAYOUT PLAN		CONTRACT NO.: JSM/PSP/R01/24-27/W00	
PROJECT No.: 0148		SCALE: 1:1500	
DATE: MAY 2024		SHEET No.: 0148 - 03U01	

RADIJOKO ROAD: ROAD SETTING OUT DETAILS							
PI No.	Y-COORD	X-COORD	RAD (m)	BC (m)	EC (m)	DA D M S	TL (m)
CONST:	15 510 945	2 759 525 008					
PI1	15 504 238	2 759 452 986	360	13 070	130 55	185°19'14"	59 266
PI2	15 351 276	2 759 109 715	400	383 39	509 730	204°01'04"	63 697
END	14 979 780	2 758 698 771					126 334

BENCH MARKS				
NAME	Y	X	Z	DESCRIPTION
BM1	14 944 541	2 758 852 141	1 024 780	12MM CONC
BM2	15 129 422	2 758 896 675	1 023 094	12MM CONC
BM3	15 371 314	2 759 099 318	1 020 992	12MM CONC
BM4	15 456 953	2 759 368 550	1 019 008	12MM CONC
BM5	15 508 360	2 759 539 749	1 016 932	12MM CONC

PAVEMENT DETAILS (FOR 80mm PAVING BLOCK PAVING)			
LAYER DESCRIPTION	LAYER THICKNESS	MATERIAL DESCRIPTION	MINIMUM COMPACTION
1 PAVING	80mm	SEGMENTAL PAVING BLOCKS	N/A
2 SAND	20mm	SAND	N/A
3 BASE	150mm	STABILIZED GRAVEL (3% LIME / CEMENT) C4 (min G5 SELECTED MATERIAL)	97% MOD AASHTO DENSITY
4 SUB BASE	150mm	NATURAL GRAVEL (G6)	95% MOD AASHTO DENSITY
5 SELECTED	150mm	NATURAL GRAVEL (G7)	93% MOD AASHTO DENSITY
6 ROAD BED	150mm	IN-SITU ROADBED PREPARATION (RIP & RE-COMPACT (MIN. G9)	90% MOD AASHTO DENSITY



NOTES AND SPECIFICATIONS

LEGEND

PROPOSED:

EXISTING:

FENCELINE

SEWERLINE

POWERLINE

LIGHT POLE

TELEPHONE POLE

WATER METER

SEWER MANHOLE

ELECTRIC POLE

ELECTRIC BOX

SIGNBOARD

BENCHMARK

ASPHALT PAVING

SURFACING

PROPOSED:

EXISTING:

STORMWATER PIPE

JUNCTION BOX

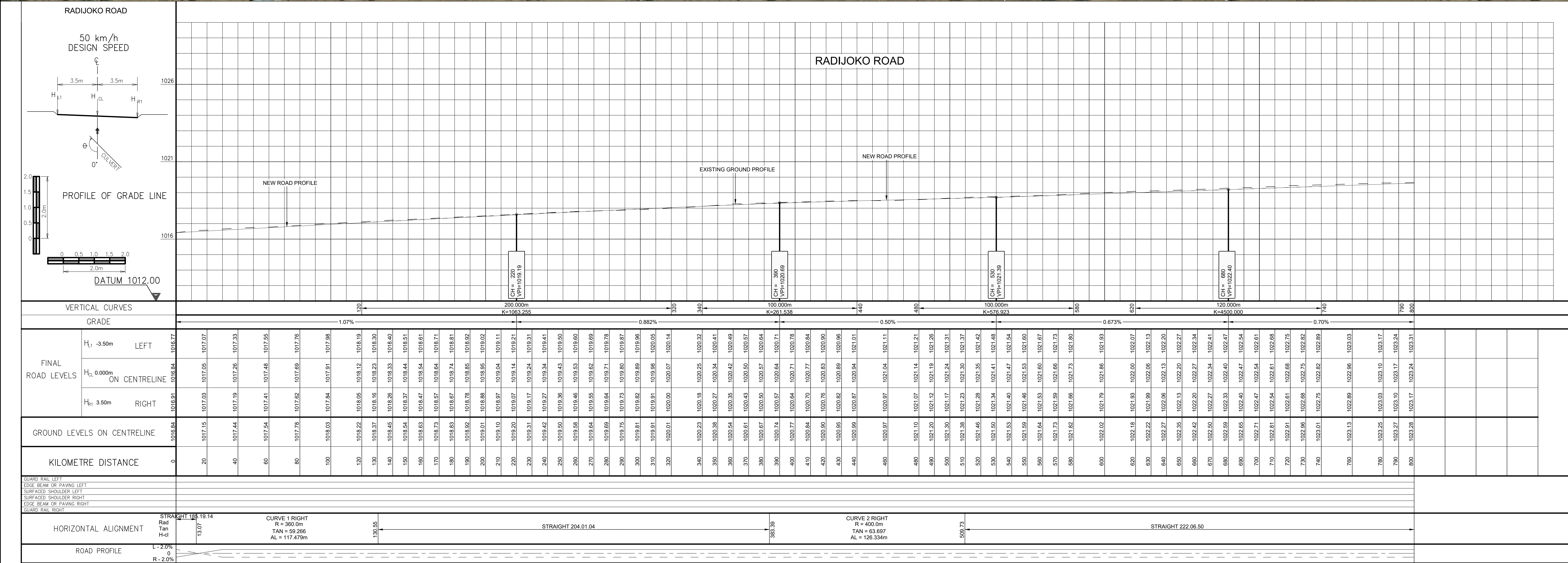
KERB INLET

STORMWATER MANHOLE

WINGWALL OUTLET

PROPOSED EARTH POND

PROPOSED CONCRETE CHANNEL



TENDER DRAWING

AMENDMENTS				
NR.	DATE	APPROVED	DESCRIPTION	PAR

CONSULTANTS DETAILS

DIKGATO ENGINEERING CONSULTANTS

3 SKURWEBERG STREET

NOORDWYK EXT.8

MIDRAND

1687

TEL: 011 318 1698

FAX: 011 318 1891

eMAIL: dikgato@dikgato.co.za

DR J.S MOROKA LOCAL MUNICIPALITY

ROADS AND STORMWATER DIVISION

PRIVATE BAG X4012

SIYABUSWA

0472

TEL: (013) 973 9126

FAX: (013) 973 9132

DESIGNED BY
T. LETSALO

DRAWN BY
L. NGCOBO

CHECKED BY
M. NKOSI

CIVIL DRAWING SERVICES
T. M. NGCOBO

DRAWING APPROVED BY PM/MANAGER

LOCATION OF PROJECT:

MPUMALANGA: LEFISWANE

DESCRIPTION OF PROJECT

CONSTRUCTION OF RADIJOKO BUS AND TAXI ROUTE PHASE 3:

ROAD LAYOUT PLAN & LONG SECTION

CONTRACT NO.:

JSM/PSP/R01/24-27/W00

PROJECT No.:

0148

SCALE:

1:1000

DATE:

MAY 2024

PROJECT ENGINEER

INSPECTOR OF WORKS

REMARKS

DRAWING NO.

0148 - 03L01

APPROVAL FOR CONSTRUCTION (SIGNING)

SIGNATURE & PRE NUMBER

DATE

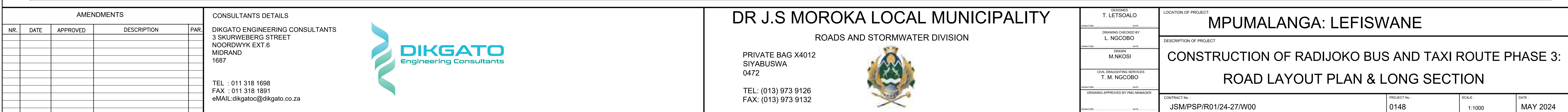
ORIGINAL PAPER SIZE:

A0

SHEET NO.

10F2

An aerial photograph of a rural property. A dirt road runs diagonally from the bottom left towards the center. To the left of the road, there are several buildings with light-colored roofs and walls, surrounded by some trees and shrubs. To the right of the road, there are large, open fields with varying shades of brown and tan, suggesting different crops or stages of growth. A few scattered trees are visible in the fields. The overall scene is a typical rural landscape.



SHEET LAYOUT PROJECT STATUS									
☐ TENDR DRAWING	☒ PROJECT DRAWING								
☐ APPROVAL FOR CONSTRUCTION SUBMITTAL	☐ AS-BUILT DRAWING								
ENGINEER _____	SIGNATURE & PR NUMBER _____								
TITLE AND SURNAME OF WORKS _____	DATE _____								
SIGNATURE _____ NO. _____ OF NO. _____	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">ORIGINAL PAPER SIZE</td> <td style="width: 50%;">DATE</td> </tr> <tr> <td style="text-align: center; font-size: 1.2em;">A0</td> <td></td> </tr> <tr> <td style="text-align: center;">(SHEET NO.)</td> <td></td> </tr> <tr> <td style="text-align: center; font-size: 1.5em;">20F2</td> <td></td> </tr> </table>	ORIGINAL PAPER SIZE	DATE	A0		(SHEET NO.)		20F2	
ORIGINAL PAPER SIZE	DATE								
A0									
(SHEET NO.)									
20F2									

ROADS AND STORMWATER DIVISION

PRIVATE BAG X4012
SIYABUSWA
0472

TEL: (013) 973 9126
FAX: (013) 973 9132

The coat of arms of South Africa is centered on the page. It features a shield with a rising sun, a mountain, and a river. The shield is flanked by two figures, a woman on the left and a man on the right, both holding staffs. Above the shield is a crest with a bird. The entire emblem is encircled by a wreath.

DRAWING NO. T. LETSISOALO DRAWING CHECKED BY L. NGCOBO DRAWING NO. M. NKOSI CIVIL CONSULTANT SERVICES T. M. NGCOBO DRAWING APPROVED BY PMU MANAGER		LOCATION OF PROJECT MPUMALANGA: LEFISWANE DESCRIPTION OF PROJECT CONSTRUCTION OF RADJOKO BUS AND TAXI ROUTE PHASE 3: ROAD LAYOUT PLAN & LONG SECTION CONTRACT NO.: JSM/PSP/R01/24-27/W00		PROJECT NO.: 0148	SCALE: 1:1000	DATE: MAY 2024	DRAWING NO. 0148 - 03L02	SHEET NO. 20F2	

BENCH MARKS				
NAME	Y	X	Z	DESCRIPTION
BM1	14 944.541	2 758 652.141	1 024.780	12MM CONC
BM2	15 120.422	2 758 896.075	1 023.094	12MM CONC
BM3	15 371.314	2 759 096.318	1 020.992	12MM CONC
BM4	15 456.953	2 759 368.550	1 019.008	12MM CONC
BM5	15 508.360	2 759 539.749	1 016.932	12MM CONC

COORDINATE LIST		
Lo		
SW1		
MH No.	YLo	XLo
Constant:		
FI01	15504.837	2759512.826
MH01A	15540.831	2759504.724
MH01	15583.007	2759496.728
MH02	15650.695	2759488.426
OUTLET	15668.751	2759468.006



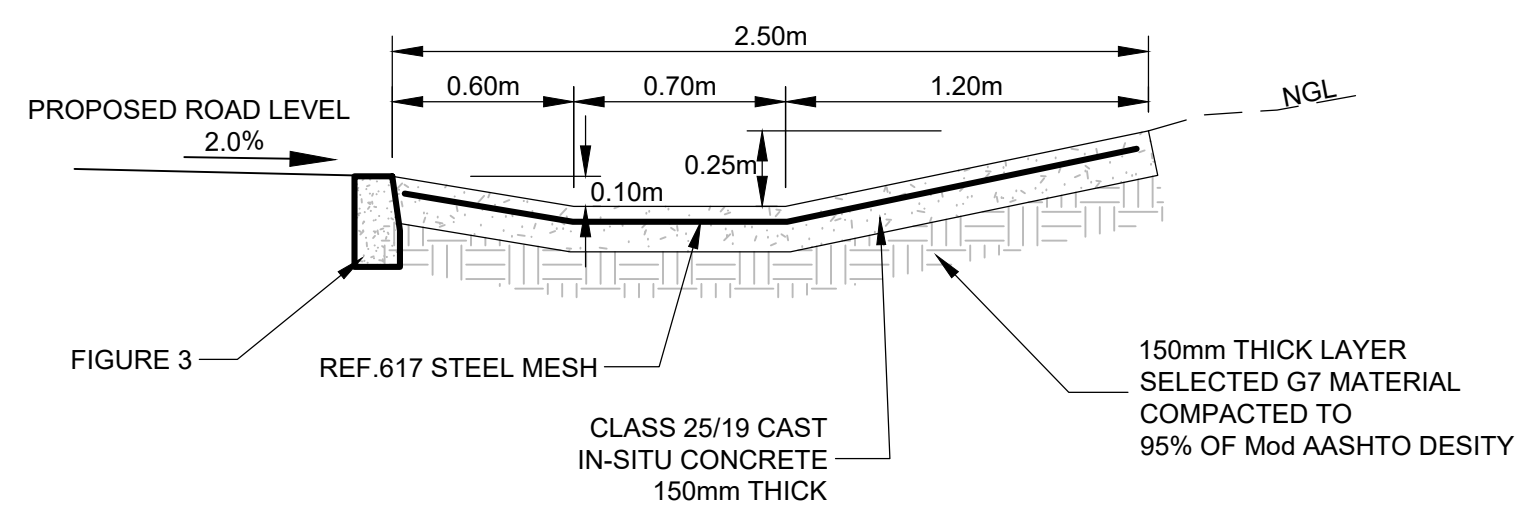
NOTES AND SPECIFICATIONS

LEGEND

PROPOSED:	EXISTING:
FENCELINE	SWR-LINE
SEWERLINE	POWERLINE
POWERLINE	LP
LIGHT POLE	TP
TELEPHONE POLE	VM
WATER METER	SWR-MH
SEWER MANHOLE	EP
ELECTRIC POLE	EB
ELECTRIC BOX	RS
SIGNBOARD	KS
BENCHMARK	ASPHALT PAVING
	SURFACING

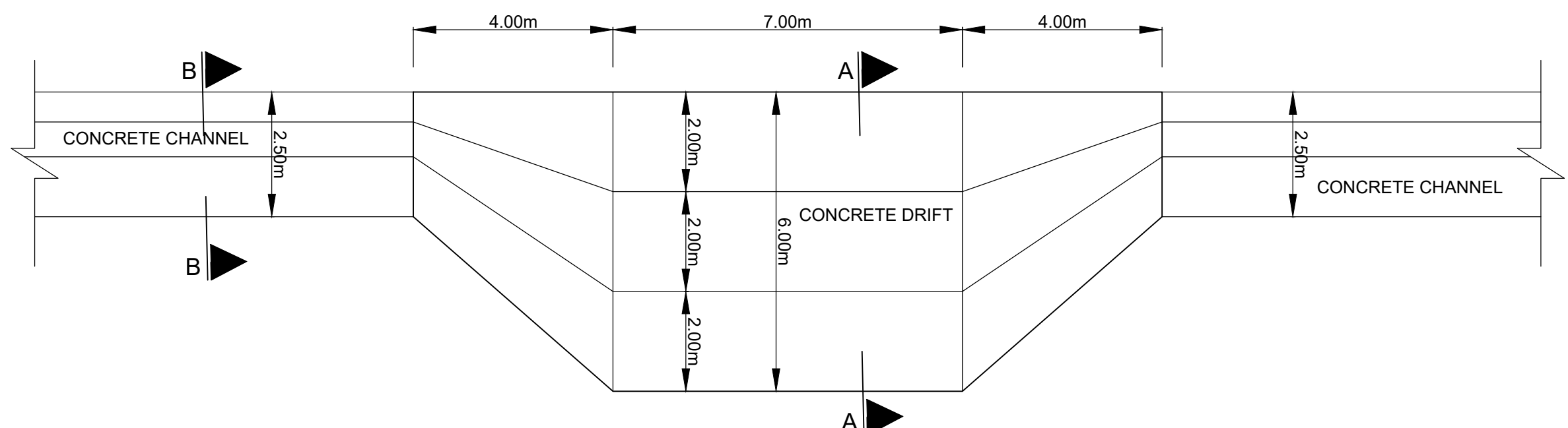
LEGEND

PROPOSED:	EXISTING:
JB	JB
KI	KI
MH#	MH
WINGWALL OUTLET	
PROPOSED EARTH POND	
PROPOSED CONCRETE CHANNEL	



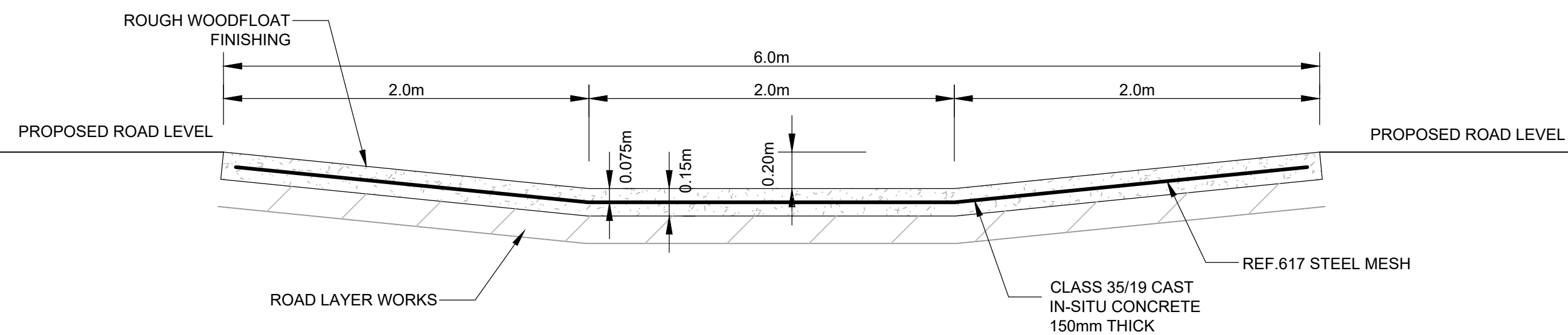
CONCRETE CHANNEL - 2500mm WIDE (SECTION B - B)

SCALE 1:25



CONCRETE STORMWATER DRIFT PLAN

SCALE 1:100



PROPOSED STORMWATER DRIFT (SECTION A - A)

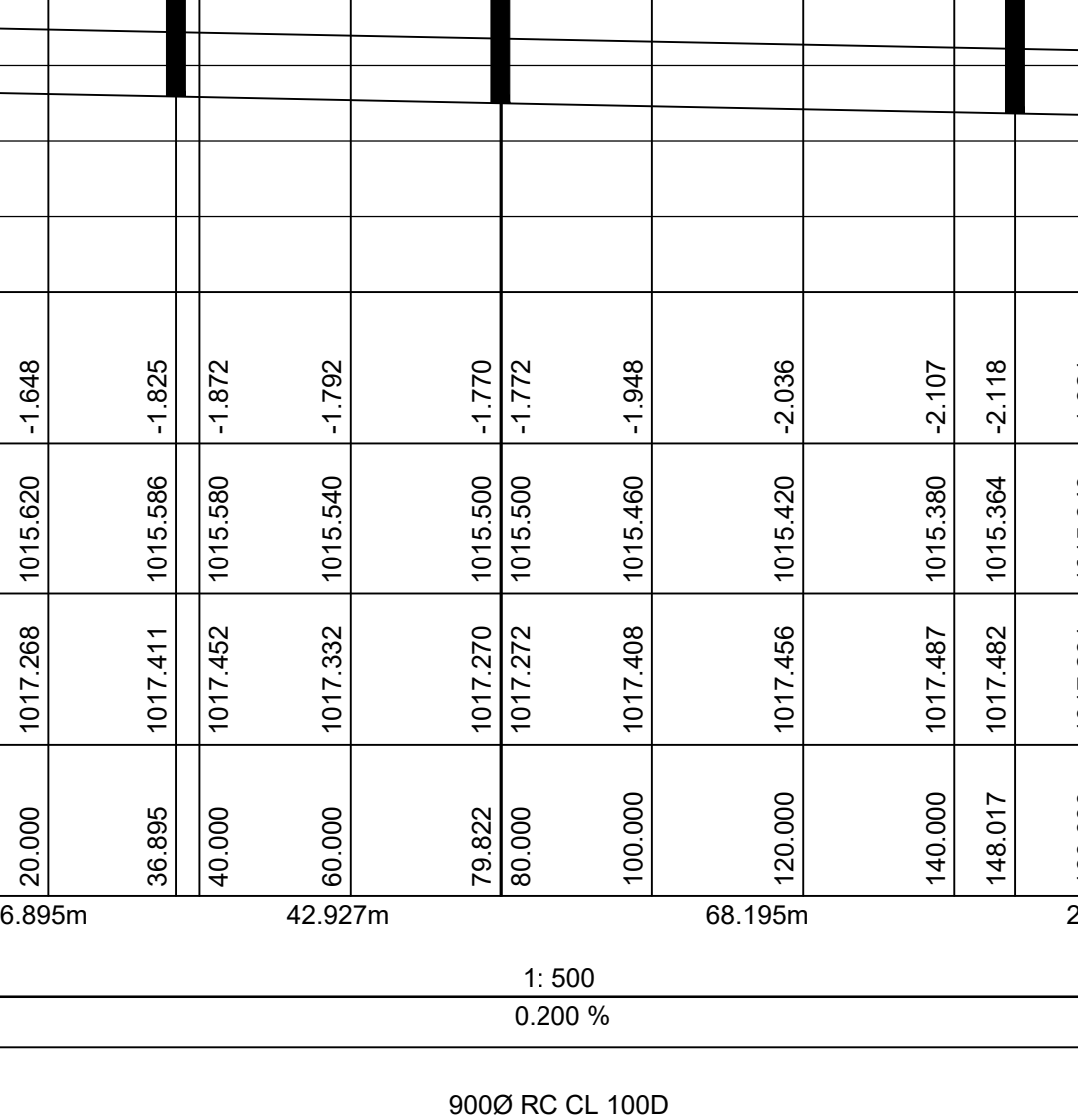
SCALE 1:25

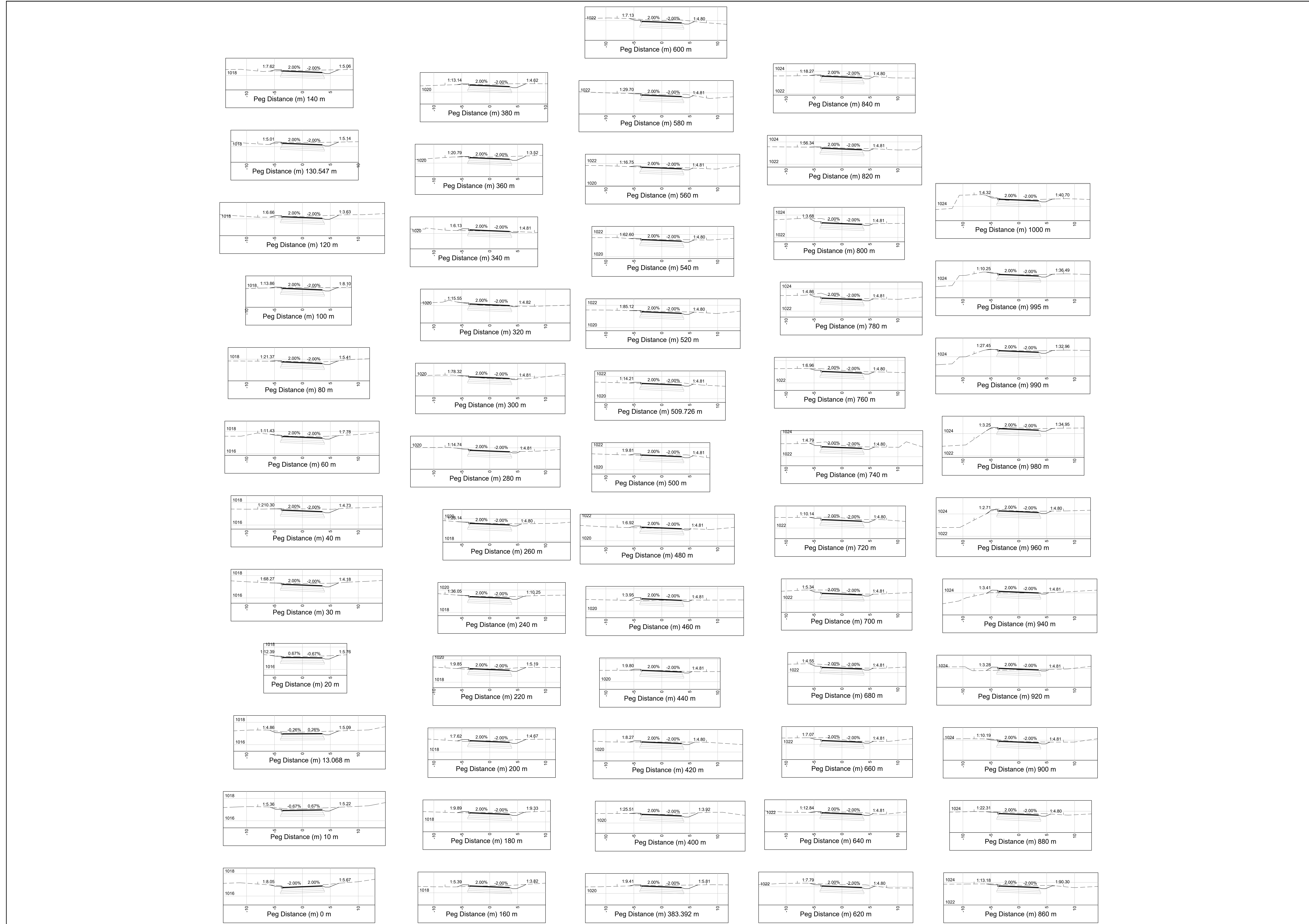
PIPE
NGL

SCALES:
Horizontal 1:1000
Vertical 1:100

Datum : 1013m

DEPTH TO INVERTS
INVERT LEVEL
GROUND LEVEL
CHAINAGE (m)
PIPE GRADES
PIPE DETAILS
HYDRAULICS

				
FI01	MH01A	MH01	MH02	OUTLET
0.000	1017.860	1015.660	-1.400	
20.000	1017.288	1015.620	-1.648	
36.895m	1017.411	1015.586	-1.825	
40.000	1017.452	1015.530	-1.872	
80.000	1017.332	1015.540	-1.792	
79.822	1017.270	1015.500	-1.770	
80.000	1017.272	1015.500	-1.772	
100.000	1017.408	1015.460	-1.948	
68.195m	1017.456	1015.420	-2.036	
140.000	1017.487	1015.380	-2.107	
148.617	1017.482	1015.364	-2.118	
160.000	1017.261	1015.340	-1.921	
175.275	1016.987	1015.309	-1.688	
350.10	350.22	350.40	350.47	
1.30	1.30	1.30	1.30	
768.57	768.57	768.57	768.57	
1.52	1.52	1.52	1.52	



NOTES AND SPECIFICATIONS

LEGEND

PROPOSED:	EXISTING:
FENCELINE	SWR-LINE
SEWERLINE	POWERLINE
POWERLINE	LP
LIGHT POLE	TP
TELEPHONE POLE	VM
WATER METER	SWR-MH
SEWER MANHOLE	EP
ELECTRIC POLE	EB
ELECTRIC BOX	RS
SIGNBOARD	KS
BENCHMARK	



LEGEND

PROPOSED:	EXISTING:
JB	JB
KI	KI
MH#	MH
WINGWALL OUTLET	
PROPOSED EARTH POND	
PROPOSED CONCRETE CHANNEL	

TENDER DRAWING

AMENDMENTS				
NR.	DATE	APPROVED	DESCRIPTION	PAR.

CONSULTANTS DETAILS

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DRAWING CHECKED BY: L. NGCOBO

DRAWN: M. NKOSI

CIVIL DRAUGHTING SERVICES: T. M. NGCOBO

DRAWING APPROVED BY: PM. MANAGER

LOCATION OF PROJECT: MPUMALANGA: LEFISWANE

DESCRIPTION OF PROJECT: CONSTRUCTION OF RADJOKO BUS AND TAXI ROUTE PHASE 3: ROAD CROSS SECTION

CONTRACT NO.: JSM/PPSP/R01/24-27/W00

PROJECT No.: 0148

SCALE: 1:1000

DATE: MAY 2024

PROJECT ENGINEER: [Signature]

INSPECTOR OF WORKS: [Signature]

REMARKS: [Text]

DRAWING NO.: 0148 - 03X01

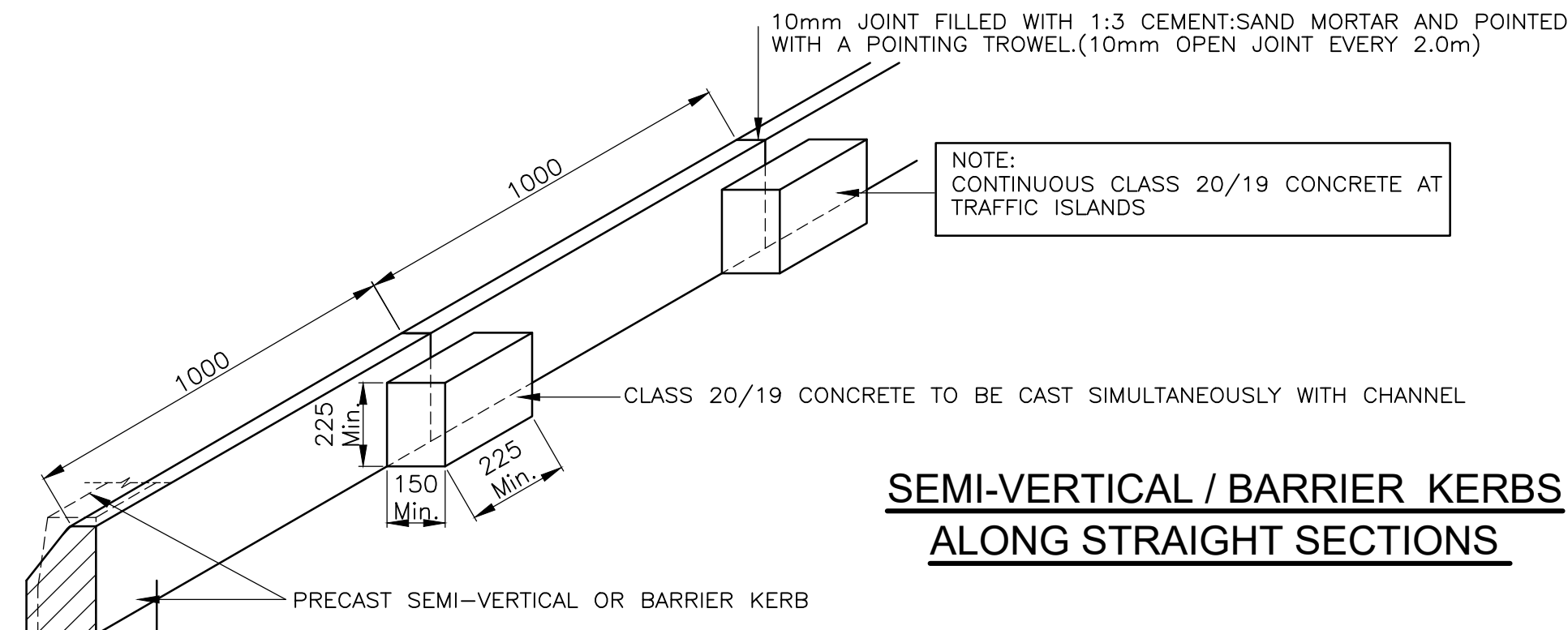
SHEET NO.: 10F1

APPROVAL FOR CONSTRUCTION: [Signature]

DATE: [Text]

ORIGINAL PAPER SIZE: A0

AS-BUILT DRAWING: [Signature]



NOTES

1. KERBS - GENERAL
 - 1.1 Refer to Table A for the usage of kerbs
 - 1.2 The 20mm lip on all kerbs is applicable to all paved roads except where block or concrete paving is used.
 - 1.3 Also refer to Section 503 of the Standard Specifications for Municipal Civil Engineering Works, 3rd Edition, 2005.
2. CAST IN-SITU CONCRETE
 - 2.1 Concrete to be class 20/19.
 - 2.2 Concrete to be cured for a minimum period of 7 days.
 - 2.3 All concrete to be used for sloping kerbs or edge beams shall have a slump not greater than 60mm.
 - 2.4 Where there is a difference between the top of the subbase and the bottom of the cast in situ kerbs of less than 75mm, such difference shall be made up with the same concrete as specified for the kerb, otherwise compacted subbase material shall be used.
 - 2.5 The use of a machine to place cast in-situ kerbs must first be approved by the Engineer.
3. PRECAST KERBS
 - 3.1 All precast kerbs shall comply with the requirements of SANS 927.
 - 3.2 The bedding material on which precast kerbing is constructed shall be according to the Standard Specification for Municipal Civil Engineering Works, 3rd Edition, 2005.

TENDER DRAWING

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CIVIL DRAUGHTING SERVICES	
M. NKOSI	
SIGNATURE: _____	DATE: _____
APPROVED BY TECHNICAL DEPARTMENT	

LOCATION OF PROJECT:

MPUMALANGA: LEFISWANE

DESCRIPTION OF PROJECT

CONSTRUCTION OF RADIJOKO BUS AND TAXI ROUTE PHASE 3 KERBING DETAILS: SLOPING KERB, SEMI-VERTICAL KERBS AND EDGE BEAM

CONTRACT No. :
JSM/PSP/R01/24-27/W00

PROJECT No. :	0148-P
---------------	--------

SCALE
N.T.S

DATE :	JUNE-2024
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SHEET LAYOUT

PROJECT STATUS






CONCEPT
DRAWING
 TENDER
DRAWING
 APPROVED FOR
CONSTRUCTION
 ASBUILT
DRAWING

	DRAWING
PROJECT ENGINEER:	

INITIALS AND SURNAME	SIGNATURE & PR NUMBER	DATE
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INSPECTOR OF WORKS: _____

SIGNATURE DATE

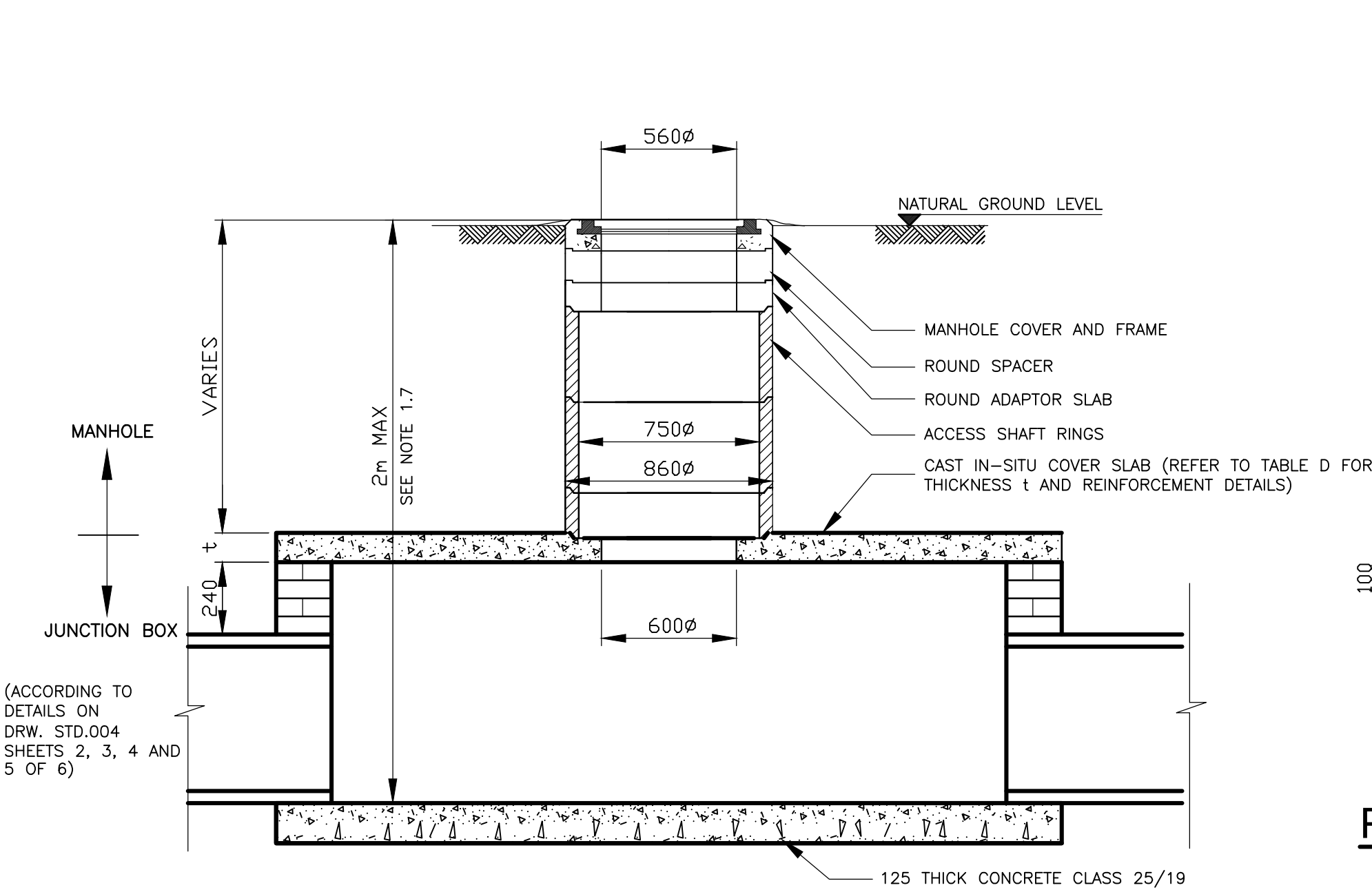
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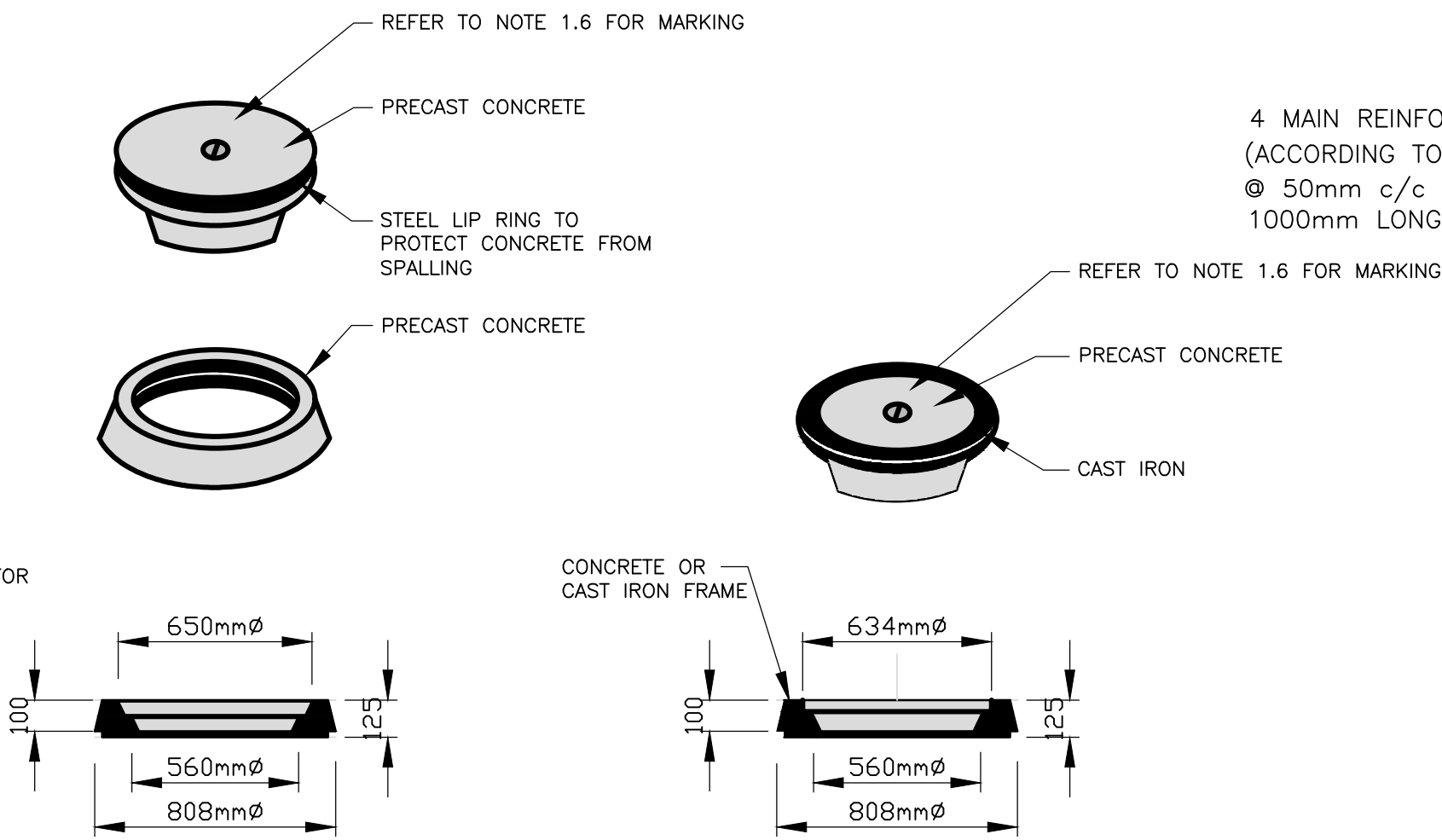


TYPICAL CROSS SECTION THROUGH JUNCTION BOX
AND MANHOLE



MANHOLE WITH PRECAST SHAFT (TYPE A)

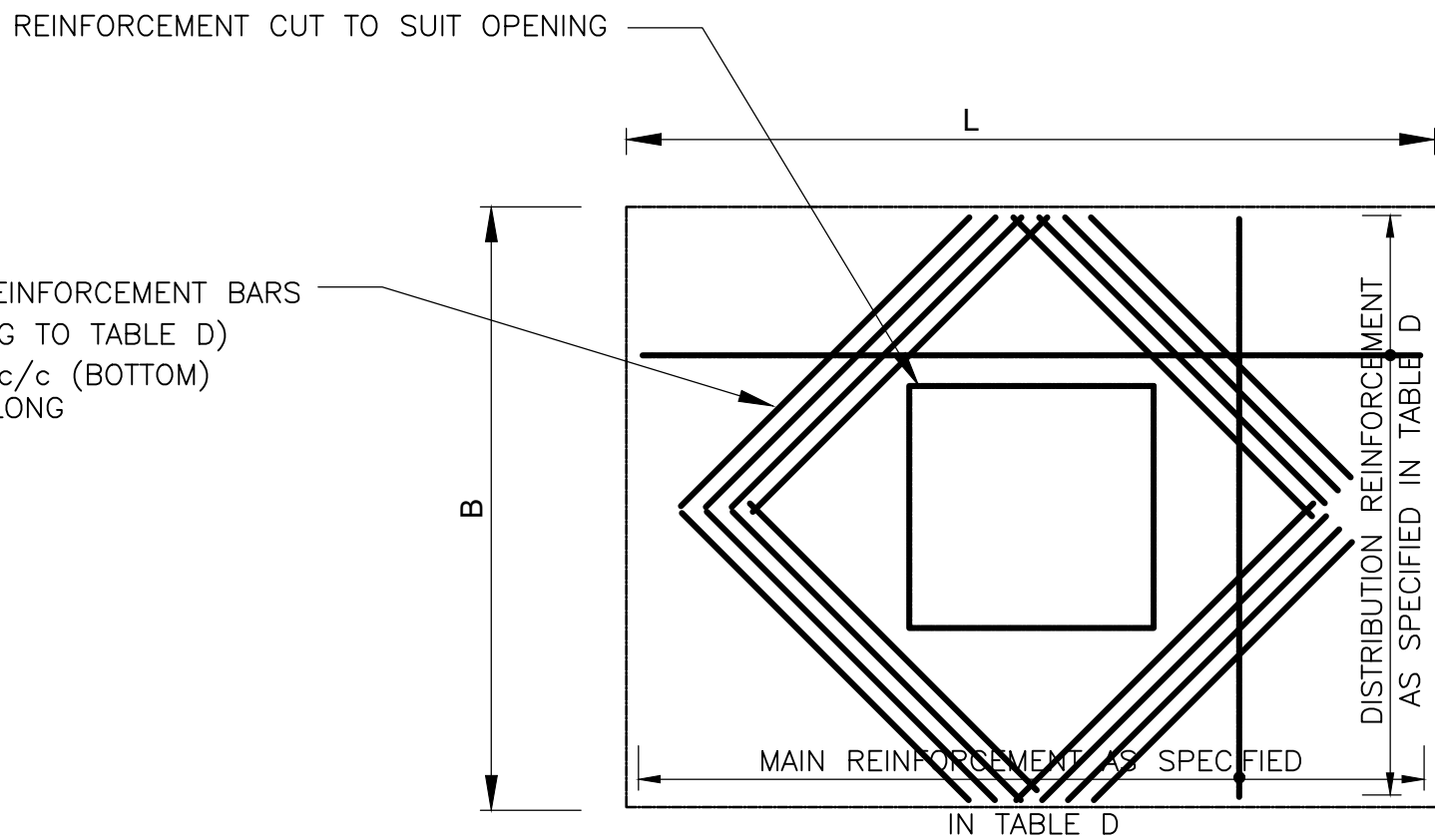
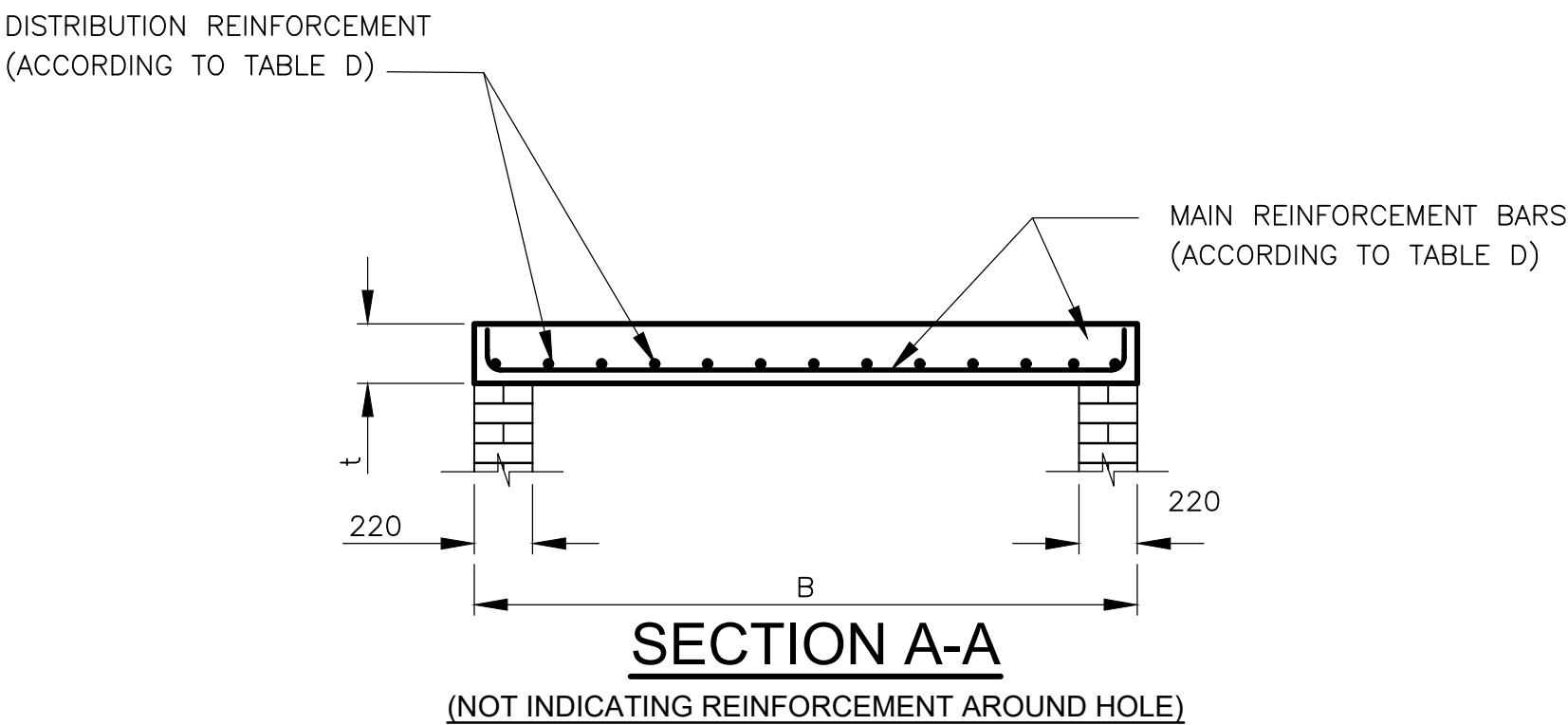
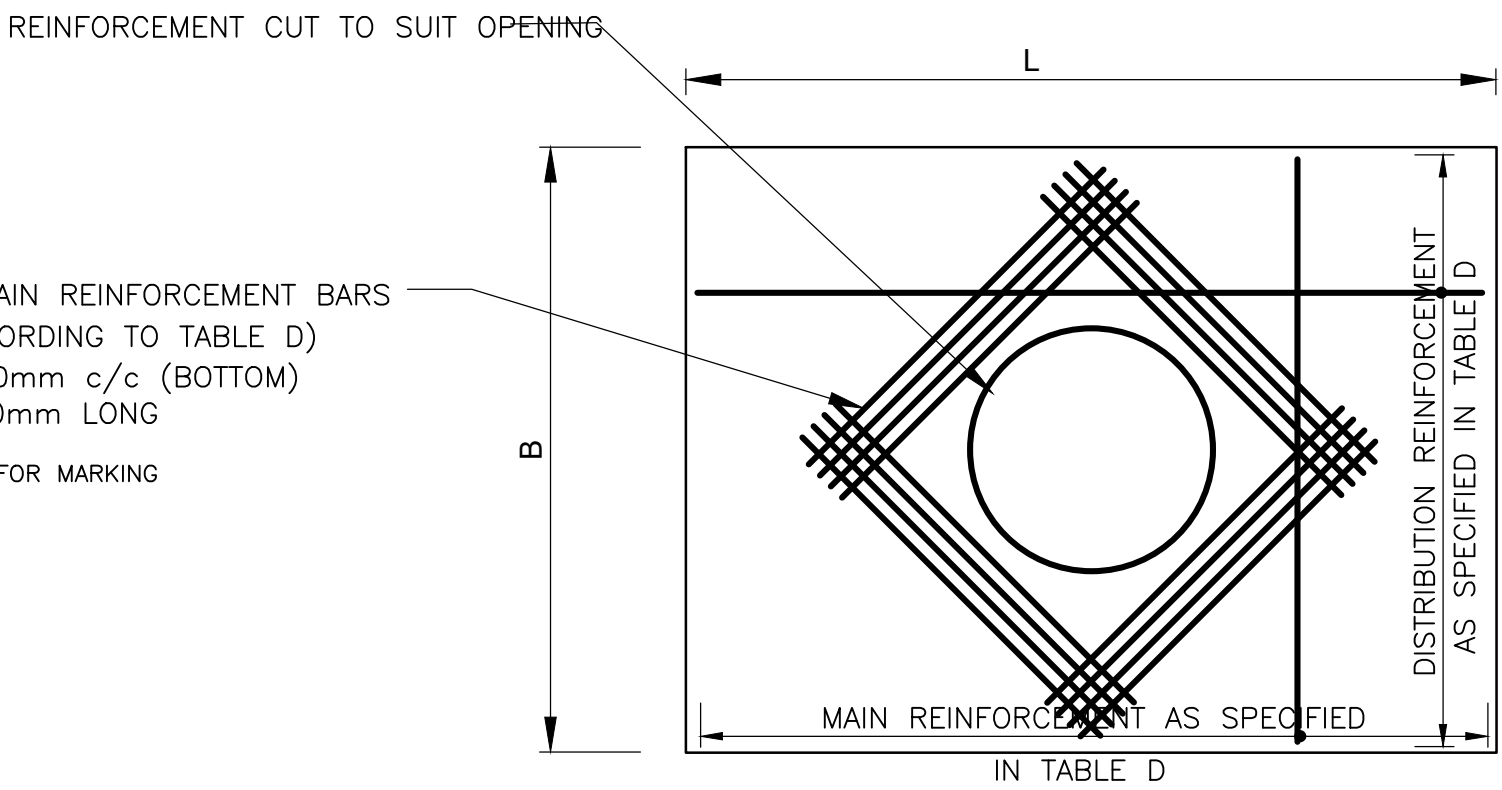
MANHOLE FRAME AND COVER



PRECAST CONCRETE
FRAME AND COVER

COMBINATION PRECAST
CONCRETE / CAST IRON
FRAME AND COVER
(SEE NOTE 1.5)

CAST INSITU COVER SLAB FOR CIRCULAR
SHAFT SECTION



CAST INSITU COVER SLAB FOR SQUARE
SHAFT SECTION

TABLE C: USE OF MANHOLES AT JUNCTION BOXES	
APPLICATION	TYPE OF COVER AND FRAME
At junction boxes falling underneath the carriage way.	SABS Type 4 Cast Iron Heavy duty
At least every 100m on long inaccessible stormwater lines.	SABS Type 4 Precast Concrete Medium duty
At junction boxes falling underneath block or concrete paving on the sidewalk.	SABS Type 4 Precast Concrete Medium duty
At junction boxes where the main stormwater line changes course	SABS Type 4 Precast Concrete Medium duty
At junction boxes indicated otherwise on the drawings or specified by the Engineer.	SABS Type 4 As specified

TABLE D: REINFORCEMENT DETAILS FOR CAST IN-SITU COVER SLABS (Note: B < L)		
Span (B) (mm)	Thickness (t) (mm)	Main Reinforcement
Up to 1500	175	Y12 - 120
Up to 2500	200	Y16 - 150
Up to 3000	225	Y16 - 150
> 3000	Design to be submitted	
Distribution reinforcement: Y12 bars @ 200 c/c		
Refer to notes for bending details.		

NOTES AND SPECIFICATIONS

GENERAL

- MANHOLE
 - All precast manhole sections shall comply with the relevant requirements of SANS 1294.
 - No step irons shall be required unless otherwise indicated on the drawings.
 - Dimensions of precast manhole sections are approximate and may vary slightly according to different manufacturer's specifications.
 - Position of manholes shall be directly above the PI of adjoining stormwater pipes.
 - The function of the combination precast concrete/cast iron manhole cover is to replace lost cast iron covers, unless otherwise specified.
 - All concrete manhole covers shall have the letters "SW" formed or engraved on top. Each letter shall be 50mm wide, 75mm high and 5mm thick.
 - Manhole covers and frames made of other materials, like polymer concrete, must comply with the relevant SANS-Specifications, be approved by the Engineer in writing and be installed according to the manufacturer's specifications.
 - Where the total depth of the junction box/manhole combination (invert level to finished ground level) exceeds 2,0m, a structural design must be submitted by a professional engineer.
 - All bricks shall comply with SANS 227 and shall be engineering units of class FBS (Face brick Standard) with a nominal compressive strenght of 12 MPa.
- CAST IN-SITU COVER SLABS
 - Measurement B is always smaller than L.
 - Concrete to be class 25/19.
 - Concrete to be cured for a minimum period of 7 days.
 - Minimum cover to reinforcement is 20mm.
 - Type, bar and spacing of reinforcement as specified in Table D.
 - Main reinforcement to be shape code 38, with hook length (A- dimension) not less than t minus 60, except for slabs with a span not exceeding 1000, where no hooks are required and shape code 20 is used.

TENDER DRAWING

SHEET LAYOUT

PROJECT STATUS

☐ CONCEPT DRAWING	☐ TENDER DRAWING	☒ APPROVED FOR CONSTRUCTION DRAWING	☐ ASBUILT DRAWING
PROJECT ENGINEER			
INITIALS AND SURNAME			
SIGNATURE & PR NUMBER			
DATE			
INSPECTOR OF WORKS:			
SIGNATURE			
DATE			
REMARKS:			
ORIGINAL PAPER SIZE:			
A1			
DRAWING NO:			
STD03			
SHEET NO:			
10F1			

AMENDMENTS				
NR.	DATE	APPROVED	DESCRIPTION	PAR.

CONSULTANTS DETAIL:

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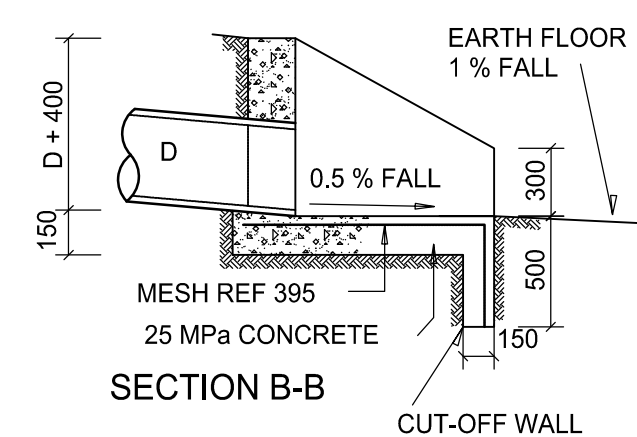
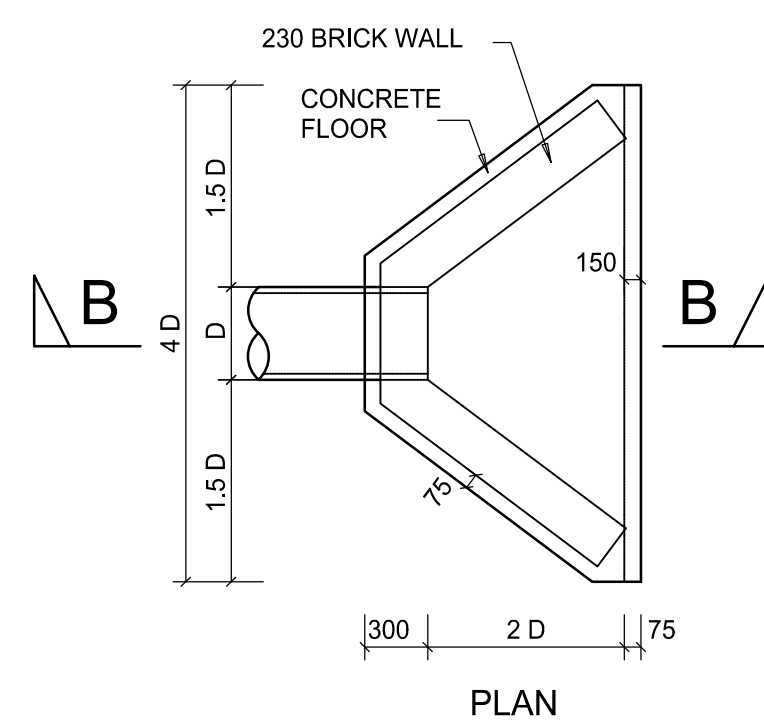


DESIGNED T. LETSOALO	DATE:
DRAWING CHECKED BY L. NGOBOBO	DATE:
DRAWN T. LETSOALO	DATE:
CIVIL DRAUGHTING SERVICES M. NKOSI	DATE:
APPROVED BY TECHNICAL DEPARTMENT	DATE:
SIGNATURE:	DATE:

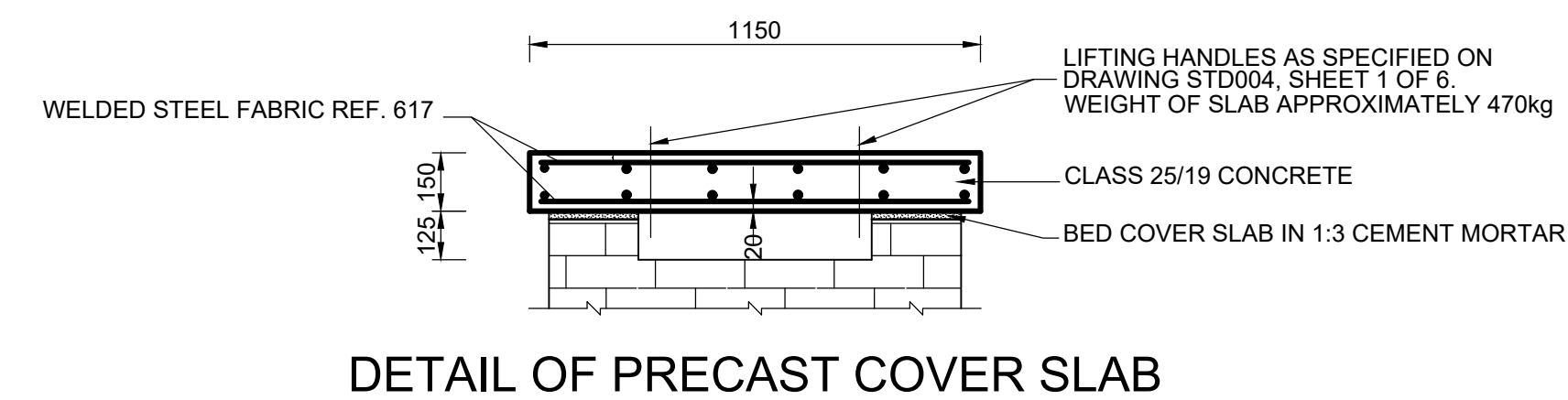
LOCATION OF PROJECT:			
MPUMALANGA: LEFISWANE			
DESCRIPTION OF PROJECT			
CONSTRUCTION OF RADIJOKO BUS AND TAXI ROUTE PHASE 3 JUNCTION BOX AND MANHOLE DETAILS MANHOLE			
CONTRACT No.:	PROJECT No.:	SCALE:	DATE:
JSM/PSP/R01/24-27/W00	0148-P	N.T.S	JUNE-2024

1. ONE LAYER OF MESH REEF 395 TO BE PLACED ON FLOOR AND CUT-OFF WALL AS SHOWN WITH 40mm COVER AND MIN. LAP LENGTH OF 350mm.
2. ALL CONCRETE INCLUDING PRECAST CONCRETE BLOCKS IN ENERGY DISSIPATING OUTLETS TO BE CHAMFERED 25 x 25 ON EXPOSED EDGES.
3. WITH WATER ABSORTION <14% AND EFFLORESCENCE <10.
4. ALL BRICKWORK TO BE IN ENGLISH BOND.
5. NO PLASTERING OF BRICKWORK WILL BE ALLOWED.

ALL BRICKS TO BE OF QUALITY FBSE30 TO SABS 227-1986



PLAN OF FIELD INLET (Without cover slab)



MARKS:		ORIGINAL PAPER SIZE:	
		A1	
DRAWING NO.		SHEET NO:	
STD04		1OF1	

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DIKGATO
Engineering Consultants

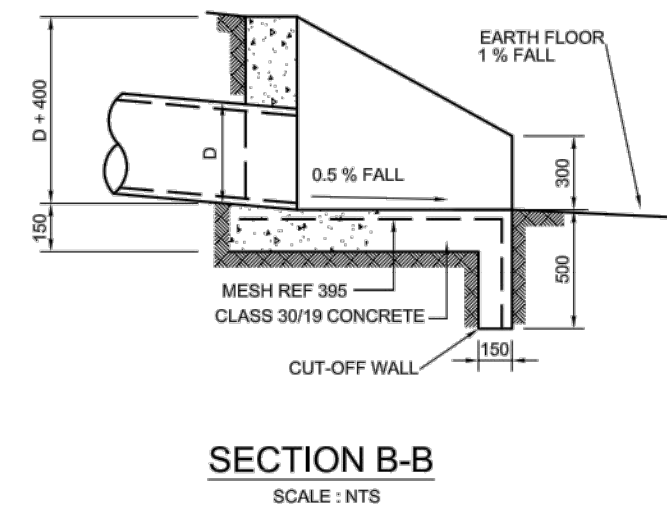
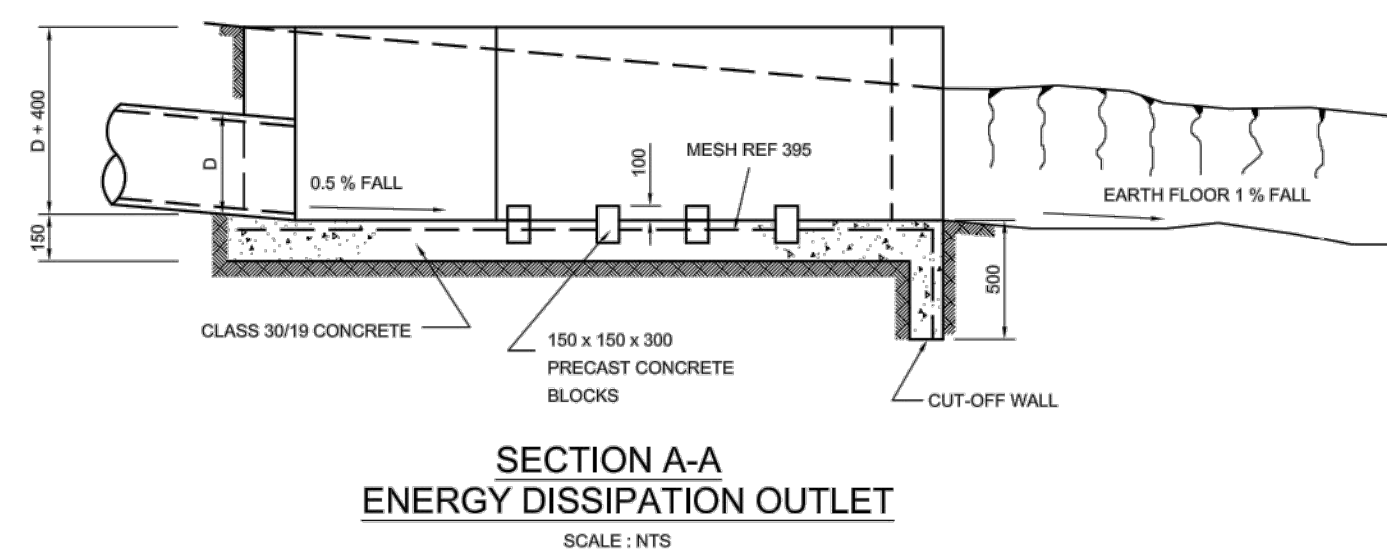
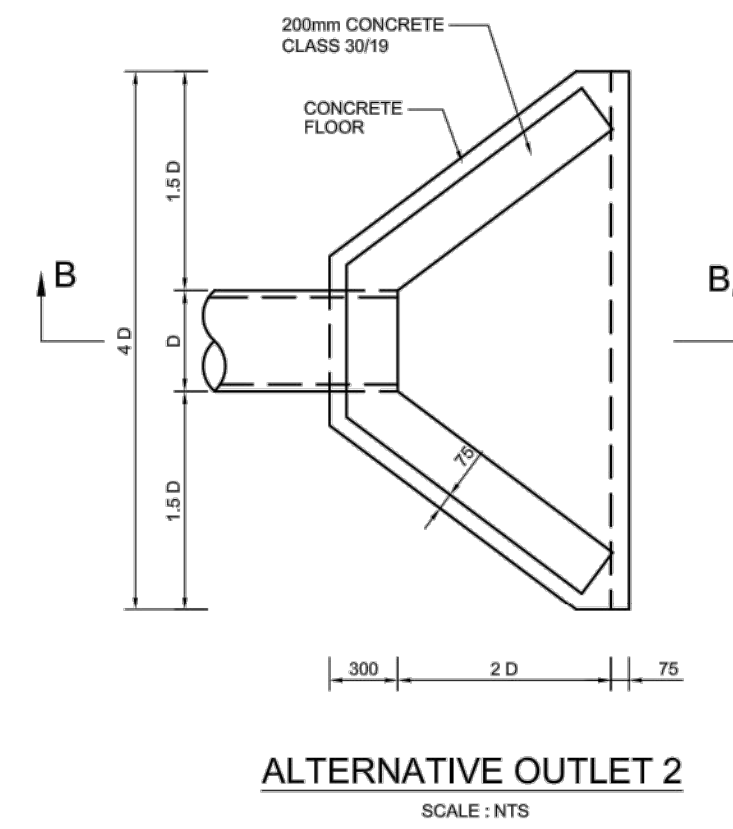
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T. LETSOALO	
SIGNATURE: _____	DATE: _____
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L. NGCOBO	
SIGNATURE: _____	DATE: _____
DRAWN	
T. LETSOALO	
CIVIL DRAUGHTING SERVICES	
M. NKOSI	
SIGNATURE: _____	DATE: _____
APPROVED BY TECHNICAL DEPARTMENT	
SIGNATURE: _____	DATE: _____

JUNE-2024

STD04

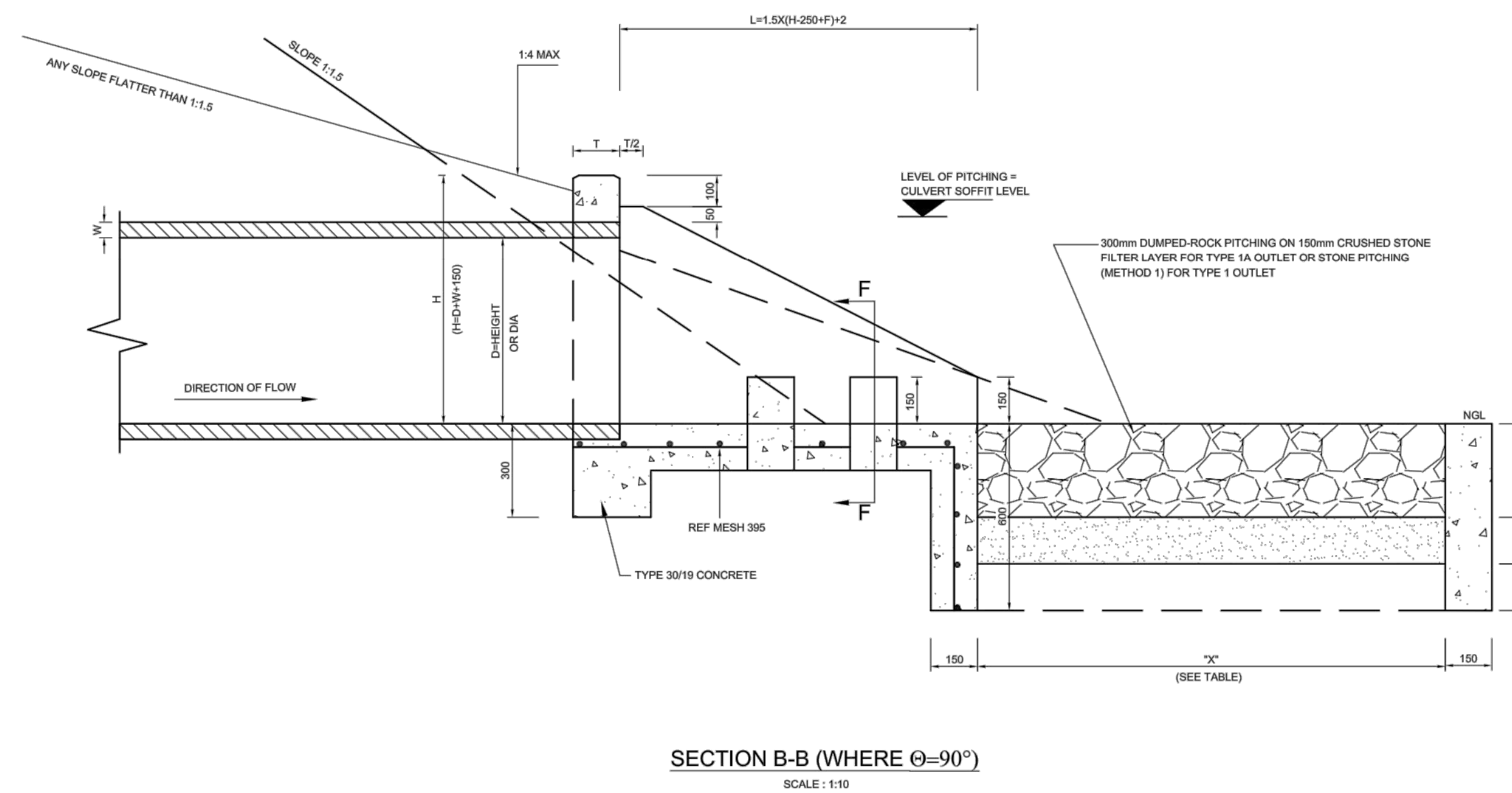
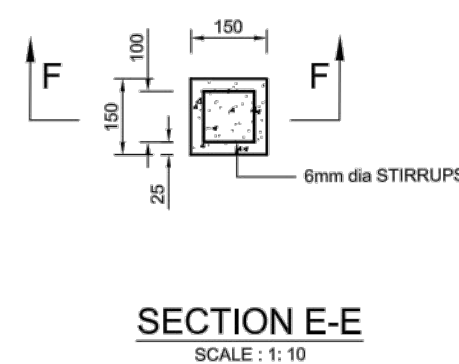
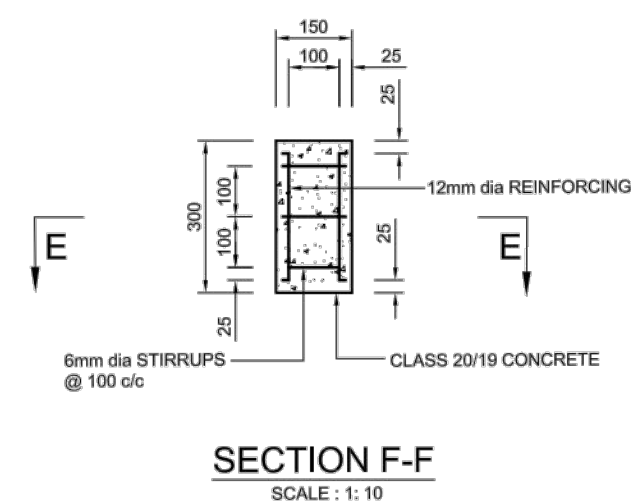
DF1





NOTE:

1. ONE LAYER OF MESH REF 395 TO BE PLACED ON FLOOR AND CUT-OFF WALL AS SHOWN WITH 25mm COVER AND MIN. LAP LENGTH OF 350mm.
2. PRECAST CONCRETE BLOCKS IN ENERGY DISSIPATING OUTLETS TO BE CHAMFERED ON EXPOSED EDGES.



LOCATION OF PROJECT:			
MPUMALANGA: LEFISWANE			
DESCRIPTION OF PROJECT			
CONSTRUCTION OF RADIJOKO BUS AND TAXI ROUTE PHASE 3 STORMWATER CULVERT OUTLET (TYPE 1 & 1A) & ALTERNATIVE OUTLETS (TYPE 1 & 2)			
CONTRACT No. :	PROJECT No. :	SCALE :	DATE :
JSM/PSP/R01/24-27/W00	0148-P	N.T.S	JUNE-2024

NOTES

1. **STORMWATER SIDE DRAIN**
- 1.1 MINIMUM LONGITUDINAL SECTION IS 0,67%
- 1.2 MAXIMUM LONGITUDINAL SLOPE SHOULD BE SUCH THAT FLOW VELOCITIES DO NOT EXCEED 3,5 m/s.
- 1.3 MAXIMUM DEPTH FOR TYPE 4 AND 5 SIDE DRAINS IS 500mm, OTHER TYPES AS INDICATED.
- 1.4 UNLINED SIDE DRAINS ARE ONLY PERMITTED WHERE THE FLOW VELOCITY IS LESS THAN 1,5 m/s FOR MINOR STORM (1:2 YEAR RECURRENCE INTERVAL).
- 1.5 IF NOT POSSIBLE TO LIMIT FLOW VELOCITIES IN SIDE DRAINS TO 3,5 m/s, OR AVAILABLE SPACE WITHIN THE ROAD RESERVE RESTRICT THE CONSTRUCTION OF THE REQUIRED SIZE TYPE 5 SIDE DRAIN, PIPES OR CULVERTS MUST BE INSTALLED.
- 1.6 SOFT BOARD FILLED JOINTS (10mm) TO BE PROVIDED AT MAX. 3m CENTRES.
- 1.7 THIS DRAWING ONLY INDICATES THE DETAIL OF SIDE DRAINS AND DOES NOT LIMIT THE USE OF PIPE OR BOX CULVERTS, IF SO REQUIRED BY THE DESIGN OR COST CONSIDERATIONS.
- 1.8 ALSO REFER TO SECTION 504 OF THE STANDARD SPECIFICATIONS FOR MUNICIPAL CIVIL ENGINEERING WORKS,3rd EDITION, 2005.

TENDER DRAWING

SHEET LAYOUT

PROJECT STATUS

☐ CONCEPT DRAWING	☐ TENDER DRAWING	☒ APPROVED FOR CONSTRUCTION DRAWING	☐ ASBUILT DRAWING
PROJECT ENGINEER			
INITIALS AND SURNAME		SIGNATURE & PR NUMBER	DATE
INSPECTOR OF WORKS:			
SIGNATURE		DATE	
REMARKS:		ORIGINAL PAPER SIZE:	
		A1	
DRAWING NO.	SHEET NO.	REVISION	
STD08	10F1		

TABLE 2	
SELECT PIPE DIAM. WITH LARGEST VALUE OF W ₁ OR W ₃	
Ø	
Ø°	450600750900105012001350
0	A A A A A A B B B B D B B D F D D F F F F F F H F F F H
15	A A A A A A B B B B D B B D F D D F F F F F F H F F F H
30	A A A A A A B B B B D B B D F D D F F F F F F H F F F H
45	A A A A A A B B B B D B B D F D D F F F F F F H F F F H
0	A A A A A A B B B B D B B D F D D F F F F F F H F F F H
15	A A A A A A B B B B D B B D F D D F F F F F F H F F F H
30	B B B B B B C C C C D C C D F D D F F F F F F H F F F H
45	B B B B B B C C C C D C C D F D D F F F F F F H F F F H
0	B B B B B B C C C C D C C D F D D F F F F F F H F F F H
15	B B B B B B C C C C D C C D F D D F F F F F F H F F F H
30	B B B B B B C C C C D C C D F D D F F F F F F H F F F H
45	D D D D D D D D D D E D D E F E F F F F F H F F F H
0	B B B B B B C C C C D C C D F E E F F F F F F H F F F H
15	B B B B B B C C C C D C C D F E E F F F F F F H F F F H
30	D D D D D D D D D D E D D E F E F F F F F F H F F F H
45	F F F F F F F F F F F F F F G F F G G G G G H G G G H
0	D D D D D D D D D D E D D E F E F F F F F F H F F F H
15	D D D D D D D D D D E D D E F E F F F F F F H F F F H
30	F F F F F F F F F F F F F F G F F G G G G G H G G G H
45	F F F F F F F F F F F F F F G F F G G G G G H G G G H
0	F F F F F F F F F F F F F F G F F G G G G G H G G G H
15	F F F F F F F F F F F F F F G F F G G G G G H G G G H
30	F F F F F F F F F F F F F F G F F G G G G G H G G G H
45	H I H H H I
0	F F F F F F F F F F F F F F G F F G G G G G H G G G H
15	F F F F F F F F F F F F F F G F F G G G G G H G G G H
30	F F F F F F F F F F F F F F G F F G G G G G H G G G H
45	H I H H H I

CHAMBER TYPE	INTERNAL CHAMBER SIZE
A	900 x 900
B	1200 x 900
C	1200 x 1200
D	1500 x 1200
E	1500 x 1500
F	2000 x 1500
G	2000 x 2000
H	2500 x 2000
I	2500 x 2500
J*	2000 x 1000

LEGEND:

Ø = NOMINAL DIAMETER OF PIPE
θ = SKEW ANGLE
W_x = PIPE ENTRY/EXIT WIDTH
O.D. = OUTSIDE DIAMETER

NOTES:

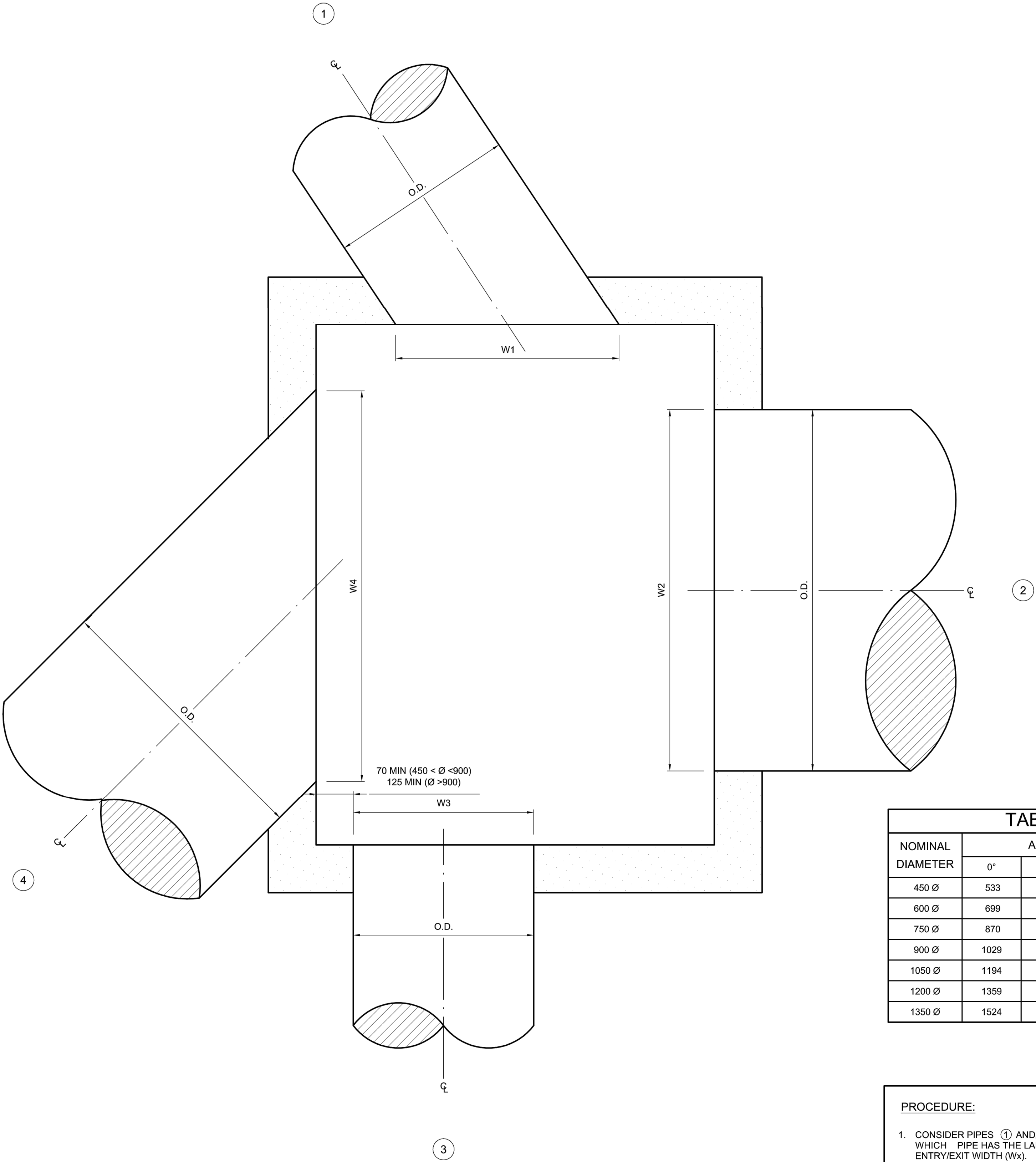
1. TABLE 1 IS CALCULATED USING CLASS 100 "D" PIPES.

2. TYPE J* CHAMBERS FOR USE AT MEDIAN CATCHPITS (INLET TYPE 3)

TABLE 1				
NOMINAL DIAMETER	ANGLE OF SKEW θ			
	0°	15°	30°	45°
450 Ø	533	552	615	754
600 Ø	699	724	807	989
750 Ø	870	901	1005	1230
900 Ø	1029	1065	1188	1455
1050 Ø	1194	1236	1379	1689
1200 Ø	1359	1407	1569	1922
1350 Ø	1524	1578	1760	2155

PROCEDURE:

- CONSIDER PIPES ① AND/OR ③ FROM TABLE 1, DETERMINE WHICH PIPE HAS THE LARGEST EXTERNAL PIPE ENTRY/EXIT WIDTH (W_x).
- REPEAT THE PROCEDURE FOR ② AND/ OR ④
- USING THE TWO PIPES WITH THE LARGEST EXTERNAL PIPE ENTRY/EXIT WIDTH READ FROM TABLE 2 THE SIZE OF THE CHAMBER REQUIRED.
- IN CASE EITHER PIPES ① AND ③ OR ② AND ④ DO NOT EXIST, SELECT THE CHAMBER TYPE FROM THE COLUMN OR ROW FOR A 450 Ø PIPE AT 0° SKEW FROM TABLE 2.
- SMALLER CHAMBERS THAN TYPE 'A' FOR USE AT MISCELLANEOUS INLET STRUCTURES MAY BE CONSIDERED.



VALUES OF EXTERNAL PIPE ENTRY/EXIT WIDTHS (W_x) FOR DIFFERENT PIPE DIAMETERS (Ø)

SCALE : NTS.

AMENDMENTS				
NR.	DATE	APPROVED	DESCRIPTION	PAR.

CONSULTANTS DETAIL:

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SIGNATURE:	
DRAWING CHECKED BY L. NGCOBO	DATE:
SIGNATURE:	
DRAWN M. NKOSI	DATE:
SIGNATURE:	
CIVIL DRAUGHTING SERVICES M. NKOSI	DATE:
SIGNATURE:	
APPROVED BY TECHNICAL DEPARTMENT MR. N. MATABESE	DATE:
SIGNATURE:	

LOCATION OF PROJECT:

MPUMALANGA: LEFISWANE

DESCRIPTION OF PROJECT

CONSTRUCTION OF RADIJOKO BUS AND TAXI ROUTE PHASE 3
MANHOLE DETAILS: TYPICAL DIMENSIONING

CONTRACT No.:

JSM/PSP/R01/24-27/W00

PROJECT No.:

0148-P

SCALE:

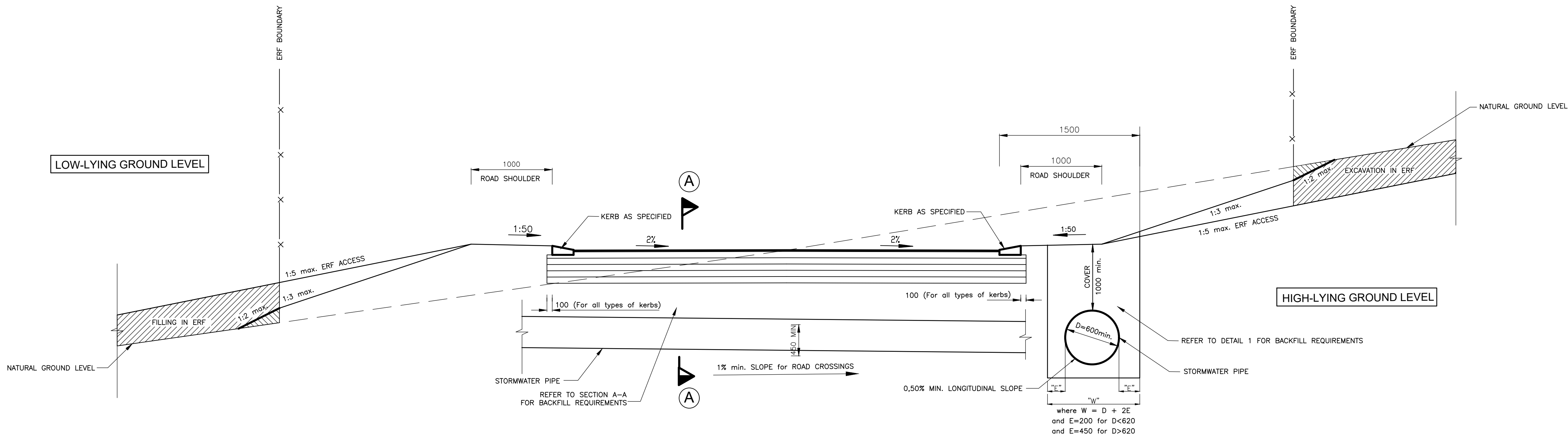
N.T.S

DATE:

JUNE-2024

NOTES

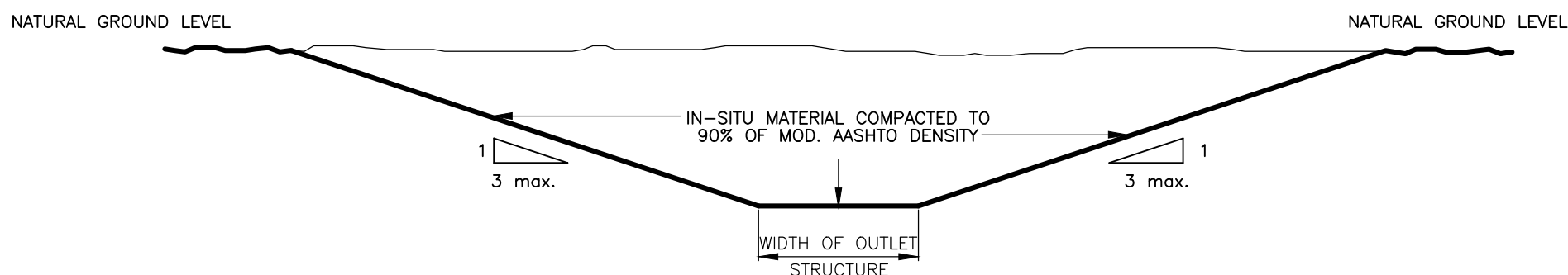
1. **STORMWATER**
- 1.1 ALL STORMWATER PIPES TO BE LAID SOFFIT TO SOFFIT.
- 1.2 MINIMUM PIPE DIAMETER IS 450mm.
- 1.3 MAXIMUM ANGLE BETWEEN ADJOINING PIPES IS 60%.
- 1.4 MINIMUM SLOPE FOR ROAD CROSSINGS IS 1% AND FOR OTHER PIPES 0,67%.
- 1.5 ALSO REFER TO SECTION 101, 104, 202, 502 AND 504 OF THE STANDARD SPECIFICATIONS FOR MUNICIPAL CIVIL ENGINEERING WORKS, 3rd EDITION, 2005
2. **ROADS.**
- 2.1 ALL MATERIALS FOR PAVEMENT LAYERS SHALL, UNLESS OTHERWISE SPECIFIED IN THE PROJECT SPECIFICATIONS, CONFORM TO THE REQUIREMENTS OF TRH 14.
- 2.2 ALSO REFER TO SECTION 101, 104, 203, 503 AND 601 TO 606 OF THE STANDARD SPECIFICATIONS FOR MUNICIPAL CIVIL ENGINEERING WORKS, 3rd EDITION, 2005.



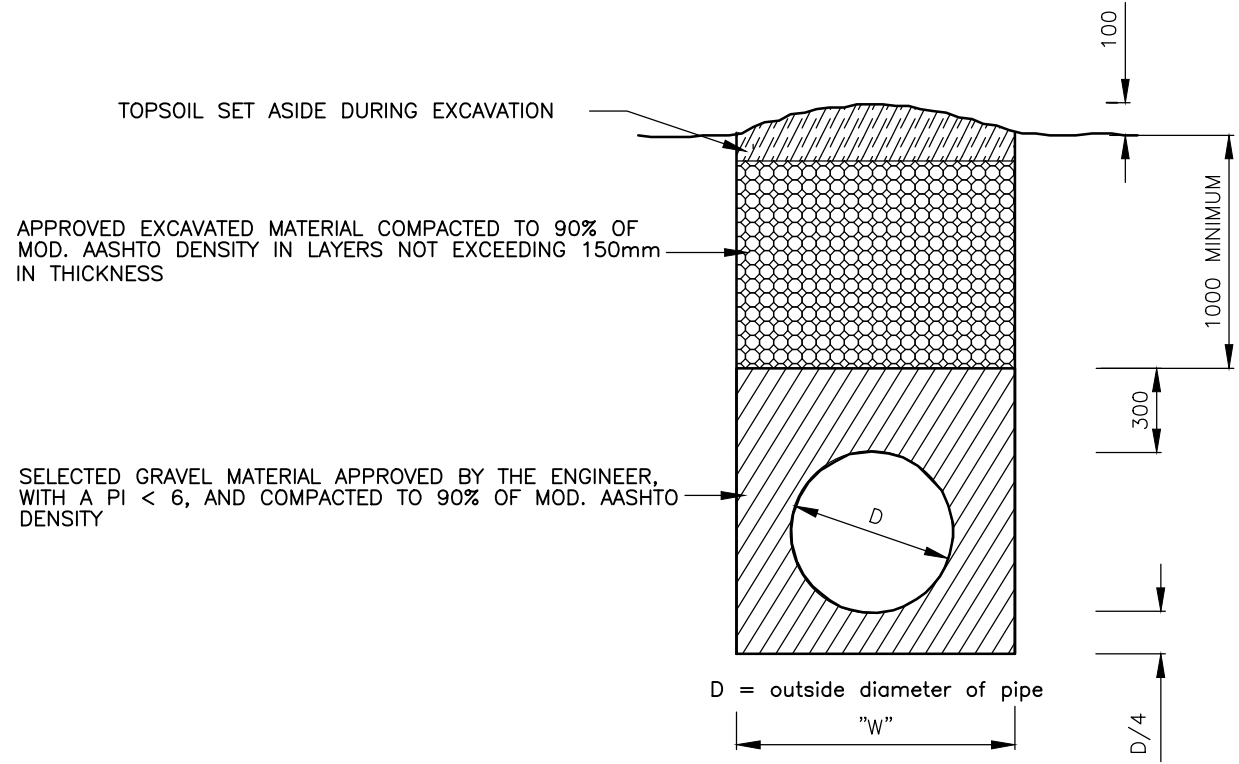
TYPICAL SECTION THROUGH ROAD RESERVE

EROSION PROTECTION MEASURES AS SPECIFIED BY THE ENGINEER. WHERE GRASS IS SPECIFIED, SCARIFY AND HYDROSEED WITH THE FOLLOWING MIX OF GRASS SEED UNLESS ANOTHER MIX HAS BEEN SPECIFIED.

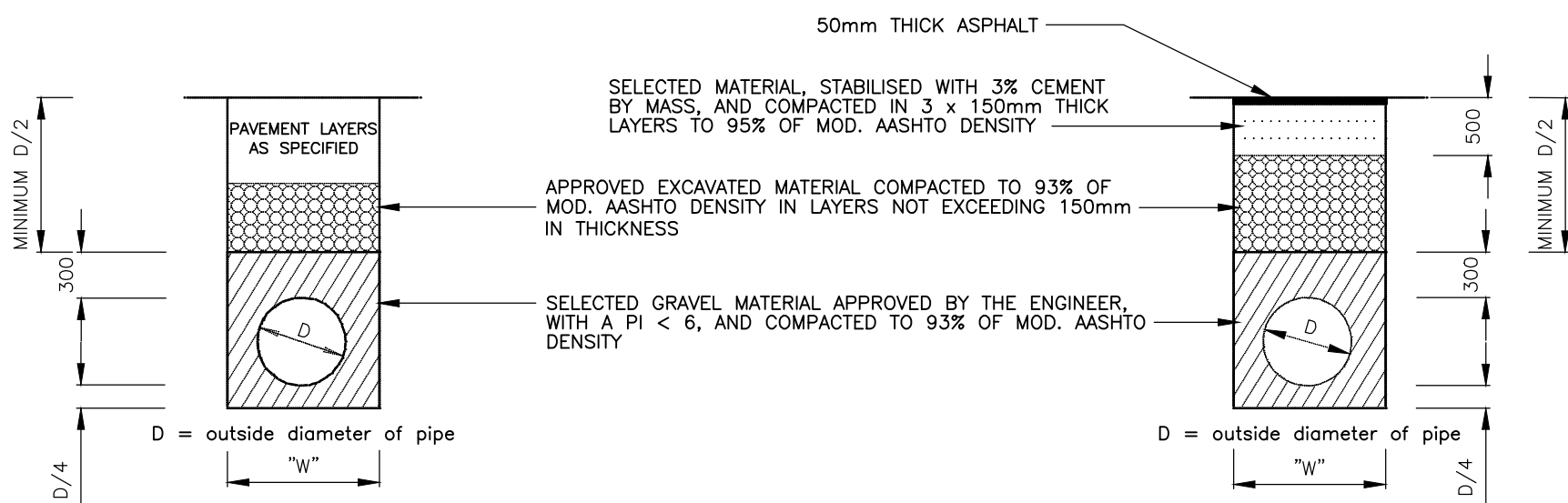
- CLORIS GYANA (10kg/ha)
- CYNODON DACTYLON (15kg/ha)
- ERAGROSTIS TEF (5kg/ha)



TYPICAL SECTION THROUGH STORMWATER FURROW AT OUTLET STRUCTURE



DETAIL 1
BACKFILL OF TRENCHES NOT IN ROADS



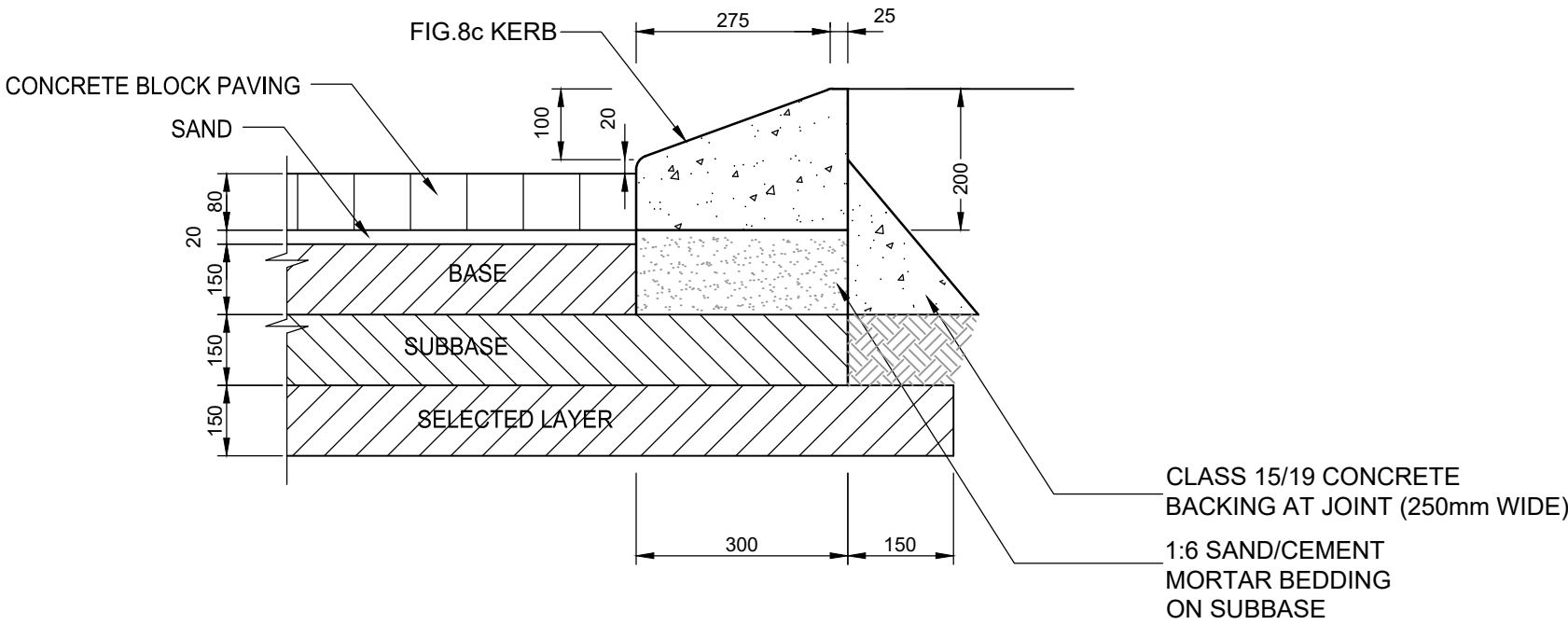
NEW ROAD CONSTRUCTION / EXISTING ROADS

EXISTING ROADS

SECTION A-A
BACKFILL OF TRENCHES WITHIN ROADS

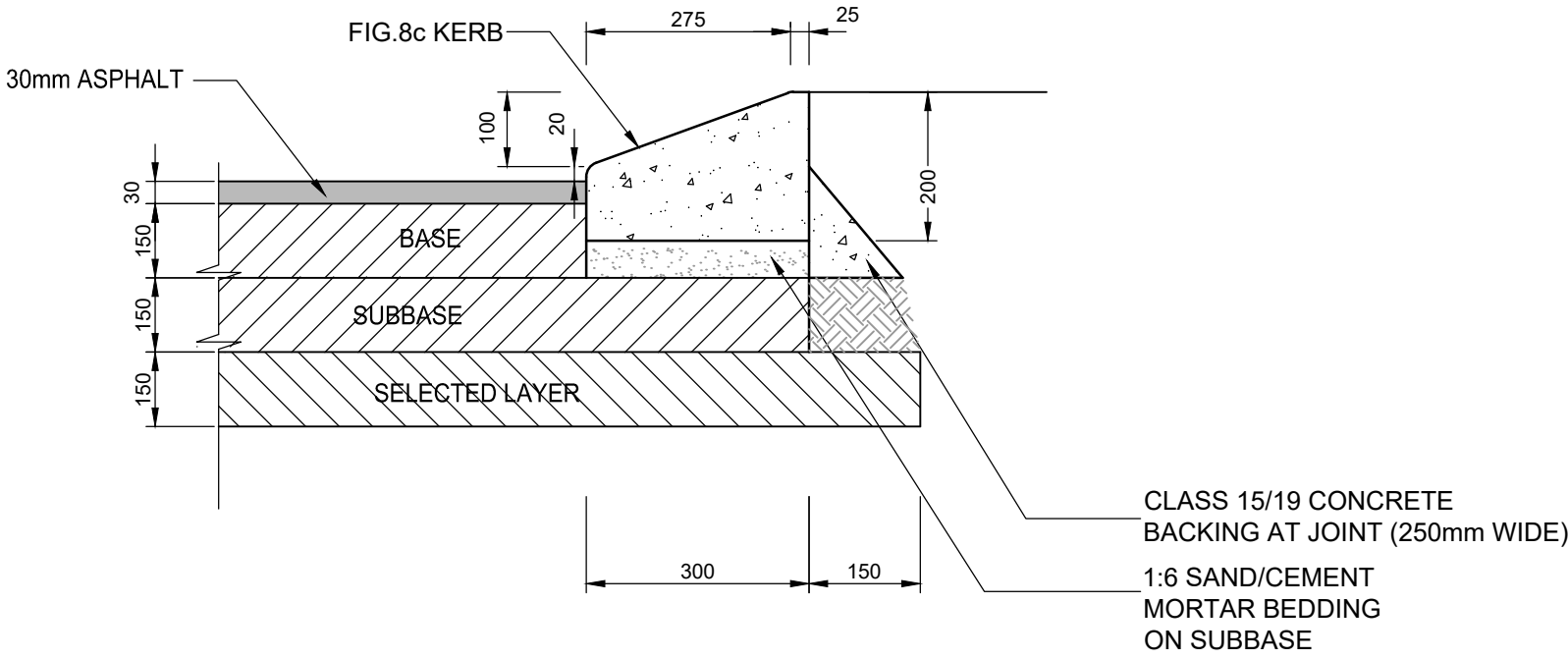
TENDER DRAWING

AMENDMENTS					CONSULTANTS DETAIL:		DR J.S MOROKA LOCAL MUNICIPALITY ROADS AND STORMWATER DIVISION		DESIGNED T. LETSOALO		LOCATION OF PROJECT: MPUMALANGA: LEFISWANE			
NR.	DATE	APPROVED	DESCRIPTION	PAR.	DIKGATO ENGINEERING CONSULTANTS 3 SKURWEBERG STREET NOORDWYK EXT.6 MIDRAND 1687		PRIVATE BAG X4012 SIYABUSWA 0472		DRAWING CHECKED BY T. LETSOALO		DESCRIPTION OF PROJECT CONSTRUCTION OF RADIJOKO BUS AND TAXI ROUTE PHASE 3 TYPICAL CROSS SECTIONS ROAD RESERVE, STORMWATER PIPELINE & FURROW			
					TEL : 011 318 1698 FAX : 011 318 1891 eMAIL: dikgatoc@dikgato.co.za		CIVIL DRAUGHTING SERVICES M. NKOSI		DRAWN T. LETSOALO		CONTRACT No.: JSM/PSP/R01/24-27/W00			
							APPROVED BY TECHNICAL DEPARTMENT		APPROVED FOR CONSTRUCTION DRAWING		PROJECT No.: 0148-P			
											SCALE: N.T.S			
											DATE: JUNE-2024			
											DRAWING NO: STD09			
											SHEET NO: 10F1			

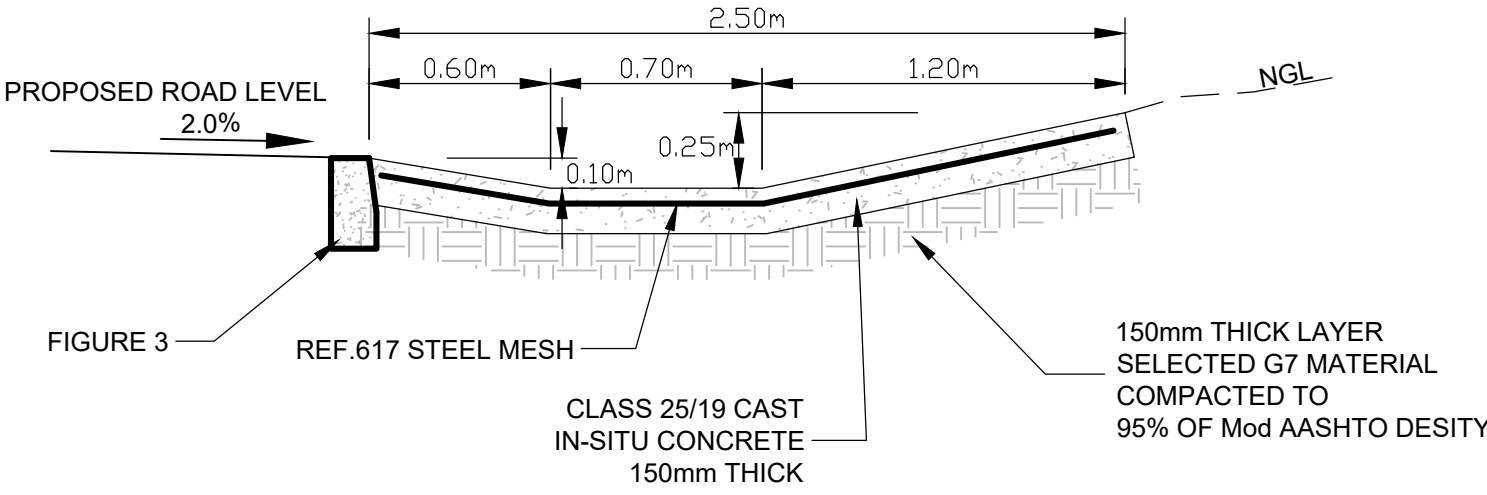


DETAIL B - FIG.8c MOUNTABLE KERB (BLOCK PAVING)
SCALE 1:10

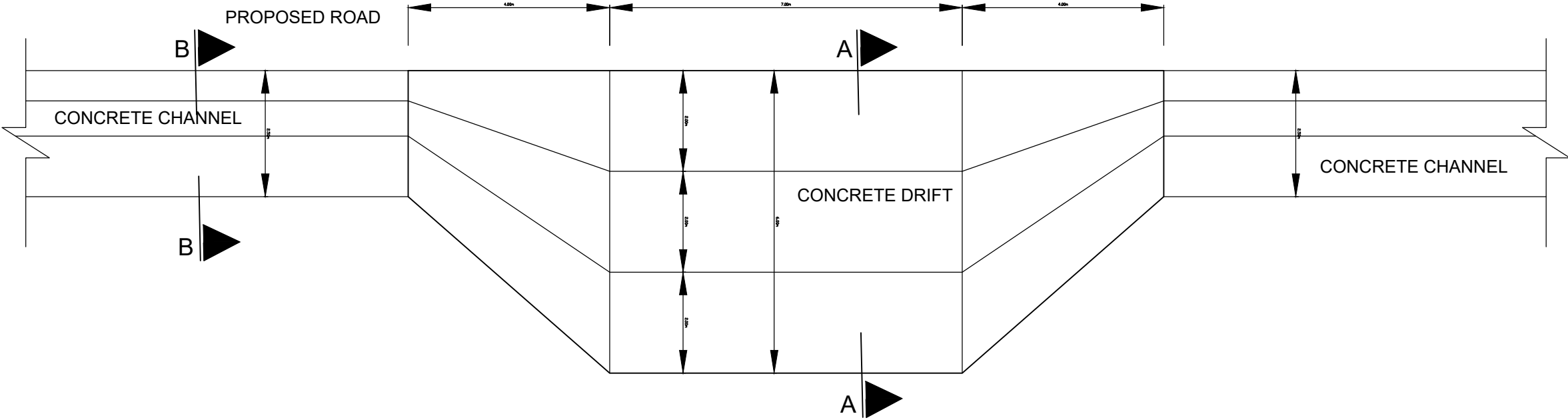
KERB DETAILS



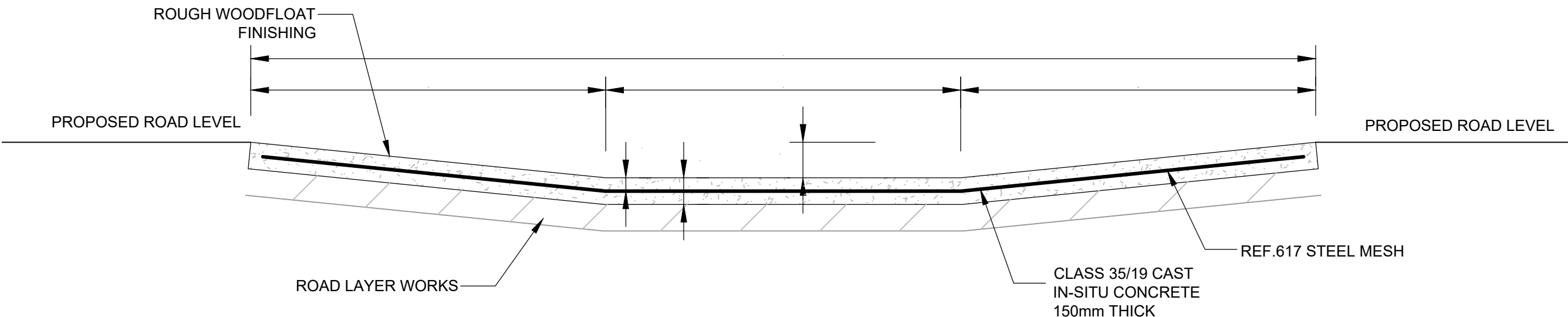
DETAIL B - FIG.8c MOUNTABLE KERB (ASPHALT)
SCALE 1:10



CONCRETE CHANNEL - 2500mm WIDE (SECTION B - B)
SCALE 1:25



CONCRETE STORMWATER DRIFT PLAN
SCALE 1:100



PROPOSED STORMWATER DRIFT SECTION A - A
SCALE 1:25

TENDER DRAWING

SHEET LAYOUT

PROJECT STATUS

☐ CONCEPT DRAWING	☐ TENDER DRAWING	☒ APPROVED FOR CONSTRUCTION DRAWING	☐ ASBUILT DRAWING
PROJECT ENGINEER			
INITIALS AND SURNAME		SIGNATURE & PR NUMBER	DATE
INSPECTOR OF WORKS:			
SIGNATURE		DATE	
REMARKS:		ORIGINAL PAPER SIZE:	
DRAWING NO. STD13		SHEET NO. 10F1	

AMENDMENTS				
NR.	DATE	APPROVED	DESCRIPTION	PAR.

CONSULTANTS DETAIL:

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3 SKURWEBERG STREET
NOORDWYK EXT.6
MIDRAND
1687

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DR J.S MOROKA LOCAL MUNICIPALITY
ROADS AND STORMWATER DIVISION

PRIVATE BAG X4012
SIYABUSWA
0472

TEL: (013) 973 9126
FAX: (013) 973 9132

DESIGNED T. LETSOLALO	DATE: _____
DRAWING CHECKED BY L. NGCOBO	DATE: _____
DRAWN M. NKOSI	DATE: _____
CIVIL DRAUGHTING SERVICES M. NKOSI	DATE: _____
APPROVED BY TECHNICAL DEPARTMENT	DATE: _____
SIGNATURE: _____	DATE: _____

LOCATION OF PROJECT: MPUMALANGA: LEFISWANE			
DESCRIPTION OF PROJECT CONSTRUCTION OF RADIJOKO BUS AND TAXI ROUTE PHASE 3 KERB, CHANNEL & DRIFT DETAILS			
CONTRACT No.: JSM/PSP/R01/24-27/W00	PROJECT No.: 0148-P	SCALE: N.T.S	DATE: JUNE-2024