






POLOKWANE MUNICIPALITY

DIRECTORATE: ENGINEERING SERVICES

PROJECT DESCRIPTION: TARRING NTSIME TO SEFATENG (PHASE 2)

BID NUMBER: PM41/2017

CIDB GRADING: 6CE OR HIGHER

Polokwane Municipality Supply Chain Management Division Contact: Mr. Kwen Mashiane Tel: (015) 290 2148 Email: kwenama@polokwane.gov.za	Polokwane Municipality SBU Manager: Roads and Stormwater Contact: Mr. Pilot Ramothwala Tel: (015) 290 2204 Email: pilotr@polokwane.gov.za	Consultants Dikgato Engineering Consultants Contact: Mr. T. Letsoalo Tel: (015) 288 1688 Email: dikgatoc@dikgato.co.za	
Name of Bidder:			
Bid Amount (VAT Inclusive):			
BBBEE status:			
Bidder Address:			
Central Supplier Database (CSD):			
Email Address:			
Contact numbers:	Cell:	Tel:	Fax:
Closing Date and Time:	09 August 2017 at 10h00		
 Municipal Infrastructure Grant		  EXPANDED PUBLIC WORKS PROGRAMME Creating opportunities towards human fulfilment	



T1.1 TENDER NOTICE AND INVITATION TO TENDER

BID NUMBER: PM41/2017: TARRING NTSIME TO SEFATENG (PHASE 2)

DIRECTORATE: ENGINEERING SERVICES

BUSINESS UNIT: ROADS & STORMWATER

Bids are hereby invited for Tarring Ntsime to Sefateng (Phase 2) in Polokwane Municipality

Tender No.	CIDB grade	Description of Service	Minimum Work Opportunities to created	Closing Date
PM41/2017	6CE OR HIGHER	Tarring Ntsime to Sefateng (Phase 2)	23	09 Aug 2017

Bids documents containing the Conditions of Bid and other requirements in terms of the Supply Chain Management Policy will be downloaded from e-tender Publication Portal at www.etenders.gov.za at no fee.

An official and compulsory site inspection will be held on Tuesday, 19 July 2017 at 10h00. Bidders are requested to meet at the New Peter Mokaba Stadium Complex, Executive Lounge 1st Floor, Polokwane Municipality.

The Council also reserves the right to negotiate further conditions and requirements with the successful bidder.

Complete Bid document, fully priced and signed must be sealed in an envelope marked "Bid number" PM41/2017" Tarring Ntsime to Sefateng (Phase 2)" Closing date Tuesday 09 August 2017 at 10:00 and should be deposited in the tender box at the Polokwane Municipality, Civic Centre, Crn Landdros Mare and Bodenstein streets, Polokwane City, not later than 10:00 on Tuesday 09 August 2017. The Bid box is generally open 24 hours, 7 days a week. Bidders should ensure that bids are delivered timeously to the correct address.

If the bid is late, it will not be accepted for consideration.

THIS BID IS SUBJECT TO THE, PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATION, 2011, AND THE GENERAL CONDITIONS OF CONTRACT FOR CONSTRUCTION WORKS (Second Edition) (2010).

The Municipality shall adjudicate and award bids in accordance with B-BBEE status level of contribution on 80/20 point system, 80 points for the price and 20 points for contribution. Prospective bidders must accept that the bid will be adjudicated, according to the said legislation. Bids will remain **valid for 90 (ninety) days**.

N.B: NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE (as defined in Regulation 1 of the Local Government: Municipal supply chain Management Regulations)

Only bidders who are registered in the relevant contractor category in the Construction Industry Development Board Register of Contractors will be considered. This requirement will remain in force as long as it is a requirement of the CIDB: 6CE or higher.

With Joint Ventures, all companies, which are part of the joint venture, must be registered with the CIDB. The Joint Venture that meets the grading for the bid will be considered.

Enquiries related to this bid should be addressed to Mrs. K. Malubane at telephone number (015) 290 2241 or Mr. P. Ramothwala at (015) 290 2204 respectively.

**Mr. D H MAKUBE
MUNICIPAL MANAGER
CIVIC CENTRE
LANDDROS MARE STREET,
POLOKWANE**

POLOKWANE MUNICIPALITY

CONTENTS OF TENDER DOCUMENTATION

Volume 1: Tender requirements, Contract and Pricing Data		
Number	Heading	Colour
Part T1: Tendering procedures		
T1.1	Tender Notice and Invitation to Tender	White
T1.2	Tender Data	Pink
T1.3	Standard and Particular Conditions of Tender	Pink
Part T2: Returnable Documents		
T2.1	List of Returnable Documents	Yellow
T2.2	Returnable Schedules	Yellow
Part C1: Agreements and Contract Data		
C1.1	Form of Offer and Acceptance	White
C1.2	Contract Data	White
C1.3	Forms for Adjudicators Appointment	White
C1.4	Occupational Health and Safety Agreement	White
Part C2: Pricing data		
C2.1	Pricing Instructions	Yellow
C2.2	Bill of Quantities	Yellow
Part C3: Scope of Work		
C3.1	Description of the Works	Blue
C3.2	Engineering	Blue
C3.3	Procurement	Blue
C3.4	Construction	Blue
C3.4.1	Standard Specification	Blue
C3.4.2	Project Specification	Blue
C3.4.3	Variations and Additions to SABS 1200 Standardized Specifications for Civil Engineering Construction	Blue
C3.4.4	Project Specification: Additional Specification	Blue
C3.4.5	Particular Specifications – Civil and Building Work	Blue
C3.9	Management	Blue
Part C4: Site information		
C4	Site Information	Green

POLOKWANE MUNICIPALITY

T1.2 Tender Data

1. CONDITIONS OF TENDER

The conditions of tender are the Standard Conditions of Tender as contained in Annex F of the CIDB Standard for Uniformity in Construction Procurement (SFU) of May 2010, as published in Government Gazette No 33239, Board Notice 86 of 2010 of 28 May 2010. Those Standard Conditions of Tender remained the same as those published in the previous edition of the SFU as published in Government Gazette No 31823, Board Notice 12 of 2009 of 30 January 2009 - See www.cidb.org.za.

Each Tenderer shall obtain its own copy of the Standard Conditions of Tender.

The Standard Conditions of Tender make several references to the Tender Data for details that apply specifically to this tender. In the interpretation of any ambiguity or inconsistency between the Tender Data and the Standard Conditions of Tender, the Tender Data shall have precedence.

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

Clause number	Tender Data
<u>2. EMPLOYER</u> Cl. F1.1	<p>The "Employer" is "Polokwane Municipality"</p> <p>The Employer's domicilium citandi et executandi (permanent physical business address) is: Polokwane Municipality, Civic Centre, Landdros Mare Street, Polokwane</p> <p>The Employer's address for communication relating to this project is: PO Box 111, Polokwane, 0700</p>
<u>3. TENDER DOCUMENTS</u> Cl. F.1.2	<p>"The following documents form part of this tender:</p> <p>VOLUME 1</p> <p>Part T1 Tendering procedures</p> <p>T1.1 Tender notice and invitation to tender</p> <p>T1.2 Tender data</p> <p>T1.3 Standard and Particular conditions to tender</p> <p>Part T2 Returnable Documents</p> <p>T2.1 List of Returnable Documents</p> <p>T2.2 Returnable Schedules that will be incorporated into the Contract</p> <p>Part C1 Agreements and Contract Data</p> <p>C1.1 Form of offer and acceptance</p> <p>C1.2 Contract data</p> <p>C1.3 Form for Adjudicators Appointment</p> <p>C1.4 Agreement in terms of Occupational Health and Safety</p> <p>Part C2 Pricing Data</p> <p>C2.1 Pricing Instructions</p> <p>C2.2 Bill of Quantities</p>

Clause number	Tender Data														
	<p>Part C3 Scope of Work</p> <p>C3.1 Description of the Works</p> <p>C3.2 List of Drawings</p> <p>C3.3 Procurement</p> <p>C3.4 Construction</p> <p>C3.5 Variations and Additions to SABS 1200 Standardized Specifications</p> <p>C3.6 Particular Specifications</p> <p>C3.7 Health and Safety Specifications</p> <p>C3.8 Environmental Management during Construction</p> <p>C3.9 Management of the Works</p> <p>Part C4 Site information</p> <p>VOLUME 2</p> <p>Tender Drawings</p>														
<p>4. <u>EMPLOYER'S AGENT</u> Cl. F.1.4</p>	<p>The Employer's Agent's are:</p> <p>a) Principal Agent DIKGATO ENGINEERING CONSULTANTS (PTY) LTD</p> <table border="0"> <tr> <td>Physical Address:</td><td>Postal Address:</td></tr> <tr> <td>GAAL Airport Building</td><td>P.O Box 55131</td></tr> <tr> <td>Court No.1 Office No.3</td><td>Arcadia</td></tr> <tr> <td>POLOKWANE</td><td>0007</td></tr> <tr> <td>0699</td><td></td></tr> <tr> <td>Tel.: (015) 288 1688</td><td>Fax: (015) 288 1697</td></tr> <tr> <td>E-mail: dikgatoc@dikgato.co.za</td><td></td></tr> </table>	Physical Address:	Postal Address:	GAAL Airport Building	P.O Box 55131	Court No.1 Office No.3	Arcadia	POLOKWANE	0007	0699		Tel.: (015) 288 1688	Fax: (015) 288 1697	E-mail: dikgatoc@dikgato.co.za	
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E-mail: dikgatoc@dikgato.co.za															
<p>5. <u>TENDERER'S OBLIGATIONS</u></p>															
<p>5.1. <u>Eligibility</u> Cl. F.2.1</p>	<p><i>Only those tenderers who can demonstrate that they will have in their employ management and supervisory staff satisfying the requirement of the scope of work for labour-intensive competencies for supervisory and management staff during the validity of the contract are eligible to submit tenders</i></p> <p><i>Joint Ventures are eligible to submit bids provided that:</i></p> <ol style="list-style-type: none"> <i>1. each member of the joint venture is registered with the CIDB and valid copy/ies of registration of each member is submitted with this bid;</i> <i>2. the lead partner has a contractor grading designation in the 6CE class of construction work; and</i> <i>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 6CE class of construction work, are eligible to submit bids.</i> 														
<p>5.2. <u>F2.18</u></p>	<p><i>The tenderer must submit to the Employer, names of all management and</i></p>														

Clause number	Tender Data
	<i>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.</i>
5.3. <u>Site Visit and Clarification Meeting</u> Cl. F.2.7	<p>The arrangements for a compulsory pre-tender meeting are:</p> <p>Location: New Peter Mokaba Stadium Complex, Executive Lounge 1st Floor, Polokwane</p> <p>Date: 19 July 2017 at 10:00 after we proceed to site.</p>
5.4. <u>Insurance</u> Cl. F.2.9	<p>No insurance cover will be provided by the Employer.</p>
5.5. <u>Alternative Tender Offers</u> Cl. F. 2.12	<p>Unless anything to the contrary has been determined in the Contract Data, a Tenderer may, together with his tender for the original designs contained in the contract documents, submit alternative designs and tender offers for consideration. All designs, calculations, drawings and Operation and Maintenance manuals shall be fully endorsed by a third party registered engineer, accomplished in such specific field of practice and the cost thereof shall be borne solely by the Contractor. Such alternative designs and offers shall be subject to the following conditions and requirements:</p> <p>5.4.1. <u>Tenders</u></p> <p>An alternative offer or design will be considered only if the tender for the original items has been fully priced and completed. The alternative tender offer is to be submitted in the same envelope as the main tender offer, together with a schedule that compares the requirements of the tender documents with the alternative requirements the Tenderer proposes. No alternative tender will be considered unless a tender free from qualifications is also submitted.</p> <p>Unless the alternative offer stipulates to the contrary, it shall be assumed that the period for completion of the Works shall be the same as for the original design.</p> <p>Designs, calculations, drawings and a modified schedule of quantities (as determined hereafter) in respect of each alternative offer or design shall accompany the alternative tender offer and shall be endorsed fully by a third party registered engineer, accomplished in such specific field of practice.</p> <p>5.4.2. <u>Preliminary calculations</u></p> <p>Preliminary calculations for an alternative design shall be submitted with the tender. Such calculations shall give adequate details so as to enable an assessment to be made of the general efficacy of the design and of its principal elements, also of the degree to which the design prescriptions and codes of the Employer are being complied with. The calculations shall be clear and in a logical sequence and shall clearly reflect all the design</p>

Clause number	Tender Data
	<p>assumptions.</p> <p>5.4.3. <u>Preliminary drawings</u></p> <p>Preliminary drawings of the alternative designs shall also be submitted with the tender. These drawings shall comprise adequate layout plans, elevations and sections and shall clearly illustrate the general efficacy of the design and its principal elements.</p> <p>5.4.4. <u>Quantities</u></p> <p>Each alternative offer shall be accompanied by a modified priced schedule of quantities compiled in accordance with the specifications, in so far as it is applicable, which clearly shows the manner in which the price for the alternative offer has been determined and the items in the original schedule of quantities which fall away or are being changed. In addition to the schedule of quantities, a set of calculations shall be supplied to show how the quantities have been determined. All assumptions in regard to factors which will determine quantities shall be clearly and conspicuously marked by underlining or colouring, and shall indicate whether or not the assumptions have been based on information furnished in the Contract Data (with the necessary references).</p> <p>5.4.5. <u>Further details</u></p> <p>Should the Employer's Agent find that the calculations and drawings submitted for alternative designs are not complete enough for proper adjudication of the alternative designs, the Employer reserves to itself the right to call on the Tenderer to submit such further calculations and drawings as may be required. If such further details are not submitted within ten days of having been requested, the alternative designs will not be given further consideration.</p> <p>5.4.6. <u>Preliminary adjudication of alternative designs</u></p> <p>The Employer's Agent will undertake a preliminary scrutiny of any alternative designs for compliance with the specified requirements of the Employer. Should he find any mistakes or unsatisfactory aspects, he may afford the Bidder the opportunity to rectify them within a period to be determined by the Employer's Agent. However, it is emphasized that the preliminary scrutiny of the design and tender by the Employer's Agent, by its very nature, cannot be comprehensive, and no guarantee can be given in this regard that all the mistakes made by the Bidder will in fact be detected. Any correction of such mistakes shall be made with the tender price of the bidder being retained, and, wherever necessary, the priced schedule of quantities for the alternative design shall be adjusted accordingly.</p>

Clause number	Tender Data
	<p>5.4.7. <u>Acceptance of alternative design</u></p> <p>The Bidder shall note that the acceptance of a tender which includes alternative designs shall mean that the alternative designs have been approved in principle only. If the final calculations, drawings and details do not comply with the specified requirements, such alternative designs may be rejected, unless they are suitably amended by the Bidder so as to be acceptable to the Employer.</p> <p>5.4.8. <u>Final drawings and calculations and the priced schedule of quantities</u></p> <p>Where a tender with an alternative design has been accepted, the Contractor shall, not less than two months before he intends starting with the construction of such design, submit to the Employer's Agent a complete set of working drawings, detailed calculations and a complete schedule of quantities, for approval. The schedule of quantities shall be based on the preliminary schedule of quantities, but with the necessary adjustments in quantities and prices and with the tendered price for the alternative design being retained.</p> <p>Within three weeks of having received the above, the Employer's Agent will indicate which drawings, calculations, quantities, prices and other particulars are acceptable to him and which not, with reasons furnished. The Contractor shall then submit to the Employer's Agent in good time any modified drawings and other particulars for approval, for which he will require two weeks. Any delay arising from the fact that the amended particulars do not meet the requirements shall be the responsibility of the Contractor.</p> <p>No work which will be affected by an alternative design may be commenced, unless the drawings, schedule of quantities and prices for such alternative design have been approved. Should the Contractor fail to modify any drawings, calculations, quantities, prices or any other particulars to the satisfaction of the Employer's Agent, the alternative design will be rejected and the original design shall be constructed for the same amount as has been tendered for the alternative design.</p> <p>5.4.9. <u>Responsibility for alternative design</u></p> <p>The approval of a design by the Employer's Agent shall not in any way relieve the Bidder of his responsibility to produce a design which conforms in all respects to all the specified requirements and which will be suitable for the purpose envisaged.</p> <p>Should it appear later during construction or during the maintenance period that the design does not conform to the specified requirements, the Contractor only, shall be liable for any damage arising there from and he shall, at his own expense, do all the necessary work to ensure that the</p>

Clause number	Tender Data
	<p>Works conforms to all the specified requirements.</p> <p>5.4.10. <u>Indemnity</u></p> <p>Once the alternative design has been approved, the Contractor shall indemnify and hold harmless the Employer, its agents and assigns, against all claims howsoever arising out of the said design whether in contract or delict.</p>
<p>5.1. <u>Submitting a Tender Offer</u> Cl. F.2.13</p>	<p>5.5.1. <u>Whole of the Works</u> (Cl. F.2.13.1)</p> <p>Tenderers shall offer to provide for the whole of the Works identified.</p> <p>5.5.2. <u>Original tender documents</u> (Cl. F.2.13.3)</p> <p>The original tender document, issued to the Bidder, shall be submitted in its entirety. No copies are required.</p> <p>5.5.3. <u>Marking of Tender Submissions</u> (Cl. F.2.13.5)</p> <p>The complete tender documents shall be enclosed and sealed in a single envelope, marked: “BID NO. PM41/2017: Tarring Ntsime to Sefateng (Phase 2).”</p> <p>The Employer’s address for delivery of tender offers to be shown on each tender submission package is the Tender Box located at: Polokwane Municipality Civic Centre Crn Landdros Mare and Bodenstein Streets Polokwane</p> <p>5.5.4. <u>Two envelope system</u> (Cl. F.2.13.6)</p> <p>A two-envelope procedure will not be followed.</p>
<p>5.2. <u>Closing time</u> Cl. F.2.15</p>	<p>The closing time for submission of tender offers is: 10H00</p> <p>Telegraphic, telephonic, telex, facsimile, e-mail, electronic and late tender offers will not be accepted.</p>
<p>5.3. <u>Tender offer validity</u> Cl. F.2.16</p>	<p>The tender offer validity period is 90 days after tender closing date.</p>
<p>5.4. <u>Clarification of tender offer after submission</u> Cl. F.2.17</p>	<p>Delete the last part of the second sentence, commencing with the word “and”. Furthermore, delete the last two sentences of Cl. F.2.17.</p> <p>Add the following sentence: “The rates stated by the Bidder shall be binding”.</p>

Clause number	Tender Data
5.5. <u>Provide other Material</u> CI. F.2.18.1	<p>Upon request by the Employer, the Bidder shall promptly supply any other material that has a bearing on the tender offer, the bidder's commercial position (including, where applicable, notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the Employer for the purpose of a full and fair assessment. Should the Bidder not provide the information or material called for, by the time for submission stated in the Employer's request, the Employer will regard the tender offer as being non-responsive.</p>
5.6. <u>Inspections, tests and analysis</u> CI F.2.19	<p>Access must be provided for the following inspections, tests and analysis: concrete tests, compaction strength and ball penetration and Access must be provided for the inspection of the tenderer's offices if required.</p>
5.7. <u>Certificates</u> CI. F.2.23	<p>The following certificates are to be provided with this tender:</p> <ul style="list-style-type: none"> a) Valid Central Supplier Database (CSD) Number b) Compensation Fund registration certificate c) Certificate of Contractor Registration issued by the Construction Industry Development Board or a copy of the application Form for registration in terms of the Construction Industry Development Board Act (Form F006). <p>A minimum grading of 6CE is required.</p> <p><u>Important Note:</u> Failure to provide the required particulars as per the above-listed certificates implies a non-responsive tender and warrants rejection of the tender on account of non-compliance with the requirements of the Tender Data</p>
5. <u>EMPLOYER'S UNDERTAKING</u>	
5.1. <u>Opening of Tender Submissions</u> CI. F3.4	<p>The time and location for opening of the tender offers are:</p> <p style="text-align: center;">10:00 on 09 August 2017</p> <p>Location: Tender Box, Polokwane Municipality, Civic Centre, Landdros Mare Street, Polokwane</p>
5.2. <u>Two envelope system</u> CI. F.3.5	<p>A two-envelope procedure will not be followed.</p>
5.3. <u>Arithmetical Errors</u> CI. F.3.9.1	<p>Delete paragraphs (a), (b) and (c) of CI. F.3.9.1 and replace with:</p> <ul style="list-style-type: none"> a) Where there is a discrepancy between the amounts in words, the amount in words shall govern. b) If a bill of quantities (or schedule of quantities or schedule of rates) applies and there is an error in the line item resulting from the

Clause number	Tender Data
	<p>product of the unit rate and the quantity, the rate shall be binding and the error of extension as entered in the tender offer will be corrected by the Employer in determining the Contract Price.</p> <p>c) Where there is an error in addition, either as a result of other corrections required by this checking process or in the Bidder's addition of prices, such error will be corrected by the Employer in determining the Contract Price.</p> <p>d) The Contract Price for the completed Contract shall be computed from the actual quantities of authorised work done and compliant with the Contract Data, valued at rates contracted against the respective items in the bill of quantities, schedule of Quantities or schedule of rates and shall include such authorised Provisional Sums and items of extra work as have become payable in terms of the Contract Data.</p>
<p>6. <u>ACCEPTANCE</u> <u>OF TENDER OFFER</u> CI. F3.13</p>	<p>Tender offers will only be accepted if:</p> <p>a) The bidder has in his or her possession an original valid Central Supplier Database (CSD) Number issued by the South Africa Revenue Services;</p> <p>b) The bidder is registered with the Construction Industry Development Board in an appropriate contractor grading designation. A minimum grading of 6CE is required for the main contractor;</p> <p>c) The bidder has demonstrated previous experience with the type of work required under this contract having successfully completed a project of similar scope and size.</p> <p>d) The bidder or any of its principals is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector; and</p> <p>e) The bidder has not abused the Employer's Supply Chain Management System.</p> <p>f) The bidder has not failed to perform on any previous contract.</p> <p>g) has complete the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the bidder's ability to perform the contract in the best interests of the employer or potentially compromise the tender process.</p>

Clause number	Tender Data
<p>7. <u>PROVIDE</u> <u>COPIES OF THE</u> <u>CONTRACT</u> <u>DOCUMENT</u> Cl. F.3.18</p>	<p>The number of paper copies of the signed Contract to be provided by the Employer to the successful bidder is one</p>

NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF B-BBEE, AS PRESCRIBED IN THE PREFERENTIAL PROCUREMENT REGULATIONS, 2011.

1. GENERAL CONDITIONS

- 1.1 The following preference point systems are applicable to all bids:
- the 80/20 system for requirements with a Rand value of up to R50 000 000.00 (all applicable taxes included); and
 - the 90/10 system for requirements with a Rand value above R50 000 000.00 (all applicable taxes included).

1.2

- a) The value of this bid is estimated to not exceed R50 000 000 (all applicable taxes included) and therefore the 80/20 preference point system shall be applicable; or
- b) Either the 80/20 or 90/10 preference point system will be applicable to this tender (*delete whichever is not applicable for this tender*).

- 1.3 Points for this bid shall be awarded for:

- (a) Price; and
- (b) B-BBEE Status Level of Contributor.

- 1.4 The maximum points for this bid are allocated as follows:

	POINTS
PRICE	
B-BBEE STATUS LEVEL OF CONTRIBUTOR	
Total points for Price and B-BBEE must not exceed	100

- 1.5 Failure on the part of a bidder to submit proof of B-BBEE Status level of contributor together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.

- 1.6 The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.

2. DEFINITIONS

- (a) **“B-BBEE”** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- (b) **“B-BBEE status level of contributor”** means the B-BBEE status of an entity in terms of a code of good practice on black economic empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;
- (c) **“bid”** means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of goods or services, through price quotations, advertised competitive bidding processes or proposals;
- (d) **“Broad-Based Black Economic Empowerment Act”** means the Broad-Based

Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);

- (e) “**EME**” means an Exempted Micro Enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (f) “**functionality**” means the ability of a tenderer to provide goods or services in accordance with specifications as set out in the tender documents.
- (g) “**prices**” includes all applicable taxes less all unconditional discounts;
- (h) “**proof of B-BBEE status level of contributor**” means:
 - 1) B-BBEE Status level certificate issued by an authorized body or person;
 - 2) A sworn affidavit as prescribed by the B-BBEE Codes of Good Practice;
 - 3) Any other requirement prescribed in terms of the B-BBEE Act;
- (i) “**QSE**” means a qualifying small business enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (j) “**rand value**” means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

3. POINTS AWARDED FOR PRICE

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

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

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

Where

P_s = Points scored for price of bid under consideration

P_t = Price of bid under consideration

P_{\min} = Price of lowest acceptable bid

4. POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTOR

- 4.1 In terms of Regulation 6 (2) and 7 (2) of the Preferential Procurement Regulations, preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

B-BBEE Status Level of Contributor	Number of points (90/10 system)	Number of points (80/20 system)
1	10	20
2	9	18
3	6	14
4	5	12
5	4	8

6	3	6
7	2	4
8	1	2
Non-compliant contributor	0	0

5. BID DECLARATION

- 5.1 Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete the following:

6. B-BBEE STATUS LEVEL OF CONTRIBUTOR CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 4.1

- 6.1 B-BBEE Status Level of Contributor: . =(maximum of 10 or 20 points)

(Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.

7. SUB-CONTRACTING

- 7.1 Will any portion of the contract be sub-contracted?

(***Tick applicable box***)

YES		NO	
-----	--	----	--

- 7.1.1 If yes, indicate:

- i) What percentage of the contract will be subcontracted.....%
- ii) The name of the sub-contractor.....
- iii) The B-BBEE status level of the sub-contractor.....
- iv) Whether the sub-contractor is an EME or QSE

(***Tick applicable box***)

YES		NO	
-----	--	----	--

- v) Specify, by ticking the appropriate box, if subcontracting with an enterprise in terms of Preferential Procurement Regulations,2017:

vi)

Designated Group: An EME or QSE which is at last 51% owned by:	EME √	QSE √
Black people		
Black people who are youth		
Black people who are women		
Black people with disabilities		
Black people living in rural or underdeveloped areas or townships		
Cooperative owned by black people		
Black people who are military veterans		
OR		

Any EME		
Any QSE		

8. DECLARATION WITH REGARD TO COMPANY/FIRM

8.1 Name of company/firm:.....

8.2 VAT registration number:.....

8.3 Company registration number:.....

8.4 TYPE OF COMPANY/ FIRM

Partnership/Joint Venture / Consortium

One person business/sole propriety

Close corporation

Company

(Pty) Limited

[TICK APPLICABLE BOX]

8.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

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

8.6 COMPANY CLASSIFICATION

Manufacturer

Supplier

Professional service provider

Other service providers, e.g. transporter, etc.

[TICK APPLICABLE BOX]

8.7 MUNICIPAL INFORMATION

Municipality where business is situated:

Registered Account Number:

Stand Number:.....

8.8 Total number of years the company/firm has been in business:.....

8.9 I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contributor indicated in paragraphs 1.4 and 6.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we 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 6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
- iv) If the B-BBEE status level of contributor has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have –
 - (a) disqualify the person from the bidding 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 bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury 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.

WITNESSES

- 1.
- 2.

.....

SIGNATURE(S) OF BIDDERS(S)

DATE:

ADDRESS
.....
.....

ATTACH B-BBEE VERIFICATION CERTIFICATE

ANNEXURE A

SUPPLY CHAIN MANAGEMENT

EVALUATION PROCESS AND CRITERIA

The following evaluation process and criteria will be used to evaluate all bids submitted:

1. Administrative Compliance – Phase One

1.1 All bids duly lodged will be examined to determine compliance with bidding requirements and conditions. Bids with obvious deviations from the requirements/conditions, will be eliminated from further evaluation.

1.2 **Critical Criteria:**

The following critical criteria have been identified for this bid and any non-compliance thereto will lead to the bid being regarded as non-responsive and disqualified from further evaluation:

- Provide Central Supplier Database (CSD) number
- All Pages of the Bid document must be initialled.
- Compulsory site inspection attended.
- Completed and signed declaration on past SCM practices form
- Compulsory enterprise questionnaire completed
- Signed J/V agreement must be attached (Where applicable)
- Proof of registration with CIDB attached.
- Complete **MBD 5** and submit audited statements (**AFS**) – (only where the tender amount exceeds **R10Mil-** including VAT)
- Proof of Municipal Rates and Taxes or letter for Tribal Authority or lease agreement must be attached (Not older than 3 months).
- Completed and signed declaration of interest (**MBD 4**)

2. Functionality – Phase Two (50 points allocation)

The bidders who complied administratively are considered for further evaluation on ability to execute the project.

The assessment of functionality will be done in terms of the evaluation criteria and minimum threshold as specified. A bid will be disqualified if it fails to meet the minimum threshold for functionality as per the bid invitation.

2.1. Relevant Experience of Company (25 points)

This will take into consideration similar contracts successfully completed by the bidder.

NB. Proof of largest similar project must be attached (Completion certificate). Failure to provide proof will result in disqualification of points.

The score will be calculated as follows:

$$R_t = \frac{L_c}{T_{avg}} \times R_{max}$$

Where:

R_t = Points for relevant experience of company

L_c = Largest similar contract over the last **three (3) years. (Determined on project size).**

T_{avg} = Average value of tendered amounts of eligible tenders.

Rmax = Maximum points allocated for relevant experience of company. (R max = 25)

2.2 Plant and Equipment (15 points)

This will be assessed against a minimum number of different types of plant and equipment required to successfully complete the project within the stipulated construction period as determined by the engineer.

Access to plant may be in a form of ownership, hire or leasing arrangements, orders etc. A letter of intent from hiring or leasing companies stating the number and type of plant and equipment on which arrangement has been made must be submitted. Any changes to the lease/hire agreement must be approved by the Municipality prior commencement.

NB. 50% of points will be allocated to equipment leased/hired.

Consultants Estimation				
(A) Plant and equipment required	points allocation	(B) Minimum Plant required	(C) Bidder Plant own	(D) Bidder Plant hire
Grader (140G or equivalent)	2	1		
Tipper Truck (6 – 10m ³)	6	2		
Water Tanker	3	1		
Excavator (20 ton minimum)	2	1		
TLB (4X4)	2	1		

NB. Proof of ownership on equipment indicated above must be submitted with the bid document. Failing to submit will result in disqualification of points.

2.3 Financial Status (10 points)

This will be assessed against Bank ratings as follows: **(A bank letter must be submitted and should be specific for this project and older than 30 days)**

Bank Rating	Score
A	10
B	10
C	7
D	5
E	2
F,G,H	0

NB: A bid will be disqualified if it fails to meet the minimum threshold of 60% on functionality and a minimum of 15 points on relevant experience.

2.4 Commercial Risk Analysis

Prior to being recommended for further evaluation, a bid will be subjected to risk analysis to ensure that it would, if accepted, not place the Municipality or the bidder, at undue risk.

A risk analysis will be performed to ascertain if any of the following might present an unacceptable commercial risk to the Municipality:

- Unduly low tendered sums
- Unduly high individual rates
- Unduly low rates

- Imbalances in pricing

It is in the best interests of the Municipality to amend an error which will cause the bid to be rejected on the basis of it presenting an unacceptable commercial risk.

❖ **EVALUATION OF BIDS**

- h) All bids received shall be evaluated in terms of the Supply Chain Management Regulations, Polokwane Municipality Supply Chain Management Policy (on request from Municipality), the preferential procurement regulation 2011, and other applicable legislations.
 - i) The Council reserves the right to accept all, some, or none of the bids submitted – either wholly or in part – and it is not obliged **to accept the lowest bid.**
- ❖ **By submitting this bid, bidder authorizes the Council or its delegate(s) to carry out any investigation deemed necessary to verify the correctness of the statements and documents submitted and that such documents reasonably reflect the ability of the Bidder to provide the goods and services required by the Council.**

PLEASE NOTE

❖ **The Municipal Manager may cancel a contract awarded to a person if:**

- a) The person committed a corrupt or fraudulent act during the procurement process or in the execution of the contract, or
- b) An official or other role player committed any corrupt or fraudulent act during the procurement process or in the execution of the contract that benefited that person.

❖ **The Municipal Manager may reject the bid or quote of any person if that person or any of its directors has:**

- c) Failed to pay municipal rates and taxes or municipal service charges and such rates, taxes and charges are in arrears for more than three months;
- d) Failed, during the last five years, to perform satisfactorily on a previous contract with the Polokwane Municipality or any other organ of State after written notice was given to that bidder that performance was unsatisfactory;
- e) Abused the supply chain management system of the Municipality or have committed any improper conduct in relation to this system;
- f) Been convicted of fraud or corruption during the past five years;
- g) Wilfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or
- h) Been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No. 12 of 2004) or has been listed on National Treasury's database as a person prohibited from doing business with public sector.

2.5 Tendered rates

Rates for all the bids which have complied with the bid conditions will be assessed for the following:

- Comparison of rates and amounts with the average tendered amount.
- Sensitivity Analysis of Rates (i.e. whether the rates are balanced, acceptable, etc).
- Expected cash flows requirements.

NB: Bids with unbalanced rates will be disqualified for further evaluation on price and preference points system

3 Business Registration

Prospective bidders shall be registered:

- (a) With the South African Revenue Services for all categories of taxes applicable to it.
- (b) With the Compensation Commissioner
- (c) With the Construction Industry Development Board. (Minimum grading **6CE**).

4 Acceptance of Tender Offer (Cl. F3.13)

Tender offers will only be accepted if:

- a) The bidder has in his or her possession a valid CSD number issued by the South Africa Revenue Services;
- b) The bidder is registered with the Construction Industry Development Board in an appropriate contractor grading designation. (Minimum grading of **6CE** is required);
- c) the bidder or any of its principals is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector; and
- d) The bidder has not abused the Employer's Supply Chain Management System.
- e) The bidder has not failed to perform on any previous contract.
- f) has complete the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the bidder's ability to perform the contract in the best interests of the employer or potentially compromise the tender process.

5. Provide copies of the Contract Document (Cl. F3.18)

The number of paper copies of the signed Contract to be provided by the Employer to the successful bidder is **one**

Annexure A: Standard Conditions of Tender

F.1 General

F.1.1 Actions

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

F.1.2 Tender Documents

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

F.1.3 Interpretation

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

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

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

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

F.1.4 Communication and employer's agent

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

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

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

F.1.5.2 The employer may not subsequent to the cancellation or abandonment of a Tender process or the rejection of all responsive Tender offers re-issue a Tender covering substantially the same scope of work within a period of six months unless only one Tender was received and such Tender was returned unopened to the Tenderer.

F.2 Tenderer's obligations

F.2.1 Eligibility

Submit a Tender offer only if the Tenderer 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.

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(s) are stated in the Tender data.

F.2.8 Seek clarification

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

F.2.9 Insurance

Be aware that the extent of insurance to be provided by the employer (if any) 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 offer only if a main tender offer, strictly in accordance with all the requirements of the tender document, 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 document with the alternative requirements the tenderer proposes.

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

F.2.13 Submitting a Tender offer

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

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

- F.2.13.3** Submit the parts of the Tender offer communicated on paper as an original plus the number of copies stated in the Tender data, with an English translation of any documentation in a language other than English, and the parts communicated electronically in the same format as they were issued by the employer.
- F.2.13.4** Sign the original and all copies of the Tender offer where required in terms of the Tender data. The employer will hold all authorized signatories liable on behalf of the Tenderer. Signatories for Tenderers proposing to contract as joint ventures shall state which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the Tender offer.
- F.2.13.5** Seal the original and each copy of the Tender offer as separate packages marking the packages as "ORIGINAL" and "COPY". Each package shall state on the outside the employer's address and identification details stated in the Tender data, as well as the Tenderer's name and contact address.
- F.2.13.6** Where a two-envelope system is required in terms of the Tender data, place and seal the returnable documents listed in the Tender data in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall state on the outside the employer's address and identification details stated in the Tender data, as well as the Tenderer's name and contact address.
- F.2.13.7** Seal the original Tender offer and copy packages together in an outer package that states on the outside only the employer's address and identification details as stated in the Tender data.
- F.2.13.8** Accept that the employer 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.

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 total of the prices or substance of the Tender offer is sought, offered, or permitted. The total of the prices stated by the Tenderer shall be binding upon the Tenderer.

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

F.2.18 Provide other material

- F.2.18.1** Provide, on request by the employer, any other material that has a bearing on the Tender offer, the Tenderer's commercial position (including notarized joint venture agreements), 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 for the employer to issue the contract.

F.2.22 Return of other Tender documents

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

F.2.23 Certificates

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

F.3 The employer's undertakings

F.3.1 Respond to clarification

Respond to a request for clarification received up to five working days 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 advise Tenderers who remain in contention for the award of the contract of the time and place when the financial proposals will be opened. Open only the financial proposals of Tenderers, who score in the quality evaluation more than the minimum number of points for quality stated in the Tender data, and announce the score obtained for the technical proposals and the total price and any preferences claimed. Return unopened financial proposals to Tenderers whose technical proposals failed to achieve the minimum number of points for quality.

F.3.6 Non-disclosure

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

F.3.7 Grounds for rejection and disqualification

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

F.3.8 Test for responsiveness

- F.3.8.1** Determine, on 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) Detrimentially 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 there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as quoted shall govern, and the unit rate shall be corrected.
- 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

F.3.11.1 General

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

Method 1: Financial offer	1) Rank Tender offers from the most favourable to the least favourable comparative offer.
	2) Recommend highest ranked Tenderer for the award of the contract, unless there are compelling and justifiable reasons not to do so.
Method 2: Financial offer and preferences	1) Score Tender evaluation points for financial offer.
	2) Confirm that Tenderers are eligible for the preferences claimed and if so, score Tender evaluation points for preferencing.
	3) Calculate total Tender evaluation points.
	4) Rank Tender offers from the highest number of Tender evaluation points to the lowest.
	5) Recommend Tenderer with the highest number of Tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.

Method 3: Financial offer and quality	1) Score quality, rejecting all Tender offers that fail to score the minimum number of points for quality stated in the Tender data.
	2) Score Tender evaluation points for financial offer.
	3) Calculate total Tender evaluation points.
	4) Rank Tender offers from the highest number of Tender evaluation points to the lowest.
	5) Recommend Tenderer with the highest number of Tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
Method 4: Financial offer, quality and preferences	1) Score quality, rejecting all Tender offers that fail to score the minimum number of points for quality stated in the Tender data.
	2) Score Tender evaluation points for financial offer.
	3) Confirm that Tenderers are eligible for the preferences claimed, and if so, score Tender evaluation points for preferencing.
	4) Calculate total Tender evaluation points.
	5) Rank Tender offers from the highest number of Tender evaluation points to the lowest.
	6) Recommend Tenderer with the highest number of Tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.

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

F.3.11.2 Scoring Financial Offers

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

NFO = $W1 \times A$ where:
NFO = the number of Tender evaluation points awarded for the financial offer.
W1 = the maximum possible number of Tender evaluation points awarded for the financial offer as stated in the Tender Data.

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

Formula	Comparison aimed at achieving	Option 1	Option 2
1	Highest price or discount	$A = (1 + \frac{P - P_m}{P_m})$	$A = P / P_m$
2	Lowest price or percentage commission / fee	$A = (1 - \frac{P - P_m}{P_m})$	$A = P_m / P$

where:

P_m = the comparative offer of the most favourable Tender offer.
P = the comparative offer of Tender offer under consideration.

F.3.11.3 Scoring quality (functionality)

Score quality in each of the categories in accordance with the Tender Data and calculate total score for quality.

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:

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

F.3.16 Issue final contract

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

F.3.17 Complete adjudicator's contract

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

F.3.18 Provide copies of the contracts

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

TAX CLEARANCE CERTIFICATE REQUIREMENTS

It is a condition of Tender that the taxes of the successful Tenderer must be in order, or that satisfactory arrangements have been made with South African Revenue Service (SARS) to meet the Tenderer's tax obligations.

- 1 In order to meet this requirement Tenderers are required to complete in full the attached form TCC 001 "Application for a Tax Clearance Certificate" and submit it to any SARS branch office nationally. The Tax Clearance Certificate Requirements are also applicable to foreign Tenderers / individuals who wish to submit Tenders.
- 2 SARS will then furnish the Tenderer with a Tax Clearance Certificate that will be valid for a period of 1 (one) year from the date of approval.
- 3 The original Tax Clearance Certificate must be submitted together with the Tender. Failure to submit the original and valid Tax Clearance Certificate will result in the invalidation of the Tender. Certified copies of the Tax Clearance Certificate will not be acceptable.
- 4 In Tenders where Consortia / Joint Ventures / Sub-contractors are involved, each party must submit a separate Tax Clearance Certificate.
- 5 Copies of the TCC 001 "Application for a Tax Clearance Certificate" form are available from any SARS branch office nationally or on the website www.sars.gov.za.
- 6 Applications for the Tax Clearance Certificates may also be made via eFiling. In order to use this provision, taxpayers will need to register with SARS as eFilers through the website www.sars.gov.za.

**APPLICATION FOR TAX CLEARANCE CERTIFICATE
(IN RESPECT OF TENDERS)**

1. Name of taxpayer / Tenderer:
2. Trade name:
3. Identification number:

--	--	--	--	--	--	--	--	--	--	--	--	--
4. Company / Close Corporation registration number:

--	--	--	--	--	--	--	--	--	--	--	--	--
5. Income tax reference number:

--	--	--	--	--	--	--	--	--	--	--	--	--
6. VAT registration number (if applicable):

--	--	--	--	--	--	--	--	--	--	--	--	--
7. PAYEE employer's registration number (if applicable):

--	--	--	--	--	--	--	--	--	--	--	--	--

Contact person requiring Tax Clearance Certificate:

Signature:

Name:

.....

Telephone Number: Code: Number:

.....

Address:

.....

.....

.....

Date: 20____/____/____

PLEASE NOTE THAT THE COMMISSIONER FOR THE SOUTH AFRICAN REVENUE SERVICE (SARS) WILL NOT EXERCISE HIS DISCRETIONARY POWERS IN FAVOUR OF ANY PERSON WITH REGARD TO ANY INTEREST, PENALTIES AND / OR ADDITIONAL TAX LEVIABLE DUE TO THE LATE- OR UNDERPAYMENT OF TAXES, DUTIES OR LEVIES OR THE RENDITION RETURNS BY ANY PERSON AS A RESULT OF ANY SYSTEM NOT BEING YEAR 2000 COMPLIANT.

A: SCHEDULE OF LABOUR CONTENT

The Bidder must complete the table below to reflect the labour force anticipated to be employed on this contract, including labour employed by sub-contractors.

The specified target value is **6%** of the contract value

Type of Labour	Man-hours	Minimum Wage Rate per Unit	Total Wage Cost (Excl VAT)
Permanent Labour			
Temporary Labour			
SMME/HDI's Labour			
TOTAL PERCENTAGE			

Notes to Bidder:

- (1) Labour is defined as hourly paid personnel.
- (2) The penalty will be applied for non-compliance during the contract or for fraudulent disclosure

SIGNED ON BEHALF OF THE BIDDER:

B: EMPLOYMENT OF AFFIRMATIVE BUSINESS ENTERPRISE (ABE)

Target values of work to be executed by and goods & services to be procured from ABEs shall be **10%**.

Schedule Item No	Name of ABE	Item Description/ Goods & Services to be provided	Value	
			Rands (Excl VAT)	% of Tender Sum (Excl VAT)
TOTAL				

Notes to tenderer:

- 1. Regardless whether the tenderer fits the classification of an SMME/PDI, as defined in Section 3.3 of this specification, the tenderer nevertheless retains the obligation to commit to the target values prescribed**
- 2. Tenderers shall insert “unknown” if an SMME/PDI has not been selected prior to tender closing date.**
- 3. The penalty will be applied for non-compliance during the contract or for fraudulent disclosure**

SIGNED ON BEHALF OF THE BIDDER

**B.1 EMPLOYMENT OF AFFIRMATIVE BUSINESS ENTERPRISE DECLARATION
AFFIDAVIT (ABE).**

It is understood and agreed that should this contract be awarded to me, an ABE Declaration Affidavit will be completed by each and every ABE employed by me on this contract and will be submitted to the Employer immediately upon demand by the Employer.

SIGNED ON BEHALF OF THE BIDDER

1. TRAINING

Name of Training Institution:.....

Name of Programme:.....

Trainer's Name	Qualification	Subject

Notes to tenderer:

Provide details here, or attach hereto, the subjects to be covered and the manner in which the training is to be delivered.

SIGNED ON BEHALF OF THE BIDDER.....

2. ENGINEERING STUDENT TRAINING

Name of Training Institution:.....

Name of Programme:.....

Trainer's Name	Qualification	Subject

Notes to tenderer:

1. Provide details here, or attach hereto, the subjects to be covered and the manner in which the training is to be delivered.
2. Provision should also include on-job student / (in-service) training for a period of not less than 10 months at a monthly stipend of R 4 500.00

SIGNED ON BEHALF OF THE BIDDER

POLOKWANE MUNICIPALITY

T2.1 List of Returnable Documents

The Tenderer must complete the following returnable documents:

1. Returnable Schedules required only for Tender evaluation purposes

- A. Certificate of Attendance at Site Clarification Meeting
- B. Certificate of Authority of Signatory
- C. Certificate of Registration with the Construction Industry Development Board
- D. Certificate of authority for joint ventures (where applicable)
- E. Compulsory Enterprise Questionnaire
- F. Record of Addenda to Tender Documents
- G. Proposed Amendments and Qualifications
- H. Form of Intent to Provide a Demand Guarantee
- I. Schedule of Subcontractors
- J. Schedule of Available Infrastructure, Resources and Experience
- K. Financial Information of the Tenderer
- L. Certificate for Municipal Services and Payments: Annexure B
- M. Authorisation for deduction of outstanding amounts owed to Council: Annexure C
- N. Declaration of Tenderer's Past Supply Chain Management Practices: MBD 8
- O. Declaration of interest : SBD 4
- P. National industrial participation programme :SBD 5
- Q. Declaration for procurement above R10 Million :MBD 5
- R. Declaration certificate for local production and content: MBD 6.2
- S. Certificate of the Independent Tender Determination: MBD 9
- T. Compliance with OHSA (Act 85 of 1993)
- U. Original Bank rating letter
- V. Day Works
- W. Names of management and supervisory staff for the LIC works

2. Other documents required only for Tender evaluation purposes

- Compensation Fund Registration Certificate
- Curricula Vitae of Personnel
- Rates of Labour and Materials (Day work Rates)
- Copy of company registration certificate (C.K. Certificate) with shareholding
- An original valid Tax Clearance Certificate issued by the South African Revenue Services.
- Schedule of Labour Content
- Employment of ABE'S
- ABE Declaration Affidavit
- Generic Training
- Complete MBD 5 where the Tender amount inclusive of VAT exceeds R 10 million:

3. Other documents that will be incorporated into the contract

- 3.1 The offer portion of the C1.1 Offer and Acceptance
- 3.2 C1.2 Contract Data (Part 2)
- 3.3 C2.2 Bills of Quantities

A. CERTIFICATE OF ATTENDANCE AT SITE CLARIFICATION MEETING

This is to certify that:

.....
(Bidder)

of
(Address)

.....

was represented by the person(s) named below at the compulsory meeting held for all Bidders at

.....(location) on (date),

starting at

We acknowledge that the purpose of the meeting was to acquaint ourselves with the Site of the Works and/or matters incidental to doing the work specified in the Bid documents in order for us to take account of everything necessary when compiling our entire Bid submission.

Particulars of person(s) attending the meeting:

Name Signature.....

Capacity.....

Name Signature.....

Capacity.....

Note: All particulars above this horizontal divide line to be filled in by the Bidder prior to signature by Employer's representative.

Attendance of the above persons at the meeting is confirmed by the representative of..... Consulting Services namely:

Name Signature

Capacity..... Date.....

Time

CERTIFICATE OF AUTHORITY OF SIGNATORY

Indicate the status of the Tenderer by ticking the appropriate box hereunder. The Tenderer must complete the certificate set out below for the relevant category.

1	Company	
---	---------	--

2	Partnership	
---	-------------	--

3	Joint Venture	
---	---------------	--

4	Sole Proprietor	
---	-----------------	--

5	Close Corporation	
---	-------------------	--

1. Certificate for company

I,, chairperson of the board of directors of, hereby confirm that by resolution of the board (copy attached) taken on 20....., Mr/Ms, acting in the capacity of, was authorised to sign all documents in connection with this Tender and any contract resulting from it on behalf of the company.

As witnesses:

1.....
Chairman

.....
Print Name

2.....
Date

.....
Print Name

2. Certificate of partnership

We, the undersigned, being the key partners in the business trading as, hereby authorise Mr/Ms, acting in the capacity of, to sign all documents in connection with the Tender for Contract, and any contract resulting from it on our behalf.

Name	Address	Signature	Date

NOTE: This certificate is to be completed and **signed by each and all of the key partners** upon whom rests the direction of the affairs of the Partnership as a whole.

3. Certificate for Joint Venture

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

This authorisation is evidenced by the attached power of attorney signed by legally authorised signatories of all the partners to the Joint Venture.

Name of Firm	Address	Authorising	
		Signature	Name
Lead Partner			

4. Certificate for sole proprietor

I,, hereby confirm that I am the sole owner of the business trading as

As witnesses:-

1.
.....
Signature: Sole Owner

Print Name

Print Name

2.

Print Name

Date

5. Certificate for Close Corporation

We, the undersigned, being the key members in the business trading as hereby authorise Mr/Ms, acting in the capacity of, to sign all documents in connection with the Tender for Contract and any contract resulting from it on our behalf.

Name	Address	Signature	Date

Note: This Certificate is to be completed and signed by each and all of the key members upon whom rests the direction of the affairs of the Close Corporation as a whole.

CERTIFICATE OF REGISTRATION WITH THE CONSTRUCTION INDUSTRY DEVELOPMENT BOARD

1. General

The Register of Contractors is established by the Construction Industry Development Board in terms of the CIDB Act 38 of 2000 and Construction Industry Development Regulations as published in Government Gazette number 26427 of 2004.

The Act makes it mandatory for public sector clients to apply this register when considering Tenders. Any enterprise that submits a Tender or enters into contract for construction works with the public sector, must be registered.

Once-off joint ventures do not have to register, provided that each partner of the joint venture is separately registered.

2. Status

Tenderers shall fill in the following sections of this form, depending on their status:

2.1 Section A

Tenderers who have accomplished registration and can provide proof of their grading designation.

2.2 Section B

Tenderers who are in the process of registration of an update to an existing registration or a renewal.

2.3 Section C

Tenderers who have submitted the first application.

2.4 Section D

Tenderers submitting this Tender offer in Joint Venture and can provide proof that each partner of the Joint Venture is separately registered.

Note: Only complete one of Sections A, B, C or D.

[illegible]

SECTION B

I, acting in capacity of
was authorised to sign all documents in connection with this tender and any contract resulting from it on

behalf of the following entity:
hereby declare that the above mentioned entity has achieved registration with the Construction Industry Development Board on date, furthermore declare that the existing grading designation is:

Contract Value	
----------------	--

Type of Work		
--------------	--	--

and the following update has been applied for:

Amendment of category status	
Change of Particulars	
Annual confirmation of Particulars	
Renewal of Registration	

mark with "❄"

.....
Signature of Tenderer

.....
Signature of Witness

.....
Print Name

.....
Print Name

SECTION C

I, acting in capacity of
was authorised to sign all documents in connection with this tender and any contract resulting from
it on

behalf of the following entity:
hereby declare that the above mentioned entity has submitted its FIRST APPLICATION FOR
REGISTRATION with the Construction Industry Development board on date

I furthermore accept that failure to achieve registration with the Construction Industry Development
Board in a category stipulated in the Tender Data within 10 days from the date of closing this tender,
implies a non-responsive tender and warrants rejection of the Tender on account of non-compliance
with the requirements of the Tender Data.

.....
Signature of Tenderer

.....
Signature of Witness

.....
Print Name

.....
Print Name

SECTION D

I, acting in capacity of the LEAD PARTNER in the Joint Venture

.....
 was authorised to sign all documents in connection with this tender and any contract resulting from it, hereby declare that each partner of the Joint Venture is separately registered with the Construction Industry Development Board and declare that the grading designation is reflected in the following **symbols** on the registration certificates:

Name of Lead Partner:		
Contract Value		
Type of Work		

Name of 2 nd Partner:		
Contract Value		
Type of Work		

Name of 3 rd Partner:		
Contract Value		
Type of Work		

.....
 Signature of Tenderer

.....
 Signature of Witness

.....
 Print Name

.....
 Print Name

B. CERTIFICATE OF AUTHORITY FOR JOINT VENTURES (WHERE APPLICABLE)

Employer:

Contract Number:

NOTE 1 This form need only be completed in the event of a Joint Venture submitting this Tender.

NOTE 2 Fill in all the information requested in the spaces provided. Attach additional sheets if required.

NOTE 3 Provide a copy of the Joint Venture agreement. Demonstrate that the partners to the Joint Venture share in the ownership, control, management responsibilities, risks and profits of the Joint Venture. The Joint Venture agreement shall include specific details relating to:

- a) the contributions of capital and equipment;
- b) portions of the Contract to be performed by the partner's own resources; and
- c) portions of the Contract to be performed under the supervision of each partner.

NOTE 4 Provide copies of all written agreements between partners concerning the Joint Venture, including those that relate to ownership options and to restrictions/limits regarding ownership and control.

1. Joint Venture Particulars

Name

Postal Address

Physical Address

.....

Telephone

Fax

Name of authorized representative

2. Identity of Partner No. 1

Name

Postal Address

Physical Address

.....
Telephone

Fax

Contact Person.....

3. Identity of Partner No. 2

Name

Postal Address

Physical Address

.....
Telephone

Fax

Contact Person

4. Identity of Partner No. 3

Name

Postal Address

Physical Address

.....
Telephone

Fax

Contact Person

5. Description of the role of the partners in the joint venture

Partner No. 1:

.....

Partner No. 2:

.....

Partner No. 3:
.....

6. Ownership of the joint venture

(i) Ownership percentage(s) Partner No. 1 %
Partner No. 2 %
Partner No. 3 %

(ii) Partner percentage in respect of:
a) Profit and loss sharing: Partner No. 1 %
Partner No. 2 %
Partner No. 3 %

b) Initial capital contribution Partner No. 1 R.....
Partner No. 2 R.....
Partner No. 3 R.....

(iii) Anticipated ongoing capital contributions:
Partner No. 1 R.....
Partner No. 2 R.....
Partner No. 3 R.....

(iv) Contributions of equipment (specify types, quality and quantities of equipment) to be provided by each partner:

Partner No. 1:
.....

Partner No. 2:
.....

Partner No. 3:
.....

7. Recent contracts performed by partners in their own right or as partners in other joint ventures

a) Partner No. 1

(i)

(ii)

(iii)

(iv)

(v)

b) Partner No. 2

(i)

(ii)

(iii)

(iv)

(v)

c) Partner No. 3

(i)

(ii)

(iii)

(iv)

(v)

8. Control and participation in the joint venture

(Identify by name and firm those individuals who are, or will be, responsible for, and have authority to engage in the relevant management functions and policy and decision making, indicating any limitations in their authority, for example, co-signature requirements and monetary limits).

a) Joint Venture cheque signing

.....

.....

-
- b) Authority to enter into contracts on behalf of the Joint Venture
-
-
-
- c) Signing, co-signing or collateralizing of loans
-
-
-
- d) Acquisition of lines of credit
-
-
-
- e) Acquisition of demand bonds
-
-
-
- f) Negotiating and signing of labour agreements
-
-
-

9. Management of the performance of the Contract
(Fill in the name and firm of the responsible person)

- a) Supervision of field operations.....
-
- b) Major purchasing.....

-
- c) Estimating
-
- d) Technical management.....
-

10. Management and control of the joint venture

- a) Identify the managing partner
-
-
-
- b) What authority does each partner have to commit or obligate the other to financial institutions, insurance companies, suppliers, subcontractors or other parties participating in the performance of the contemplated works:

Partner No. 1:

.....

Partner No. 2:

.....

Partner No. 3:

.....

- c) Describe the management structure for the joint venture's work under this Contract

Management Function/Designation	Name	Partner

11. Personnel

- a) State the approximate number of operative personnel (by trade/function/discipline) needed to execute the Joint Venture contract.

Trade/function/discipline	Number

- b) State the number of operative personnel to be employed on the Contract who are currently in the employ of partners:

.....

- c) State the number of operative personnel who are not currently in the employ of the respective partners and shall be engaged on the project by the Joint Venture:

.....

- d) State the name of the individual who shall be responsible for hiring Joint Venture employees:

.....

- e) State the name of the partner who shall be responsible for the preparation of Joint Venture payrolls:

.....

.....

12. Services

List the firms who provide the following services:

Service	Name	Contact Person	Telephone No.
Accounting			
Auditing			
Banking			
Insurance			
Legal			

13. Control and structure of the Joint Venture

Briefly describe the manner in which the Joint Venture is structured and controlled.

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

The undersigned warrants that he/she is duly authorised to sign this Joint Venture disclosure form and affirms that the foregoing statements are correct and include all the material information necessary to identify and explain the terms and operations of the Joint Venture and the intended participation of each partner in the undertaking.

The undersigned further covenants and agrees to provide the Employer with complete and accurate information regarding actual joint venture work and the payment therefore, and any proposed changes in any provisions of the Joint Venture Agreement, and to permit the audit and examination of the books, records and files of the Joint Venture, or those of each partner relevant to the Joint Venture, by duly authorized representatives of the Employer.

Duly authorized to sign on behalf of:

..... (the Joint Venture)

Signature: Print Name:

Name:

Address:

.....

Telephone:

Date:

Duly authorized to sign on behalf of:

.....

(Partner No. 1)

Signature: Print Name:

Name:

Address:

.....

Telephone:

Date:

Duly authorized to sign on behalf of:

.....

(Partner No. 2)

Signature:

Print Name:

Name:

Address:

.....

Telephone:

Date:

Duly authorized to sign on behalf of:

.....

(Partner No. 3)

Signature:

Print Name:

Name:

Address:

.....

Telephone:

Date:

C. COMPULSORY ENTERPRISE QUESTIONNAIRE

The following particulars must be furnished. In the case of a joint venture, **separate** enterprise questionnaires in respect of each partner must be completed and submitted.

Section 1: Name of enterprise:

Section 2: VAT registration number, if any:

Section 3: CIDB registration number, if any:

Section 4: Particulars of sole proprietors and partners in partnerships

Name*	Identity number*	Personal income tax number*

* Complete only if sole proprietor or partnership and attach separate page if more than 3 partners

Section 5: Particulars of companies and close corporations

Company registration number

Close corporation number

Tax reference number

Section 6: Record in the service of the state

Indicate by marking the relevant boxes with a cross, if any sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months in the service of any of the following:

<input type="checkbox"/> a member of any municipal council <input type="checkbox"/> a member of any provincial legislature <input type="checkbox"/> a member of the National Assembly or the National Council of Province <input type="checkbox"/> a member of the board of directors of any municipal entity <input type="checkbox"/> an official of any municipality or municipal entity	<input type="checkbox"/> an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999) <input type="checkbox"/> a member of an accounting authority of any national or provincial public entity <input type="checkbox"/> an employee of Parliament or a provincial legislature
--	---

If any of the above boxes are marked, disclose the following:

Name of sole proprietor, partner, director, manager, principal shareholder or stakeholder	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		Current	Within last 12 months

*insert separate page if necessary

Section 7: Record of spouses, children and parents in the service of the state

Indicate by marking the relevant boxes with a cross, if any spouse, child or parent of a sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months been in the service of any of the following:

<input type="checkbox"/> a member of any municipal council <input type="checkbox"/> a member of any provincial legislature <input type="checkbox"/> a member of the National Assembly or the National Council of Province <input type="checkbox"/> a member of the board of directors of any municipal entity <input type="checkbox"/> an official of any municipality or municipal entity	<input type="checkbox"/> an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999) <input type="checkbox"/> a member of an accounting authority of any national or provincial public entity <input type="checkbox"/> an employee of Parliament or a provincial legislature
--	---

Name of spouse, child or parent	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		Current	Within last 12 months

*insert separate page if necessary

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise:

- i) authorizes the Employer to obtain a tax clearance certificate from the South African Revenue Services that my / our tax matters are in order;
- ii) confirms that the neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;
- iii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;
- iv) confirms that I / we are not associated, linked or involved with any other Tendering

<p>entities submitting Tender offers and have no other relationship with any of the Tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest; and</p> <p>v) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.</p>			
Signed		Date	
Name		Position	
Enterprise name			

D. RECORD OF ADDENDA TO TENDER DOCUMENTS

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

No.	Date	Title or Details
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		

Attach additional pages if more space is required.

Signed		Date	
Name		Position	
Bidder			

E. PROPOSED AMENDMENTS AND QUALIFICATIONS

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

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

Page	Clause or item	Proposal		
Signed			Date	
Name			Position	
Bidder				

FORM OF INTENT TO PROVIDE A DEMAND GUARANTEE

If my/our Tender is accepted, I/we will, when required and within the time stipulated, provide a guarantee of

(*) Insurance Company (name)

(of address)

.....

(*) Commercial Bank (Name)

(Branch)

.....

(of address)

.....

to be approved by you, the Employer, for the amount stipulated.

(*) : delete whichever is not applicable.

I/we understand that failure to produce an acceptable Demand Guarantee within the stipulated period is a fundamental breach of Contract, entitling the Employer to:

- (i) withhold all payments which may be due to the Contractor pending compliance with the stipulated requirements to produce an acceptable Demand Guarantee.
- (ii) instruct the Contractor to cease all work pending provision of the Demand Guarantee, and
- (iii) cancel the Contract.

Signed	Date
Print Name	Position
Bidder		

SCHEDULE OF PROPOSED SUBCONTRACTORS

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

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

We confirm that all Subcontractors who are contracted to construct a house are registered as home builders with the National Home Builders Registration Council.

No	Name and address of proposed Subcontractor	Nature and extent of work	Previous experience with Subcontractor.
1.			
2.			
3.			
4.			
5.			
Signed		Date	
Name		Position	
Bidder			

F. SCHEDULE OF AVAILABLE INFRASTRUCTURE, RESOURCES AND EXPERIENCE

1. Tenderer's List of Third Party Design Engineers

In the event that the Tenderer desires to design all or part of the Works or submit any alternative, he/she shall list here-following, the Design Engineers, accomplished in the specific field of practice, which he/she proposes to employ for the purpose of third party certification of all works designed by the Tenderer for the Works.

- Notes: (i) All costs of third party designs shall be borne solely by the Tenderer.
(ii) This Schedule must be accurately completed. Phrases such as "to be advised" will not be accepted.

Section of Works	Name and Address of Registered Engineer				ECSA Registration No.

2. Tenderer's Personnel Profile

Key Staff Permanently employed, of foreman level and above	Number of staff
Sub-Total	
Other Permanent Staff	Number of staff
Sub-Total	
Temporary Staff	Number of staff
Sub-Total	

3. **List the Firms who provide the following services:**

Service	Name	Contact Person	Telephone
Accounting			
Auditing			
Insurance			
Legal			

4. **Identify any amounts of money loaned to your enterprise, indicating the loan source, date and amount**

Loan Source	Address	Date of Loan	Loan Amount

5. **List a maximum of five contract which your enterprise is engaged in and has not yet completed**

Contract Description	Location	Client	Contract Amount	Expected Completion (month & year)

6. **List the four largest assignments completed by your enterprise in the last three years**

Nature of Work Performed	Client	Consultant Contact Person	Telephone No.	Contract Amount

7. **Address of workshop facilities from where maintenance of works will be undertaken**

.....

8. **Address of Branch Offices in the RSA**

.....

.....

.....

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

(i) Value added tax to be included in all amounts

(ii) Assume for the purpose of this estimate, payment of certificates within 30 days after receipt by the Employer.

(iii) In calculation of the last column,

$j = d$	$m = l + g$
$k = j + e$	$n = m + h$
$l = k + f$	etc

(iv) Failure to detail the required information, shall automatically signify that the Tenderer lacks the infrastructure and resources necessary to execute and complete the Works

68

G. FINANCIAL INFORMATION OF TENDERER

This information sheet has to be filled in by the financier of the Tenderer, duly signed and stamped on behalf of the financial institution he represents.

Tenderer Details

Tender Description :

Contract Period :

Name of Tenderer :

Bank Account Number :

Tendered Amount :

Demand Guarantee will be provided by this Bank: YES ☐ NO ☐

If yes, state amount of Demand Guarantee: R

Financial Institution

Name of Commercial Bank :

Branch :

Name of Bank Manager :

Telephone Number :

I / We acting on behalf of the above Commercial Bank confirm that

..... (Tenderer)

has operated an account with us for the last years.

We have been requested to provide a bank rating based in relation to the financial capability of the Tenderer, taking into account directives set out in the following two tables.

Financial Capability	
Maximum value of contract that the Tenderer is considered capable of	Value on which Bank Rating must be used
up to R300 000	R24 000
R1 000 000	R78 000
R3 000 000	R240 000
R5 000 000	R480 000
R10 000 000	R900 000
R30 000 000	R2 400 000
R100 000 000	R7 800 000

ANNEXURE: B**H. CERTIFICATE FOR MUNICIPAL SERVICES AND PAYMENTS**

TO: MUNICIPAL MANAGER, POLOKWANE MUNICIPALITY

FROM: _____(Name of Tenderer)

FURTHER DETAILS OF TENDERER(S); DIRECTORS/SHAREHOLDERS/PARTNERS, ETC.

Directors/shareholders/Partner	Physical address of the Business	Municipal Account No.	Physical residential address of the Director/ Shareholder/ Partner	Municipal Account No.

NB: Please attach certified copy of ID document(s)_____
Signatory_____
Date**Witnesses**1. _____
Full Names_____
Signature_____
Date2. _____
Full Names_____
Signature_____
Date

**I. AUTHORISATION FOR DEDUCTION OF OUTSTANDING AMOUNTS
OWED TO COUNCIL**

TO: MUNICIPAL MANAGER, POLOKWANE MUNICIPALITY

FROM: _____ (Name of the Tenderer or Consortium)

I, _____ the undersigned, hereby authorise the Polokwane Municipality to deduct the full amount outstanding by the business organisation/Director/Shareholder/Partner, etc. from any payment due by us/me.

Signed at _____ Date _____ Month _____ 20 _____

Print Name: _____

Signature: _____

Thus done and signed for and on behalf of the Tenderer/Contractor

Signatory

Date

Witnesses

1. _____
Full Names

Signature

Date

2. _____
Full Names

Signature

Date

J. DECLARATION OF TENDERER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

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

ITEM	QUESTION	YES	NO
4.1	Is the Tenderer or any of its directors listed on the National Treasury's database as a company or person prohibited from doing business with the public sector? (Companies or persons who are listed on this database were informed in writing of this restriction by the National Treasury after the audi alteram partem rule was applied).		
4.1.1	If so, furnish particulars:		
4.2	Is the Tenderer or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corruption Activities Act (No 12 of 2004)? (To access this Register enter the National Treasury's website www.treasury.gov.za, click on the icon "Register for Tender Defaulters" or submit your written request for a hard copy of the Register to facsimile number (012 326 5445).		
4.2.1	If so, furnish particulars:		
4.3	Was the Tenderer or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?		
4.3.1	If so, furnish particulars:		
4.4	Does the Tenderer or any of its directors owe any municipal rates and taxes or municipal charges to the municipality/municipal entity, or any other municipality/municipal entity, that is in arrears for more than three months?		
4.4.1	If so, furnish particulars:		

4.5	Was any contract between the Tenderer and the municipality/municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?		
4.5.1	If so, furnish particulars:		

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME)

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

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

Signature

Date

Position

Name of Bidder

K. DECLARATION OF INTEREST

1. No Tender 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/s in terms of this invitation to Tender. In view of possible allegations of favouritism, should the resulting Tender, or part thereof, be awarded to persons connected with or related to persons in service of the State, it is required that the Tenderer 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 Tender.

Full Name: _____

Identity No: _____

Company Registration No: _____

Tax Reference No: _____

VAT Registration No: _____

Are you at present in the service of the State? **Yes/No**

If so, furnish particulars

- **Municipal Supply Chain Management Regulation:** "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 National Council of Provinces
- (b) A member of 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 Parliament or provincial legislature.
- (f) A member of the accounting authority of any national or provincial public entity; or
- (g) An employee of Parliament or a provincial legislature

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

If so, furnish particulars.

Do you have any relationship (family, friend, other) with persons in the service of the State and who may be involved with the evaluation or adjudication of this Tender?

YES/NO

If so, furnish particulars.

Are you aware of any relationship (family, friend, other) between a Tenderer and any persons in the service of the State who may be involved with the evaluation or adjudication of this Tender?

YES/NO

If so, furnish particulars?

Are any of the company's directors, managers, principle shareholders or stakeholders in service of the State?

YES/NO

If so, furnish particulars.

Are any spouses, child or parent of the company's directors, managers, principle shareholders or stakeholders in service of the State?

YES/NO

If so, furnish particulars?

CERTIFICATION

CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS CORRECT. I ACCEPT THAT THE STATE MAY ACT AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

Signature

Date

Position

Name of Bidder

This document must be signed and submitted together with your Tender

L. THE NATIONAL INDUSTRIAL PARTICIPATION PROGRAMME

INTRODUCTION

The National Industrial Participation (NIP) Programme, which is applicable to all government procurement contracts that have an imported content, became effective on the 1 September 1996. The NIP policy and guidelines were fully endorsed by Cabinet on 30 April 1997. In terms of the Cabinet decision, all state and parastatal purchases / lease contracts (for goods, works and services) entered into after this date, are subject to the NIP requirements. NIP is obligatory and therefore must be complied with. The Industrial Participation Secretariat (IPS) of the Department of Trade and Industry (DTI) is charged with the responsibility of administering the programme.

1 PILLARS OF THE PROGRAMME

1.1 The NIP obligation is benchmarked on the imported content of the contract. Any contract having an imported content equal to or exceeding US\$ 10 million or other currency equivalent to US\$ 10 million will have a NIP obligation. This threshold of US\$ 10 million can be reached as follows:

- (a) Any single contract with imported content exceeding US\$10 million.or
- (b) Multiple contracts for the same goods, works or services each with imported content exceeding US\$3 million awarded to one seller over a 2 year period which in total exceeds US\$10 million. or
- (c) A contract with a renewable option clause, where should the option be exercised the total value of the imported content will exceed US\$10 million. or
- (d) Multiple suppliers of the same goods, works or services under the same contract, where the value of the imported content of each allocation is equal to or exceeds US\$ 3 million worth of goods, works or services to the same government institution, which in total over a two (2) year period exceeds US\$10 million.

1.2 The NIP obligation applicable to suppliers in respect of sub-paragraphs 1.1 (a) to 1.1 (c) above will amount to 30 % of the imported content whilst suppliers in respect of paragraph 1.1 (d) shall incur 30% of the total NIP obligation on a *pro-rata* basis.

1.3 To satisfy the NIP obligation, the DTI would negotiate and conclude agreements such as investments, joint ventures, sub-contracting, licensee production, export promotion, sourcing arrangements and research and development (R&D) with partners or suppliers

A period of seven years has been identified as the time frame within which to discharge the obligation

2. REQUIREMENTS OF THE DEPARTMENT OF TRADE AND INDUSTRY

- 2.1 In order to ensure effective implementation of the programme, successful Tenderers (contractors) are required to, immediately after the award of a contract that is in excess of **R10 million** (ten million Rands), submit details of such a contract to the DTI for reporting purposes.
- 2.2 The purpose for reporting details of contracts in excess of the amount of R10 million (ten million Rands) is to cater for multiple contracts for the same goods, works or services; renewable contracts and multiple suppliers for the same goods, works or services under the same contract as provided for in paragraphs 1.1.(b) to 1.1. (d) above.

3 TENDER SUBMISSIONS AND CONTRACT REPORTING REQUIREMENTS OF TENDERERS AND SUCCESSFUL TENDERERS (CONTRACTORS)

- 3.1 Tenderers are required to sign and submit this Standard Tendering Document (SBD 5) together with the Tender on the closing date and time.
- 3.2 In order to accommodate multiple contracts for the same goods, works or services; renewable contracts and multiple suppliers for the same goods, works or services under the same contract as indicated in sub-paragraphs 1.1 (b) to 1.1 (d) above and to enable the DTI in determining the NIP obligation, successful Tenderers (contractors) are required, immediately after being officially notified about any successful Tender with a value in excess of R10 million (ten million Rands), to contact and furnish the **DTI with the following information**:
- Tender / contract number.
 - Description of the goods, works or services.
 - Date on which the contract was accepted.
 - Name, address and contact details of the government institution.
 - Value of the contract.
 - Imported content of the contract, if possible.
- 3.3 The information required in paragraph 3.2 above must be sent to the Department of Trade and Industry, Private Bag X 84, Pretoria, 0001 for the attention of Mr Elias Malapane within five (5) working days after award of the contract. Mr Malapane may be contacted on telephone (012) 394 1401, facsimile (012) 394 2401 or e-mail at Elias@thedti.gov.za for further details about the programme.

4 PROCESSES TO SATISFY THE NIP OBLIGATION

- 4.1 Once the successful Tenderer (contractor) has made contact with and furnished the DTI with the information required, the following steps will be followed:
- (a) the contractor and the DTI will determine the NIP obligation;
 - (b) the contractor and the DTI will sign the NIP obligation agreement;
 - (c) the contractor will submit a performance guarantee to the DTI;

- (d) the contractor will submit a business concept for consideration and approval by the DTI;
- (e) upon approval of the business concept by the DTI, the contractor will submit detailed business plans outlining the business concepts;
- (f) the contractor will implement the business plans; and
- (g) the contractor will submit bi-annual progress reports on approved plans to the DTI.

4.2 The NIP obligation agreement is between the DTI and the successful Tenderer (contractor) and, therefore, does not involve the purchasing institution

Tender number Closing date:.....

Name of Bidder.....

Postal address

.....

Signature..... Name (in print).....

Date.....

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

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

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

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

.....

.....

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

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

2.2 If yes, provide particulars.

.....

.....

.....

.....

* Delete if not applicable

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

3.1 If yes, furnish particulars

.....

.....

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

4.1 If yes, furnish particulars

.....

.....

CERTIFICATION

I, THE UNDERSIGNED (NAME)
.....

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

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

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

N. DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT

This Municipal Tendering Document (MBD) must form part of all Tenders invited. It contains general information and serves as a declaration form for local content (local production and local content are used interchangeably).

Before completing this declaration, Tenderers must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2011 and the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:201x.

1. General Conditions

- 1.1. Preferential Procurement Regulations, 2011 (Regulation 9. (1) and 9. (3) make provision for the promotion of local production and content.
- 1.2. Regulation 9.(1) prescribes that in the case of designated sectors, where in the award of Tenders local production and content is of critical importance, such Tenders must be advertised with the specific Tendering condition that only locally produced goods, services or works or locally manufactured goods, with a stipulated minimum threshold for local production and content will be considered.
- 1.3. Regulation 9.(3) prescribes that where there is no designated sector, a specific Tendering condition may be included, that only locally produced services, works or goods or locally manufactured goods with a stipulated minimum threshold for local production and content, will be considered.
- 1.4. Where necessary, for Tenders referred to in paragraphs 1.2 and 1.3 above, a two stage Tendering process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 1.5. A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 1.6. The local content (LC) as a percentage of the Tender price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 201x as follows:

$$LC = 1 - \left(\frac{x}{y} \right) \times 100$$

Where

x imported content

y Tender price excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by the South African Reserve Bank (SARB) at 12:00 on

the date, one week (7 calendar days) prior to the closing date of the Tender as required in paragraph 4.1 below.

1.7. A Tender will be disqualified if:

- The Tenderer fails to achieve the stipulated minimum threshold for local production and content indicated in paragraph 3 below; and this declaration certificate is not submitted as part of the Tender documentation.

2. Definitions

- 2.1. **“Tender”** includes advertised competitive Tenders, written price quotations or proposals;
- 2.2. **“Tender price”** price offered by the Tenderer, excluding value added tax (VAT);
- 2.3. **“contract”** means the agreement that results from the acceptance of a Tender by an organ of state;
- 2.4. **“designated sector”** means a sector, sub-sector or industry that has been designated by the Department of Trade and Industry in line with national development and industrial policies for local production, where only locally produced services, works or goods or locally manufactured goods meet the stipulated minimum threshold for local production and content;
- 2.5. **“Duly sign”** means a Declaration Certificate for Local Content that has been signed by the Chief Financial Officer or other legally responsible person nominated in writing by the Chief Executive, or senior member / person with management responsibility (close corporation, partnership or individual).
- 2.6. **“imported content”** means that portion of the Tender price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or its subcontractors) and which costs are inclusive of the costs abroad, plus freight and other direct importation costs, such as landing costs, dock duties, import duty, sales duty or other similar tax or duty at the South African port of entry;
- 2.7. **“local content”** means that portion of the Tender price which is not included in the imported content, provided that local manufacture does take place;
- 2.8. **“stipulated minimum threshold”** means that portion of local production and content as determined by the Department of Trade and Industry; and
- 2.9. **“Sub-contract”** means the primary contractor’s assigning, leasing, making out work to, or employing another person to support such primary contractor in the execution of part of a project in terms of the contract.

3. The stipulated minimum threshold(s) for local production and content for this Tender is/are as follows:

<u>Description of services, works or goods</u>	<u>Stipulated minimum threshold</u>
_____	_____ %
_____	_____ %
_____	_____ %

4. Does any portion of the services, works or goods offered have any imported content?

YES / NO

- 4.1 If yes, the rate(s) of exchange to be used in this Tender to calculate the local content as prescribed in paragraph 1.6 of the general conditions must be the rate(s) published by the SARB for the specific currency at 12:00 on the date, one week (7 calendar days) prior to the closing date of the Tender.

The relevant rates of exchange information is accessible on www.reservebank.co.za.

Indicate the rate(s) of exchange against the appropriate currency in the table below:

Currency	Rates of exchange
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

NB: Tenderers must submit proof of the SARB rate (s) of exchange used.

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF TENDER No.

ISSUED BY: (Procurement Authority / Name of Municipality / Municipal Entity):

.....

NB The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the Tenderer.

I, the undersigned, (full names),

do hereby declare, in my capacity as

of(name of Tenderer entity), the following:

- (a) The facts contained herein are within my own personal knowledge.
- (b) I have satisfied myself that the goods/services/works to be delivered in terms of the above-specified Tender comply with the minimum local content requirements as specified in the Tender, and as measured in terms of SATS 1286.
- (c) The local content has been calculated using the formula given in clause 3 of SATS 1286, the rates of exchange indicated in paragraph 4.1 above and the following figures:

Tender price, excluding VAT (y)	R
Imported content (x)	R

Stipulated minimum threshold for Local content (paragraph 3 above)	
Local content % as calculated in terms of SATS 1286	

If the Tender is for more than one product, a schedule of the local content by product shall be attached.

- (d) I accept that the Procurement Authority / Municipality /Municipal Entity has the right to request that the local content be verified in terms of the requirements of SATS 1286.
- (e) I understand that the awarding of the Tender is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286, may result in the Procurement Authority / Municipal / Municipal Entity imposing any or all of the remedies as provided for in Regulation 13 of the Preferential Procurement Regulations, 2011 promulgated under the Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

SIGNATURE: _____

DATE: _____

WITNESS No. 1 _____

DATE: _____

WITNESS No. 2 _____

DATE: _____

O. CERTIFICATE OF INDEPENDENT TENDER DETERMINATION

- 1 This Municipal Tendering Document (MBD) must form part of all Tenders¹ invited.
- 2 Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive Tendering (or Tender rigging).² Collusive Tendering is a *pe se* prohibition meaning that it cannot be justified under any grounds.
- 3 Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:
 - a. take all reasonable steps to prevent such abuse;
 - b. reject the Tender of any Tenderer if that Tenderer or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
 - c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the Tendering process or the execution of the contract.
- 4 This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when Tenders are considered, reasonable steps are taken to prevent any form of Tender-rigging.
- 5 In order to give effect to the above, the attached Certificate of Tender Determination (MBD 9) must be completed and submitted with the Tender:

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

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

S. CERTIFICATE OF INDEPENDENT TENDER DETERMINATION

I, the undersigned, in submitting the accompanying Tender:

(Tender Number and Description)

in response to the invitation for the Tender made by:

(Name of Municipality / Municipal Entity)

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

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

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying Tender will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the Tenderer to sign this Certificate, and to submit the accompanying Tender, on behalf of the Tenderer;
4. Each person whose signature appears on the accompanying Tender has been authorized by the Tenderer to determine the terms of, and to sign, the Tender, on behalf of the Tenderer;
5. For the purposes of this Certificate and the accompanying Tender, I understand that the word "competitor" shall include any individual or organization, other than the Tenderer, whether or not affiliated with the Tenderer, who:
 - (a) has been requested to submit a Tender in response to this Tender invitation;
 - (b) could potentially submit a Tender in response to this Tender invitation, based on their qualifications, abilities or experience; and
 - (c) provides the same goods and services as the Tenderer and/or is in the same line of business as the Tenderer
6. The Tenderer has arrived at the accompanying Tender independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium³ will not be construed as collusive Tendering.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:

- (a) prices;
 - (b) geographical area where product or service will be rendered (market allocation)
 - (c) methods, factors or formulas used to calculate prices;
 - (d) the intention or decision to submit or not to submit, a Tender;
 - (e) the submission of a Tender which does not meet the specifications and conditions of the Tender; or
 - (f) Tendering with the intention not to win the Tender.
8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this Tender invitation relates.
9. The terms of the accompanying Tender have not been, and will not be, disclosed by the Tenderer, directly or indirectly, to any competitor, prior to the date and time of the official Tender opening or of the awarding of the contract.

³ Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to Tenders and contracts, Tenders that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

P. COMPLIANCE WITH OHSA (ACT 85 OF 1993)

Tenderers are required to satisfy the Employer and the Engineer as to their ability and available resources to comply with the above by answering the following questions and providing the relevant information required below.

1. Is the Contractor familiar with the OHSA (ACT 85 of 1993) and its Regulations?	YES	/	NO
2. Who will prepare the Contractor's Health and Safety Plan? (Provide a copy of the person/s curriculum vitae/s or company profile).	YES	/	NO
3. Does the Contractor have a health and safety policy? (If yes, provide a copy). How is this policy communicated to all employees?	YES	/	NO
4. Does the Contractor keep records of safety aspects of each construction site? If yes, what records are kept?	YES	/	NO
5. Does the Contractor conduct monthly safety meetings? If yes, who is the chairperson of the meeting, and who attend these meetings?	YES	/	NO
6. Does the Contractor have a safety officer in his employment, responsible for the overall safety of his company? If yes, please explain his duties and provide a copy of his CV.	YES	/	NO
7. Does the Contractor have trained first aid employees? If yes, indicate, who.	YES	/	NO
8. Does the Contractor have a safety induction-training programme in place? (If yes, provide a copy)	YES	/	NO

Signature of Bidder:**Date:**

Q. ORIGINAL BANK RATING LETTER

Attached the Bank Rating to this Page

R. DAY WORK SCHEDULE

This Day work Schedule shall be used for the valuation of any additional or substituted work which cannot conveniently be valued at the rates and prices submitted in the schedule of quantities.

In respect of labour and materials used in the additional or substituted work not covered in the Day work Schedule the Contractor shall be paid the actual cost plus the percentage allowance stated in the schedule of quantities.

The Tenderer shall quote hereunder rates which shall apply for payment purposes if the Engineer orders additional or substituted work to be carried out on a day work basis and shall therefore be in accordance with the requirements of clause 37(2) of the General Conditions of Contract.

1. LABOUR AND MATERIALS

Rates and prices entered in the schedule shall be held to allow for net cost of labour and materials delivered to site respectively with the percentage allowances stated in the schedule of quantities.

2. PLANT AND EQUIPMENT

The Tenderers shall list all major items of plant and equipment to be used on the works and which may be required for use on day works. The proposed hire rates of these items shall be entered against each type of machine, such rates to include for all relevant costs of plant hire inclusive of fuels and lubricants but exclusive of labour charges for the operators, which will be paid for under sub-clause (1) above.

The rates for plant items not listed in the schedule will be the ruling plant hire rates, inclusive of fuels and lubricants but exclusive of labour charges for the operators, inclusive of a 7,5% handling charge. It is therefore in the Tenderers interest to ensure that the list is complete.

Should there be insufficient space on the pages provided; the Tenderer shall add further pages as required.

THE RATES FOR THE PLANT AND EQUIPMENT MENTIONED IN THE SCHEDULE SHALL BE FILLED IN FOR THE ITEMS REQUESTED. SHOULD AN ITEM BE OMITTED IT SHALL BE DEEMED TO HAVE BEEN INCLUDED IN THE OTHER DAYWORKS RATES.

I. LABOUR

DESIGNATION		RATE	
		R	C
Brick Layers	per hour		
Pipe Layers	per hour		
Plant Operators	per hour		
Truck Drivers	per hour		
Labour - unskilled	per hour		
- semi-skilled	per hour		
- skilled	per hour		

II. MATERIALS

DESIGNATION		RATE	
		R	C
Cement	per 50 kg pocket delivered		
Concrete Sand	per m ³ delivered		
Concrete Aggregate	per m ³ delivered		

III. TRANSPORT

DESIGNATION	RATE	
	R	C
Per cubic metre kilometre		

IV. PLANT AND EQUIPMENT

ITEM	DESCRIPTION	NON WORKING RATE*		OPERATING RATE		PER
		R	c	R	C	UNIT
	Excavator					
	LDV					
	Tipper 10 cubic meter					
	Grader (140G or equivalent)					
	Roller					

*Only applicable on authority of the Engineer.

POLOKWANE MUNICIPALITY

PART C1: AGREEMENTS AND CONTRACT DATA

C1.1: FORM OF OFFER AND ACCEPTANCE

C1.2: CONTRACT DATA

C1.3: DEMAND GUARANTEE AND RETENTION MONEY GUARANTEE

**C1.4: AGREEMENT IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL
HEALTH AND SAFETY ACT No 85 OF 1993**

C1.5: AGREEMENT WITH ADJUDICATOR

POLOKWANE MUNICIPALITY

PROJECT DESCRIPTION: TARRING NTSIME TO SEFATENG (PHASE 2)

C1.1 Form of Offer and Acceptance

(AGREEMENT)

Offer

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract for the procurement of construction works viz.: **Project Description: TARRING NTSIME TO SEFATENG (PHASE 2) Contract No.: PM41/2017**

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

By the representative of the Tenderer, deemed to be duly authorized, signing this part of this Form of Offer and Acceptance, the Tenderer offers to perform all of the obligations and liabilities of the Contractor under the Contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the Conditions of Contract identified in the Contract Data.

The offered total of the prices inclusive of value-added-tax is

.....

..... (Amount in words); R..... (Amount in figures)

This Offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document to the Tenderer before the end of the period of validity stated in the Tender Data, whereupon the Tenderer becomes the party named as the Contractor in terms of the Conditions of Contract identified in the Contract Data.

Signature(s)

Print Name(s)

Capacity

For the Tenderer

.....
(Name and address of organization)

Signature of witness.....Date:

Print Name

Important Note

This page to be duly completed by the Tenderer before submitting the Tender.

ACCEPTANCE

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

The terms of the contract are contained in

Part 1: Agreements and Contract Data (which include this Agreement)

Part 2: Pricing Data

Part 3: Scope of Work

Part 4: Site Information

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

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

The Tenderer shall, within 7 days of 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 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 the obligations in accordance with those terms shall constitute a repudiation of this Agreement.

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the Tenderer receives one fully completed copy of this original document, including the Schedule of Deviations (if any). Such date should be confirmed in a manner that can be read, copied and recorded and shall be accepted by the contracting parties as the Commencement Date. This agreement shall constitute a binding contract between the parties.

Signature(s)

Print Name(s)

Capacity

For the Employer
(Name of Organization)

.....
.....
(Address of Organization)

Signature of witness..... Date:

Print Name

SCHEDULE OF DEVIATIONS

1. The extent of deviations from the Tender documents issued by the Employer before the Tender closing date is limited to those permitted in terms of the Conditions of Tender.
2. A Tenderer's covering letter shall not be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid, be 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 Tender 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 Tender documents arising from the above agreements and recorded here shall also be incorporated into the final Contract Document.

4.1 Subject
Details

4.2 Subject
Details

4.3 Subject
Details

By the duly authorized representatives signing this Schedule of Deviations, the Employer and the Contractor agree to and accept the foregoing Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the Contractor and the Employer in concluding this process of offer and acceptance; in witness thereof the parties hereto have caused this agreement to be executed.

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

Signed by: Signed by:

Print Name: Print Name:

Address: Address:

.....

For and on behalf of the **Employer** in the
Presence of

For and on behalf of the **Contractor** in the
presence of

Witness: Witness:

Print Name: Print Name:

Date: Date:

POLOKWANE MUNICIPALITY
(Not to be completed at tender stage)

C1.3 Performance Guarantee

In accordance with clause 6.2.1 of General Conditions of Contract, 2nd Edition 2010

Contract No: -----

Description of Contract: -----

GUARANTOR DETAILS AND DEFINATIONS

“Guarantor” means: -----

----- (Please put name of firm)

Please address: -----

Postal address: -----

Tel:-----

Fax: -----

“Employer” means: **POLOKWANE MUNICIPALITY.**

“Contractor” means: -----

----- (Please put name of
firm)

“**Guarantee sum**” means: 10% of the contract amount

“**Engineer**” means: -----

“**Works**” means: Permanent works together with temporary works

“**Site**” means: The land and other places, made available by the Employer for the purpose of the contract, on under over in or through which the works are to be executed or carried out.

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

“**Contract Sum**” means: The accepted amount inclusive for tax of R-----

Amount in words: -----

“**Expiry Date**” This Guarantee shall expire upon the issue of the **Completion Certificate** issued by Polokwane Municipality signed by the Director of ENGINEERING Services, as such date is advised to the Guarantor in writing confirmed by the Employer.

CONTRACT DETAILS

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

PERFORMANCE GUARANTEE

1. The Guarantor's liability shall be limited to the amount of the Guaranteed Sum.
2. Expiry Date" This Guarantee shall expire upon the issue of the final completion certificate issued by Polokwane Municipality signed by the Director of ENGINEERING Services, as such date is advised to the Guarantor in writing confirmed by the Employer
The Engineer and/or the Employer shall advise the Guarantor in writing of the date on the Certificate 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 surety ship;
 - 3.2 Its obligation under this Performance Guarantee is restricted to the payment of money.
4. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 4.1 to 4.3:
 - 4.1. A copy of a first written demand issues by the Employer to the Contractor stating that payment of a sum certified by the Engineer and/ or Employer 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 and / or postal address with a copy to the Contractor stating that period of seven (7) days has elapsed since the first written demand terms of 4.1 and the sum certificate has still not been paid;
 - 4.3. A copy of the aforesaid payment certificate which entails the Employer to receive payment in terms of the Contract sum 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 and/ or postal address calling up this Performance Guarantee, such demand stating that:
 - 5.1. The contractor has been termination due to the Contractor's default and 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. 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.
8. Payment by Guarantor in terms of 5 will only be made against the return of the original Performance Guarantee by the Employer.
9. 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 his Performance Guarantee on account alleged to be prejudicial to the Guarantor.
10. The Guarantor chooses the physical address and postal address as stated above for the service of all notices for all purposes in connection herewith.
11. This Performance Guarantee is neither negotiable nor transferable and shall expire in terms of 2, where after on claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.
12. 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.
13. 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 Court 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.

Sign at -----

Date -----

Guarantor's signatory (1) -----

Capacity -----

Guarantor's signatory (2) -----

Capacity -----

Witness signatory (1) -----

Witness signatory (2) -----

RETENTION MONEY GUARANTEE
(Not to be completed at tender stage)

In accordance with clause 6.2.1 of General Conditions of Contract, 2nd Edition 2010

Contract No: -----

Description of Contract: -----

GUARANTOR DETAILS AND DEFINATIONS

“Guarantor” means: -----

----- (Please put name of firm)

Please address: -----

Postal address: -----

Tel:-----

Fax: -----

“Employer” means: **POLOKWANE MUNICIPALITY.**

“Contractor” means: -----

----- (Please put name of firm)

“Guarantee sum” means: 10% of the contract amount

“Engineer” means: -----

“Works” means: Permanent works together with temporary works

“Site” means: The land and other places, made available by the Employer for the purpose of the contract, on under over in or through which the works are to be executed or carried out.

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

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

Amount in words: -----

“Expiry Date” This Guarantee shall expire upon the issue of the **Final Completion Certificate** issued by Polokwane Municipality signed by the Director of ENGINEERING Services, as such date is advised to the Guarantor in writing confirmed by the Employer.

CONTRACT DETAILS

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

RETENTION GUARANTEE

1. The Guarantor's liability shall be limited to the amount of the Guaranteed Sum.
2. Expiry Date" This Guarantee shall expire upon the issue of the final completion certificate issued by Polokwane Municipality signed by the Director of ENGINEERING Services, as such date is advised to the Guarantor in writing confirmed by the Employer
The Engineer and/or the Employer shall advise the Guarantor in writing of the date on the Certificate 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 surety ship;
 - 3.3 . Its obligation under this Retention 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 issues by the Employer to the Contractor stating that payment of a sum certified by the Engineer and/ or Employer 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 and / or postal address with a copy to the Contractor stating that period of seven (7) days has elapsed since the first written demand terms of 4.1 and the sum certificate has still not been paid;
 - 4.3. A copy of the aforesaid payment certificate which entails the Employer to receive payment in terms of the Contract sum 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 and/ or postal address calling up this Performance Guarantee, such demand stating that:

- 5.1. The contractor has been terminated due to the Contractor's default and this Retention 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 Retention 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. 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.
8. Payment by Guarantor in terms of 5 will only be made against the return of the original Retention Guarantee by the Employer.
9. 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 his Retention Guarantee on account alleged to be prejudicial to the Guarantor.
10. The Guarantor chooses the physical address and postal address as stated above for the service of all notices for all purposes in connection herewith.
11. This Retention Guarantee is neither negotiable nor transferable and shall expire in terms of 2, where after on claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.
12. This Retention 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.
13. Where this Retention Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Court 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.

Sign at -----

Date -----

Guarantor's signatory (1) -----

Capacity -----

Guarantor's signatory (2) -----

Capacity -----

Witness signatory (1) -----

Witness signatory (2) -----

POLOKWANE MUNICIPALITY

C.1.2 Contract Data

CONTENTS

C.1.2.1 Part 1: Data provided by the Employer

C.1.2.1.1 Conditions of Contract

C.1.2.1.2 Contract-specific Data

C.1.2.1.2.1 Compulsory Data

C.1.2.1.2.2 Variations to the General Conditions of Contract

C.1.2.1.2.3 Additional clauses to the General Conditions of Contract

C.1.2.1 Part 1: Data provided by the Employer

C.1.2.1.1 Conditions of Contract

The Conditions of Contract are:

- the “General Conditions of Contract” as they appear in the commercially-available publication “General Conditions of Contract for Construction Works, Second Edition, 2010”, hereinafter referred to as “GCC 2010”; and
- specific data as contained in this Contract Data.

Each party to the Contract shall purchase its own copy of the GCC 2010 that applies to this Contract, available from its publisher:

South African Institution of Civil Engineering
Private Bag X200
Halfway House
1685
South Africa

Tel +27 (0)11 805 5947

The following Notes apply:

Note 1

The GCC 2010 makes several references to the Contract Data.

Each item of data below is cross-referenced to the clause in the Conditions of Contract to which it applies. Notwithstanding anything specified to the contrary, the Contract Data shall take precedence in the interpretation of any ambiguity or inconsistency between it and the GCC 2010.

The documents forming the Contract are to be taken as mutually explanatory of one another. For the purpose of interpretation, the priority of the documents shall be in accordance with the following order of precedence:

- (a) the Form of Offer and Acceptance.
- (b) amendments to the General Conditions of Contract within the Contract Data.
- (c) additional conditions to the General Conditions of Contract within the Contract Data.
- (d) corrigenda to the General Conditions of Contract.
- (e) the General Conditions of Contract.
- (f) the Specifications, Drawings, Schedules and other documents forming part of the Contract (in that order) contained in the Scope of Work and the Site Information.

If any ambiguity or discrepancy is found in the documents, the Engineer needs to be contacted to issue any necessary clarification or instruction.

Note 2

Certain pro-forma forms and pro-forma agreements contained in the GCC 2010 have been adapted for this particular contract. Those pro-forma forms and pro-forma agreements contained in the GCC 2010 do not apply where replaced by similar pro-forma forms and pro-forma agreements in this document.

C.1.2.1.2 Contract-specific Data

The following contract-specific data, referring to the General Conditions of Contract, are applicable to this Contract:

C.1.2.1.2.1 Compulsory 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 10 months
1.1.1.15	The name of the Employer is Polokwane Municipality
1.1.1.26	The Pricing Strategy of a Re-measurement Contract shall apply
1.2.1.2	<p>The address of the Employer is:</p> <p>Physical address: Civic Centre Landdros Mare Street Polokwane City</p> <p>Postal address: PO Box 111 Polokwane 0700</p> <p>e-mail address: pilotr@polokwane.gov.za</p> <p>Contact numbers: Corporate: 015 290 2204 Direct: 015 290 2206</p>
1.1.1.16	<p>The name of the Engineer is:</p> <p>Dikgato Engineering Consultants (Pty) Ltd</p>

Clause	Data																																											
1.2.1.2	<p>The address of the Engineer is:</p> <p>Physical address: GAAL Airport Building Court No.1 Office No.3 POLOKWANE 0699</p> <p>Postal address: P.O Box 55131 ARCADIA 0007</p> <p>e-mail address: dikgatoc@dikgato.co.za</p> <p>Contact numbers: Corporate: (015) 288 1688 Mobile: (072) 385 7257 Fax: (015) 288 1697</p>																																											
3.1.3	<p>The Engineer shall obtain the specific approval of the Employer before executing any of his functions or duties according to the following table:</p> <table><tr><th>GCC Clause No</th><th>Description</th><th>Requires EWA*</th><th>Delegated to ER*</th></tr><tr><td>3.2.1</td><td>Engineer's Representative's appointment and termination</td><td>Y</td><td></td></tr><tr><td>3.2.4</td><td>Engineer's Representative acting on Engineer's behalf</td><td>Y</td><td></td></tr><tr><td>4.5.4</td><td>Payment for notices and fees</td><td>Y</td><td></td></tr><tr><td>4.7.1</td><td>Fossils, etc on Site</td><td>Y</td><td></td></tr><tr><td>5.7.2</td><td>Work at night</td><td>Y</td><td></td></tr><tr><td>5.7.3</td><td>Acceleration of rate of progress</td><td>Y</td><td></td></tr><tr><td>5.7.3</td><td>Payment for acceleration</td><td>Y</td><td></td></tr><tr><td>5.9.1</td><td>Instructions and drawings on Commencement Date</td><td></td><td>Y</td></tr><tr><td>5.11.1</td><td>Suspension of the Works</td><td></td><td>Y</td></tr></table>				GCC Clause No	Description	Requires EWA*	Delegated to ER*	3.2.1	Engineer's Representative's appointment and termination	Y		3.2.4	Engineer's Representative acting on Engineer's behalf	Y		4.5.4	Payment for notices and fees	Y		4.7.1	Fossils, etc on Site	Y		5.7.2	Work at night	Y		5.7.3	Acceleration of rate of progress	Y		5.7.3	Payment for acceleration	Y		5.9.1	Instructions and drawings on Commencement Date		Y	5.11.1	Suspension of the Works		Y
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5.9.1	Instructions and drawings on Commencement Date		Y																																									
5.11.1	Suspension of the Works		Y																																									

Clause	Data			
	5.11.3	Proceeding with Works after suspension	Y	
	5.12.4	Acceleration instead of extension of time	Y	
	5.13.2	Reduction in penalty		Y
	6.3.1	Variation orders	Y	
	GCC Clause No	Description	Requires EWA*	Delegated to ER*
	6.3.2.1	Confirmation of a Variation Order	Y	
	6.4.1.4	Dayworks as a Variation Order	Y	
	6.5.2	Materials for dayworks	Y	
	6.8.4	Costs due to changes in legislation	Y	
	6.11.1	Variations exceeding 20%		Y
	8.2.2.2	Damage due to excepted risks		Y
	10.1.5	Consultation on Contractor's claim	Y	Y
	10.1.5	Ruling on Contractor's claim	Y	N
	*The following abbreviations apply: ER Engineer's Representative EWA Engineer's Written Action N No NA Not Applicable Y Yes			
3.1.4	Delete this clause.			
4.9.1	The Contractor shall deliver to the Engineer, on a monthly basis, a detailed inventory of Construction Equipment kept on Site, full particulars given for each day of the month. Distinction shall be made between Owned Equipment and Hired Equipment as well as Equipment in working order and Equipment out of order. Such inventory shall be submitted by the seventh day of the month following the month to be reported.			

Clause	Data
4.10.2	The Contractor shall deliver to the Engineer, on a monthly basis, a return in detail of supervisory staff and the number of categorized classes of labour employed each day for the said period by the Contractor for execution of the Contract. Such return shall be submitted by the seventh day of the month following the month to be reported.
5.3.1	<p>The documentation required before commencement with Works execution are:</p> <p>Health and Safety Plan (Refer to Clause 4.3)</p> <p>A signed Agreement between the Employer and the Contractor for the Works to be completed by the Contractor in terms of the provisions of Section 37(2) of the Occupational Health and Safety Act (Act No.85 of 1993) and the Construction Regulations promulgated thereunder (Refer to Clause 4.3).</p> <p>Proof of payment to the Employer, that the Contractor has paid all contributions required in terms of the Compensation for Occupational Injuries and Diseases Act, No 130 of 1993 (Refer to Clause 4.3).</p> <p>Initial programme (Refer to Clause 5.6).</p> <p>Security (Refer to Clause 6.2).</p> <p>Insurance (Refer to Clause 8.6).</p>
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 shall be as set out elsewhere in the Contract.
5.8.1	<p>The non-working Days are Sundays.</p> <p>The special non-working Days are:</p> <p>Statutory public holidays; and</p> <p>All annual year-end shutdown periods as recommended by the South African Federation of Civil Engineering Contractors (SAFCEC), and which commence after the Commencement Date and which commence before the Due Completion Date.</p>
5.13.1	The penalty for failing to complete the Works is 0,1 percent of contract price per calendar day.
5.16.3	The latent defect period is 10 years, commencing on the Day after the date of certification of Practical Completion.
6.5.1.2.3	<p>The percentage allowance to cover overhead charges is:</p> <p>50 per cent for labour; and</p> <p>15 per cent for materials.</p>
6.10.1.5	The percentage advance on materials not yet built into the Permanent Works is 80%. Proof of ownership is required.

Clause	Data
6.10.3	<p>The limit of retention money is 10% of the value of the Contract Price.</p> <p>A Retention Money Guarantee is compulsory.</p> <p>A penalty will be applied for non-delivery of the Retention Money Guarantee as required. The penalty will be 10% of the value of the completion Retention Money Amount per calendar month for late delivery of the said Retention Money Guarantee.</p>
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 a maximum of 10% (ten percent) of the Contract Sum.
8.6.1.3	The limit of indemnity for liability insurance is equal to the contract amount.
10.5.1	Dispute resolution shall be by standing adjudication, use GCC 2010, Appendix 5.
10.7.1	The determination of disputes shall be by arbitration.
	<p>Payment for labour-intensive component of the works</p> <p><i>Payment for works identified in the Scope of Works as being labour-intensive shall only be made in accordance with the provisions of the Contract if the works are constructed strictly in accordance with the provisions of the Scope of Work. Any payment for such works shall not relieve the Contractor in any way from his obligations either in contract or in delict.</i></p>
	<p>Linkage of payment for labour-intensive component of works to submission of project data</p> <p><i>The Contractor's payment invoices shall be accompanied by labour information for the corresponding period in a format specified by the employer. If the contractor chooses to delay submitting payment invoices, labour returns shall still be submitted as per frequency and timeframe stipulated by the Employer. The contractor's invoices shall not be paid until all pending labour information has been submitted.</i></p>
	<p>Applicable Labour Laws</p> <p><i>The current Ministerial Determination (also downloadable at www.epwp.gov.za), Expanded Public Works Programmes, issued in terms of the Basic Condition of Employment Act of 1997 by the Minister of Labour in Government Notice, shall apply to works described in the scope of work as being labour-intensive and which are undertaken by unskilled workers.</i></p>

C.1.2.1.2.2 Variations to the General Conditions of Contract

Clause	Data
2.5.1	<p>Cession</p> <p><i>Amend Clause 2.5.1 as follows:</i></p> <p><i>Delete the words “without the written consent of the other”</i></p>
5.14.5.1	<p>Consequences of Completion</p> <p><i>Amend Clause 5.14.5.1 as follows:</i></p> <p><i>In the second line, substitute the word ‘Guarantor’ with ‘Contractor’.</i></p>
6.2	<p>Security</p> <p><i>Replace Sub-Clauses 6.2.1 and 6.2.2 with:</i></p> <p>“The Contractor shall deliver to the Employer within such time as may be stated in the Contract Data, a Demand Guarantee, of an Insurance Company registered in terms of the Short-term Insurance Act (Act 53 of 1998) or of a registered Commercial Bank, in a sum equal to the amount stated in the Contract Data. The Demand Guarantee shall be issued by an entity subject to the approved of the Employer, and shall conform in all respects to the format contained in the Contract Data.</p> <p>The security to be provided by the Contractor shall be a Demand Guarantee of 10% of the Contract Sum.</p> <p>Wherever a joint venture constitutes the contracting party, the Demand Guarantee shall be issued on behalf of the joint venture.</p> <p>Failure to produce an acceptable Demand Guarantee within the period stated in the Contract Data, is a fundamental breach of Contract, entitling the Employer to cancel the Contract by due notice in terms of Clause 9.2 with specific reference to Sub-clause 9.2.2 as amended in the Contract Data.”</p>

Clause	Data
6.3.1	<p>Variations</p> <p><i>Amend Clause 6.3.1, as follows:</i></p> <p><i>In the first paragraph, third line, after the words "or for any reason appropriate", add the phrase</i></p> <p><i>", including the limiting of contract expenditure so as not to exceed the Employer's budgeted project funding, "</i></p> <p><i>Add the following phrase to the last paragraph of Clause 6.3.1.6, after the words "ascertaining the amount of the Contract Price":</i></p> <p><i>", and no such variation shall give reason for consideration of any claim in terms of Clause 6.11."</i></p>
6.3.2	<p>Orders for Variations to be in writing</p> <p>Omit the words "Provided that" under Clause 6.3.2 and omit Clause 6.3.2.1.</p>
6.9.2	<p>Definition of "materials"</p> <p><i>Amend Clause 6.9.2, as follows:</i></p> <p><i>Substitute the word 'plant' with 'Plant'.</i></p>
6.10.1	<p>Interim Payments</p> <p><i>Amend Clause 6.10.1.5 as follows:</i></p> <p><i>In the third line, add the words 'not yet' before the words 'built into'</i></p>
6.10.5	<p>Payment of retention money</p> <p><i>Amend Clause 6.10.5 as follows:</i></p> <p><i>In the second line, add the words ', if any,' after the words 'Defects Liability Period'</i></p>
6.10.6	<p>Set-off and delayed payments</p> <p><i>Amend Clause 6.10.6.2 as follows:</i></p> <p><i>Delete the words 'simple interest' and substitute with the words 'interest compounded monthly'.</i></p> <p><i>Delete the words 'Contractor's Bank' and substitute with the words 'Employer's Bank'</i></p>

Clause	Data
6.11	<p>Variations exceeding 15 per cent</p> <p><i>Replace the marginal heading with:</i></p> <p>“Variations exceeding 20 per cent”</p> <p><i>Replace “15 per cent” with “20 per cent” in the text of this Sub-Clause</i></p>
7.4.4	<p>Cost of test specimens and tests</p> <p><i>Amend Clause 7.4.4.2 as follows:</i></p> <p>In the <u>second</u> line of paragraph two, add the words ‘<i>the requirements of</i>’ before the words ‘<i>the Contract</i>’</p>
7.8.2	<p>Cost of making good of defects</p> <p><i>Amend Clause 7.8.2.1 as follows:</i></p> <p><i>In the first line, correct the spelling of therefore’.</i></p>
8.1.3	<p>Excessive loads and traffic</p> <p>In the third line, add a comma after the word ‘Site’ as follows: ‘in the vicinity of the Site, from’.</p>
8.3.1	<p>Excepted risks</p> <p><i>Amend Clause 8.3.1.10 as follows:</i></p> <p><i>In the second line, delete the words ‘Employer or any of their’ and substitute with ‘or any of its’.</i></p>
8.6.6	<p>Contractor to produce proof of payment</p> <p>“The Contractor shall before commencement of the Works produce to the Engineer:</p> <p>8.6.6.1 The policies by which the insurances are effected,</p> <p>8.6.6.2 Proof that due payment of all premiums there under, covering the full required period has been made, and</p> <p>8.6.6.3 Proof of continuity of the policies for the required period.</p>

Clause	Data
	<p>Should, during the currency of the Contract, the required period of insurance be extended for any reason, the Contractor shall timeously extend (so as to maintain) the said insurances for the full extended duration.</p> <p>The Engineer shall be empowered to withhold all payment certificates until the Contractor has complied with his obligations in terms of this Clause 8.6.6.”</p>
8.6.7	<p>Remedy on Contractor’s failure to insure</p> <p><i>Delete sub-clause 8.6.7 and substitute with:</i></p> <p>“Failure on the part of the Contractor to effect and keep in force any of the insurances referred to in Clause 8.6.1 and its sub-clauses, is a fundamental breach of Contract, entitling the Employer to cancel the Contract by due notice in terms of Clause 9.2 and with specific reference to sub-clause 9.2.2, as amended in the Contract Data.”</p>
9.1.2	<p>State of emergency</p> <p><i>In the <u>fourth</u> line, delete the words ‘supply of’ and substitute with ‘availability of’.</i></p>
9.2	<p>Termination by Employer</p> <p><i>Delete the contents of Clause 9.2 and substitute with:</i></p> <p>“9.2.1 The Employer may terminate the Contract by written notice to the Contractor if:</p> <p>9.2.1.1 Sequestration of the Contractor’s estate is ordered by a Court with due jurisdiction, or</p>
	<p>9.2.1.2 The Contractor publishes a notice of surrender or presents a petition for the surrender of his estate as insolvent, or makes a compromise with his creditors, or assigns in favour of his creditors, or agrees to carry out the Contract under the supervision of a committee representing his creditors, or (being a company) goes into liquidation, whether provisionally or finally (other than a voluntary liquidation for the purpose of amalgamation or reconstruction), or if the Contractor assigns the Contract without having first obtained the Employer’s consent in writing, or if execution is levied on his goods, or</p>
	<p>9.2.1.3 The Contractor, or anyone on his behalf, or in his employ, offers to any person in the employ of the Employer or the Engineer, a gratuity or reward or commission, or</p>
	<p>9.2.1.4 The Contractor furnished materially inaccurate information in his Tender, which had a bearing on the award of the Contract, or</p>
	<p>9.2.1.5 The Contractor has abandoned the Contract.</p>

Clause	Data
	<p>9.2.2 If the Contractor:</p> <p>9.2.2.1 Has failed to commence the Works in terms of Clause 10 hereof, or has suspended the progress of the Works for fourteen (14) days after receiving from the Engineer written notice to proceed, or</p> <p>9.2.2.2 Has failed to provide the Guarantee in terms of Clause 7 within the time stipulated in the Contract Data, or</p> <p>9.2.2.3 Has failed to proceed with the Works with due diligence, or</p> <p>9.2.2.4 Has failed to remove materials from the Site or to pull down and replace work within fourteen (14) days after receiving from the Engineer written notice that the said materials or work have been condemned and rejected by the Engineer in terms of these conditions, or</p> <p>9.2.2.5 Is not executing the Works in accordance with the Contract, or is neglecting to carry out his obligations under the Contract, or</p> <p>9.2.2.6 Has, to the detriment of good workmanship or in defiance of the Engineer's instructions to the contrary, sublet any part of the Contract, or</p> <p>9.2.2.7 Has assigned the Contract or any part thereof without the Employer's consent in writing,</p> <p>then the Employer may give the Contractor 14 days notice to rectify the default, and if the Contractor fails to rectify the default in said 14 days, then, without further notice, notify the Contractor in writing of the termination of the Contract and expel the Contractor and order the Contractor to vacate the site within 24 hours of issue of the Notice of Termination and to hand the Site over to the Employer, and the Employer may then enter upon the Site and the Works without affecting the rights and powers conferred on the Employer or the Engineer by the Contract and the Employer may himself complete the Works or may employ another contractor to complete the Works, and the Employer or such other contractor may use for such completion so much of the Construction Equipment, Temporary Works and materials brought onto the Site by the Contractor as the Employer may think proper, and the Employer may at any time sell any of the said Construction Equipment, Temporary Works and unused materials and apply the proceeds of sale towards payment of any sums that may be due or become due to the Employer by the Contractor under the Contract. In such circumstances the Contractor shall forthwith vacate the Site and shall not be entitled to remain on the Site on the grounds that he is entitled to do so on a right of retention until amounts due to him have been paid, neither will the Contractor be entitled to any further payments in terms of this Contract.</p>

Clause	Data
	<p>9.2.3 If the Contractor, having been given notice to rectify a default in terms of 9.2.2 above, rectifies said default, but later repeats the same or substantially the same default, then the Employer may notify the Contractor of the immediate termination of the Contract, and proceed as stated in the paragraph following the word 'writing' in Clause 9.2.2.7 above.</p>
	<p>9.2.4 Should the amounts that the Employer must pay to complete the Works, exceed the sum that would have been payable to the Contractor on due completion by him, then the Contractor shall upon demand pay to the Employer the difference, and it shall be deemed a debt due by the Contractor to the Employer and shall be recoverable accordingly. Provided that should the Contractor on demand not pay the amount of such excess to the Employer, such sum may be determined and deducted by the Employer from any sum due to or that may become due to the Contractor under this or any previous or subsequent contract between the Contractor and the Employer."</p>

C.1.2.1.2.3 Additional clauses to the General Conditions of Contract:

Clause	Data
1.1	<p>Definitions</p> <p><i>Add the following at the end of Sub-Clause 1.1.1:</i></p> <p>1.1.1.35 “Client”, as used in the Occupational Health and Safety Act - Construction Regulations, means Employer.</p> <p>1.1.1.36 “Principal Contractor”, as used in the Occupational Health and Safety Act - Construction Regulations, means Contractor.</p>
4.12	<p>Contractor’s superintendence</p> <p><i>Add the following sub-clause 4.12.4 to Clause 4.12:</i></p> <p>“Where a form is included in the Contract Data for this purpose, the Tenderer shall fill in the name of the person he proposes to entrust with the post of Contractor’s Site Agent on this Contract in the space provided therefore. Previous experience of this person on work of a similar nature during the past five (5) years is to be entered on the form.</p> <p>The Contractor’s Site Agent shall be on Site at all times when work is being performed.</p> <p>The person shall be subject to approval of the Engineer in writing and shall not be replaced or removed from Site without the written approval of the Engineer.”</p>
5.6	<p>Programme</p> <p><i>Add the following sub-clause 5.6.6 to Clause 5.6:</i></p> <p>“Failure on the part of the Contractor to deliver to the Engineer, the</p> <ul style="list-style-type: none"> • programme of the Works in terms of Clause 5.6.1 and • supporting documents in terms of Clause 5.6.2 <p>Within the period stated in the Contract Data, shall be sufficient cause for the Engineer to retain 25 per centum of the value of the Fixed Charge and Value-related items in assessment of amounts due to the Contractor, until the Contractor has submitted aforementioned first Programme of the Works and Supporting Documents”.</p>

Clause	Data
5.9.7	<p>Engineer to approve Contractor's Designs and Drawings</p> <p><i>Add the following sub-clause 5.6.6 to Clause 5.6:</i></p> <p>"All designs, calculations, drawings and operation and maintenance manuals shall be fully endorsed by a third party registered engineer, accomplished in such specific field of practice and the cost thereof shall be borne solely by the Contractor.</p> <p>Once the alternative design has been approved, the Contractor shall indemnify and hold harmless the Engineer, the Employer, their agents and assigns, against all claims howsoever arising out of the said design, whether in contract or delict".</p>
5.11	<p>Suspension of the Works</p> <p><i>Add the following sub-clause 5.11.4 to Clause 5.11:</i></p> <p>"If the Contractor does not receive from the Employer the amount due under an Interim Payment Certificate within 28 days after expiry of the time stated in sub-clause 6.10.4 within which payment is to be made (except for deductions in accordance with sub-clauses 6.10.1.6 and 6.10.1.7), the Contractor may, after giving 14 days' notice to the Employer, suspend the progress of the Works.</p> <p>The Contractor's action shall not prejudice his entitlements to a claim in terms of Clause 10.1 and to cancellation of the Contract in terms of Clause 9.3.</p> <p>If the Contractor subsequently receives full payment of the amount due under such Interim Payment Certificate before giving a notice of cancellation of the Contract, the Contractor shall resume normal working as soon as is reasonably practicable."</p>
5.12	<p>Extension of Time for Practical Completion</p> <p><i>Add the following at the end of Sub-Clause 5.12.2.2:</i></p> <p>"The extension of time to be allowed due to abnormal rainfall shall be calculated separately for each calendar month or part thereof in accordance with the following formula:</p> $V = (Nw - Nn) + \frac{Rw - Rn}{x}$ <p>where</p>

Clause	Data																																												
	<div>V = Extension of time in calendar days for the calendar month under consideration</div> <div>Nw = Actual number of days during the calendar month on which a rainfall of 10 mm or more has been recorded</div> <div>Nn = Average number of days for the calendar month on which a rainfall of 10 mm or more has been recorded, as derived from existing rainfall records</div> <div>Rw = Actual recorded rainfall for the calendar month</div> <div>Rn = Average rainfall for the calendar month, as derived from existing rainfall records</div> <div>x = 20</div>																																												
	<div>The rainfall records which shall provisionally be accepted for calculation purposes are:</div> <div>Based on records taken at: Rainfall Station : Polokwane Years of record: 1977 – 2010</div>																																												
	<table><tr><th>Month</th><th>Average rainfall for calendar month Rn</th><th>Average number of days for calendar month on which a rainfall of 10 mm or more were recorded Nn</th></tr><tr><td></td><td>(mm)</td><td>(days)</td></tr><tr><td>January</td><td>91</td><td>3</td></tr><tr><td>February</td><td>72</td><td>2</td></tr><tr><td>March</td><td>61</td><td>2</td></tr><tr><td>April</td><td>3</td><td>1</td></tr><tr><td>May</td><td>22</td><td>0</td></tr><tr><td>June</td><td>4</td><td>0</td></tr><tr><td>July</td><td>5</td><td>0</td></tr><tr><td>August</td><td>4</td><td>0</td></tr><tr><td>September</td><td>14</td><td>1</td></tr><tr><td>October</td><td>41</td><td>1</td></tr><tr><td>November</td><td>80</td><td>3</td></tr><tr><td>December</td><td>91</td><td>3</td></tr></table>			Month	Average rainfall for calendar month Rn	Average number of days for calendar month on which a rainfall of 10 mm or more were recorded Nn		(mm)	(days)	January	91	3	February	72	2	March	61	2	April	3	1	May	22	0	June	4	0	July	5	0	August	4	0	September	14	1	October	41	1	November	80	3	December	91	3
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Clause	Data
	<p>The factor (Nw - Nn) shall be considered to represent a fair allowance for days during which rainfall exceeds 10 mm and the factor (Rw - Rn)/x shall be considered to represent a fair allowance for those days when rainfall does not exceed 10 mm but wet conditions prevent or disrupt work.</p> <p>The total extension of time shall be the algebraic sum of all monthly totals for the contract period, but if the algebraic sum is negative the time for completion shall not be reduced due to subnormal rainfall. Extensions of time for a part of a month shall be calculated using pro rata values of Nn and Rn."</p> <p>For this project the rainfall formula will only apply as background information, or dispute resolution. Extension of time for rainfall will only be granted on Actual Delays experienced; noted and agreed upon by the engineer.</p>
6.10	<p>Payments</p> <p><i>Add the following at the end of Sub-Clause 6.10.1:</i></p> <p>"The Contractor shall complete the 'Contractor's Monthly Report Schedule', which pro forma documentation is obtainable from the Engineer. Pursuant to Sub-Clause (1), these, duly signed by all concerned, together with the Contractor's statement and a VAT invoice in original format are to be submitted to the Engineer. Issue by the Engineer to the Employer and Contractor of any signed payment certificate is conditional to this information being fully endorsed, accurately and timeously submitted to the Engineer".</p>
	<p><i>Add the following at the end of Sub-Clause 6.10.1.5:</i></p> <p>"All documentary evidence of such materials shall be unambiguous with respect to ownership having fully passed to the Contractor on or before the date of submittal of the Contractor's monthly statement.</p> <p>Should the Contractor fail to supply unambiguous documentary evidence, he shall, prior to submittal of his monthly statement, deliver to the Employer a Guarantor Guarantee in the form contained in the Appendices to the Contract Data."</p>

Clause	Data
9.3	<p>Termination by the Contractor</p> <p><i>Add the following at the end of Sub-Clause 9.3:</i></p> <p>9.3.5 “In addition to, or as an alternative to the rights to termination contained in this Clause 9.3, the Contractor may notify the default to the Employer, with a copy to the Engineer, and if the default is not rectified within 10 days the Contractor may suspend progress of the works until a date 7 days after the default is rectified. The Contractor shall be entitled to extension of time to the extent of delay caused by or resulting from such suspension, and to payment of additional costs caused by or resulting from the suspension. Such extension of time and additional costs shall be promptly ascertained by the Engineer, who shall then grant the extension of time and include the additional costs in all future payment certificates. Such suspension, extension of time and/or payment of additional costs, shall not prejudice the Contractor’s rights to cancel the contract.”</p>

C.1.2.2Part 2: Data provided by the Contractor

The General Conditions of Contract, as specified in Part 1, shall be used as a basis for this Data which is required to be completed.

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

Clause	Data
1.1.1.9	The Name of the Contractor is:
1.2.1.2	The address of the Contractor is: Physical address:
1.1.1.14	The time for completing the works is days

Clause	Data
1.2.1.2	<p>Postal address:</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>e-mail address:</p> <p>.....</p> <p>Contact numbers:</p> <p>Corporate:</p> <p>Direct:</p> <p>Mobile:</p> <p>Fax:</p>

C1.4 OCCUPATIONAL HEALTH AND SAFETY AGREEMENT

This agreement is mandatory for all contractors appointed by the Polokwane Municipality or any other institution that do work for or on behalf of Municipality.

This agreement is between:

THE CONTRACTOR:

Herein represented by

In his capacity asBeing duly authorized hereto hereinafter referred to

as "contractor".

Compensation Commissioner Number:

(Attach a copy of the Registration

Certificate to this agreement)

Company : Name:

Registration Number:

CEO : Name:

ID Number:

Physical Address:

.....

**And the POLOKWANE MUNICIPALITY
(Hereinafter referred to as "the Council")**

1. DEFINITIONS

- 1.1 **CONTRACTOR** Means the “Contractor” as defined in the “Principal Contract”.
Annexed hereto in his capacity as mandatory.
- 1.2 **MANDATORY** Includes an agent, contractor or subcontractor for work to be done or service rendered, but without derogating from his status in his own right as an employer of people or user of equipment, machinery, tools or materials.
- 1.3 **THE PRINCIPAL CONTRACT** Means the contract annexed hereto as annexure “A”.
- 1.4 **COUNCIL** Means the Polokwane Municipality
- 1.5 **RISK CONTROL OFFICER** A person appointed in writing by Council.
- 1.6 Any definitions contained in any Statute hereinafter mentioned shall have the meaning allocated to it by the specific statute.

2. OBJECTIVE

- 2.1 Whereas Council and the Contractor have entered into a contract for service (work) as fully indicated in the “Principle Contract” and whereas the “Contractor” agreed to indemnify Council against the risks stated hereunder whether foreseeable or not, and, whereas it is agreed between the parties that it is of cardinal importance to safeguard both Council and the Contractor’s obligation in terms of relevant legislation as well as to extend the obligation as a company and/or legal person and/or person as an entity concerned with health, safety and the environment.
- 2.2 These rules are applicable to all contractors performing work for Council within the jurisdictional area of the Council and on any premises, which are owned, rented or developed by the Council.
- 2.3 The Council acts through those officials or persons who are generally or specifically charged with the responsibility, in terms of legislation, as well as any other official or person who is generally or specifically charged with the control and supervision of the project.

IT IS HEREBY AGREED AS FOLLOWS:

3. INDEMNITIES

- 3.1 The “Contractor” hereby indemnifies the “Council” against any loss in respect of all claims, proceeding, damages, costs and expenses arising out of any claim or proceeding pertaining to the non-compliance by the “Contractor” of any statutory

requirements and/or requirements regarding the following Acts in particular pertaining to the provisions of:

- 3.1.1 The Occupational Health and Safety Act 85 of 1993 (as amended), including the Construction Regulations, 2003 as promulgated on 18 July 2003, in terms of Section 43 of the Occupational Health and Safety Act, 1993 (Act No 85 of 1993), in Government Gazette No. 25207 and Regulation Gazette No. 7721. See Annexure B.
 - 3.1.2 The Health Act 63 of 1977.
 - 3.1.3 Road Traffic Act 29 of 1989 (as amended).
 - 3.1.4 Environment Conservation Act 73 of 1989.
 - 3.1.5 The National Water Act 36 of 1998.
 - 3.1.6 The Criminal Procedure Act 51 of 1977.
 - 3.1.7 The Explosives Act 26 of 1956.
 - 3.1.8 The Arms and Ammunition Act 75 of 1969.
 - 3.1.9 Compensation for Occupational Injuries and Diseases Act 130 of 1993.
 - 3.1.10 The Labour Relations Act 66 of 1995.
 - 3.1.11 The Unemployment Insurance Act 30 of 1966 (as amended).
 - 3.1.12 The Basic Conditions of Employment Act 75 of 1997 (as amended).
 - 3.1.13 Standards Act 29 of 1993.
 - 3.1.14 any statutory provisions in any act and/or any law or bylaw of any local government and/or any published official standard incorporated into any statute or bylaw relating to the completion of the work set out in the "Principal Contract".
 - 3.1.15 Any other health and safety standard prescribed by the "Council".
- 3.2 The "Contractor" shall ensure that he familiarizes himself with the requirements of the above legislation and that he, his employees and any subcontractor will comply with all the statutory provisions contained in them.
 - 3.3 The "Contractor" shall indemnify the "Council" in respect of any physical loss or damage to any plant, equipment or other property belonging to the "Contractor" or for which he is responsible and he hereby indemnifies the "Council" against any loss in respect of all claims, proceedings, damages, costs and expenses consequent upon the loss of or damage to any plant, equipment or other property belonging to, or which is the responsibility of, any subcontractor, agent or employee of the subcontractor.
 - 3.4 The "Contractor" shall and hereby indemnifies the "Council" against any liability, loss, claim or proceedings whatsoever, whether arising in common law or by statute, consequent on personal injuries to or the loss of health or death of any person whosoever arising out of or in the course of or caused by the execution of the "Principal Contract".
 - 3.5 The "Contractor" shall and hereby indemnifies the "Council" against any liability, loss, claim or proceedings consequent on loss of or damage to any movable or immovable property arising out of or in the course of or caused by the execution of the "Principal Contract" and due to any act or omission of the "Contractor", his agents, servants or subcontractors.

4. PERFORMANCE SAFE WORKING PRACTICE

- 4.1 The “Council” requires a high standard of safe work performance from all employees and expects that the standard be maintained by the “Contractor” within the “Council’s” jurisdictional area or on its premises.
- 4.2 Irrespective of human considerations, the maintaining of these health and safety rules shall be the execution of the prescribed legal requirements. These rules are not to hinder the “Contractor” in rendering services or indemnify the “Contractor” from any legal responsibility to ensure healthy and safe work circumstances.
- 4.3 The “Council” shall assist the “Contractor” in any practical considerations to accommodate the healthy and safe execution of work and therefore require co-operation in the execution of these safety rules.

5. LOCK OUT PROCEDURE

- 5.1 When power or air driven machines or equipment, electrical apparatus or pipe lines are examined, repaired, adjusted, cleaned, lubricated or serviced in any other way than normal servicing, then all isolating switches, -levers, valves or appliances must be put in the “off” or “closed” position and locked.
- 5.2 Should more than one team work on a machine, then each person in control of a team, must put a separate lock on the switch, lever, valve or appliance.

6. CRANES, VEHICLES AND HOISTING

- 6.1 For each crane or hoisting equipment used, the “Contractor” must submit a valid and recent test certificate or other form of the last examination of the machine or equipment, to the “Council”.
 - 6.2.1 Only trained personnel with written permission and where determined by Law, with a valid driver’s license, may be allowed to operate any electrical diesel or petrol driver overhead crane, hydraulic or electrical hoisting equipment, self driven forklift, tractor or any other crane or vehicle. No employee of the “Contractor” may perform any overhead work or work on an overhead crane or hoisting equipment or work near cranes or crane rail, before:
 - i) An agreement was concluded with the “Council”.
 - ii) Approval has been obtained from the “Council” to perform the work.
 - iii) All applicable danger – and warning symbolic signs are put into position, or exemption, if applied for, is in operation.

- 6.3 The “Contractor” shall be wholly responsible for any loss or damage to cranes, hoisting equipment, plant, machines or equipment brought onto the work site by the “Contractor”

7. MACHINE VALANCES, PROTECTION AND FENDING

- 7.1 No machine valances, protection or fending may be removed from machines, manholes, etc without the written permission of “Council” if applicable exemption procedures were not appropriated.

8. SCAFFOLD, LADDERS, TOOLS AND EQUIPMENT

- 8.1 No equipment or appliance belonging to “Council” may be used without written permission from “Council”.
- 8.2 Unless prior arranged, “Contractors” must bring sufficient tools and equipment to the site to finish the contract, including offices and storerooms. The mentioned equipment remains the responsibility of the “Contractor” with respect to loss, damage and theft.
- 8.3 In exceptional cases, where tools and equipment belonging to “Council” are used to finish the contract, the said equipment and tools are used on own risk and the “Contractor” indemnifies “Council” from any claims that may arise. The said indemnity must be in writing, as well as information regarding the loan period, identification and condition of tools and equipment. The “Contractor” is responsible for the returning of said tools and equipment in the same condition or better. The “Contractor” is responsible to “Council” for any damage or excessive wear of such tools or equipment and material.

9. EXCAVATIONS

- 9.1 Before any excavations commence, written permission must be obtained from “Council” to confirm the location of existing electrical cables, water pipes, etc.
- 9.2 All excavations and obstructions in floor, tar and dirt surfaces must be fenced effectively and safeguarded between sundown and sunup with a sufficient amount of red/yellow warning lights and symbolic signs.
- 9.3 The surrounding area must be kept clean, safe and tidy during excavation. Excess material may not obstruct unnecessarily.
- 9.4 If any property is in danger during excavation, it must be supported and the proposed support work must be submitted to the Department of Labour (OHS) and “Council” for approval.

- 9.5 Written permission must be obtained from “Council” to grant admittance to restricted areas as well as areas where dangerous or poisonous gases are present.

10. FIRST AID

- 10.1 The “Contractor” must provide and maintain a first aid box equipped according to legal requirement where more than (5) five persons are employed. The first aid box must be in the care of a person with a competency certificate from one of the following organizations:
- (i) SA Red Cross Association;
 - (ii) St Johns Ambulance;
 - (iii) SA First Aid League; or
 - (iv) A person or organization approved by the Chief inspector for this purpose.
- 10.2 A visible notice must be put up on any work premises with the name of the person responsible for first aid. In an emergency “Council’s” Ambulance / Fire Department or emergency services may be contacted at (015) 290 2000.

11. FLAMMABLE LIQUIDS

- 11.1 The “Contractor” shall be held responsible for the necessary precautionary fire prevention measures. No smoking signs must be put up where applicable. The “Contractor’s” employees must be informed of “Council’s” fire prevention measures and evacuation procedures.

12. COMPENSATION BY CONTRACTOR

- 12.1 The “Contractor” shall be held responsible for all loss of and damage to property, the death or injury of persons, the resultant loss or damage suffered as well as all law suits, claims, costs, charges, fines and expenses due to negligence, violation of statutory liability or neglect of the “Contractor” or the “Contractor’s” employees.

13. TRANSGRESSION OF RULES AND MISBEHAVIOUR

- 13.1 The “Contractor” is warned that any act(s) leading to damage or loss of employees of the “Contractor” or the “Council” shall not be tolerated. The “Council” may (without any reason) demand that any employee of the “Contractor” be withdrawn from the principal “Contract” or site.

14. INCIDENT REPORTING

- 14.1 All incidents referred to in Section 24 of the Occupational Health and Safety Act and or other incidents shall be reported, by the “Contractor”, to the Department of Labour,

as well as to the "Council" and should such an incident take place outside normal working hours, on a Saturday, Sunday or Public holiday provided with a written report relating to any incident.

- 14.2 The "Council" will obtain an interest in the issue of any formal inquiry conducted in terms of the Occupational Health and Safety Act in any incident involving the "Contractor" and/or his employees and/or his subcontractors.
- 14.3 The "Contractor" undertakes to report to "Council" anything deemed to be unhealthy and/or unsafe and that he undertakes to advise his employees and/or subcontractors in this regard.

15. LIAISON AND SUPERVISION

- 15.1 The "Contractor" hereby undertakes to liaise on a regular basis with the designated Risk Control Officer and "Council" representative regarding any hazards or incidents that may be identified or encountered during the performance of the "Principal Contract".

16. SERVICE INTERRUPTION

- 16.1 Should any work done by the "Contractor" cause a possible interruption, written permission must be obtained from "Council", before such work commences. The "Contractor" may not switch on or off any compressed air, steam, oxygen, vacuum supply or electrical supply without written permission from the "Council".

17. CONFIDENTIALITY

- 17.1 The "Contractor" and his employees shall regard all data, documentation and information of the contract and related documentation as confidential.
- 17.2 Lost documentation/plans or related documentation shall immediately be reported in writing to the "Council".
- 17.3 The "Contractor" shall not put up any advertisements or billboard at the site without permission.
- 17.4 The "Contractor" shall not take photographs of the contract site or part thereof or any work process or part thereof, without written permission from the "Council", or have photographs taken, published or let it be published.

18. CONTRACT SITE AND PRESERVATION

- 18.1 Employees of the “Contractor” shall not be allowed entrance to the site unless a valid identity document, issued by “Council”, is displayed. The mentioned documents shall only be valid for a limited period, where after it must be renewed.

19. COMPLETION OF WORK

- 19.1 The “Contractor” or his employees shall not leave the contract site before the “Council” is satisfied that the contract is completed according to the requirements and standards set out in the contract and that the working site is left in a satisfactory and safe condition.

20. LIQUOR, DRUGS, DANGEROUS WEAPONS AND FIREARMS

- 20.1 The “Contractor” shall ensure that no liquor, drugs, dangerous weapons or firearms be brought onto the premises.

21. SEARCHES

- 21.1 The “Contractor” and any person engaged in the contract work may at any time be searched by “Council” appointed security personnel and all packages, suitcases, etc. must be presented to the access control point for examination prior to them being brought onto the property or leaving the property.

22. GENERAL CONDITIONS

- 22.1 Notwithstanding anything to the contrary in this agreement, it is hereby specifically determined that the “Contractor-“

22.1.1 shall have acquainted himself and be conversant with the contents of all statutory provisions applicable to the health and safety of workers and other persons on the site including the execution of the work, and in particular the conditions contained in the Occupational Health and Safety Act, 1993 (Act 85/1993), and the regulations promulgated in terms thereof, and shall comply therewith meticulously and in all aspects and/or take care that it is complied with;

22.1.2 shall be obliged to immediately execute all instructions given to him by an authorized representative of “Council” in order to ensure and uphold the implementation and enforcement of the provisions referred to in sub-paragraph 1, to the satisfaction of the said representative;

22.1.3 shall indemnify the “Council” against any or all liability which may be incurred by the “Council” as a result of the omission of the “Contractor”, his employees, sub-

contractors and/or representatives to comply with the provisions referred to in sub-paragraph 1, or to ensure that it shall be complied with;

22.1.4 shall undertake to pay upon demand any and/or all legal costs and other expenses which "Council" may have incurred as a consequence of any criminal charges or other proceedings pending against, or involving the "Council" as a result of the contravention or non-compliance by the "Contractor", his employees, sub-contractors and/or representative of any of the statutory provisions referred to in sub-paragraph 1.

22.1.5 Should the "Contractor" neglect to immediately execute any health and safety written orders issued to him, or to his employee in charge of the works, in terms of the stipulations of sub-paragraph 2, the "Council" shall be entitled to suspend the execution of the works and take the necessary steps to execute or have such order executed. Under these circumstances the contractor shall be obliged to pay "Council", upon demand, all costs and expenses incurred by "Council", in order to execute or have the said orders executed.

22.1.6 Should the abovementioned steps not establish a healthy and safe work environment the "Council" will be entitled to terminate the contract without incurring any further costs or claims from the contractor?

23. "CONTRACTOR" IDENTIFICATION BOARD

- 23.1 The "Contractor" shall provide on any work premises a temporary identification board containing at all worksites the following information:
- Company name on behalf of which division/department the work is being done.
 - The contact number and name of the person representing the "Contractor".
 - The contact number and name of the person representing "Council"

24. ACKNOWLEDGEMENT

- 24.1 The "Contractor" hereby acknowledges that he has read and received a copy of the "Principal Contract" and agrees to be bound by and undertakes to observe all the terms and conditions of the "Principal Contract". This appointment is made in terms of Section 37(2) of the Occupational Health and Safety Act, 85 of 1993.

25. EXCEPTIONS AND OMISSIONS

26. REMARKS

THE CONTRACTOR

SIGNED AT ON THIS DAY OF

WITNESSES:

..... 1.
THE CONTRACTOR

2.

THE COUNCIL

SIGNED AT ON THIS DAY OF

WITNESSES:

..... 1.
THE COUNCIL

2.

b) INDEMNITY CERTIFICATE

Contractor:

Employer: Polokwane Municipality

Contract:

I/we Hereafter the "Contractor"

"Contractor" hereby indemnifies the Polokwane Municipality (Council) against any claim of whatever sort which may arise directly or indirectly from the execution by me/us of the above-mentioned contract and which may be instituted against "Council", as well as of any loss or damage which the "Council" suffers or expenditure the "Council" incurs to prevent responsibility for such claim, loss or damage, whatever the cause of such claim may be or whatever loss or damage the "Council" suffers.

THUS done and signed at on this day of

..... 20.....

WITNESSES:

1.

CONTRACTOR

2.

COUNCIL

c) ACKNOWLEDGEMENT CERTIFICATE

I, in my capacity as.....

Duly authorized hereto representing

..... Contractors, acknowledge receipt of a copy of the Polokwane Municipality's safety manual for contractors and the under mentioned person as my supervisor regarding all works and services which must be executed by the Contractor. The appointment is done in terms of the Occupational Health and Safety Act, 1993 (Act 85/1993).

SIGNED AT ON 200.....

I,accept the abovementioned appointment, and declare that I am familiar with the contents of the Polokwane Municipality's Safety Manual for contractors

CASUALTIES REGISTRATION NUMBER

SIGNED AT ON 200....

SIGNATURE:

WITNESSES: 1.

2.

A copy of this certificate shall be submitted to the "Council" before any work commences.

C1.5: Agreement with Adjudicator

This agreement is made on the.....day of 20.....between: the Employer
(name of company / organisation).....
of (address).....
.....and the Contractor
(name of company / organisation)
of (address).....
..... (hereinafter called **the Parties**)

and

(name).....
of (address)
..... (hereinafter called **the Adjudicator**)

Disputes or differences may arise/have arisen* between the Parties under a Contract
dated.....

and known as Contract No.....

(Contract title).....

and these disputes or differences shall be/have been* referred to adjudication in accordance
with the CIDB Adjudication Procedure, (hereinafter called "**the Procedure**") and the
Adjudicator may be or has been requested to act.

(* Delete as necessary)

IT IS NOW AGREED as follows:

1. The rights and obligations of the Adjudicator and the Parties shall be as set out in the Procedure.
2. The Adjudicator hereby accepts the appointment and agrees to conduct the adjudication in accordance with the Procedure.
3. The Parties bind themselves jointly and severally to pay the Adjudicator's fees and expenses in accordance with the Procedure as set out in the Contract Data.
4. The Parties and the Adjudicator shall at all times maintain the confidentiality of the adjudication and shall endeavour to ensure that anyone acting on their behalf or through them will do likewise, save with the consent of the other Parties which consent shall not be unreasonably refused.
5. The Adjudicator shall inform the Parties if he intends to destroy the documents which have been sent to him in relation to the adjudication and he shall retain documents for a further period at the request of either Party.

SIGNED by:

(Signature): (Signature): (Signature):

Name: **Name:** **Name:**

who warrants that he/ she is who warrants that he/ she is the **Adjudicator** in the duly
Authorised to sign for and duly authorised to sign for presence of on behalf of the **First Party**
in and on behalf of the **Second** the presence of **Party** in the presence of

Witness:

Witness:

Witness:

(Signature)..... (Signature)..... (Signature).....

Name: **Name:** **Name:**

Address: Address: Address:

.....

Date:

Date:

Date:

POLOKWANE MUNICIPALITY

PROJECT DESCRIPTION: TARRING NTSIME TO SEFATENG (PHASE 2)

C2.1 Pricing Instructions

1. GENERAL

The pricing instructions describe the criteria and assumptions which will be assumed in the Contract that the Bidder has taken into account when developing his prices. The Bills of Quantities record the Contractor's rates for providing supplies, services, engineering and construction works in accordance with the Scope of Work.

The terms of payment and the provisions for price adjustment, if applicable, are established in the Contract Data. These items are not described in the Pricing Data.

The Bidder's obligations in pricing the Bidder offer and the Employer's undertakings in the checking and correction of arithmetical errors are dealt with in the Standard Conditions of Bidder contained in Annexure F of SANS 294, as amended in and read in conjunction with the Bidder Data.

2. DOCUMENTS MUTUALLY EXPLANATORY

The documents forming the Contract are to be taken as mutually explanatory of one another. The Bill of Quantities forms an integral part of the Contract Documents and shall be read in conjunction with the Bidder Data, Contract Data, Scope of Work, Site Information General and Special Conditions of Contract, the Specifications and the Drawings.

3. DEFINITIONS

For the purpose of this Bill of Quantities, the following words shall have the meanings hereby assigned to them:

Unit	:	The unit of measurement for each item of work as defined in the Scope of Work and Site Information.
Quantity	:	The number of units of work for each item.
Rate	:	The payment per unit of measurement at which the Contractor Contracts to do the work.
Amount	:	The product of the quantity and the rate Biddered for an item.
Sum	:	An amount contracted for an item, the extent of which is described in the Bill of Quantities, the specifications or elsewhere but the quantity of work of which is not measured in any units.

4. **DESCRIPTIONS**

Descriptions in the Bill of Quantities are abbreviated and comply generally with those in the Standardised Specifications. Clause 8 of each Standardised Specification, read together with the relevant clauses of the Scope of Work, set out what ancillary or associated activities are included in the rates for the operations specified. Should any requirements of the measurement and payment clause of the applicable Standardised Specification, or the Scope of Work, conflict with the terms of the Bill, the requirements of the Standardised Specification or Scope of Work, as applicable, shall prevail.

5. **REFERENCES**

The clauses in a specification in which further information regarding the schedule item can be obtained appear under "Reference clause" in the Bill. The reference clauses indicated are not necessarily the only sources of information in respect of scheduled items. Further information and specifications may be found elsewhere in the contract documents. Standardised Specifications are identified by the letter or letters which follow SABS in the SABS 1200 series of specifications, eg. G for SABS 1200 G.

6. **UNITS OF MEASUREMENT**

The units of measurement indicated in the Bill of Quantities are metric units.

The following abbreviations are used in the Bill of Quantities:

%	=	per cent
h	=	hour
ha	=	hectare
kg	=	kilogram
kl	=	kilolitre
km	=	kilometre
km-pass	=	kilometre-pass
kW	=	kilowatt
l	=	litre
m	=	metre
mm	=	millimetre
MN	=	meganewton
MN-m	=	meganewton-metre
MPa	=	megapascal
m ²	=	square metre
m ³	=	cubic metre
m ³ -km	=	cubic metre-kilometre
m ² -pass	=	square metre-pass
no	=	number
PC sum	=	Prime Cost sum
Prov Sum	=	Provisional Sum
sum	=	lump sum
t	=	ton (1 000 kg)

7. NET MEASUREMENTS

Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for off-cuts and waste.

8. QUANTITIES

The quantities set out in these Bills of Quantities are approximate and do not necessarily represent the actual amount of work to be done. The quantities of work accepted and certified for payment will be used for determining payments due and not the quantities given in the Bills of Quantities.

The Contract Amount to be determined in accordance with the conditions of contract identified in the Contract Data shall be computed from the actual quantities of authorized work done, value at rates determined in terms of the Contract Data, against the respective items in the Bill of Quantities.

9. CURRENCY

All rates and sums of money quoted in the Bill of Quantities shall be in Rand and whole cents. Fractions of a cent shall be discounted.

10. VALUE ADDED TAX

Value Added Tax shall be excluded from the rates and sums contracted for the various items of work included in the Bill of Quantities. VAT will be added as a single entry to the summary.

11. RATES AND PRICES

11.1 General

- a) The Contractor must price each item in the Bill of Quantities in BLACK INK. Reproduced computer printouts of the Bills of Quantities will not be acceptable.
- b) The rates and prices to be inserted in the Bill of Quantities shall cover all the services and incidentals for the work described under the several items. Such prices and rates shall cover all costs and expenses that may be required in and for the execution 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 is based, as well as overhead charges and profit. Reasonable prices shall be inserted as these will be used as a basis for assessment of payment for additional work that may have to be carried out.
- c) Where the Contractor is required to furnish detailed drawings and designs or other information in terms of the Contract Data, all costs

thereof shall be deemed to have been provided for and included in the unit rates and sum amounts contracted for the items scheduled in the Bill of Quantities. Separate additional payments will not be made.

- d) A price or rate is to be entered against each item in the Bill of Quantities, whether the quantities are stated or not. An item against which no price is entered will be considered to be covered by the other prices or rates in the Bill. The Contractor will not be paid for items against which no rate or lump sum has been entered in the Bill of Quantities.
- e) Should the Contractor group a number of items and contract one lump sum for such group of items, this single lump sum shall apply to that group of items and not to each individual item.
- f) Should the Contractor indicate against any item that compensation for such item is included in another item, the rate for the item included in another item shall be deemed nil.
- g) A submission may be regarded as non-responsive if any rates or lump sums in the Bill of Quantities are, in the opinion of the Employer, unreasonable or out of proportion.

11.2 "Rate only" items

The Contractor shall fill in a rate (in the rate column) against all items where the words "rate only" appear in the Amount column, which rate will constitute payment for work which may be done in terms of this item. Such "rate-only" items are used where it is estimated that little or no work will be required under the item or where the item is to be considered as an alternative to another item for which a quantity is given.

11.3 Arithmetic

Excepting where Sum Amounts are required or where Provisional Sums have been indicated, the Contractor shall enter an applicable rate in the Rate Column of the Bill of Quantities for each scheduled item. He shall also enter an appropriate sum in the Amount column for each scheduled item, by determining in the applicable line item the product of the Quantity and the Unit Rate.

If there is an error in the line item resulting from the product of the unit rate and the quantity, the rate shall be binding and the error of extension as entered in the Bidder offer will be corrected by the Employer in determining the Contract Price.

Where there is an error in addition, either as a result of other corrections required by this checking process or in the Bidder's addition of prices, such error will be corrected by the Employer in determining the Contract Price.

11.4 Labour Intensive work

Those parts of the contract to be constructed using labour-intensive methods have been marked in the bill of quantities with the letters LI in a separate column or as a prefix or suffix against every item so designated. The works, or parts of the works so designated are to be constructed using labour-intensive methods only. The use of plant to provide such works, other than plant specifically provided for in the scope of works, is a deviation from the contract. The items marked with the letters 'LI' are not necessarily an exhaustive list of all the activities which must be done by hand, and this clause does not override any of the requirements in the generic labour intensive specification in the Scope of Works.

Where minimum labour intensity is specified by the design the contractor is expected to use their initiative to identify additional activities that can be done labour-intensively in order to comply with the set minimum labour intensity target.

Payment for items which are designated to be constructed labour-intensively (either in this schedule or in the Scope of Works) will not be made unless they are constructed using labour-intensive methods. Any unauthorised use of plant to carry out work which was to be done labour-intensively will not be condoned and any works so constructed will not be certified for payment.

12. VARIATION IN TEXT

No alteration, erasure or addition is to be made in the text of the Bill of Quantities. Should any alteration, erasure or addition be made, it will not be recognized; the original wording of the Bill of Quantities will be adhered to.

POLOKWANE MUNICIPALITY

**PROJECT DESCRIPTION: UPGRADING OF ACCESS ROAD NTSIME TO SEFATENG
(PHASE 2)**

C2.2 BILL OF QUANTITIES

The following is a sample Bill of Quantities for a typical conventional road project with bill items indicated with "LI" to be executed by Labour Intensive methods.

Section D 1000: Provision for Structured Training					
Item	Description	Unit	Quantity	Rate	Amount
D10.01	Accredited Training				
	Training allowance paid to targeted labour in terms of formal training days	Person days of Training	(insert No. of Workers to be employed x Training days)	(insert the specified daily wage rate)	(insert amount)
	Extra over for the administration payment of training allowances to targeted labour (25% of training allowance)	Sum			(insert amount)
	Transport and accommodation of workers for training where it is not possible to undertake the training in close proximity to the site (provisional sum)	Sum	(Insert Provisional sum)		(insert amount)

BILL OF QUANTITIES Contents

<u>Description</u>	<u>Page</u>
a. Section 1200 – GENERAL REQUIREMENTS AND PROVISION	C2.3
b. Section 1300 – CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATION	C2.4
c. Section 1400 – OFFICES FOR THE ENGINEER'S SITE PERSONNEL	C2.5
d. Section 1500 – ACCOMODATION OF TRAFFIC	C2.7
e. Section 1600 – OVERHAUL	C2.8
f. Section 1700 – CLEARING AND GRUBBING	C2.9
g. Section B1800 – DAYWORKS	C2.10
h. Section 2100 – DRAINS	C2.11
i. Section 2200 – PREFABRICATED CULVERTS	C2.12
j. Section 2300 – CONCRETE KERBING, CONCRETE CHANNELING, OPEN CONCRETE CHUTES AND CONCRETE LININGS FOR OPEN DRAINS	C2.13
k. Section 3200 – SELECTION, STOCKPILING AND BREAKING-DOWN THE MATERIAL FROM BORROW PITS,CUTTINGS AND EXISTING PAVEMENT LAYERS, AND PLACING AND COMPACTING THE GRAVEL LAYERS	C2.14
l. Section 3300 – MASS EARTHWORKS	C2.15
m. Section 3400 – PAVEMENT LAYERS OF GRAVEL MATERIAL	C2.16
n. Section 3500 – STABILISATION	C2.17
o. Section 3600 – CRUSH STONE BASE	C2.18
p. Section 4100 – PRIME COAT	C2.19
q. Section 4200 – ASPHALT BASE AND SURFACING	C2.20
r. Section 5600 – ROAD SIGNS	C2.21
s. Section 5700 – ROAD MARKINGS	C2.22
t. Section 8100 – SPECIAL TESTS	C2.23
u. Section C – OHS AND ENVIRONMENTAL MANAGEMENT PLAN	C2.24
v. Section E – STRUCTURED TRAINING	C2.26

w. Summary of Bills	152
x. Calculation of Tender Sum form	153

POLOKWANE MUNICIPALITY

TARRING NTSIME TO SEFATENG (Phase 2)

Item No.	LI	Description	Unit	Quantity	Rate	Amount
Section 1200		GENERAL REQUIREMENTS AND PROVISIONS				
B12.01		Protection, removal, realignment and replacement of services				
(a)		Utility services				
i.		Relocation of services	Prov Sum	40 000.00		R 40 000.00
ii.		Handling cost and profit in respect of sub item B12.01(a)(i) above	%	40 000.00		
B12.02		Community Liaison Officer				
(a)		Community liaison officer (s) (R4500 per month)	Prov Sum	45 000.00		R 45 000.00
(b)		Project Steering Committee (R100 per member per seating per month, maximum of 6 members)	Prov Sum	6 000.00		R 6 000.00
(c)		Contractor's charge to allow for handling costs and all other charges in respect of subitems B12.02 (a) and (b)	%	51 000.00		
B12.03		Engineering student on-job / (in-service) Training (R4500 per month)				
(a)		Provisional allowance paid to the Engineering student undergoing on-job / (in-service) training for a period of not less than 10 months	Prov Sum	45 000.00		R 45 000.00
(b)		Contractor's charge to allow for handling costs and all other charges in respect of subitem B12.03 (a)	%	45 000.00		
1200		TOTAL CARRIED FORWARD TO SUMMARY				

POLOKWANE MUNICIPALITY

TARRING NTSIME TO SEFATENG (Phase 2)

Item No.	LI	Description	Unit	Quantity	Rate	Amount
Section 1300		CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS				
13.01		The contractor's general obligations:				
(a)		Fixed obligations	Lump Sum	1.00		
(b)		Value-related obligations	Lump Sum	1.00		
(c)		Time-related obligations	month	10.00		
1300		TOTAL CARRIED FORWARD TO SUMMARY				

POLOKWANE MUNICIPALITY

TARRING NTSIME TO SEFATENG (Phase 2)

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	12.00		
(g)		Conference room	m ²	24.00		
14.02		Office and laboratory furniture:				
(a)		Chairs	no	10.00		
(f)		Conference tables (to seat up to 18 persons)	no	1.00		
14.03		Office and laboratory fittings, installations and equipment				
(a)		Items measured by number:				
(i)		220/250 volt power points	no	2.00		
(iii)		Double 80 watt fluorescent-light fittings complete with ballast and tubes	no	2.00		
(xi)		Air-conditioning units with 2,2 kW minimum capacity, mounted and with own power connection	no	2.00		
14.08		Services:				
(a)		Services at offices and laboratories:				
(i)		Fixed costs	Lump Sum	1.00		
(ii)		Running costs	Mth	10.00		
		CARRIED FORWARD				

POLOKWANE MUNICIPALITY

TARRING NTSIME TO SEFATENG (Phase 2)

Item No.	LI	Description	Unit	Quantity	Rate	Amount
		BOUGHT FORWARD				
B14.11		Provision of survey equipment and assistant				
(a)		Dumpy level	day	200.00		
(b)		Tachometer	day	200.00		
(c)		Survey assistant	pd	200.00		
B14.12		Contract Notice Board (See Drawing STD-001)	no	2.00		
1400		TOTAL CARRIED FORWARD TO SUMMARY				

POLOKWANE MUNICIPALITY

TARRING NTSIME TO SEFATENG (Phase 2)

Item No.	LI	Description	Unit	Quantity	Rate	Amount
Section 1500		ACCOMMODATION OF TRAFFIC				
15.01		Accommodating traffic and maintaining temporary deviations	km	1.80		
15.02		Earthworks for temporary deviations:				
(a)		Shaping of temporary deviations	km	1.80		
(b)		Cut and borrow to fill	m³	2 474.00		
(c)		Cut to spoil	m³	Rate only		
15.03		Temporary traffic control facilities:				
(a)		Flagmen	man-day	200.00		
(b)		Portable STOP and GO-RY signs	No	6.00		
(e)		Road signs, R- and TR series (1200mm diameter)	No	9.00		
(f)		Road signs, TW series (1524mm sides)	No	9.00		
(h)		Delineators (DTG50J):				
(i)		Single	No	90.00		
(ii)		Mounted back to back	No	Rate only		
B15.14		Penalty to be deducted for non-compliance with requirements for accommodation of traffic				
(a)		Fixed penalty per occurrence	No	rate only		
(b)		Time related penalty	h	rate only		
1500		TOTAL CARRIED FORWARD TO SUMMARY				

POLOKWANE MUNICIPALITY

TARRING NTSIME TO SEFATENG (Phase 2)

Item No.	LI	Description	Unit	Quantity	Rate	Amount
Section 1600		OVERHAUL				
16.02		Overhaul on material in excess of 1,0km (ordinary overhaul)	m³-km	48 600.00		
1600		TOTAL CARRIED FORWARD TO SUMMARY				

POLOKWANE MUNICIPALITY

TARRING NTSIME TO SEFATENG (Phase 2)

Item No.	LI	Description	Unit	Quantity	Rate	Amount
Section 1700		CLEARING AND GRUBBING				
17.01		Clearing and grubbing	ha	1.80		
17.02		Removal and grubbing of large trees and tree stumps				
(a)		Girth exceeding 1m and up to and including 2m	No	6.00		
(b)		Girth exceeding 2m and up to and including 3m	No	3.00		
1700		TOTAL CARRIED FORWARD TO SUMMARY				

POLOKWANE MUNICIPALITY

TARRING NTSIME TO SEFATENG (Phase 2)

Item No.	LI	Description	Unit	Quantity	Rate	Amount
Section B1800		DAYWORKS				
B18.01		Personnel during normal working hours:				
(a)		Unskilled labour	hour	Rate only		
(b)		Semi-skilled labour	hour	Rate only		
(c)		Skilled labour	hour	Rate only		
(d)		Ganger	hour	Rate only		
B18.02		Personnel, outside normal working hours:				
(a)		Outside normal hours and Saturdays				
(i)		Unskilled labour	hour	Rate only		
(ii)		Semi-skilled labour	hour	Rate only		
(iii)		Skilled labour	hour	Rate only		
(iv)		Ganger	hour	Rate only		
(v)		Foreman	hour	Rate only		
B18.03		Materials:				
(a)		Procurement of materials	PC Sum	Rate only		
(b)		Contractor's handling costs, profit and other charges in respect of sub-item B18.04(a)	%	-		
B1800		TOTAL CARRIED FORWARD TO SUMMARY				

POLOKWANE MUNICIPALITY

TARRING NTSIME TO SEFATENG (Phase 2)

Item No.	LI	Description	Unit	Quantity	Rate	Amount
Section 2100		DRAINS				
21.03		Excavation for subsoil drainage system:				
(a)	LI	Excavate soft material situated within the following depth ranges below the surface level:				
(i)		0m to 1.5m	m³	64.00		
(i)		Exceeding 1.5m and up to 3.0m	m³	Rate only		
(b)		Extra over subitem 21.03 (a) for excavation in hard material, irrespective of depth	m³	51.20		
21.06		Natural permeable in subsoil drainage systems (crushed stone)::				
(a)		Crush stones obtained from commercial sources (19mm stone)	m³	64.00		
21.09		Geotextiles (Kaytech U24 or similar approved)	m²	1 038.00		
B21.12		Concrete outlet structures, manholes boxes, catchpits, junction boxes and cleaning eye for subsoil drainage system:				
(a)		Outlet structure see drawing STD004	no	1.00		
2100		TOTAL CARRIED FORWARD TO SUMMARY				

POLOKWANE MUNICIPALITY

TARRING NTSIME TO SEFATENG (Phase 2)

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	m ³	62.00		
(ii)		Exceeding 1.5m and up to 3.0m	m ³	682.00		
(iii)		Exceeding 3.0m and up to 4.5m	m ³	416.00		
(b)		Extra over subitem 22.01 (a) for excavation in hard material, irrespective of depth	m ³	927.00		
22.02		Backfilling:				
(a)		Using excavated material:	m ³	646.00		
(b)		Using imported material	m ³	25.00		
(c)		Extra over subitem 22.02 (a) and (b) for soil cement backfill	m ³	Rate Only		
22.03		Concrete pipe culverts:				
(a)		Class B bedding/ Class 75D 600 diameter	m	407.00		
22.17		Manholes, catchpits, precast inlet and outlet structures complete				
(a)		Wingwall Outlet Structure, see drawing STD 004	no	1.00		
(b)		Field Inlet see drawing STD003	no	4.00		
(c)		Kerb Inlet see drawing STD003	no	4.00		
2200		TOTAL CARRIED FORWARD TO SUMMARY				

POLOKWANE MUNICIPALITY

TARRING NTSIME TO SEFATENG (Phase 2)

Item No.	LI	Description	Unit	Quantity	Rate	Amount
Section 2300		CONCRETE KERBING, CONCRETE CHANNELLING, OPEN CONCRETE CHUTES AND CONCRETE LININGS FOR OPEN DRAINS				
23.01		Concrete kerbing:				
(a)		Prefabricated battered concrete kerb:				
i		SABS Fig. 8c	m	1 800.00		
23.02		Concrete kerbing-channelling combination:				
(b)	LI	Pre-cast concrete edge beam class 30MPa measuring 150 x 300mm	m	1 800.00		
23.07		Triming of excavation for concrete-lined oped drains				
(a)		In soft material	m ²	-		
(b)		In hard material	m ²	-		
23.08		Concrete lining for open drains:				
(a)		Cast in situ concrete lining (Class 25/19 Type 1.1 & Type 3 Side Drains as indicated on STD 017)	m ³	-		
(b)		Class F2 surface finish to cast in situ concreteType 3 Side Drain as indicated on STD 017	m ²	-		
23.09		Formwork to cast in situ concrete lining for open drains (Class F2 surface finish				
(a)		To sides with formwork on the internal face only	m ²	-		
(c)		To end of slab	m ²	-		
23.10		Sealed joints in concrete linings of open drains (as indicated on STD 017)	m	-		
23.12		Steel reinforcement				
(c)		Welded steel fabric (Ref 395)	kg	-		
2300		TOTAL CARRIED FORWARD TO SUMMARY				

POLOKWANE MUNICIPALITY

TARRING NTSIME TO SEFATENG (Phase 2)

Item No.	LI	Description	Unit	Quantity	Rate	Amount
Section 3200		SELECTION, STOCKPILING AND BREAKING DOWN THE MATERIAL FROM BORROW PITS, CUTTINGS AND EXISTING PAVEMENT LAYERS, AND PLACING AND COMPACTING THE GRAVEL LAYERS				
32.06		Stockpiling of material	m³	4 050.00		
3200		TOTAL CARRIED FORWARD TO SUMMARY				

POLOKWANE MUNICIPALITY

TARRING NTSIME TO SEFATENG (Phase 2)

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 (G8 min) in compacted layer thickness of 200mm and less:				
(i)		Compaction to 93% of modified AASHTO density	m³	2 474.00		
(c)		Rockfill processing and compaction	m³	-		
33.03		Extra over item 33.01 for excavating and breaking down material in:				
(a)		Intermediate material	m³	495.00		
(b)		Hard material	m³	1 980.00		
(c)		Boulder material class A	m³	rate only		
33.04		Cut to spoil, including free-haul up to 0.5km. Material obtained from:				
(a)		Soft material	m³	299.00		
(b)		Intermediate material	m³	896.00		
(c)		Hard material	m³	1 791.00		
(d)		Boulder material class A	m³	rate only		
(e)		Boulder material class B	m³	rate only		
33.10		Roadbed preparation and the compaction of material				
(a)		Compaction to 93% mod. AASHTO density	m³	2 160.00		
B33.20		Provision and application of water for construction of all layerworks, including all haul	kl	24.84		
3300		TOTAL CARRIED FORWARD TO SUMMARY				

POLOKWANE MUNICIPALITY

TARRING NTSIME TO SEFATENG (Phase 2)

Item No.	LI	Description	Unit	Quantity	Rate	Amount
Section 3400		PAVEMENT LAYERS OF GRAVEL MATERIAL				
B34.01		Pavement layers constructed from gravel obtained from approved borrowpit source provided by the Municipality, including all haul				
(a)		Gravel selected layer (G7 min.) compacted to:				
ii.		95% mod. AASHTO density (150mm)	m³	2 160.00		
(c)		Gravel sub-base (G6 min. chemically stabilised material to C3) compacted to:				
i.		95% mod. AASHTO density (150mm)	m³	2 160.00		
3400		TOTAL CARRIED FORWARD TO SUMMARY				

POLOKWANE MUNICIPALITY

TARRING NTSIME TO SEFATENG (Phase 2)

Item No.	LI	Description	Unit	Quantity	Rate	Amount
Section 3500		STABILISATION				
35.01		Chemical stabilisation extra over unstabilised compacted layers :				
(a)		Gravel sub-base layer (150mm thick)	m³	2 160.00		
35.02		Chemical stabilising agent:				
(a)		Cem II 32.5 A-L	t	103.70		
35.04		Provision and application of water for curing	kl	8.64		
3500		TOTAL CARRIED FORWARD TO SUMMARY				

POLOKWANE MUNICIPALITY

TARRING NTSIME TO SEFATENG (Phase 2)

Item No.	LI	Description	Unit	Quantity	Rate	Amount
Section 3600		CRUSH STONE BASE				
36.01		Crushed-stone base				
(a)		Constructed from type G2 material obtained from commercial sources and compacted to 88% of apparent relative density (150mm layer)				
		(ii) 37.5mm nominal maximum size stone	m³	1 890.00		
3600		TOTAL CARRIED FORWARD TO SUMMARY				

POLOKWANE MUNICIPALITY

TARRING NTSIME TO SEFATENG (Phase 2)

Item No.	LI	Description	Unit	Quantity	Rate	Amount
Section 4100		PRIME COAT				
41.01		Prime coat:				
(c)		MC-30 cut back bitumen	l	10 080.00		
(d)		MC-70 cut back bitumen	l	Rate only		
4100		TOTAL CARRIED FORWARD TO SUMMARY				

POLOKWANE MUNICIPALITY

TARRING NTSIME TO SEFATENG (Phase 2)

Item No.	LI	Description	Unit	Quantity	Rate	Amount
Section 4200		ASPHALT BASE AND SURFACING				
42.02		Asphalt surfacing using A-P1 modified bitumen				
(a)		30 mm continuously graded, medium grade	m²	12 600.00		
42.04		Tack coat of 30% stable-grade emulsion	ℓ	7 560.00		
42.07		Trial sections, 35 mm nominal thickness:	m²	200.00		
42.08		100 mm dia cores in asphalt paving	No	12.00		
B42.21		Construction of Speed Humps complete (see dwg 0061-03D03)	No	7.00		
4200		TOTAL CARRIED FORWARD TO SUMMARY				

POLOKWANE MUNICIPALITY

TARRING NTSIME TO SEFATENG (Phase 2)

Item No.	LI	Description	Unit	Quantity	Rate	Amount
Section 5600		ROAD SIGNS				
56.01		Road sign boards with painted or coloured semi-matt background. Symbols, lettering and borders in semi-matt black or in Class 3 retro-reflective material, where the sign board is constructed from:				
(c)		Pre-painted galvanised steel plate (chromadek or approved equivalent):				
i.		Area not exceeding 2m ²	m ²	4.50		
ii.		Area exceeding 2m ² but not 10m ²	Rate only			
iii.		Area exceeding 10m ²	Rate only			
56.02		Extra over item 56.01 for using:				
(a)		Background of retro-reflective material:				
i.		Class 3	m ²	4.50		
(b)		Lettering, symbols, numbers, arrows, emblems and borders of retro-reflective material:				
i.		Class 3	m ²	4.50		
56.03		Road-sign supports (overhead road sign structures excluded):				
(a)		Steel tubing (75mm diameter, 2mm wall	t	2.50		
(b)		Timber (140mm diameter, treated)	m			
56.05		Excavation and backfilling for road sign supports (not applicable to kilometre posts)	m ³	2.60		
56.06		Extra over item 56.05 for cement-treated soil backfill	m ³	2.60		
5600		TOTAL CARRIED FORWARD TO SUMMARY				

POLOKWANE MUNICIPALITY

TARRING NTSIME TO SEFATENG (Phase 2)

Item No.	LI	Description	Unit	Quantity	Rate	Amount
Section 5700		ROAD MARKINGS				
57.01		Road marking paint (Water Based):				
(a)		White lines (broken or unbroken):				
i.		100mm wide	km	1.80		
(b)		Yellow lines (broken or unbroken):				
i.		100mm wide	km	Rate only		
57.06		Setting out and pre-marking the lines (excluding traffic island markings, lettering and symbols)	km	1.80		
B57.07		Re-establishing the painting unit and repainting the road markings at the end of the maintenance period	Lump Sum	1.00		
5700		TOTAL CARRIED FORWARD TO SUMMARY				

POLOKWANE MUNICIPALITY

TARRING NTSIME TO SEFATENG (Phase 2)

Item No.	LI	Description	Unit	Quantity	Rate	Amount
Section 8100		SPECIAL TESTS				
81.02		Other special tests requested by the Engineer	PC sum	20 000.00		R 20 000.00
8100		TOTAL CARRIED FORWARD TO SUMMARY				

POLOKWANE MUNICIPALITY

TARRING NTSIME TO SEFATENG (Phase 2)

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POLOKWANE MUNICIPALITY

TARRING NTSIME TO SEFATENG (Phase 2)

Item No.	LI	Description	Unit	Quantity	Rate	Amount
		BOUGHT FORWARD				
		ENVIRONMENTAL MANAGEMENT PLAN				
C.23.05		Contractor's time related obligations in respect of Environmental management plans and specifications month.	month	10.00		
C100.01		Penalty for unnecessary removal or				
(a)		2600mm girth or less	No	rate only		
(b)		Greater than 2600mm ,but less than 6180mm	No	rate only		
(c)		Greater than 6180mm girth	No	rate only		
C100.02		Penalty for serious violations				
(a)		Hazardous chemical/oil spill/or dumping in non-	No	rate only		
(b)		General damage to sensitive environment	No	rate only		
(c)		Damage to cultural and historical sites	No	rate only		
(d)		Pollution of water sources	No	rate only		
(e)		Unauthorised blasting activities	No	rate only		
(f)		Uncontrolled/unmanaged erosion per incident,	No	rate only		
(g)		Damage to sensitive vegetation within "no-go"	No	rate only		
C100.03		Penalty for less serious violations				
(a)		Littering on site	No	rate only		
(b)		Lighting of illegal fires on site	No	rate only		
(c)		Persistent or un-repaired fuel and oil leaks	No	rate only		
(d)		Excess dust or excess noise emanating from	No	rate only		
(e)		Dumping of milled material in side drains or on	No	rate only		
(f)		Possession or use of intoxicating substances	No	rate only		
(g)		Any vehicles being driven in excess of	No	rate only		
(g)		Any vehicles being driven in excess of	No	rate only		
(h)		Removal and/or damage to flora or cultural or	No	rate only		
(i)		Illegal hunting	No	rate only		
(j)		Urination and defecation anywhere except in	No	rate only		
C		TOTAL CARRIED FORWARD TO SUMMARY				

POLOKWANE MUNICIPALITY

TARRING NTSIME TO SEFATENG (Phase 2)

Item No.	LI	Description	Unit	Quantity	Rate	Amount
Section E		STRUCTURED TRAINING				
E12.05		Provision for accredited training	Prov Sum	100 000.00		R 100 000.00
(c)		Handling cost and profit in respect of sub-item E12.05(a) and (b) above	%	100 000.00		
E		TOTAL CARRIED FORWARD TO SUMMARY				

POLOKWANE MUNICIPALITY

PROJECT DESCRIPTION: TARRING NTSIME TO SEFATENG (PHASE 2)

SUMMARY OF SCHEDULE OF QUANTITIES

SCHEDULE A : ROADWORKS

SECTION 1200	General Requirements and Provisions	R
SECTION 1300	Contractor's establishment on site and general obligations	R
SECTION 1400	Housing, offices and laboratories for the engineer's site personnel	R
SECTION 1500	Accommodation of traffic	R
SECTION 1600	Overhaul	R
SECTION 1700	Clearing and grubbing	R
SECTION B1800	Dayworks Schedule	R
SECTION 2100	Drains	R
SECTION 2200	Prefabricated Culverts	R
SECTION 2300	Concrete Kerbing, Concrete Channelling, Open Concrete Chutes and Concrete Linings for Open Drains	R
SECTION 3200	Selection, Stockpiling and Breaking-down the Material from Borrow Pits, Cuttings and Existing Pavement Layers, and Placing and Compacting the Gravel Layers	R
SECTION 3300	Mass Earthworks	R
SECTION 3400	Pavement Layers of Gravel Material	R
SECTION 3500	Stabilization	R
SECTION 3600	Crushed Stone Base	R
SECTION 4100	Prime Coat	R
SECTION 4200	Asphalt Base and Surfacing	R
SECTION 5600	Road signs	R
SECTION 5700	Road Markings	R
SECTION 8100	Testing Material and Workmanship	R

SUB – TOTALS: SCHEDULE A R

SCHEDULE C : OHS & ENVIRONMENTAL MANAGEMENT PLAN

OHS & Environmental Management Plan R

SUB-TOTAL SCHEDULE C R

SCHEDULE E : PROVISION OF STRUCTURED TRAINING

Structured Training R

SUB-TOTAL SCHEDULE E R

POLOKWANE MUNICIPALITY

PROJECT DESCRIPTION: TARRING NTSIME TO SEFATENG (PHASE 2)

CALCULATION OF TENDER SUM

SUB-TOTAL SCHEDULE A : ROADWORKS R.....

SUB-TOTAL SCHEDULE C : OHS & ENVIRONMENTAL PLAN R.....

SUB-TOTAL SCHEDULE E : STRUCTURED TRAINING R.....

TOTAL FOR SCHEDULE OF QUANTITIES R.....

CONTINGENCIES (5%) (The sum provided here is und
the sole control of the employer and may be deducted
whole or in part) R.....

SUBTOTAL R.....

ADD 14% VAT R.....

TOTAL TENDER SUM CARRIED FORWARD TO FORM OF OFFER R.....

PART C3: SCOPE OF WORK

C3.1: DESCRIPTION OF WORKS

C3.2: ENGINEERING

C3.3: PROCUREMENT

C3.4: CONSTRUCTION

C3.5: MANAGEMENT

POLOKWANE MUNICIPALITY

PROJECT DESCRIPTION: UPGRADING OF ACCESS ROAD NTSIME TO SEFATENG (PHASE 2)

C3: SCOPE OF WORK

C3.1 DESCRIPTION OF WORKS

- C3.1.1 Employer's objectives
- C3.1.2 Overview of the Works
- C3.1.3 Extent of Works
- C3.1.4 Location of the Works
- C3.1.5 General Information

C3.2 ENGINEERING

- C3.2.1 Design
- C3.2.2 Employer's Design
- C3.2.3 Contractor's Design
- C3.2.4 Drawings
- C3.2.5 Design procedure

C3.3 PROCUREMENT

- C3.3.1 Preferential Procurement
- C3.3.2 Subcontracting
- C3.3.3 Local Labour and training
- C3.3.4 Community Liaison Officer

C3.4 CONSTRUCTION

- C3.4.1 Standard Specifications
- C3.4.2 Project Specification
- C3.4.3 Variations and additions to Standard Specifications
- C3.4.4 Project Specification: Additional Specifications
- C3.4.5 Particular Specification

C3.5 MANAGEMENT

C3.5.1 Management Meetings

C3.5.2 Quality Control

POLOKWANE MUNICIPALITY

PROJECT DESCRIPTION: TARRING NTSIME TO SEFATENG (PHASE 2)

C3 Scope of Work

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

C3.1 DESCRIPTION OF THE WORKS

1.1. Employer’s objectives

The employer’s objectives are to deliver public infrastructure using labour intensive methods in accordance with EPWP Guidelines

Labour-intensive works

Labour-intensive works shall be constructed/maintained using local workers who are temporarily employed in terms of this Scope of Work.

Labour-intensive competencies of supervisory and management staff

Contractors shall engage supervisory and management staff in labour-intensive works that have completed the skills programme including Foremen/Supervisors at NQF “National Certificate: Supervision of Civil Engineering Construction Processes” and Site Agent/Manager at NQF level 5 “Manage labour-intensive Construction Processes” or equivalent QCTO qualifications.

1.2. Overview of the works

The work will be carried using Labour- Intensive approach as much as possible. Labour-intensive works comprise the activities described in SANS 1921-5, Earthworks activities which are to be performed by hand, and its associated specification data. Such works shall be Constructed using local workers who are temporarily employed in terms of this Scope of Work.

The project entails Tarring Ntsime to Sefateng (Phase 2). The section of road that needs to be upgraded is about 1.80km long.

1.3. Extent of the works

The scope of work will include, among others, the upgrading of the existing gravel road, including stormwater drainage system.

The project would entail but not limited to:

- Site Establishment
- Accommodation of traffic

- Clearing and grubbing of the road and road reserve for 1800m.
- Roadbed preparation by rip and compaction of 150mm thick for 1800m.
- Construction of Selected layer for 1800m.
- Construction of layer works. (Cement Stabilised Sub base layer, Base and Asphalt Surfacing of 30mm thick) for 1800m.
- Construction of kerbs (Fig.8c) kerbs for 1800m.
- Construction of concrete edge beams for 1800m.
- Construction of 450mm dia. stormwater concrete pipes for 407m.
- Installation of road signs and Road Markings.
- Finishing of the road and road reserve.
- Provision of Structured training.

1.4. Location of the Works

The project is located between Ntsima and Sefateng Villages in the Dikgale Village Cluster, under the jurisdiction of the Polokwane Municipality, on the Eastern quadrant of a surfaced Provincial Road, in the Limpopo Province, around the following coordinates, 23°49'40.98"S and 29°45'07.04"E. The limits of the project are as shown on the locality plan bound into the book of drawings to be received together with this document.

1.5. General Information

Labour Regulations

1.5.1. Payment for the labour-intensive component of the works

Payment for works identified in clause 1.3 "the Extent of the Project" in the Project Specifications as being labour-intensive shall only be made in accordance with the provisions of the Contract if the works are constructed strictly in accordance with the provisions of the scope of work. Any non-payment for such works shall not relieve the Contractor in any way from his obligations either in contract or in delict.

1.5.2. Applicable labour laws

The Ministerial Determination for Special Public Works Programmes, issued in terms of the Basic Conditions of Employment Act of 1997 by the Minister of Labour in **Government Notice N° R949 in Government Gazette 33665 of 22 October 2010**, as reproduced below, shall apply to works described in the scope of work as being labour intensive and which are undertaken by unskilled or semi-skilled workers.

1.5.3. Introduction

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

In this document –

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

1.5.4. Terms of Work

- (a) Workers on a SPWP are employed on a temporary basis.
- (b) A worker may NOT be employed for longer than 24 months in any five-year cycle on a SPWP.
- (c) Employment on a SPWP does not qualify as employment as a contributor for the purposes of the Unemployment Insurance Act 30 of 1966.

1.5.5. Normal Hours of Work

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

- a) more than forty hours in any week
- b) on more than five days in any week; and
- c) for more than eight hours on any day.
- d) An employer and worker may agree that a worker will work four days per week. The worker may then work up to ten hours per day.
- e) A task-rated worker may not work more than a total of 55 hours in any week to complete the tasks allocated (based on a 40-hour week) to that worker.

1.5.6. Meal Breaks

- a) A worker may not work for more than five hours without taking a meal break of at least thirty minutes duration.
- b) An employer and worker may agree on longer meal breaks.
- c) A worker may not work during a meal break. However, an employer may require a worker to perform duties during a meal break if those duties cannot be left unattended and cannot be performed by another worker. An employer must take reasonable steps to ensure that a worker is relieved of his or her duties during the meal break.
- d) A worker is not entitled to payment for the period of a meal break. However, a worker who is paid on the basis of time worked must be paid if the worker is required to work or to be available for work during the meal break.

1.5.7. Special Conditions for Security Guards

- (a) A security guard may work up to 55 hours per week and up to eleven hours per day.

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

1.5.8. Daily Rest Period

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

1.5.9. Weekly Rest Period

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

1.5.10. Work on Sundays and Public Holidays

- (a) A worker may only work on a Sunday or public holiday to perform emergency or security work.
- (b) Work on Sundays is paid at the ordinary rate of pay.
- (c) A task-rated worker who works on a public holiday must be paid –
 - i. the worker's daily task rate, if the worker works for less than four hours;
 - ii. double the worker's daily task rate, if the worker works for more than four hours.
- (d) A time-rated worker who works on a public holiday must be paid –
 - i. the worker's daily rate of pay, if the worker works for less than four hours on the public holiday;
 - ii. double the worker's daily rate of pay, if the worker works for more than four hours on the public holiday.

1.5.11. Sick Leave

- (a) Only workers who work four or more days per week have the right to claim sick-pay in terms of this clause.
- (b) A worker who is unable to work on account of illness or injury is entitled to claim one day's paid sick leave for every full month that the worker has worked in terms of a contract.
- (c) A worker may accumulate a maximum of twelve days' sick leave in a year.
- (d) Accumulated sick-leave may not be transferred from one contract to another contract.
- (e) An employer must pay a task-rated worker the worker's daily task rate for a day's sick leave.
- (f) An employer must pay a time-rated worker the worker's daily rate of pay for a day's sick leave.
- (g) An employer must pay a worker sick pay on the worker's usual payday.
- (h) Before paying sick-pay, an employer may require a worker to produce a certificate stating that the worker was unable to work on account of sickness or injury if the worker is –
 - i. absent from work for more than two consecutive days; or

- ii. absent from work on more than two occasions in any eight-week period.
- (i) A medical certificate must be issued and signed by a medical practitioner, a qualified nurse or a clinic staff member authorised to issue medical certificates indicating the duration and reason for incapacity.
- (j) A worker is not entitled to paid sick-leave for a work-related injury or occupational disease for which the worker can claim compensation under the Compensation for Occupational Injuries and Diseases Act.

1.5.12. Maternity Leave

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

1.5.13. Family responsibility leave

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

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

1.5.14. Statement of Conditions

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

- (a) the employer's name and address and the name of the SPWP;
- (b) the tasks or job that the worker is to perform; and
- (c) the period for which the worker is hired or, if this is not certain, the expected duration of the contract;
- (d) the worker's rate of pay and how this is to be calculated;
- (e) the training that the worker will receive during the SPWP.
- (f) An employer must ensure that these terms are explained in a suitable language to any employee who is unable to read the statement.
- (g) An employer must supply each worker with a copy of these conditions of employment.

1.5.15. Keeping Records

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

- a. the worker's name and position;
- b. in the case of a task-rated worker, the number of tasks completed by the worker;
- c. in the case of a time-rated worker, the time worked by the worker;
- d. payments made to each worker.
- e. the employer must keep this record for a period of at least three years after the completion of the SPWP.

1.5.16. Payment

- a) An employer must pay all wages at least monthly in cash or by cheque or into a bank account.
- b) A task-rated worker will only be paid for tasks that have been completed.
- c) An employer must pay a task-rated worker within five weeks of the work being completed and the work having been approved by the manager or the contractor having submitted an invoice to the employer.
- d) A time-rated worker will be paid at the end of each month.
- e) Payment must be made in cash, by cheque or by direct deposit into a bank account designated by the worker.
- f) Payment in cash or by cheque must take place –
 - i. at the workplace or at a place agreed to by the worker;
 - ii. during the worker's working hours or within fifteen minutes of the start or finish of work;
 - iii. in a sealed envelope which becomes the property of the worker.

1.5.17. Information

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

- a. the period for which payment is made;

- b. the numbers of tasks completed or hours worked;
- c. the worker's earnings;
- d. any money deducted from the payment;
- e. the actual amount paid to the worker;
- f. If the worker is paid in cash or by cheque, this information must be recorded on the envelope and the worker must acknowledge receipt of payment by signing for it;
- g. If a worker's employment is terminated, the employer must pay all monies owing to that worker within one month of the termination of employment.

1.5.18. Deductions

- (a) An employer may not deduct money from a worker's payment unless the deduction is required in terms of a law.
- (b) An employer must deduct and pay to the SA Revenue Services any income tax that the worker is required to pay.
- (c) An employer who deducts money from a worker's pay for payment to another person must pay the money to that person within the time period and other requirements specified in the agreement law, court order or arbitration award concerned.
- (d) An employer may not require or allow a worker to –
 - i. repay any payment except an overpayment previously made by the employer by mistake;
 - ii. state that the worker received a greater amount of money than the employer actually paid to the worker; or
 - iii. pay the employer or any other person for having been employed.

1.5.19. Health and Safety

- (a) Employers must take all reasonable steps to ensure that the working environment is healthy and safe.
- (b) A worker must –
 - i. work in a way that does not endanger his/her health and safety or that of any other person;
 - ii. obey any health and safety instruction;
 - iii. obey all health and safety rules of the SPWP;
 - iv. use any personal protective equipment or clothing issued by the employer;
 - v. report any accident, near-miss incident or dangerous behaviour by another person to their employer or manager.

1.5.20. Compensation for Injuries and Diseases

- (a) It is the responsibility of the employers (other than a contractor) to arrange for all persons employed on a SPWP to be covered in terms of the Compensation for Occupational Injuries and Diseases Act, 130 of 1993.
- (b) A worker must report any work-related injury or occupational disease to their employer or

manager.

- (c) The employer must report the accident or disease to the Compensation Commissioner.
- (d) An employer must pay a worker who is unable to work because of an injury caused by an accident at work 75% of their earnings for up to three months. The employer will be refunded this amount by the Compensation Commissioner. This does NOT apply to injuries caused by accidents outside the workplace such as road accidents or accidents at home.

1.5.21. Termination

- (a) The employer may terminate the employment of a worker for good cause after following a fair procedure.
- (b) A worker will not receive severance pay on termination.
- (c) A worker is not required to give notice to terminate employment. However, a worker who wishes to resign should advise the employer in advance to allow the employer to find a replacement.
- (d) A worker who is absent for more than three consecutive days without informing the employer of an intention to return to work will have terminated the contract. However, the worker may be re-engaged if a position becomes available for the balance of the 24-month period.
- (e) A worker who does not attend required training events, without good reason, will have terminated the contract. However, the worker may be re-engaged if a position becomes available for the balance of the 24-month period.

1.5.22. Certificate of Service

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

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

1.5.23. Contractor's default in payment to Labourers and Employees

- (a) Any dispute between the Contractor and labourers, regarding delayed payment or default in payment of fair wages, if not resolved immediately may compel the Employer to intervene.
- (b) The Employer may, upon the Contractor defaulting payment, pay the moneys due to the workers not honoured in time, out of any moneys due or which may become due to the Contractor under the Contract.

1.5.24. Provision of Handtools

- (a) The Contractor shall provide his labour force with hand tools of adequate quality, sufficient in numbers and make the necessary provisions to maintain the tools in good and safe working conditions

1.5.25. Reporting

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

- (a) Signed Muster rolls/pay sheets of temporary workers and permanent staff detailing the number, category, gender, rate of pay and daily attendance.
- (b) Copies of identity documents of workers
- (c) Number of persons who have attended training including nature and duration of training provided
- (d) Assets created, rehabilitated or maintained in accordance with indicators in the EPWP M&E framework
- (e) Plant utilization returns
- (f) Progress report detailing production output compared to the programme of works

C3.2 ENGINEERING

C3.2.1 DESIGN

Works designed by, per design stage:

Concept, feasibility and overall process	Employer
Basic engineering and detail layouts to bid stage	Employer
Final design to approved for construction stage	Employer
Temporary works	Contractor
Preparation of as-built drawings	Contractor

- (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.

C3.2.2 EMPLOYER'S DESIGN

- (a) Works as described in scope of works above

C3.2.3 CONTRACTOR'S DESIGN

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.

C3.2.4 DRAWINGS

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.

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.

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

The Drawings prepared by the Employer for the permanent Works are listed below and some bound in the tender document. The Employer reserves the right to issue amended and/or additional drawings during the Contract.

DRAWING NO.	REV	DRAWING DESCRIPTION
0076-03U01	A	Roads Layout Plan
0076-05U01	A	Stormwater Layout Plan
0076-03L01	A	Roads Layout & Longsection
0076-03L02	A	Roads Layout & Longsection
STD002	A	Typical Speed Hump Details
STD003	A	Road & Surface Drainage Details
STD004	A	Road & Surface Drainage Details
STD005	A	Typical Stormwater Inlet & Outlet Structure Details

C3.2.5 DESIGN PROCEDURES

- *interfaces with existing structures, plant etc;*
- *any temporary works requirements, if any, e.g. specialized items of equipment;*
- *design integration before and during construction;*
- *procedures for all necessary approvals;*
- *special procedures e.g. environmental;*
- *design change procedures, and*
- *record keeping and tracking of documents.*

C3.3 PROCUREMENT

C3.3.1 PREFERENTIAL PROCUREMENT

C3.3.1.1 Requirements

The preferential procurement will be in accordance with the ***Preferential Procurement Policy Framework Act, 2000 (Act No 5 of 2000)*** and the ***Preferential Procurement Regulations 2001***

Preference points will be awarded for the targeting of local resources in accordance with the resource specification for the Implementation of Targeted Construction Procurement ***SOUTH AFRICA NATIONAL STANDARDS (SANS)***

C3.3.1.2 Resource standard pertaining to targeted procurement

SANS 1914-4: 2002: Participation of Targeted Enterprises and Targeted Labour, issued by the South African Bureau of Standards.

Tender evaluation points for preferences is scored in relation to the extent to which the tenderer commits himself/herself to the employment of targeted labour or engaging targeted enterprises in the execution of the contract as reflected in the tendered Contract Participation Goal.

C3.3.2 SUBCONTRACTING

C3.3.2.1 Scope of mandatory subcontract works

Mandatory

- Surfacing (Asphalt)
- Concrete Works (Edge beams, and Kerbing)
- The reallocation of specialise services such as Telkom, Eskom cables.

C3.3.2.2 Preferred subcontractors/suppliers

There will be no specific supplier/subcontractor on this project. However, the contractor is strongly advised to look within the village for necessary subcontractors. If none found then he can look within the greater Polokwane Municipality's jurisdiction. There after he can look within the Nkangala District Municipality's jurisdiction or elsewhere.

C3.3.2.3 Subcontracting procedures

The names of all proposed Sub-contractors to be employed by the Contractor must be submitted to the Engineer and the client for approval before they are engaged in any activities

on site. Approved subcontractors shall not further subcontract work subcontracted to them. Subcontractors should not communicate directly to the Engineer but via the main Contractor. The sub-contractor and contractor shall make use of CLO for sourcing local labour from the local community

C3.3.2.4 Attendance on subcontractors

Experience Local Contractors will be engaged for the implementation of this project. The Local Sub contractors will be developed without sacrificing the quality of work.

C3.3.2.5 MINIMUM WAGE

C3.3.2.5.1 Requirements

The minimum requirements wage rate for an unskilled Labourer should be R20.50 /hour.

C.3.3.3 LOCAL LABOUR AND TRAINING

The Bidder shall limit the utilisation of his permanently employed personnel to Key Personnel, such as Bids Managers, Site Agents, Foremen, Supervisors, Plant Operators, Materials and Survey Technicians, Trainers, Buyers, Storemen and the like should such expertise not be available out of the community. All other personnel and labourers shall be recruited locally.

The contractor shall make maximum use of the human resources existing in the local community. The bidders shall apply to the employment labour desk, conveyed by the Steering Committee for details of those labourers who are available in the area of work and he shall provide preference to those labourers identified by the Steering Committee.

Formal structured skills training of labour in certain fields have been done. The bidder shall utilise trained labour in all instances. The employment of labour from outside the local area will only be considered and permitted by the Engineer in the event of:

- a) the unavailability of sufficient numbers of local labourers to execute the work;
- b) the unavailability within the local community of the required skills necessary for the execution of specific portion of work, and where the completion period does not permit the creation of the necessary skills through training.

In both cases the Bidder shall prove to the satisfaction of the Engineer that he has exercised his best endeavours and taken all reasonable actions to recruit local labour.

The bidder shall maintain accurate and comprehensive daily records of all labour engaged on the bid and shall submit to the Engineer at two weekly intervals detailed labour returns substantiating the actual numbers of labourers employed, the amounts actually paid in respect thereof, and details of the various activities undertaken by the labourers.

The employment of casual labour will be done in co-operation with community leaders and local structures. The minimum wage according to all people employed will be according to the requirements of the Department of Manpower.

C.3.3.4 COMMUNITY LIASON OFFICER (CLO)

a) Appointment

The contractor shall if instructed to do so appoint a Community Liaison Officer or Officers after consultation with the local community, the Engineer and the Employer. The liaison officer(s) shall be appointed as a member of the contractor's management personnel and the Contractor's normal employment conditions shall be applicable to the appointment. The Contractor shall disclose his normal employment conditions to the Engineer when called upon to do so.

b) Duties of the Community Liaison Officer

The Community Liaison Officer shall:

- i) Be available on site daily between the hours agreed upon by the Contractor, the Employer and the Engineer from time to time;
- ii) Determine, in consultation with the Contractor, the needs of the temporary labourers for relevant skills Training. He is responsible for the identification of suitable trainees and shall attend one of each of the training sessions;
- iii) Communicate with the Contractor and the Engineer to determine the Labour requirements with regards to numbers and skills;
- iv) Assist in maintaining relations, and when applicable partake in Labour grievance and dispute procedures;
- v) Assist in and facilitate the recruitment of suitable temporary Labour and the establishment of a labour register;
- vi) Attend all meetings in which the local community and/or labourers are present and are required to be represented;
- vii) Assist in the identification, and screening of labourers from the local community in accordance with the contractor's requirements;
- viii) Inform temporary labourers of their conditions of temporary employment, and inform temporary labourers as early as possible when their period of employment will be terminated;
- ix) Attend disciplinary proceedings to ensure that all hearings are fair and reasonable;
- x) Keep a daily written record of his interviews and community liaison activities;
- xi) Carry out specific tasks ordered by the engineer;
- xii) Perform such other duties as required and agreed upon between all parties concerned.

C3.4 CONSTRUCTION

3.4.1 STANDARD SPECIFICATIONS

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

- (a) COLTO Standard Specifications for Road and Bridge Works for State Road Authorities 1998 edition.
- (b) Various other specifications specified in the Project Specifications.
- (c) The following SANS specifications are also referred to in this document and the Contractor is advised to obtain them from Standards South Africa (a division of SABS) in Pretoria:

SANS 1921 – 1 (2004): Construction and Management Requirements for Works Contracts
Part 1: *General Engineering and Construction Works*

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	1600	Overhaul
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	Cuttings and Existing Pavement Layers, and Placing and Compacting the Gravel Layers
Section	3300	Mass Earthworks
Section	3400	Pavement Layers of Gravel Material
Section	4100	Prime Coat
Section	4200	Asphalt Base and Surfacing
Section	5600	Road Signs
Section	5700	Road Markings

C3.4.2 PROJECT SPECIFICATIONS

PART A: GENERAL

PS1 PROJECT DESCRIPTION

The proposed road consists of a total length of 1.80km, which will be the upgrading of the existing gravel road, including stormwater drainage system

The Polokwane Municipality through its IDP therefore would like:

- Provide a road in which the ease, safety and comfort of movement for motorists and pedestrians;
- Increased road safety;
- Improve movement of goods and people within the Ntsima, Sefateng and neighbouring communities;
- Proper stormwater drainage; and
- Improving the conditions in the villages, including boosting community pride, through the provision of the infrastructure.

PS2 DESCRIPTION OF THE SITE AND ACCESS

2.1 Access to site

Access to the site can be obtained via the public streets within the perimeter of the site of works.

The Contractor shall be responsible for the maintenance and reinstatement of damage caused by him or his agents/deliveries to any property (Private or State Owned), fauna and flora and rights of way.

The Contractor shall take cognizance of the aforementioned items and should allow in his rates tendered for any costs that could be incurred due to damages by the contractor.

PS3 CONSTRUCTION AND MANAGEMENT REQUIREMENTS

3.1. General

The Contractor is referred to ***SANS 1921: 2004 parts 1, 2 and 3: Construction and Management Requirements for Works Contracts***. These specifications shall be applicable to the contract under consideration and the Contractor shall comply with all requirements relevant to the project.

Certain aspects however require further attention as described hereafter.

3.2. Drawings *(Read with SANS 1921 – 1: 2004 clauses 4.1.7; 4.1.11 and 4.1.12)*

The reduced drawings form part of the tender documents as mentioned under Part T1 and shall be used for tendering purposes only.

The appointed Contractor shall be supplied with three complete paper copies of the construction drawings free of charge. The Contractor shall at his own expense reproduce further paper prints required for the construction of the work.

At the completion of the Contract, the Contractor shall return to the Engineer all drawings, provided or made, during the contract period.

Any information which the Contractor has control over and which is required by the Resident Engineer to complete the as built drawings shall be made available to the Resident Engineer before the Certificate of Completion is issued.

Only written dimensions may be used. Dimensions are not to be scaled from drawings unless ordered by the Engineer. The Engineer will supply all figures / dimensions which are not shown on the drawings. The levels or dimensions given on the drawings are subject to confirmation on site. The Contractor shall submit all levels and dimensions to the Engineer for confirmation before he commences with any structural construction work. The Contractor shall also check all dimensions which are given on the drawings and inform the Engineer of any conflicting dimensions.

3.3. Responsibilities for design and construction *(Read with SANS 1921 – 1:2004 Clause 4.2)*

3.3.1 The responsibility strategy followed in this contract shall be A.

3.3.2 The structural and civil engineer responsible for the design in accordance with the specification is: **Dikgato Engineering Consultants (Pty) Ltd**

3.4. Planning, Programme and Method Statements *(Read with SANS1921-1:2004 clause 4.3)*

3.4.1. Preliminary programme

The Contractor shall include with his tender a preliminary programme on the prescribed form to be completed by all Tenderers. The programme shall be in the form of a simplified bar chart with sufficient details to show clearly how the works will be performed within the time for completion as stated in the Contract Data.

Tenderers may submit tenders for an alternative Time for Completion in addition to a tender based on the initial tendered Time for Completion. Each such alternative tender shall include a preliminary programme similar to the programme above for the execution of the works, and shall motivate his proposal clearly by stating all the financial implications of the alternative completion time.

The Contractor shall be deemed to have allowed fully in his tendered rates and prices as well as in his programme for all possible delays due to normal adverse weather

conditions and special non-working days as specified in the Special Conditions of Contract, in the Project Specifications and in the Contract Data.

3.4.2. Programme in terms of Clause 12 of the General Conditions of Contract

It is essential that the construction programme, which shall conform in all respects to Clause 12 of the General Conditions of Contract, be furnished within the time stated in the Contract Data. The preliminary programme to be submitted with the tender shall be used as basis for this programme.

The following must be stated on the programme:

- (a) The quantity of work applicable to each bar item as well as the rate at which the work will be completed.
- (b) A budget of the value of completed work, month by month, for the full contract period.
- (c) The critical path.
- (d) Work to be undertaken by Local Contractor (if applicable)
- (e) Training Courses
- (f) Schedule of plant and resources to be utilized

The Contractor's attention is also drawn to clause 40.3 of the General Conditions of Contract 2004.

3.4.3. Time for Completion

The tenderer shall indicate under section C1.2.2: **Data provided by Contractor** the time within which the contract shall be completed.

3.4.4. Delay in Completion

The Contractor shall organise the Works in such a manner that no delays occur. Delays due to faulty organization or lack or shortage of materials or labour or co-operation with other parties or to any other cause within the control of the Contractor will not be countenanced and full power is reserved by the Engineer to order the Contractor to expedite the work should the work, in the opinion of the Engineer, not progress in a satisfactory way.

3.5. Quality Assurance (QA) *(Read with SANS 1921 – 1: 2004 clause 4.4)*

The Contractor will be solely responsible for the production of work that complies with the Specifications to the satisfaction of the Engineer. To this end it will be the full responsibility of the Contractor to institute an appropriate Quality Assurance (QA) system on site. The Engineer will audit the Contractor's quality assurance (QA) system on a regular basis to verify that adequate independent checks and tests are being carried out and to ensure that the Contractor's own control is sufficient to identify any possible quality problems which could cause a delay or failure.

The Contractor shall ensure that efficient supervisory staff, the required transport, instruments, equipment and tools are available to control the quality of his own workmanship in accordance with his QA-system. His attention is drawn to the fact

that it is not the duty of the Engineer or the Engineer's representative to act as foreman or surveyor.

3.6. Management and disposal of water *(Read with SANS 1921 - 1: 2004 clause 4.6)*

The Contractor shall pay special attention to the management and disposal of water and stormwater on the site. It is essential that all completed works or parts thereof are kept dry and properly drained. Claims for delay and for repair of damage caused to the works as a result of the Contractor's failure to properly manage rain and surface water, will not be considered.

3.7. Earthworks *(Read with SANS 1921 - 1: 2004 clause 4.10)*

3.8. Testing *(Read with SANS 1921 – 1: 2004 clause 4.11)*

3.8.1. Process control

The Contractor shall arrange for his own process control tests. The Contractor will be expected of to employ the services of the existing established laboratory on site. The Contractor must submit the results of tests carried out on materials and workmanship when submitting work for acceptance by the Engineer. The costs for these tests shall be deemed to be included in the relevant rates and no additional payment will be made for testing as required.

3.8.2. Acceptance control

The process control test results submitted by the Contractor for approval of materials and workmanship may be used by the Engineer for acceptance control. However, before accepting any work, the Engineer shall have his own acceptance control tests carried out by the laboratory. The cost of acceptance testing shall be to the account of the client.

3.9. Site Establishment *(Read with SANS 1921 - 1: 2004 clause 4.14)*

3.9.1. Contractor's camp site and depot

The Contractor is responsible to provide a suitable site for his camp and to provide accommodation for his personnel, labourers, clerk of works and contracts manager. If the Employer can make any specific site available to the Contractor, such site will be pointed out to the Contractor.

The Contractor shall provide security watchmen for the contract as he deems fit at no extra cost for the Employer. The Contractor must ensure that all his employees as well as the employees of his subcontractors are able to identify themselves as members of the construction team.

The chosen site shall be subject to the approval of the Engineer and Employer. Possible locations for a campsite shall be pointed out at the Site Inspection. The Contractor shall conform to all local authority, environmental and industrial regulations.

3.9.2. Power Supply

The Contractor shall make his own arrangements concerning the supply of electrical power at the contractor's campsite. No direct payment shall be made for the provision of electrical services. Electrical power cannot be guaranteed by the service provider. During power failures and shortages, the Contractor must make his own arrangements for the provision of electricity.

The rates tendered for the relevant items in the Preliminary and General Section of the schedule shall include all costs for the establishment and maintenance of a power supply to the works.

3.9.3. Water Supply and Sewer

The Contractor shall erect and maintain on the site proper ablution facilities. The Contractor shall service and maintain the facilities in a clean and hygienic state for the duration of the contract period and on completion of the works from the site.

The Contractor shall make his own arrangements concerning the supply of water and sewer disposal at the contractor's campsite. No direct payment shall be made for the provision of water or sewer disposal.

The Contractor must supply all necessary materials for the water connection at a position pointed out by the Engineer. The availability of water cannot be guaranteed by the Municipality and in the event of water no longer being freely available, the Contractor must make his own arrangements to acquire it.

The rates tendered for the relevant items in the Preliminary and General Section of the schedule shall include all costs for the establishment and maintenance of water supply to the works and the Contractor shall make his own arrangements for the possible conveyance and storage of water if necessary. The Contractor will be held responsible for any wastage of water due to negligence.

3.9.4. Accommodation of Employees

3.9.5. Water for construction

3.9.6. Facilities for the Engineer

3.9.7. Telephone Facilities

Telephone and facsimile facilities are needed on the site.

3.9.8. Survey beacons (Read with SANS 1921 - 1 : 2004 clause 4.15)

The Contractor shall take special precautions to protect all permanent survey beacons or pegs such as bench-marks, stand boundary pegs and trigonometrical beacons, regardless whether such beacons or pegs were placed before or during the execution of the Contract. If any such beacons or pegs have been disturbed by the

Contractor or his employees, the Contractor shall have them replaced by a registered land surveyor at his own cost.

3.10. Existing Services *(Read with SANS 1921 - 1: 2004 clause 4.17)*

The Contractor shall make himself acquainted with the position of all existing services before any excavation or other work likely to affect the existing services is commenced.

The Contractor will be held responsible for any damage to known existing services caused by or arising out of his operations and any damage shall be made good at his own expense. Damage to unknown services shall be repaired as soon as possible and liability shall be determined on site when such damage should occur.

Services belonging to the following service owners will be encountered:

SERVICE OWNER	TYPE OF SERVICE
Eskom	Electrical/Power lines
Telkom	Telephone lines
Polokwane Municipality	Sewer, water and electrical infrastructure

3.11. Health and Safety *(Read with SANS 1921 - 1: 2004 clause 4.18)*

3.11.1. General statement

It is a requirement of this contract that the Contractor shall provide a safe and healthy working environment and to direct all his activities in such a manner that his employees and any other persons, who may be directly affected by his activities, are not exposed to hazards to their health and safety. To this end the Contractor shall assume full responsibility to conform to all the provisions of the Occupational Health and Safety Act (OHSA) No 85 and Amendment Act No 181 of 1993, and the OHSA 1993 Construction Regulations 2003 issued on 18 July 2003 by the Department of Labour.

For the purpose of this contract the Contractor is required to confirm his status as mandatory and employer in his own right for the execution of the contract by entering into an agreement with the Employer in terms of the Occupational Health and Safety Act in the form as included in section C1.4.

3.11.2. Health and Safety Specifications and Plans

(a) Employer's Health and Safety Specification

A Health and Safety Specification is included in Section C3.4.5, Part PE of the tender documents as part of the Particular Specifications.

(b) Tenderer's Health and Safety Plan

The Tenderer shall submit with the tender his own documented Health and Safety Plan proposed to be implemented for the execution of the work under the contract. The Health and Safety Plan must at least cover the following:

- (i) a proper risk assessment of the works, risk items, work methods and procedures in terms of Regulations 7 to 28;
- (ii) pro-active identification of potential hazards and unsafe working conditions;
- (iii) provision of a safe working environment and equipment;
- (iv) statements of methods to ensure the health and safety of subcontractors, employees and visitors to the site, including safety training in hazards and risk areas (*Regulation 5*);
- (v) monitoring health and safety on the site of works on a regular basis, and keeping of records and registers as provided for in the Construction Regulations;
- (vi) details of the Construction Supervisor, the Construction Safety Officers and other competent persons he intends to appoint for the construction works in terms of Regulation 6 and other applicable regulations; and
- (vii) details of methods to ensure that his Health and Safety Plan is carried out effectively in accordance with the Construction Regulations 2003.

The Contractor's Health and Safety Plan will be subject to approval by the Employer, or amendment if necessary, before commencement of construction work. The Contractor will not be allowed to commence work, or his work will be suspended if he had already commenced work, before he has obtained the Employer's written approval of his Health and Safety Plan.

Time lost due to delayed commencement or suspension of the work as a result of the Contractor's failure to obtain approval for his safety plan, shall not be used as a reason to claim for extension of time or standing time and related costs

3.11.3. Cost of compliance with the OHSA Construction Regulations

The rates and prices tendered by the Contractor shall be deemed to include all costs for conforming to the requirements of the Act, the Construction Regulations and the Employer's Health and Safety Specification as applicable to this contract.

Should the Contractor fail to comply with the provisions of the Construction Regulations, he will be liable for penalties as provided in the Construction Regulations and in the Employer's Health and Safety Specification.

3.12. Management of the environment (*Read with SANS 1921 - 1 : 2004 clause 4.19*)

Respect for the environment is an important aspect of this contract and the Contractor shall pay special attention to the following:

3.12.1. Natural Vegetation

The Contractor shall confine his operation to the limits of the road reserve for the purpose of constructing the works and where applicable detours, shall be sited in consultation with the Engineer and the local communities.

Only those trees and shrubs directly affected by the works and such others as the Engineer may direct in writing shall be cut down and stumped. The natural vegetation, grassing and other plants shall not be disturbed other than in areas where it is essential for the execution of the work or where directed by the Engineer.

3.12.2. Fires

The Contractor shall comply with the statutory and local fire regulations. He shall also take all necessary precautions to prevent any fires. In the event of fire the Contractor shall take active steps to limit and extinguish the fire and shall accept full responsibility for damages and claims resulting from such fires which may have been caused by him or his employees.

3.12.3. Environmental Management Plan

In addition to the above all requirements according to the Environmental Management Plan will be adhered to.

3.13. Contract Name board

Two official contract name board, as per *C4.2 Site Information: Construction Notice Board*, is required for this contract.

3.14. Railway Facilities

The nearest railway siding is Polokwane Railway Station.

PS 4 SECURITY CLEARANCE OF PERSONNEL

Tenderers should note that the Polokwane Municipality may require that Security Clearance investigations be conducted on any number of the Tenderer's personnel.

If so required, by the Polokwane Municipality, the Tenderer must remove personnel as indicated immediately and ensure that they have no access to the works or documentation or any other information pertaining the site.

The Employer shall not be liable for any cost concerning the removal of personnel or the effect thereof on the execution of the work.

PS 5 SUPPLY OF MATERIALS

All material to be used in the Works is to be supplied by the Contractor.

The Contractor shall ensure that the work is not delayed due to the lack of materials on Site, by placing orders for material required under this Contract as soon as possible. No extension of time will be allowed for any delay due to the supply of materials.

Although the quantities have been carefully calculated, it must be considered as approximate only and the Contractor, before ordering any materials, should check the quantities required. The bill of quantities is provisional.

PS 6 EXECUTION OF THE WORKS

6.1. Inspection by the Engineer

No portion of the work shall be proceeded with until the Engineer or his representative has examined and approved the previous stage. If any work is covered or hidden from view before the Engineer or his representative has inspected the work, the Contractor shall at his own cost expose the covered or hidden work for inspection. The Contractor shall also be responsible for making good any work damaged during the uncovering.

6.2. Certificate of Completion

When all the work under the Contract have been completed to the entire satisfaction of the Engineer, he will issue a certificate of completion to the Contractor informing the Contractor of the date the date at which the works are deemed to be completed and accepted by the Employer.

The sureties provided by the Contractor for the fulfilment and completion of the Contract in terms of the Form of Agreement will be released upon the issue of the Certificate of Completion.

PS 7 EXPANDED PUBLIC WORKS PROGRAMME (EPWP) LABOUR INTENSIVE SPECIFICATION *(Read with SANS 1914 -5 2002 and Guidelines for the implementation of Labour-Intensive Infrastructure Projects under the Expanded Public Works Programme (EPWP) third edition 2015)*

7.1. Labour intensive competencies of supervisory and management staff

Contractors having a CIDB Contractor grading designation of 6CE and higher only shall engage supervisory and management staff in labour intensive works who have either completed, or for the period 1 April 2004 to 30 June 2006, are registered for training towards, the skills programme outlined in Table 1.

Table 1: Skills programme for supervisory and management staff

Personnel	NQF level	Unit standard titles	Skills programme description
Foreman/ supervisor	4	Implement labour Intensive Construction Systems and Techniques <i>or the equivalent QCTO qualification</i>	This unit standard must be completed, and
		Use Labour Intensive Construction Methods to Construct and Maintain Roads and Stormwater Drainage <i>or the equivalent QCTO qualification</i>	} any one of these 3 unit standards
		Use Labour Intensive Construction Methods to Construct and Maintain Water and Sanitation Services <i>or the equivalent QCTO qualification</i>	
		Use Labour Intensive Construction Methods to Construct, Repair and Maintain Structures <i>or the equivalent QCTO qualification</i>	
Site Agent / Manager (i.e. the Contractor's most senior representative that is resident on the site)	5	Manage Labour Intensive Construction Processes <i>or the equivalent QCTO qualification</i>	Skills Programme against this single unit standard <i>or part qualification</i>

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

7.2.1. Requirements for the sourcing and engagement of labour.

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

7.2.1.2. The rate of pay set for the SPWP is R per task or per day.

7.2.1.3. Tasks established by the Contractor must be such that:

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

7.2.1.4. The Contractor must revise the time taken to complete a task whenever it is established that the time taken to complete a weekly task is not within the requirements of 5.2.1.3.

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

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

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

- a) 55% women;
- b) 55% youth who are between the ages of 18 and 25; and
- c) 2% on persons with disabilities.

7.2.2. Specific provisions pertaining to SANS 1914-5

7.2.2.1. Definitions

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

7.2.2.2. Contract participation goals

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

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

7.2.2.3. Terms and conditions for the engagement of targeted labour

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

7.2.2.4. Variations to SANS 1914-5

The definition for net amount shall be amended as follows:

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

The schedule referred to in 5.2.2.3 shall in addition reflect the status of targeted labour as women, youth and persons with disabilities and the number of days of formal training provided to targeted labour.

7.2.2.5. Training of targeted labour

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

- b) The cost of the formal training of targeted labour, will be funded by the provincial office of the Department of Labour. This training should take place as close to the project site as practically possible. The Contractor, must access this training by informing the relevant provincial office of the Department of Labour in writing, within 14 days of being awarded the contract, of the likely number of persons that will undergo training and when such training is required. The employer must be furnished with a copy of this request.
- c) A copy of this training request made by the Contractor to the DOL provincial office must also be faxed to the EPWP Training Director in the Department of Public Works– Cinderella Makunike, Fax Number 012 328 6820 or email cinderella.makunike@dpw.gov.za Tel: 083 677 4026.
- d) The Contractor shall be responsible for scheduling the training of workers and shall take all reasonable steps to ensure that each beneficiary is provided with a minimum of six (6) days of formal training if he/she is employed for 3 months or less and a minimum of ten (10) days if he she is employed for 4 months or more.
- e) The Contractor shall do nothing to dissuade targeted labour from participating in training programmes.
- f) An allowance equal to 100% of the task rate or daily rate shall be paid by the Contractor to workers who attend formal training, in terms of d above.

8.3 Typical construction work to be executed applying labour intensive principles

B1 Roads

The following operations may be carried out using labour intensive methods:

1. Site clearance
2. Layer work construction including loading, hauling and spreading material.
Note: All compaction should be done using conventional compaction equipment and where necessary the use of heavy machinery may be employed to loosen material for excavation by hand. Where significant use of blasting is indicated, then the Works are probably not suitable for labour-intensive methods.
3. Where high categories of roads are to be constructed, the following operations may be included:
 - Macadam base course either dry, water bound or emulsion bound; foamed bitumen gravel; emulsion treated gravel; or slurry bound or composite macadams.
 - Application of bitumen bound surface treatment (cold) including spreading and dragging of chips.
 - Slurry treatments to existing or new road surfaces.
 - In situ concrete roads.
 - Segmented block paved roads.
 - Cast in-situ block pavements (hysen-cells);

- Road markings.
4. Erection of road signs.
 5. Road reserve maintenance.
 6. Rubble masonry bridges, culverts and retaining walls

B.2 Stormwater

The following operations may be constructed using labour-intensive construction methods:

1. Gabions and Reno mattresses.
2. Small diameter pre-cast concrete elements (pipes and arches).
3. Grassed or concrete lined stormwater channels

B.3 Haul of Material

Where the haul of any material exceeds 200m, consideration should be given to the use of local resources for transporting material. This includes the use of animal-drawn vehicles and small trailer combinations utilising locally sourced tractors. All loading and off-loading can be done by hand.

C3.4.3 VARIATIONS AND ADDITIONS TO STANDARDIZED SPECIFICATIONS

C3.4.2.1 Project Specifications Relating to Standard Specifications

STATUS

The Project Specification, consisting of two parts, forms an integral part of the contract and supplements the Standard Specifications.

Part A contains a general description of the works, the site and the requirements to be met.

Part B contains variations, amendments and additions to the Standardized Specifications and, if applicable, the Particular Specifications.

In the event of any discrepancy between a part or parts of the Standardized or Particular Specifications and the Project Specification, the Project Specification shall take precedence. In the event of a discrepancy between the Specifications, (including the Project Specifications) and the drawings and / or the Bill of Quantities, the discrepancy shall be resolved by the Engineer before the execution of the work under the relevant item.

The standard specifications which form part of this contract have been written to cover all phases of work normally required for civil contracts, and they may therefore cover items not applicable to this particular contract.

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. 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	1300	Contractor's Site Establishment on Site and General Obligations
Section	1400	Housing, Offices and Laboratories for the Engineer's Site Personnel
Section	2100	Drains
Section	2300	Concrete Kerbing, Concrete Channelling, Chutes and Down pipes and Concrete Linings for Open Drains
Section	3400	Pavement Layers of Gravel Material
Section	3500	Stabilisation
Section	4100	Prime Coat
Section	4200	Asphalt Base and Surfacing

PROJECT DESCRIPTION: TARRING NTSIME TO SEFATENG (PHASE 2)

PROJECT SPECIFICATIONS

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

SECTION 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 2010 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:

- 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 rehabilitation 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.”

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”

(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 2010 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 2010 edition".

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).

**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 2010 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”.

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 E 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:

- 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 Bided 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 local communities, the Engineer and the Employer. The Contractor shall direct all his liaison efforts with the local communities through the appointed officer. The Contractor shall, however, accept the appointed as part of his management personnel.

(a) Duties of the Community Liaison Officer

The Community Liaison Officer’s duties will be:

- (i) To be available on site daily between the hours of 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.
- (ii) 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.
- (iii) To communicate daily with the Contractor and the Engineer to determine the labour requirements with regard to numbers and skill, to facilitate in labour disputes and to assist in their resolution.
- (iv) To assist in and facilitate in the recruitment of suitable temporary labour and the establishment of a “labour desk”.

- (v) To attend all meetings in which the community and/or labour are present or are required to be represented.
- (vi) To assist in the identification, and screening of labourers from the community in accordance with the Contractor's requirements.
- (vii) To inform temporary labour of their conditions of temporary employment and to inform temporary labourers as early as possible when their period of employment will be terminated.
- (viii) To attend disciplinary proceedings to ensure that hearings are fair and reasonable.
- (ix) To keep a daily written record of his interviews and community liaison.
- (x) To attend monthly site meetings to report on labour and RDP matters.
- (xi) All such other duties as agreed upon between all parties concerned.
- (xii) To submit monthly returns regarding community liaison as illustrated in Part C5.1 of this document (form RDP 12(E)).

(b) Payment for the community liaison officer

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

(c) Period of employment of the community liaison officer

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

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:

“B1233 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 contract 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 subclause:

“B1234: ENGINEERING STUDENT ON-JOB / (IN-SERVICE) TRAINING

The Contractor shall provide on-job / in-service training to the Engineering student, from the commencement of the contract up to a period not less than 6 months, providing full details of the subjects to be covered and the manner in which the training is to be delivered.

(a) Details of on-job / in-service training

- (i) The Contractor shall providing full details of the subjects to be covered and the manner in which the training is to be delivered, of which details shall include the following:
 - Name of Training Institution
 - Name of Programme
- (ii) The on-job / in-service training programme shall be submitted with the initial works programme.
- (iii) The Contractor shall provide on-site, sufficient skilled and competent mentor to train the Engineering student on the contract, in the various skills required for the completion of the in service training.

The cost of the above obligations shall be deemed to be covered by the sums and rates Bided for items B13.01(a), (b) and (c) in the bill of quantities.

Add the following clause:

“B1233 MEASUREMENT AND PAYMENT

Add the following items:

ITEM	UNIT
B12.01 Protection, removal, realignment and replacement of services	
a) Utility services	
ii. Relocation of services.....	Provisional (Prov) Sum
iii. Handling cost and profit in respect of sub item B12.01 (a)(i) above)...	percentage (%)
B12.02 Community Liaison Officer	
a) Community Liaison Officer.....	Provisional (Prov) Sum
b) Project Liaison committee.....	Provisional (Prov) Sum
c) Contractor's charge to allow for handling costs and all other charges in respect of subitems C12.01 (a) and	percentage (%)

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

The Bided 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 Conditions of Contract. The Bided 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.”

Add the following sub-item:

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.

SECTION 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 Bided for the contractor's time-related obligations."

Add the following after the fifth paragraph:

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

Should the Contractor be of the opinion that 15% is inadequate to cover his costs in terms of section 1300, he shall indicate separately with his Bid where such costs have been allowed for in his Bid. 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."

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

B1402 OFFICES AND LABORATORIES

(a) General

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.”

B1406 MEASUREMENT AND PAYMENT

Add the following sub-item:

ITEM	UNIT
“B14.11 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 Bided rates for labour under item B14.11(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 Bided rates for equipment under item B14.11(a) & B14.11(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
“B14.12 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 Bided 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.

SECTION 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.

(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 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:

- 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”.

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.

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 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 manoeuvring 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.

(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.

B1513 ACCOMMODATION OF TRAFFIC WHERE THE ROAD IS CONSTRUCTED IN HALF WIDTHS

Amend Clause 1513 as follows:

In the third line of the third paragraph, delete "4 km" and replace with "1 km".

In the second line of the fourth paragraph, delete the word "four" and replace with "one". Also, delete "2 km" and replace with "1 km".

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."

Add new section B1800:

SECTION 1800: DAYWORK SCHEDULE

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

Add the following:

B1801 SCOPE

This section covers the listing of daywork items for use in determining payment for work which cannot be quantified in specific pay item “units” in the bill of quantities or work ordered by the Engineer during the construction period which was not foreseen at Bid 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) |
| (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 Bided 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 Bided 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.

SECTION 2100: DRAINS

B2107 MEASUREMENT AND PAYMENT

Add the following item:

ITEM	UNIT
B21.12 Concrete outlet structures, manholes boxes, catchpits, junction boxes and cleaning eye for subsoil drainage system:	
(a) Outlet structure see drawing STD004 number (no)	

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

The Bided rates shall include full compensation for procuring, furnishing and installing, and laying where applicable, the complete units except for excavation and backfilling.

SECTION 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.

SECTION 3300: EARTHWORKS AND PAVEMENT LAYERS OF GRAVEL OR CRUSHED STONE

B3312 MEASUREMENT AND PAYMENT

Add the following item:

ITEM	UNIT
B33.20 Provision and application of water for construction of all layerworks, including all haul	kilolitre (kl)

The unit of measurement shall be the kilolitre of water provided and applied in accordance with the specification or Engineers instruction for consruction of layerworks as specified in subclause 3305 (c) and (d) and also subclause 3403 (b).

The Bided rates shall include full compensation for procuring, furnishing, transporting and applying the water and for the provision of spraying equipment.

SECTION 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.

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

Add the following new item:

"ITEM	UNIT
--------------	-------------

B34.01	Pavement layers constructed from gravel obtained from approved borrowpit source provided by the Municipality, including all haul:
---------------	--

- | | |
|-----|--|
| (a) | Gravel selected layer (unstabilised-G5) compacted to |
| c) | 95% mod. AASHTO density (specify compacted layer thickness)
cubic metre (m ³) |
| (b) | Gravel sub-base (G5 min. unstabilised material) compacted to |
| i. | 95% mod. AASHTO density (specify compacted layer thickness)
cubic metre (m ³) |
| (c) | Gravel sub-base (G6 min. chemically stabilised material to C3) compacted to |
| i. | 95% mod. AASHTO density (specify compacted layer thickness)
cubic metre (m ³) |

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

The Bided rate shall include full compensation for procuring the material from the approved borrowpit sources, 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."

SECTION 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 Bided.

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."

SECTION B4100: PRIME COAT

B4102 MATERIALS

(b) Aggregate for blinding

Add the following sentence:

“Blinding of the primed surface with aggregate shall only be permitted to facilitate vehicular access to adjoining properties”

B4104 WEATHER AND OTHER LIMITATIONS

Replace paragraph (g) with the following:

“(g) When the moisture content of the upper 50mm of the layer is higher than 50% of the optimum moisture content determined according to TMH 1, Method A7”

B4106 APPLICATION OF THE PRIME COAT

Add the following to paragraph (c)

“The nominal application rate of the prime shall be 0,7 l/m². Unless directed otherwise by the engineer or indicated on the drawings, the edges of the primed surface shall be 150mm wider than the edges of the surfacing.”

B4108 TOLERANCES

Replace the first paragraph with the following:

“The actual spray rates measured at spraying temperature shall not deviate by more than 8.0% from that ordered by the Engineer. The Engineer may, at his discretion, conditionally accept application rates falling outside this tolerance at reduced payment in accordance with Table B4108/1.

SECTION B4200: ASPHALT BASE AND SURFACING

B42.115 MEASUREMENT AND PAYMENT

Add the following new item:

“ITEM	UNIT
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B42.21 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 Bided 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.”

SECTION 5700: ROAD MARKINGS

B57.14 MEASUREMENT AND PAYMENT

Amend the following new item:

“ITEM	UNIT
B57.07 Re-establishing the painting unit and repainting the road markings at the end of the maintenance period.....	lump sum

The Bided lump sum shall include full compensation for the re-establishment on site and for later removing all special equipment, personnel, etc, as may be required for repainting the road traffic markings at the end of the maintenance period. The contractor must include under this item the rate for repainting the road markings.

The re-establishment during the construction period shall not be paid for specially, and allowance therefore shall be made by the contractor in his programme and his rates for painting and repainting after the maintenance period.”

C3.4.4 PROJECT SPECIFICATIONS: ADDITIONAL SPECIFICATIONS

The following Particular Specifications are applicable to this Contract and are contained in this document.

CONTENTS

- C3.4.4.1 ENVIRONMENTAL MANAGEMENT PLAN
- C3.4.4.2 PROVISION OF STRUCTURED TRAINING
- C3.4.4.3 HIV/AIDS REQUIREMENTS

C3.4.4.1 ENVIRONMENTAL MANAGEMENT PLAN

CONTENTS

- C3.4.4.1.1 SCOPE
- C3.4.4.1.2 DEFINITIONS
- C3.4.4.1.3 IDENTIFICATION OF ENVIRONMENTAL ASPECTS AND IMPACTS
- C3.4.4.1.4 LEGAL REQUIREMENTS
- C3.4.4.1.5 ADMINISTRATION OF ENVIRONMENTAL OBLIGATIONS
- C3.4.4.1.6 TRAINING
- C3.4.4.1.7 ACTIVITIES/ASPECTS CAUSING IMPACTS
- C3.4.4.1.8 ENVIRONMENTAL MANAGEMENT OF CONSTRUCTION ACTIVITIES
- C3.4.4.1.9 RECORD KEEPING
- C3.4.4.1.10 COMPLIANCE AND PENALTIES
- C3.4.4.1.11 MEASUREMENT AND PAYMENT

C3.4.4.1 SCOPE

This environmental management programme (EMP) sets out the methods by which proper environmental controls are to be implemented by the contractor. The duration over which the contractor's controls shall be in place cover the construction period of the project as well as the limited time after contract completion defined by the General Conditions of Contract, and the project specifications, as the defects notification period (maintenance period).

The provisions of this EMP are binding on the contractor during the life of the contract. They are to be read in conjunction with all the documents that comprise the suite of documents for this contract. In the event that any conflict occurs between the terms of the EMP and the project specifications or Record of Decision, the terms herein shall be subordinate.

The EMP is a dynamic document subject to similar influences and changes as are brought by variations to the provisions of the project specification. Any substantial changes shall be submitted to the Polokwane Municipality in writing for approval.

The EMP identifies the following:

- Construction activities that will impact on the environment.
- Specifications with which the contractor shall comply in order to protect the environment from the identified impacts.
- Actions that shall be taken in the event of non-compliance.

C3.4.4.1.2 DEFINITIONS

Alien Vegetation: alien vegetation is defined as undesirable plant growth which shall include, but not be limited to, all declared category 1 and 2 listed invader species as set out in the Conservation of Agricultural Resources Act (CARA) regulations. Other vegetation deemed to be alien shall be those plant species that show the potential to occupy in number, any area within the defined construction area and which are declared to be undesirable.

Construction Activity: a construction activity is any action taken by the contractor, his subcontractors, suppliers or personnel during the construction process as defined in the South African National Roads Agency Limited and National Roads Act, 1998 (Act No. 7, 1998)

Environment: environment means the surroundings within which humans exist and that could be made up of -

- the land, water and atmosphere of the earth;
- micro-organisms, plant and animal life;
- any part or combination of (i) and (ii) and the interrelationships among and between them; and
- the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being.

Environmental Aspect: an environmental aspect is any component of a contractor's construction activity that is likely to interact with the environment.

Environmental Impact: an impact or environmental impact is the change to the environment, whether desirable or undesirable, that will result from the effect of a construction activity. An impact may be the direct or indirect consequence of a construction activity.

Record of Decision: a record of decision is a written statement from the Limpopo Department of Economic Development, Environment and Tourism that records its approval of a planned undertaking to improve, upgrade or rehabilitate a section of road and the mitigating measures required to prevent or reduce the effects of environmental impacts during the life of a contract.

Road Reserve: the road reserve is a corridor of land, defined by co-ordinates and proclamation, within which the road, including access intersections or interchanges, is situated. A road reserve may, or may not, be bounded by a fence.

Road Width: for the purposes of the EMP, the road width is defined as the area within the road reserve i.e. fence line to fence line, but also includes all areas beyond the road reserve that are affected by the continuous presence of the road, e.g. a reach of a water course.

C3.4.4.1.3 IDENTIFICATION OF ENVIRONMENTAL ASPECTS AND IMPACTS

The contractor shall identify likely aspects before commencing with any construction activity. Examples of environment aspects include:

- waste generation
- stormwater discharge
- emission of pollutants into the atmosphere
- chemical use operations
- energy use operations
- water use operations
- use of natural resources
- noise generation

Thereafter the contractor shall programme his work in such a way that each cause and effect of a construction activity is also identified and the activity planned so as to prevent any impact from happening. If prevention is not practicable, or in the event of mishap or misapplication, the contractor shall provide plans and measures for the engineer's approval, which will limit and contain the magnitude, duration and intensity of the impact. The contractor shall demonstrate that he/she is capable of carrying out any repair and reinstatement of the damaged environment. These requirements shall be concurrent with the time constraints to produce an approved construction programme according to

Subclause 8.3 as amended by Particular Condition of the general conditions of contract and clause B1204 of these project specifications.

Listed below are some environmental impacts that could adversely alter an aspect of the environment through usual construction activities:

- Pollution of atmosphere, soil or water
- Destruction or removal of fauna and flora and effect on biological diversity
- Deformation of the landscape
- Soil erosion
- Destruction of historical/heritage sites
- Effect on the built environment
- Effect on agricultural land and wetlands
- General good construction practice will play an important role in avoiding the occurrence of an Impact.
- The contractor's attention is drawn, in this regard, to C1008. Environmental Management of Construction Activities

C3.4.4.1.4 LEGAL REQUIREMENTS

a) General

Construction will be according to the best industry practices, as identified in the project documents. This EMP, which forms an integral part of the contract documents, informs the contractor as to his duties in the fulfilment of the project objectives, with particular reference to the prevention and mitigation of environmental impacts caused by construction activities associated with the project. The contractor should note that obligations imposed by the EMP are legally binding in terms of environmental statutory legislation and in terms of the additional conditions to the general conditions of contract that pertain to this project. In the event that any rights and obligations contained in this document contradict those specified in the standard or project specifications then the latter shall prevail.

b) Statutory and other applicable legislation

The contractor is deemed to have made himself conversant with all legislation pertaining to the environment, including provincial and local government ordinances, which may be applicable to the contract.

C3.4.4.1.5 ADMINISTRATION OF ENVIRONMENTAL OBLIGATIONS

a) Appointment of a Designated Environmental Officer (DEO)

For the purposes of implementing the conditions contained herein, the contractor shall submit to the engineer for approval the appointment of a nominated representative of the contractor as the DEO for the contract. The request shall be given, in writing, at least fourteen days before the start of any work clearly setting out reasons for the nomination, and with sufficient detail to enable the engineer to make a decision. The engineer will, within seven days of receiving the request, approve, reject or call for more information on the nomination. Once a nominated representative of the contractor has been approved he/she shall be the DEO and shall be the responsible person for ensuring that the provisions of the EMP are complied with during the life of the contract. The engineer will be responsible for issuing instructions to the contractor where environmental considerations call for action to be taken. The DEO shall submit regular written reports to the engineer, but not less frequently than once a month.

The engineer shall have the authority to instruct the contractor to replace the DEO if, in the engineer's opinion, the appointed officer is not fulfilling his/her duties in terms of the requirements of the EMP or this specification. Such instruction will be in writing and shall clearly set out the reasons why a replacement is required.

There shall be an approved DEO on the site at all times.

b) Administration

Before the contractor begins each construction activity the DEO shall give to the engineer a written statement setting out the following:

- The type of construction activity.
- Locality where the activity will take place.
- Identification of the environmental aspects and impacts that might result from the activity.
- Methodology for impact prevention for each activity or aspect.
- Methodology for impact containment for each activity or aspect.
- Emergency/disaster incident and reaction procedures.
- Treatment and continued maintenance of impacted environment.

The contractor may provide such information in advance of any or all construction activities provided that new submissions shall be given to the engineer whenever there is a change or variation to the original.

The engineer may provide comment on the methodology and procedures proposed by the DEO, but he shall not be responsible for the contractor's chosen measures of impact mitigation and emergency/disaster management systems. However, the contractor shall demonstrate at inception and at least once during the contract that the approved measures and procedures function properly.

c) Good Housekeeping

The Contractor shall undertake “good housekeeping” practices during construction as stated in clause 1217 of the COLTO Standard Specifications for Roads and Bridges and subclauses 4.18 and 11.11 of the General Conditions of Contract. This will help avoid disputes on responsibility and allow for the smooth running of the contract as a whole. Good housekeeping extends beyond the wise practice of construction methods that leaves production in a safe state from the ravages of weather to include the care for and preservation of the environment within which the site is situated.

C3.4.4.1.6. TRAINING

The designated environmental officer (DEO) must be conversant with all legislation pertaining to the environment applicable to this contract and must be appropriately trained in environmental management and must possess the skills necessary to impart environmental management skills to all personnel involved in the contract.

The contractor shall ensure that adequate environmental training takes place. All employees shall have been given an induction presentation on environmental awareness. Where possible, the presentation needs to be conducted in the language of the employees. The environmental training should, as a minimum, include the following:

- The importance of conformance with all environmental policies;
- The environmental impacts, actual or potential, of their work activities;
- The environmental benefits of improved personal performance;
- Their roles and responsibilities in achieving conformance with the environmental policy and procedures and with the requirement of the Agency’s environmental management systems, including emergency preparedness and response requirements;
- The potential consequences of departure from specified operating procedures;
- The mitigation measures required to be implemented when carrying out their work activities.

In the case of permanent staff the contractor shall provide evidence that such induction courses have been presented. In the case of new staff (including contract labour) the contractor shall inform the engineer when and how he/she intends concluding his environmental training obligations.

C3.4.4.1.7. ACTIVITIES/ASPECTS CAUSING IMPACTS

A list of possible causes of environmental impacts that occur during construction activities is given in Table 7/1: Aspects or Activities that Cause Environmental Impacts during Construction Activities, which is to be found at the end of this part. This list is not exhaustive, and shall be used for guideline purposes only.

C3.4.4.1.8 ENVIRONMENTAL MANAGEMENT OF CONSTRUCTION ACTIVITIES

d) Site Establishment

i) Site Plan

The contractor shall establish his construction camps, offices, workshops, staff accommodation and testing facilities on the site in a manner that does not adversely affect the environment. However, before construction can begin, the contractor shall submit to the engineer for his approval, plans of the exact location, extent and construction details of these facilities and the impact mitigation measures the contractor proposes to put in place.

The plans shall detail the locality as well as the layout of the waste treatment facilities for litter, kitchen refuse, sewage and workshop-derived effluents. The site offices should not be sited in close proximity to steep areas, as this will increase soil erosion. Preferred locations would be flat areas along the route. If the route traverses water courses, streams and rivers, it is recommended that the offices, and in particular the ablution facilities, aggregate stockpiles, spoil areas and hazardous material stockpiles are located as far away as possible from any water course as possible. Regardless of the chosen site, the contractor's intended mitigation measures shall be indicated on the plan. The site plan shall be submitted not later than the first site meeting. Detailed, electronic colour photographs shall be taken of the proposed site before any clearing may commence. These records are to be kept by the engineer for consultation during rehabilitation of the site. Read with COLTO Specification 1302(a), 1402 (e).

ii) Vegetation

The contractor has a responsibility to inform his staff of the need to be vigilant against any practice that will have a harmful effect on vegetation.

The natural vegetation encountered on the site is to be conserved and left as intact as possible. Vegetation planted at the site shall be indigenous and in accordance with instructions issued by the engineer. Only trees and shrubs directly affected by the works, and such others as may be indicated by the engineer in writing, may be felled or cleared. In wooded areas where natural vegetation has been cleared out of necessity, the same species of indigenous trees as were occurring shall be re-established.

The project specification for the rehabilitation of the grass cover shall be strictly adhered to. Any proclaimed weed or alien species that propagates during the contract period shall be cleared by hand before seeding. (Read in conjunction with COLTO Specification 5801(b), 5802(b), (c), (d) and (e), 5804, 5805, 5806 and 5807). Fires shall only be allowed in facilities or equipment specially constructed for this purpose. A firebreak shall be cleared and maintained around the perimeter of the camp and office sites.

iii) Rehabilitation

The area where the site offices were erected will require rehabilitation at the end of the contract. All construction material, including concrete slabs and braai areas shall be removed from the site on completion of the contract.

iv) Water for human consumption

Water for human consumption shall be available at the site offices and at other convenient locations on site.

All effluent water from the camp / office sites shall be disposed of in a properly designed and constructed system, situated so as not to adversely affect water sources (streams, rivers, pans dams etc). Only domestic type wastewater shall be allowed to enter this drain.

v) Heating and cooking fuel

The contractor shall provide adequate facilities for his staff so that they are not encouraged to supplement their comforts on site by accessing what can be taken from the natural surroundings. The contractor shall ensure that energy sources are available at all times for construction and supervision personnel for heating and cooking purposes.

b) Sewage treatment

Particular reference in the site establishment plan shall be given to the treatment of sewage generated at the site offices, site laboratory and staff accommodation and at all localities on the site where there will be a concentration of labour. Sanitary arrangements should be to the satisfaction of project management, the local authorities and legal requirements.

Safe and effective sewage treatment will require one of the following sewage handling methods: septic tanks and soak-aways, dry-composting toilets such as “enviro loos”, or the use of chemical toilets which are supplied and maintained by a subcontractor. The type of sewage treatment will depend on the geology of the area selected, the duration of the contract and proximity (availability) of providers of chemical toilets. Should a soak-away system be used, it shall not be closer than 800 metres from any natural water course or water retention system. The waste material generated from these facilities shall be serviced on a regular basis. The positioning of the chemical toilets shall be done in consultation with the engineer. Read with COLTO Specifications 1402(g) and 1404(a).

Toilets and latrines shall be easily accessible and shall be positioned within walking distance from wherever employees are employed on the works. Use of the veld for this purpose shall not, under any circumstances, be allowed.

Outside toilets shall be provided with locks and doors and shall be secured to prevent them from blowing over. The toilets shall also be placed outside areas susceptible to flooding. The contractor shall arrange for regular emptying of toilets and shall be entirely responsible for enforcing their use and for maintaining such latrines in a clean, orderly and sanitary condition to the satisfaction of the engineer.

c) Waste Management

The contractor's intended methods for waste management and waste minimisation shall be implemented at the outset of the contract. All personnel shall be instructed to dispose of all waste in the proper manner.

i) Solid Waste

Solid waste shall be stored in an appointed area in covered, tip proof metal drums for collection and disposal. A refuse control system shall be established for the collection and removal of refuse to the satisfaction of the engineer. Disposal of solid waste shall be at a Department of Water Affairs and Forestry (DWAF) licensed landfill site or at a site approved by DWAF in the event that an existing operating landfill site is not within reasonable distance from the site offices and staff accommodation. No waste shall be burned or buried at or near the site offices, or anywhere else on the site, including the approved solid waste disposal site. Read with COLTO Specification 1404(a).

ii) Litter

No littering by construction workers shall be allowed. During the construction period, the facilities shall be maintained in a neat and tidy condition and the site shall be kept free of litter.

Measures shall be taken to reduce the potential for litter and negligent behaviour with regard to the disposal of all refuse. At all places of work the contractor shall provide litter collection facilities for later safe disposal at approved sites. (Read with COLTO Specification 1302(b)).

iii) Hazardous waste

Hazardous waste such as bitumen, tar, oils etc. shall be disposed of in a Department of Water Affairs and Forestry approved landfill site. Special care shall be taken to avoid spillage of tar or bitumen products such as binders or pre-coating fluid to avoid water-soluble phenols from entering the ground or contaminating water.

Under no circumstances shall the spoiling of tar or bituminous products on the site, over embankments, in borrow pits or any burying, be allowed. Unused or rejected tar or bituminous products shall be returned to the supplier's production plant. Any spillage of tar or bituminous products shall be attended to immediately and affected areas shall be promptly reinstated to the satisfaction of the engineer.

d) Control at the workshop

The contractor's management and maintenance of his plant and machinery will be strictly monitored according to the criteria given below, regardless whether it is serviced on the site (i.e. at the place of construction activity or at a formalised workshop).

i) Safety

All the necessary handling and safety equipment required for the safe use of petrochemicals and oils shall be provided by the contractor to, and used or worn by, the staff whose duty it is to manage and maintain the contractor's and his subcontractor's and supplier's plant, machinery and equipment.

ii) Hazardous Material Storage

Petrochemicals, oils and identified hazardous substances shall only be stored under controlled conditions. All hazardous materials e.g. tar or bitumen binders shall be stored in a secured, appointed area that is fenced and has restricted entry. Storage of tar or bituminous products shall only take place using suitable containers to the approval of the engineer.

The contractor shall provide proof to the engineer that relevant authorisation to store such substances has been obtained from the relevant authority. In addition, hazard signs indicating the nature of the stored materials shall be displayed on the storage facility or containment structure. Before containment or storage facilities can be erected the contractor shall furnish the engineer with details of the preventative measures he proposes to install in order to mitigate against pollution of the surrounding environment from leaks or spillage. The preferred method shall be a concrete floor that is bounded. Any deviation from the method will require proof from the relevant authority that the alternative method proposed is acceptable to that authority. The proposals shall also indicate the emergency procedures in the event of misuse or spillage that will negatively affect an individual or the environment.

iii) Fuel and Gas Storage

Fuel shall be stored in a secure area in a steel tank supplied and maintained by the fuel suppliers. An adequate bund wall, 110% of volume, shall be provided for fuel and diesel areas to accommodate any leakage spillage or overflow of these substances. The area inside the bund wall shall be lined with an impervious lining to prevent infiltration of the fuel into the soil. Any leakage, spillage or overflow of fuel shall be attended to without delay.

Gas welding cylinders and LPG cylinders shall be stored in a secure, well-ventilated area.

iv) Oil and Lubricant Waste

Used oil, lubricants and cleaning materials from the maintenance of vehicles and machinery shall be collected in a holding tank and sent back to the supplier. Water and oil should be separated in an oil trap. Oils collected in this manner, shall be retained in a safe holding tank and removed from site by a specialist oil recycling company for disposal at approved waste disposal sites for toxic/hazardous materials. Oil collected by a mobile servicing unit shall be stored in the service unit's sludge tank and discharged into the safe holding tank for collection by the specialist oil recycling company.

All used filter materials shall be stored in a secure bin for disposal off site. Any contaminated soil shall be removed and replaced. Soils contaminated by oils and lubricants shall be collected and disposed of at a facility designated by the local authority to accept contaminated materials.

e) Clearing the Site

In all areas where the contractor intends to, or is required to clear the natural vegetation and soil, either within the road reserve, or at designated or instructed areas outside the road reserve, a plan of action shall first be submitted to the engineer for his approval.

The plan shall contain a photographic record and chainage/land reference of the areas to be disturbed. This shall be submitted to the engineer for his records before any disturbance/stockpiling may occur. The record shall be comprehensive and clear, allowing for easy identification during subsequent inspections.

The contractor shall be responsible for the re-establishment of grass within the road reserve boundaries for all areas disturbed during road construction. This includes, for example, service roads, stockpile areas, stop/go facilities, windrows and wherever material generated for, or from, road construction has to be stored temporarily or otherwise within the road reserve, or at designated or instructed areas outside the road reserve. This responsibility shall extend until expiry of the defects notification period.

f) Soil Management

i) Topsoil

Topsoil shall be removed from all areas where physical disturbance of the surface will occur and shall be stored and adequately protected. The contract will provide for the stripping and stockpiling of topsoil from the site for later re-use. Topsoil is considered to be the natural soil covering, including all the vegetation and organic matter. Depth may vary at each site. The areas to be cleared of topsoil shall include the storage areas. All topsoil stockpiles and windrows shall be maintained throughout the contract period in a weed-free condition. Weeds appearing on the stockpiled or windrowed topsoil shall be removed by hand. Soils contaminated by hazardous substances shall be disposed of at an approved Department of Water Affairs and Forestry waste disposal site. (Read with COLTO Specifications 3104(a), 5802(a), (g), 5804(a), (b) and (c)). The topsoil stockpiles shall be stored, shaped and sited in such a way that they do not interfere with the flow of water to cause damming or erosion, or itself be eroded by the action of water. Stockpiles of topsoil shall not exceed a height of 2m, and if they are to be left for longer than 6 months, shall be analysed, and if necessary, upgraded before replacement. Stockpiles shall be protected against infestation by weeds.

The contractor shall ensure that no topsoil is lost due to erosion – either by wind or water. Areas to be topsoiled and grassed shall be done so systematically to allow for quick cover and reduction in the chance of heavy topsoil losses due to unusual weather patterns. The contractor's programme shall clearly show the proposed rate of progress of the application of topsoil and grassing. The contractor shall be held responsible for the replacement, at his own cost, for any unnecessary loss of topsoil due to his failure to work according to the progress plan approved by the engineer. The contractor's responsibility shall also extend to the clearing of drainage or water systems within and beyond the boundaries of the road reserve that may have been affected by such negligence.

ii) Subsoil

The subsoil is the layer of soil immediately beneath the topsoil. It shall be removed, to a depth instructed by the engineer, and stored separately from the topsoil if not used for road building. This soil shall be replaced in the excavation in the original order it was removed for rehabilitation purposes.

g) Drainage

The quality, quantity and flow direction of any surface water runoff shall be established prior to disturbing any area for construction purposes. Cognisance shall be taken of these aspects and incorporated into the planning of all construction activities. Before a site is developed or expanded, it shall be established how this development or expansion will affect the drainage pattern. Recognised water users / receivers shall not be adversely affected by the expansion or re-development. No water source shall be polluted in any way due to proposed changes.

Streams, rivers, pans, wetlands, dams, and their catchments shall be protected from erosion and from direct or indirect spillage of pollutants such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils, aggregate, tailings, wash water, organic materials and bituminous or tar products.

The contractor shall submit to the engineer his proposals for prevention, containment and rehabilitation measures against environmental damage of the identified water and drainage

systems that occur on the site. Consideration shall be given to the placement of sedimentation ponds or barriers where the soils are of a dispersive nature or where toxic fluids are used in the construction process. The sedimentation ponds must be large enough to contain runoff so that they function properly under heavy rain conditions.

h) Earthworks and Layerworks

This section includes all construction activities that involve the mining of all materials, and their subsequent placement, stockpile, spoil, treatment or batching, for use in the permanent works, or temporary works in the case of deviations. Before any stripping prior to the commencement of construction, the contractor shall have complied with the requirements of sections C1008 (e) and C1008 (g). In addition, the contractor shall take cognisance of the requirements set out below.

i) Quarries and borrow pits

The contractor's attention is drawn to the requirement of the Department of Minerals and Energy that before entry into any quarry or borrow pit, an EMP for the establishment, operation and closure of the quarry or borrow pit shall have been approved by the Department. It is the responsibility of the contractor to ensure that he is in possession of the approved EMP or a copy thereof, prior to entry into the quarry or borrow pit. The conditions imposed by the relevant EMP are legally binding on the contractor and may be more extensive and explicit than the requirements of this specification. In the event of any conflict occurring between the requirements of the specific EMP and these specifications the former shall apply. The cost of complying with the requirements shall be deemed to be included in existing rates in the Bill of Quantities. (Read with COLTO Specification 3100 and 3200).

ii) Excavation, hauling and placement

The contractor shall provide the engineer with detailed plans of his intended construction processes prior to starting any cut or fill or layer. The plans shall detail the number of personnel and plant to be used and the measures by which the impacts of pollution (noise, dust, litter, fuel, oil, and sewage), erosion, vegetation destruction and deformation of landscape will be prevented, contained and rehabilitated. Particular attention shall also be given to the impact that such activities will have on the adjacent built environment. The contractor shall demonstrate his "good housekeeping", particularly with respect to closure at the end of every day so that the site is left in a safe condition from rainfall overnight or over periods when there is no construction activity. (Read with COLTO Standard Specification clauses 1217 and 3309)

iii) Spoil sites

The contractor shall be responsible for the safe siting, operation, maintenance and closure of any spoil site he uses during the contract period, including the defects notification period. This shall include existing spoil sites that are being re-entered. Before spoil sites may be used proposals for their locality, intended method of operation, maintenance and rehabilitation shall be given to the engineer for his approval. The location of these spoil sites shall have signed approval from the affected landowner before submission to the engineer. No spoil site shall be located within 500m of any watercourse. A photographic record shall be kept of all spoil sites for monitoring purposes. This includes before the site is used and after re-vegetation.

The use of approved spoil sites for the disposal of hazardous or toxic wastes shall be prohibited unless special measures are taken to prevent leaching of the toxins into the surrounding environment. Such special measures shall require the approval of the relevant provincial or national authority. The same shall apply for the disposal of solid waste generated from the various camp establishments. The engineer will assist the contractor in obtaining the necessary approval if requested by the contractor.

Spoil sites will be shaped to fit the natural topography. These sites shall receive a minimum of 75mm topsoil and be grassed with the recommended seed mixture. Slopes shall not exceed a vertical: horizontal ratio of 1:3. Only under exceptional circumstances will approval be given to exceed this ratio. Appropriate grassing measures to minimise soil erosion shall be undertaken by the contractor. This will include both strip and full sodding. The contractor may motivate to the engineer for other acceptable stabilising methods. The engineer may only approve a completed spoil site at the end of the defects notification period upon receipt from the contractor of a landowner's clearance notice and an engineer's certificate certifying slope stability (Read with COLTO standard Specifications clause 1214). The contractor's costs incurred in obtaining the necessary certification for opening and closing of spoil sites shall be deemed to be included in the Tendered rates for spoiling.

iv) Stockpiles

The contractor shall plan his activities so that materials excavated from borrow pits and cuttings, in so far as possible, can be transported direct to and placed at the point where it is to be used. However, should temporary stockpiling become necessary, the areas for the stockpiling of excavated and imported material shall be indicated and demarcated on the site plan submitted in writing to the engineer for his approval, together with the contractor's proposed measures for prevention, containment and rehabilitation against environmental damage.

The areas chosen shall have no naturally occurring indigenous trees and shrubs present that may be damaged during operations. Care shall be taken to preserve all vegetation in the immediate area of these temporary stockpiles. During the life of the stockpiles the contractor shall at all times ensure that they are:

- Positioned and sloped to create the least visual impact;
- Constructed and maintained so as to avoid erosion of the material and contamination of surrounding environment; and
- Kept free from all alien/undesirable vegetation.

After the stockpiled material has been removed, the site shall be re-instated to its original condition. No foreign material generated / deposited during construction shall remain on site. Areas affected by stockpiling shall be landscaped, top soiled, grassed and maintained at the contractor's cost until clearance from the engineer and the relevant Authority is received.

Material milled from the existing road surface that is temporarily stockpiled in areas approved by the engineer within the road reserve, shall be subject to the same condition as other stockpiled materials. Excess materials from windrows, in-situ milling or any detritus of material from road construction activities may not be swept off the road and left unless specifically instructed to do so in the contract drawing or under instruction from the engineer

In all cases, the engineer shall approve the areas for stockpiling and disposal of construction rubble before any operation commences and shall approve their clause only when they have been satisfactorily rehabilitated. (Read with COLTO Specification 3203 and 4306).

v) Blasting activities

Wherever blasting activity is required on the site (including quarries and/or borrow pits) the contractor shall rigorously adhere to the relevant statutes and regulations that control the use of explosives. In addition, the contractor shall, prior to any drilling of holes in preparation for blasting, supply the engineer with a locality plan of the blast site on which shall be shown the zones of influence of the ground and air shock-waves and expected limits of fly-rock. The plan shall show each dwelling, structure and service within the zones of influence and record all details of the dwellings/structures/services including existing positions, lengths and widths of cracks, as well as the condition of doors, windows, roofing, wells, boreholes etc. The contractor, alone, shall be responsible for any costs that can be attributed to blasting activities, including the collection of fly-rock from adjacent lands and fields. The submission of such a plan shall not in any way absolve the contractor from his responsibilities in this regard. The contractor shall also indicate to the engineer the manner in which he intends to advertise to the adjacent communities and/or road users the times and delays to be expected for each individual blast.

i) Batching sites

Asphalt plants are considered scheduled processes listed in the second schedule to the Atmospheric Pollution Prevention Act, 1965 (Act No. 45 of 1965). Should the use of an asphalt plant be considered on site, the contractor shall be responsible to obtain the necessary permit from the Department of Environmental Affairs and Tourism, regardless of where they are sited.

Crushing plants and concrete batching plants, whether sited inside or outside of defined quarry or borrow pit areas, shall be subject to the requirements of the Department of Minerals and Energy legislation as well as the applicable industrial legislation that governs gas and dust emissions into the atmosphere. Such sites will be the subject of regular inspections by the relative authorities during the life of the project. In addition, the selection, entry onto, operation, maintenance, closure and rehabilitation of such sites shall be the same as for those under section C1008(h)(iii), with the exception that the contractor shall provide additional measures to prevent, contain and rehabilitate against environmental damage from toxic/hazardous substances. In this regard the contractor shall provide plans that take into account such additional measures as concrete floors, bounded storage facilities, linings to drainage channels and settlement dams. Ultimate approval of these measures shall be from the relevant national authority, as shall approval of closure. The engineer will assist the contractor in his submissions to the relevant authority.

Effluent from concrete batch plants and crusher plants shall be treated in a suitable designated sedimentation dam to the legally required standards to prevent surface and groundwater pollution. The designs of such a facility should be submitted to the engineer for approval.

The contractor shall invite the relevant department to inspect the site within 2 months after any plant is commissioned and at regular intervals thereafter, not exceeding 12 months apart

j) Spillages

Streams, rivers and dams shall be protected from direct or indirect spillage of pollutants such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils, aggregate, tailings, wash water, organic materials and tar or bituminous products. In the event of a spillage, the contractor shall be liable to arrange for professional service providers to clear the affected area.

Responsibility for spill treatment lies with the contractor. The individual responsible for, or who discovers a hazardous waste spill must report the incident to his/her DEO or to the engineer. The Designated Environmental Officer will assess the situation in consultation with the engineer and act as required. In all cases, the immediate response shall be to contain the spill. The exact treatment of polluted soil / water shall be determined by the contractor in consultation with the DEO and the engineer. Areas cleared of hazardous waste shall be re-vegetated according to the engineer's instructions

Should water downstream of the spill be polluted, and fauna and flora show signs of deterioration or death, specialist hydrological or ecological advice will be sought for appropriate treatment and remedial procedures to be followed. The requirement for such input shall be agreed with the engineer. The costs of containment and rehabilitation shall be for the contractor's account, including the costs of specialist input.

k) Areas of Specific Importance

Any area, as determined and identified within the project document as sensitive or of special interest within the site shall be treated according to the express instructions contained in these specifications or the approved EMP. The contractor may offer alternative solutions to the engineer in writing should he consider that construction will be affected in any way by the hindrance of the designated sensitive area or feature. However, the overriding principle is that such defined areas requiring protection shall not be changed. Every effort to identify such areas within the site will have been made prior to the project going out to tender. The discovery of other sites with archaeological or historical interest that have not been identified shall require ad hoc treatment.

i) Archaeological Sites

If an artefact on site is uncovered, work in the immediate vicinity shall be stopped immediately. The contractor shall take reasonable precautions to prevent any person from removing or damaging any such article and shall immediately upon discovery thereof inform the engineer of such discovery. The South African Heritage Research Agency (SAHRA) is to be contacted who will appoint an archaeological consultant. Work may only resume once clearance is given in writing by the archaeologist. (Read with COLTO General Condition of Contract Subclause 4.24 as amended by Particular Condition).

ii) Graves and middens

If a grave or midden is uncovered on site, or discovered before the commencement of work, then all work in the immediate vicinity of the graves/middens shall be stopped and the engineer informed of the discovery. The South African Heritage Research Agency (SAHRA) should be contacted and in the case of graves, arrangements made for an undertaker to carry out exhumation and reburial. The employer will be responsible for attempts to contact family of the deceased and for the site where the exhumed remains can be re-interred.

(Read with COLTO General Conditions of Contract Subclause 4.24 as amended by Particular Condition).

l) Noise Control

The contractor shall endeavour to keep noise generating activities to a minimum. Noises that could cause a major disturbance, for instance blasting and crushing activities, should only be carried out during daylight hours. Compliance with the appropriate legislation with respect to noise shall be mandatory.

Should noise generating activities have to occur at night the people in the vicinity of the drilling shall be warned about the noise well in advance and the activities kept to a minimum.

m) Dust Control

Dust caused by strong winds shall be controlled by means of water spray vehicles. Dust omission from batching plants shall be subject to the relevant legislation and shall be the subject of inspection by the relevant office of the Department of Minerals and Energy.

n) Alien Vegetation

The contractor shall be held responsible for the removal of alien vegetation within the road reserve disturbed during road construction. This includes, for example, service roads, stockpile areas, stop/go facilities, windrows and wherever material generated for or from road construction has been stored temporarily or otherwise within the road reserve. This responsibility shall extend for the duration of the defects notification period.

C3.4.4.1.9 RECORD KEEPING

The engineer and the DEO will continuously monitor the contractor's adherence to the approved impact prevention procedures and the engineer shall issue to the contractor a notice of non-compliance whenever transgressions are observed. The DEO should document the nature and magnitude of the non-compliance in a designated register, the action taken to discontinue the non-compliance, the action taken to mitigate its effects and the results of the actions. The non-compliance shall be documented and reported to the engineer in the monthly report.

Copies of any record of decision or EMP's for specific borrow pits or quarries used on the project shall be kept on site and made available for inspection by visiting officials from the employer or relevant environmental departments.

C3.4.4.1.10 COMPLIANCE AND PENALTIES

The contractor shall act immediately when such notice of non-compliance is received and correct whatever is the cause for the issuing of the notice. Complaints received regarding activities on the construction site pertaining to the environment shall be recorded in a dedicated register and the response noted with the date and action taken. This record shall be submitted with the monthly reports and a verbal report given at the monthly site meetings.

Any avoidable non-compliance with the above-mentioned measures shall be considered sufficient ground for the imposition of a penalty

The following penalties shall apply for environmental violations:

A) Unnecessary removal or damage to trees

- 2600mm girth or less : R 5 000 per tree
- Greater than 2600mm, but less than 6180mm girth : R10 000 per tree
- Greater than 6180mm girth : R30 000 per tree

B) Serious violations:

- Hazardous chemical/oil spill and/or dumping in Non-approved sites. : R10 000 per incident
- General damage to sensitive environments. : R 5 000 per incident
- Damage to cultural and historical sites. : R 5 000 per incident
- Uncontrolled/unmanaged erosion (plus rehabilitation at contractor's cost). : R 1 000 to R5 000 per incident
- Unauthorised blasting activities. : R 5 000 per incident
- Pollution of water sources. : R10 000 per incident

The engineer's decision with regard to what is considered a violation, its seriousness and the penalty imposed shall be final.

C) Less serious violations:

- Littering on site. : R1 000 per incident
- Lighting of illegal fires on site. : R1 000 per incident
- Persistent or un-repaired fuel and oil leaks. : R1 000 per incident
- Excess dust or excess noise emanating from site. : R1 000 per incident
- Dumping of milled material in side drains or on grassed Areas : R1 000 per incident
- Possession or use of intoxicating substances on site. : R 500 per incident
- Any vehicles being driven in excess of designated speed limits. : R 500 per incident
- Removal and/or damage to flora or cultural or heritage objects on site, and/or killing of wildlife : R2 000 per incident
- Illegal hunting. : R2 000 per incident

- Urination and defecation anywhere except in designated areas. : R 500 per incident

The engineer's decision with regard to what is considered a violation, its seriousness and the penalty imposed shall be final. The calculation shall include allied construction activities in the same way as the calculation of reduced payments under section 8200. The imposition of such a penalty shall not preclude the relevant provincial or national authority from applying an additional penalty in accordance with its statutory powers. Any non-compliance with the agreed procedures of the EMP is a transgression of the various statutes and laws that define the manner by which the environment is managed.

Failure to redress the cause shall be reported to the relevant authority for them to deal with the transgression, as it deems fit.

C3.4.4.1.11 MEASUREMENT AND PAYMENT

"The cost of complying with this specification shall be deemed to be included in the rates tendered for this contract."

Item	Unit
C100.01 Penalty for unnecessary removal or damage to trees for the following diameter sizes	
(a) 2600mm girth or less number	(No)
(b) Greater than 2600mm, but less than 6180mm girth number	(No)
(c) Greater than 6180mm girth number	(No)

The unit of measurement shall be the number of trees by diameter size removed unnecessary or damaged. The penalty rates applied shall be those stated in clause C3.5.2.10.

Item	Unit
C100.02 Penalty for serious violations	
(a) Hazardous chemical/oil spill and/or dumping in non-approved sites	number (No)
(b) General damage to sensitive environments	
(c) Damage to cultural and historical sites	number (No)
(d) Pollution of water sources	number (No)
(e) Unauthorised blasting activities	number (No)

- | | | |
|-----|--|-------------|
| (f) | Uncontrolled/unmanaged erosion
per incident, depending on environment impacts, plus
rehabilitation at contractor's cost) | number (No) |
|-----|--|-------------|

The unit of measurement for C100.02 (a) to (f) shall be the number of serious violation incidents. The penalty rates to be applied shall be those stated in clause C3.5.2.10.

Item	Unit
C100.03 Penalty for less serious violations	
• Littering on site	number (No)
• Lighting of illegal fires on site	number (No)
• Persistent or un-repaired fuel and oil leaks	number (No)
• Excess dust or excess noise emanating from site	number (No)
• Dumping of milled material in side drains or on grassed areas	number (No)
• Possession or use of intoxicating substances on site	number (No)
• Any vehicles being driven in excess of designated speed limits	number (No)
• Removal and/or damage to flora or cultural or heritage objects on site, and/or killing of wildlife	number (No)
• Illegal hunting	number (No)
• Urination and defecation anywhere except in designated Areas	number (No)

The unit of measurement shall be the number of less serious violation incidents. The penalty rates applied shall be those stated in clause C3.5.2.10.

The engineer's decision with regard to what is considered a violation, its seriousness and the penalty imposed shall be final. The calculation shall include allied construction activities in the same way as the calculation of reduced payments under section 8200. The imposition of such a penalty shall not preclude the relevant provincial or national authority from applying an additional penalty in accordance with its statutory powers. Any non-compliance with the agreed procedures of the EMP is a transgression of the various statutes and laws that define the manner by which the environment is managed.

Failure to redress the cause shall be reported to the relevant authority for them to deal with the transgression, as it deems fit.

Table 1: Mechanisms that Cause Environmental Impacts during Construction Activities

Contents	Environmental Impacts				
	Pollution Type	Deformation of Landscape	Soil erosion	Alien Vegetation	Sensitive Areas (to be completed by compiler)
Camp Establishment	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
Housing, Offices and laboratories	Waste treatment Hazardous waste Water supply Spillage Storage Noise/lights	Selection of site Preserve indigenous vegetation Preserve topsoil Demarcate sensitive areas	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
Accommodation of Traffic	Waste treatment Hazardous waste Water supply Spillage Storage Noise/lights	Selection of site Preserve indigenous vegetation Preserve topsoil Demarcate sensitive areas	Selection of site Preserve indigenous vegetation	Preserve indigenous vegetation Preserve topsoil	

Contents	Environmental Impacts				
	Pollution Type	Deformation of Landscape	Soil erosion	Alien Vegetation	Sensitive Areas (to be completed by compiler)
	Dust control	Maintenance of windrows	Preserve topsoil	Management of weeds	
Overhaul	Spillage Storage Noise/lights Dust control Exhaust fumes Washing waste	Turning circles Parking areas	Restrict access to sensitive areas	Protection of indigenous vegetation Preserve topsoil	
Clearing and grubbing	Waste treatment Hazardous waste Water supply Noise /lights Dust control	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Protection of indigenous vegetation Preserve topsoil	
Drainage	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation	Preserve indigenous vegetation Preserve topsoil Management of	

Contents	Environmental Impacts				
	Pollution Type	Deformation of Landscape	Soil erosion	Alien Vegetation	Sensitive Areas (to be completed by compiler)
			Preserve topsoil	weeds	
Borrow pits	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
Stockpiling	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
Mass Earthworks	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation	Preserve indigenous vegetation Preserve topsoil Management of	

Contents	Environmental Impacts				
	Pollution Type	Deformation of Landscape	Soil erosion	Alien Vegetation	Sensitive Areas (to be completed by compiler)
			Preserve topsoil	weeds	
Pavement layers	Waste treatment Hazardous waste Water supply Spillage Storage Noise / lights Dust control	Selection of site Preserve indigenous vegetation Preserve topsoil Demarcate sensitive areas Maintenance of windrows	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
Asphalt works / sealing operations	Waste treatment Hazardous waste Water supply Spillage Storage Noise / lights Dust control Smoke control Storage of materials	Selection of site Preserve indigenous vegetation Preserve topsoil Turning circles Parking areas	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil	
Ancillary roadworks	Waste treatment Hazardous waste Water supply	Selection of site Preserve indigenous	Selection of site Preserve	Preserve indigenous	

Contents	Environmental Impacts				
	Pollution Type	Deformation of Landscape	Soil erosion	Alien Vegetation	Sensitive Areas (to be completed by compiler)
	Spillage Storage	vegetation Preserve topsoil	indigenous vegetation Preserve topsoil	vegetation Preserve topsoil Management of weeds	
Structures	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
Concrete pavements etc	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	

C3.4.4.2 HIV/AIDS REQUIREMENTS

CONTENTS

SH 01	SCOPE
SH 02	DEFINITIONS AND ABBREVIATIONS
SH 03	HIV/AIDS EDUCATION AND TRAINING
SH 04	PROVIDING WORKERS WITH ACCESS TO CONDOMS
SH 05	ENSURING ACCESS TO HIV/AIDS TESTING AND COUNCILLING
SH 06	MONITORING

C3.4.4.2 HIV/AIDS REQUIREMENTS

SH 01 SCOPE

This specification contains all requirements applicable to the Contractor for creating HIV/AIDS awareness amongst all of the Workers involved in this project for the duration of the construction period, through the following strategies:

- Raising awareness about HIV/AIDS through education and information on the nature of the disease, how it is transmitted, safe sexual behaviour, attitudes towards people affected and people living with HIV/AIDS, how to live a healthy lifestyle with HIV/AIDS, the importance of voluntary testing and counselling, the diagnosis and treatment of Sexually Transmitted Infections and the closest health Service Providers
- Informing Workers of their rights with regard to HIV/AIDS in the workplace
- Providing Workers with access to condoms and other awareness material that will enable them to make informed decisions about sexual practices

SH.02 DEFINITIONS AND ABBREVIATIONS

SH 02.01 DEFINITIONS

Worker: Person in the employ of the Contractor or under the direction or supervision of the Contractor or any of his Sub-contractors, who is on site for a minimum period of 30 days in total.

SH 02.02 Abbreviations

HIV	:	Human Immunodeficiency Virus
AIDS	:	Acquired Immune Deficiency Syndrome
STI	:	Sexually Transmitted Infection

SH 03 HIV/AIDS EDUCATION AND TRAINING DISPLAYING OF PLASTIC LAMINATED POSTERS AND DISTRIBUTION OF INFORMATION BOOKLETS

The Contractor shall obtain a set of four laminated posters conveying different key messages and information booklets, which are available from all Regional Offices of the Department of Public Works

The above-mentioned posters and information booklets have been prepared to raise awareness and to share information about HIV/AIDS and STI's

Posters or display stands shall be displayed on site as soon as possible, but not later than 14 days after the date of site handover

Posters shall be displayed in areas highly trafficked by Workers, including toilets, rest areas, the site office and compounds

The posters on display must always be intact, clear and readable

Information booklets must be distributed to all Workers as soon as possible, but not later than 14 days after site handover, or as soon as the Worker joins the site

SH 04 PROVIDING WORKERS WITH ACCESS TO CONDOMS

The Contractor shall provide and maintain condom dispensers and make both male and female condoms, complying with the requirements of SABS ISO 4074, available at all times to all Workers at readily accessible points on site, for the duration of the contract.

The Contractor may obtain condom dispensers from the Department of Health and condoms may be obtained from the Local Clinic or the Department of Health.

At least one male and one female condom dispenser and a sufficient supply of condoms, all to the approval of the Representative/Agent, shall be made available on site within 14 days of site hand over. Contractors should note that arrangements to obtain condoms from the Department of Health Clinics prior to site hand over may be necessary, to ensure that condoms are available within 14 days of site handover.

Condoms shall be made available in areas highly trafficked by Workers, including toilets, the site office and compounds.

SH 05 ENSURING ACCESS TO HIV/AIDS TESTING AND COUNSELLING FACILITIES AND TREATMENT OF SEXUALLY TRANSMITTED INFECTIONS (STI)

The Contractor shall provide Workers with the names of the closest Service Providers that provide HIV/AIDS testing and counselling and Clinics providing Sexually Transmitted Infection (STI) diagnosis and treatment. Information on these Service Providers and Clinics must be displayed on a poster of a size not smaller than A1 in an area highly trafficked by Workers

SH 06. MONITORING

The Contractor shall grant to the Representative/Agent reasonable access to the construction site, in order to establish that the Contractor complies with his obligations regarding HIV/AIDS awareness under this contract

The Contractor must report problems experienced in implementing the HIV/AIDS requirements to the Representative/Agent

The attached SITE CHECKLIST (SCHEDULE A) shall be completed and submitted at every construction progress inspection to the Representative/Agent

C3.4.5 PARTICULAR SPECIFICATIONS

In addition to the Standardized and Project Specifications the following Particular Specifications shall apply to this contract and are bound in hereafter.

SECTION PC	TRIMMING OF SITE
SECTION PD	MAINTENANCE
SECTION PE	CONTINGENCIES
SECTION POHS	OHSA 1993 SAFETY SPECIFICATION
SECTION PG	GENERIC LABOUR-INTENSIVE SPECIFICATION

SECTION PC: TRIMMING OF SITE

PC1 SCOPE

This work shall consist of the finishing of the entire site affected by the Contractor's operations before the issue of the Completion Certificate.

PC2 REQUIREMENTS

After completion of the work covered by this Contract, the entire area affected by the Contractor's operations shall be finished off and cleared up and all loose rock shall be removed, if required, and disposed of as directed by the Engineer.

Under no circumstances shall the Contractor use machines for trimming.

All loose stones, roots or other waste matter exposed on fill or excavation slopes, which are liable to become loosened shall be removed and all debris and muck from clearing operations shall be disposed of and the area affected by the Contractor's operations and all camp sites left in a neat and presentable manner.

All false work, temporary supports and structures, casting yards or platforms and equipment shall be removed from the site and from all ground occupied by the Contractor in connection with the work. All parts of the work and adjacent ground shall be left in a neat and presentable condition, all to the satisfaction of the Engineer.

PC3 MEASUREMENT AND PAYMENT

Measurement and payment for complying with the above requirements will not be made separately, and would be regarded as being provided for in full by relevant payment items under 1200 A - General.

SECTION PD: MAINTENANCE

PD1 MAINTENANCE DURING CONSTRUCTION

From the time of taking over the site by the Contractor, as set out in the Special Conditions of Contract until the acceptance of the work and the issue of the Completion Certificate, the Contractor shall be responsible for the maintenance of the work and shall rebuild, repair, restore and make good at his own expense all injuries or damages to any portion thereof whether occasioned by the action of the elements or any other cause.

PD2 MAINTENANCE OF COMPLETED WORK

Periods of Maintenance

The periods of maintenance for each completed section of work shall extend for twelve months from the time of acceptance of the work and the issue of the relevant Completion Certificate for that section of the work as the case may be as set out in Clause 53 of the General Conditions of Contract.

PD2.1 Work during Period of Maintenance

The Contractor shall be responsible for the repair at his own expense, of all defects in any of the works constructed by him, or affected by him during construction, all in terms of Clause 53 of the General Conditions of Contract.

PD3 MEASUREMENT AND PAYMENT

Measurement and payment for maintenance as described above shall be deemed to be included in the prices tendered and paid for the various items for which payment is made in terms of this Contract and such prices shall be full compensation for the supply of all supervision, labour, materials, equipment, plant and work necessary for the maintenance thereof.

The retention monies as set out in the General Conditions of Contract, Clause 49 (3) shall be released only upon Final Settlement of the Contract as set out in Clause 52 of the General Conditions of Contract

SECTION PE: CONTINGENCIES

PE1 CONTINGENCIES

An amount to be spent in part or in whole at the complete discretion of the Engineer. This amount shall not form part of the 15% as is defined in Clause 50 of the General Conditions of Contract.

SECTION POHS: OHSA 1993 HEALTH AND SAFETY SPECIFICATION

POHS.1 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:

- Lifting and lowering of materials and equipment from the ground onto the pipe pedestals (sewer)
- Deep excavations in soils requiring shoring or reducing of slopes
- Blasting of hard rock or demolition of concrete
- 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.

POHS.2 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.

- (c) “**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).

POHS.3 TENDERS

The Contractor shall submit the following with his tender:

- (a) a draft 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.

POHS.4 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;
- (e) excavation work deeper than 1,0m; or
- (f) working at a height greater than 3,0m 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.

POHS.5 RISK ASSESSMENT and SAFETY PLAN

5.1 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.

6.1 Safety Plan

The Safety Plan will be compiled in order to amongst others address the finding made during the Risk Assessment phase. The Safety plan will be compiled and submitted to the Engineer and Client for Approval. Construction work can only commence upon written approval of the Safety Plan by the Client.

POHS.6 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 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.

POHS.7 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.

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;
- (f) Excavation work as described in Regulation 11;
- (g) Demolition work as described in Regulation 12;
- (h) Scaffolding work as described in Regulation 14;
- (i) Suspended platform operations as described in Regulation 15;
- (j) Material hoists as described in Regulation 17;
- (k) Batch plant operations as described in Regulation 18;
- (l) Explosive powered tools as described in Regulation 19;
- (m) Cranes as described in Regulation 20;
- (n) Construction vehicle and mobile plant inspections on a daily basis by a competent person as described in Regulation 21(1);
- (o) Control of all temporary electrical installation on the construction site as described in Regulation 22;
- (p) Stacking and storage on construction sites as described in Regulation 26; and
- (q) 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.

POHS.8 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.

- (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)).

POHS.9 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 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 Construction Regulations.

(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 tunneling 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 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 (Government Notice R1031 of 30 May 1986), the Driven Machinery Regulations (Government Notice R295 of 26/2/1988) and the Electrical Installation Regulations (Government 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 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 (Government Notice R2920 of 23 October 1992) and the Electrical Machinery Regulations (Government 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 (Government 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 (Government 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 (Government 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 (Government Notice R2281 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 Regulations (Government 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.

POHS.10 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 referred to in clauses 7.1 to 7.5 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.

SECTION PG: GENERIC LABOUR-INTENSIVE SPECIFICATION

The Generic Labour-intensive specification below is the same as SANS 1921-5, Construction and management requirement for works contracts- Part 5: Earthworks activities which are to be performed by hand and should be included in the scope of works without amendment or modification as set out below.

PG1 SCOPE

This specification establishes general requirements for activities which are to be executed by hand involving the following:

- a) trenches having a depth of less than 1.5 metres
- b) stormwater drainage
- c) low-volume roads and sidewalks

PG2 PRECEDENCE

Where this specification is in conflict with any other standard or specification referred to in the Scope of Works to this Contract, the requirements of this specification shall prevail.

HAND EXCAVATEABLE MATERIAL

Hand excavateable material is material:

a) granular materials:

- i) whose consistency when profiled may in terms of table 1 be classified as very loose, loose, medium dense, or dense; or
- ii) where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 15 blows of a dynamic cone penetrometer is required to penetrate 100mm;

b) cohesive materials:

- i) whose consistency when profiled may in terms of table 1 be classified as very soft, soft, firm, stiff and stiff / very stiff; or
- ii) where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 8 blows of a dynamic cone penetrometer is required to penetrate 100mm;

Note:

- 1) A boulder, a cobble and gravel is material with a particle size greater than 200mm, between 60 and 200mm.
- 2) A dynamic cone penetrometer is an instrument used to measure the insitu shear resistance of a soil comprising a drop weight of approximately 10 kg which falls through a height of 400mm and drives a cone having a maximum diameter of 20mm (cone angle of 60° with respect to the horizontal) into the material being used.

Table 1: Consistency of materials when profiled

GRANULAR MATERIALS		COHESIVE MATERIALS	
CONSISTENCY	DESCRIPTION	CONSISTENCY	DESCRIPTION
Very loose	Crumbles very easily when scraped with a geological pick.	Very soft	Geological pick head can easily be pushed in as far as the shaft of the handle.
Loose	Small resistance to penetration by sharp end of a geological pick.	Soft	Easily dented by thumb; sharp end of a geological pick can be pushed in 30-40 mm; can be molded by fingers with some pressure.
Medium dense	Considerable resistance to penetration by sharp end of a geological pick.	Firm	Indented by thumb with effort; sharp end of geological pick can be pushed in up to 10 mm; very difficult to mould with fingers; can just be penetrated with an ordinary hand spade.
Dense	Very high resistance to penetration by the sharp end of geological pick; requires many blows for excavation.	Stiff	Can be indented by thumbnail; slight indentation produced by pushing geological pick point into soil; cannot be molded by fingers.
Very dense	High resistance to repeated blows of a geological pick.	Very stiff	Indented by thumbnail with difficulty; slight indentation produced by blow of a geological pick point.

PG4 TRENCH EXCAVATION

All hand excavateable material in trenches having a depth of less than 1,5 metres shall be excavated by hand.

PG5 COMPACTION OF BACKFILLING TO TRENCHES (AREAS NOT SUBJECT TO TRAFFIC)

Backfilling to trenches shall be placed in layers of thickness (before compaction) not exceeding 100mm. Each layer shall be compacted using hand stampers

- a) to 90% Proctor density;
- b) such that in excess of 5 blows of a dynamic cone penetrometer (DCP) is required to penetrate 100 mm of the backfill, provided that backfill does not comprise more than 10% gravel of size less than 10mm and contains no isolated boulders, or
- c) such that the density of the compacted trench backfill is not less than that of the surrounding undisturbed soil when tested comparatively with a DCP.

PG6 EXCAVATION

All hand excavateable material including topsoil classified as hand excavateable shall be excavated by hand. Harder material may be loosened by mechanical means prior to excavation by hand.

The excavation of any material which presents the possibility of danger or injury to workers shall not be excavated by hand.

PG7 CLEARING AND GRUBBING

Grass and small bushes shall be cleared by hand.

PG8 SHAPING

All shaping shall be undertaken by hand.

PG9 LOADING

All loading shall be done by hand, regardless of the method of haulage.

PG10 HAUL

Excavation material shall be hauled to its point of placement by means of wheelbarrows where the haul distance is not greater than 150 m.

PG11 OFFLOADING

All material, however transported, is to be off-loaded by hand, unless tipper-trucks are utilised for haulage

PG12 SPREADING

All material shall be spread by hand.

PG13 COMPACTION

Small areas may be compacted by hand provided that the specified compaction is achieved.

PART C4: SITE INFORMATION

C4.1: SITE INFORMATION

C4.2: LOCALITY PLAN

C4.3 BID DRAWINGS

POLOKWANE MUNICIPALITY

**PROJECT DESCRIPTION: UPGRADING OF ACCESS ROAD NTSIME TO SEFATENG
(PHASE 2)**

C4: SITE INFORMATION

C4.1: SITE INFORMATION

C4.2: LOCALITY PLAN

C4.3: BID DRAWINGS

C4.1 SITE INFORMATION

MISCELLANEOUS

The project specifications form an integral part of the contract documents and supplement the standard specifications.

The standard specifications which form part of this contract have been written to cover all phases of work normally required for road contracts and they may therefore cover items not applicable to this particular contract.

C4.1.1. DESCRIPTION OF THE WORKS

The project entails the design and construction of the TARRING OF NTSIME TO SEFATENG (PHASE 2). A brief description of the works is given in the following paragraphs for the information of Bidders.

C4.1.2 ROADWORKS

C4.1.2.1 GENERAL

- a) Location of the works and description of the works

The road is located between Ntsima and Sefateng Villages in the Dikgale Village Cluster, under the jurisdiction of the Polokwane Municipality. The road is located between the two villages which are not yet proclaimed townships. The road starts at the end of Phase 1 road (km0.86) and extends up km2.66 towards the intersection with the main gravel road in Sefateng Village. However, the length of road to be constructed under this financial year is about 1.80km.

C4.1.2.2 EXISTING ROAD INFORMATION

The existing road consists of a total length of 1.80km of existing gravel road, which will be upgraded to a surfaced road standard. The current cross-sectional width of the gravel road section varies between 6.0m and 7.0m, which will be maintained at 7.0m to accommodate the minimum cross-section road width.

The horizontal alignment will be adjustments to conform to the required standards. The vertical alignment also needs some upgrading to comply with the required standards and to ensure road drainage.

C4.1.3 EXTENT OF WORKS

The works will consist of the following:

- Clearing, Grubbing and Finishing

- Mass earthworks
- Kerbing and Edge beams
- Pavement layers of gravel material
- Asphalt surfacing
- Road signs & Road making
- Finishing of the road, testing material and workmanship.

C4.1.4 MATERIAL SITE INVESTIGATION

Detail material site investigation was conducted.

C4.1.5 DRAWINGS

The reduced drawings as contained in this Bid document that form part of the Bid document are issued for Bid purposes only.

Working drawings and other information will also be made available to the successful tenderer.

Only figured dimensions may be used and drawings may not be scaled unless so instructed by the Engineer. The engineer will supply all figured dimensions omitted from the drawings.

C4.1.6 CAMP ESTABLISHMENT, POWER SUPPLY AND OTHER SERVICES

The Contractor is to make his own arrangements concerning the supply of electrical power and all other services. No direct payment will be made for the provision of electrical and other services. The cost thereof is deemed to be included in the rates and amounts Bided for the various items of work for which these services are required.

The Contractor shall provide a suitable site for his camp, site offices and the Engineer's office. No labourers may be accommodated in the site camp, but accommodation with approved ablution facilities may be provided for two night-watchmen.

C4.1.7 CONSTRUCTION IN CONFINED AREAS

It may be necessary for the Contractor to work within confined areas. In certain places the width of the fill material and pavement layers may decrease to zero and the working space may be confined.

The method of construction in these confined areas largely depends on the Contractor's constructional plant.

Regardless, measurement and payment will be in accordance with the specified cross-sections and dimensions only, irrespective of the method used for achieving these cross-sections and dimensions. It is deemed that the rates Bided in the Pricing Schedule include full compensation for all special equipment and construction methods and for all difficulties encountered when working in confined areas and narrow widths, and at or around

obstructions. No extra payment will be made nor will any claim for additional payment be considered in such cases.

C4.1.8 MANAGEMENT OF THE ENVIRONMENT

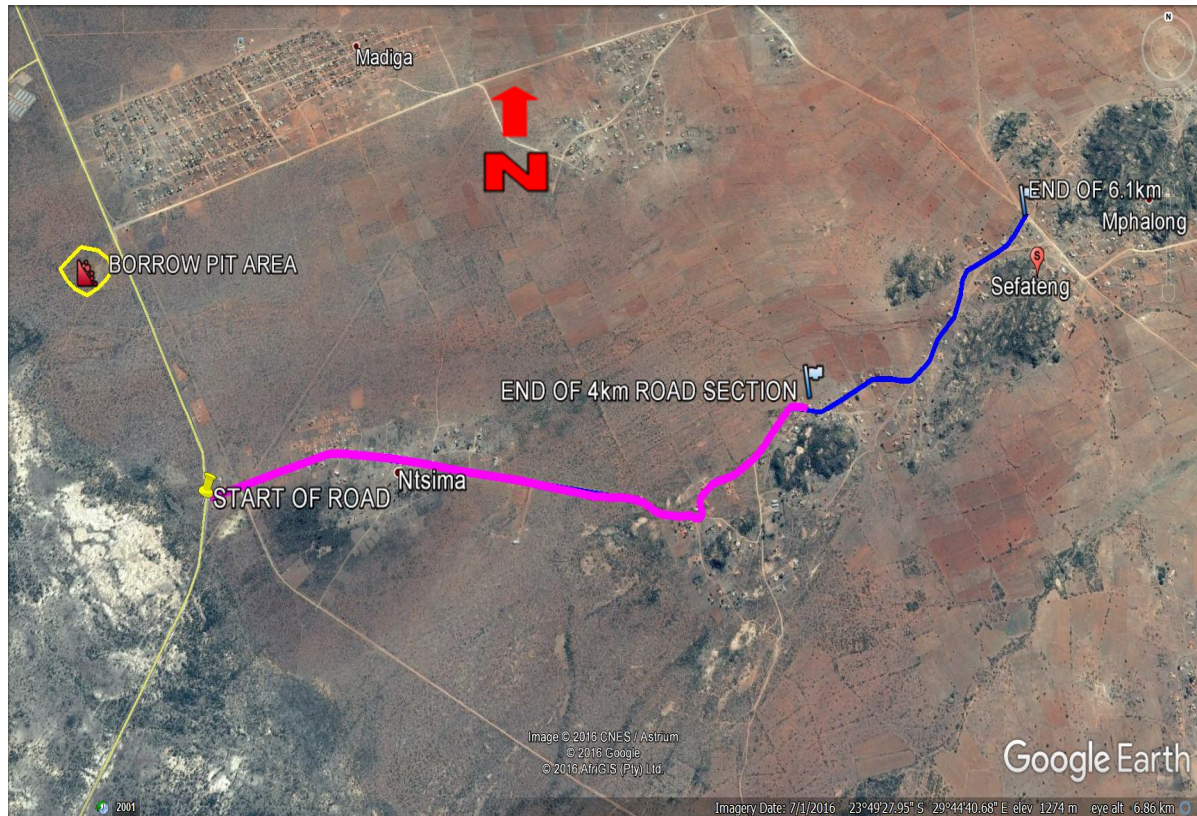
The Contractor will be responsible for construction according to an environmental management plan in terms of Section C3.4.4.1 of the Scope of Works.

The Contractor must take the utmost care to minimise the impact of his establishment and other construction activities on the environment and must adhere to the requirements as set out in Section C3.4.4.1 of the Scope of Works. Where the contractor fails to adhere to these requirements the specifications in Section C3.4.4.1 of the Scope of Works provide the methodology and cost liability of remedy.

C4.1.9 CHANGES TO SCOPE OF WORK

It is a condition of this contract that the Employer reserves the right to limit the total expenditure on the works due to possible budget constraints. Should the Bid sum exceed the budgeted amount, the scope of the works may be reduced at any time before or during the contract period to ensure that the final contract amount does not exceed the budgeted amount.

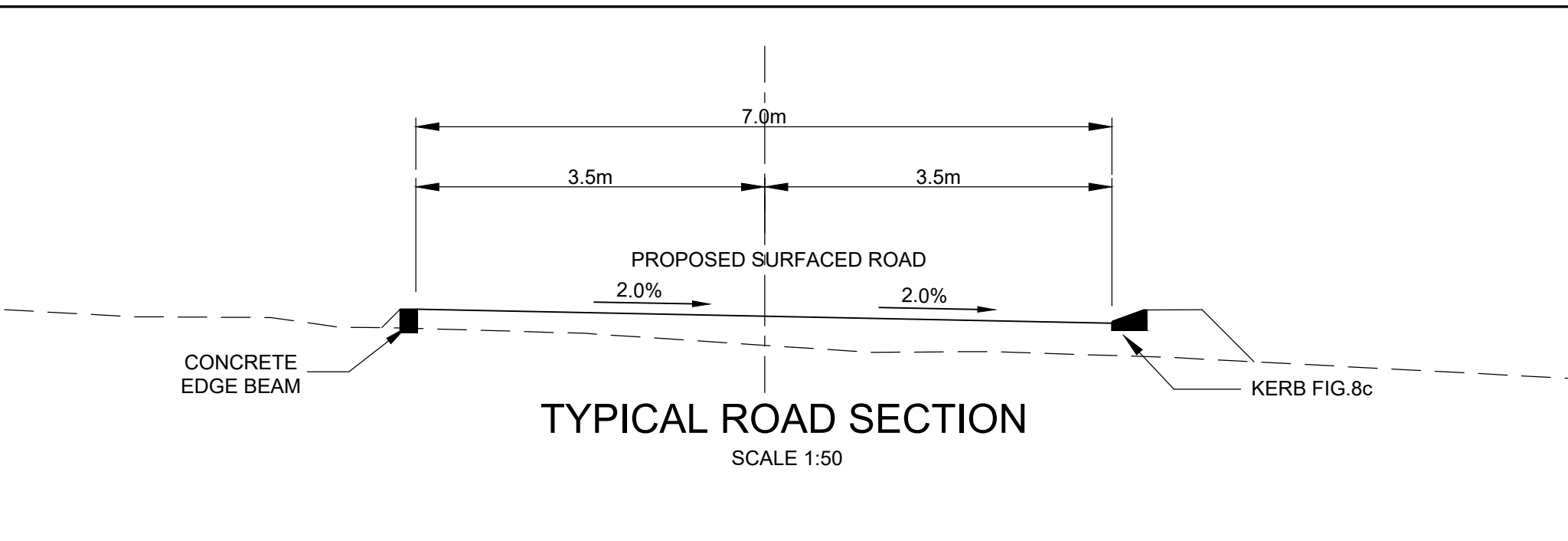
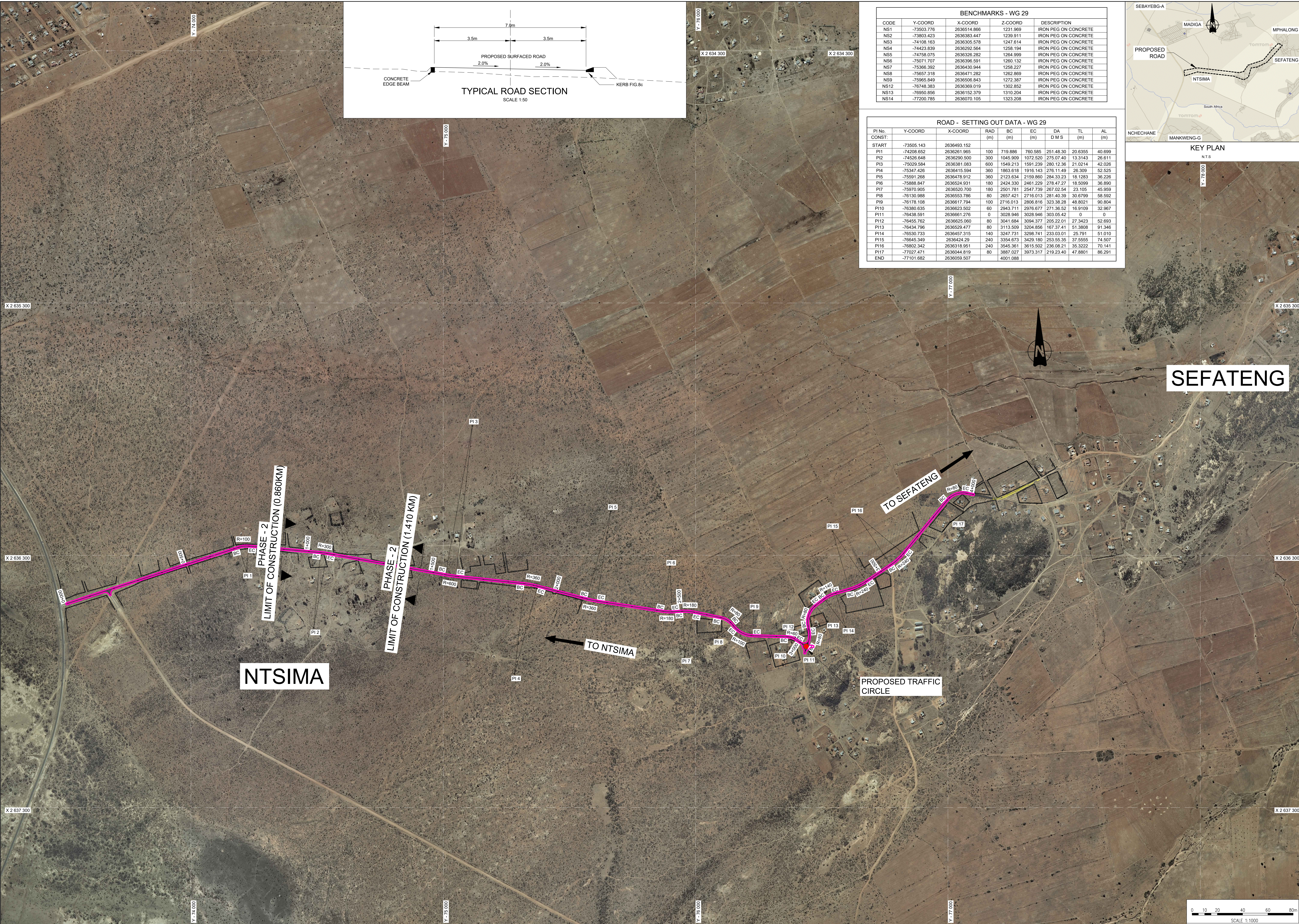
C4.2 LOCALITY PLAN



C4.3 BID DRAWINGS

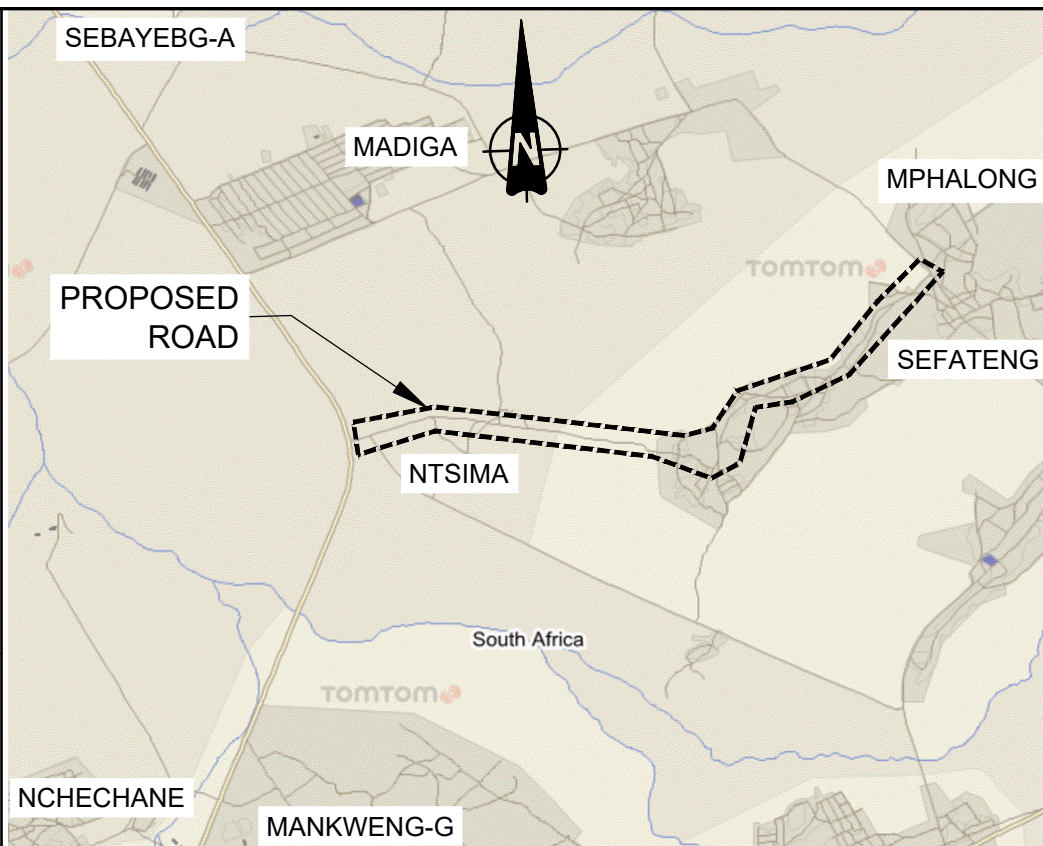
The following is a list of contract drawings included in “Part C5.2: Contract Drawings.”

DRAWING NO.	REV	DRAWING DESCRIPTION
0076-03U01	A	Roads Layout Plan
0076-05U01	A	Stormwater Layout Plan
0076-03L01	A	Roads Layout & Longsection
0076-03L02	A	Roads Layout & Longsection
STD002	A	Typical Speed Hump Details
STD003	A	Road & Surface Drainage Details
STD004	A	Road & Surface Drainage Details
STD005	A	Typical Stormwater Inlet & Outlet Structure Details



BENCHMARKS - WG 29			
CODE	Y-COORD	X-COORD	Z-COORD
NS1	-73503.776	2636514.866	1231.969
NS2	-73803.423	2636383.447	1239.911
NS3	-74108.163	2636305.578	1247.614
NS4	-74423.839	2636292.564	1258.194
NS5	-74758.075	2636326.282	1264.959
NS6	-75071.707	2636396.591	1260.132
NS7	-75366.392	2636430.944	1258.227
NS8	-75657.318	2636471.282	1262.869
NS9	-75965.849	2636508.843	1272.387
NS12	-76748.383	2636369.019	1302.852
NS13	-76950.856	2636152.379	1310.204
NS14	-77200.785	2636070.105	1323.208

ROAD - SETTING OUT DATA - WG 29							
PI No.	Y-COORD	X-COORD	RAD (m)	BC (m)	EC (m)	DA D M S	TL (m)
CONST:							
START	-73503.143	2636493.152					
PI1	-74206.652	2636261.965	100	719.886	760.585	251.48.30	20.6355
PI2	-74526.648	2636290.500	300	1045.909	1072.520	275.07.40	13.3143
PI3	-75029.584	2636381.083	600	1549.213	1591.239	280.12.36	21.0214
PI4	-75347.426	2636415.594	360	1863.618	1916.143	276.11.49	26.309
PI5	-75591.268	2636478.912	360	2123.634	2159.860	284.33.23	18.1283
PI6	-75888.847	2636524.931	180	2424.330	2461.229	278.47.27	18.5099
PI7	-75970.905	2636520.700	180	2501.781	2547.739	267.02.54	23.105
PI8	-76130.988	2636553.786	80	2657.421	2716.013	281.40.39	30.6799
PI9	-76178.108	2636617.794	100	2716.013	2806.816	323.35.28	48.8021
PI10	-76380.635	2636623.502	80	2943.711	2976.677	271.36.52	16.9109
PI11	-76438.591	2636661.276	0	3028.946	3028.946	303.05.42	0
PI12	-76455.762	2636625.060	80	3041.684	3094.377	205.22.01	27.3423
PI13	-76434.796	2636529.477	80	3113.509	3204.856	167.37.41	51.3808
PI14	-76530.733	2636457.315	140	3247.731	3296.741	233.03.01	25.781
PI15	-76645.349	2636424.29	240	3354.673	3429.180	253.55.35	37.5555
PI16	-76802.342	2636318.951	240	3545.361	3615.502	236.08.21	35.3222
PI17	-77027.471	2636044.819	80	3887.027	3973.317	219.23.40	47.8801
END	-77101.682	2636059.507		4001.088			86.291



NOTES AND SPECIFICATIONS

GENERAL

LEGEND:

- TRAFFIC LIGHT
- BENCH MARK
- ELECTRICAL POLE
- TELEPHONE POLE
- LIGHT POLE
- MAN HOLE
- METER/VALVE BOX
- ROAD SIGN
- PARKING METER
- POLE
- TELKOM PILLAR BOX
- WATER TAP
- GRID INLET
- FIRE HYDRANT
- TREE

ROADS:

- TRAFFIC CONTROL MUST COMPLY WITH THE REQUIREMENTS OF THE SOUTH AFRICAN ROAD
- TRAFFIC SIGNS MANUAL (THIRD EDITION)
- VERTICAL AND HORIZONTAL ALIGNMENT TO FOLLOW THE EXISTING ROADS, WITH A MINIMUM
- CROSS FALL OF 2 % (IF APPLICABLE)

LEGEND:

- EXISTING BLOCK PAVING
- PROPOSED BLOCK PAVING
- NO KERBING
- MOUNTABLE KERBING
- EDGE BEAM
- SPEED HUMP

STORMWATER

- MINIMUM PIPE DIAMETER TO BE 600mm
- MINIMUM FALL TO BE 1:100
- PIPE BEARING TO BE CLASS B UNLESS OTHERWISE SPECIFIED
- ALL LAYING AND BEDDING MUST BE INSPECTED AND APPROVED BY THE ENGINEER BEFORE LAYING OF ANY PIPES
- CLEAN EXISTING STORMWATER INLETS AND REPAIR WHERE NECESSARY (IF APPLICABLE)

- | PROPOSED: | LEGEND: | EXISTING: |
|-------------------|------------------|-----------|
| STORMWATER LINE | WING WALL OUTLET | |
| JUNCTION BOX | | |
| HERB INLET | | |
| CATCHPIPE LENGTH | | |
| TRANSITION LENGTH | | |
| CATCHPIPE LENGTH | | |
| TRANSITION LENGTH | | |

SHEET LAYOUT

PROJECT STATUS

CONCEPT DRAWING	DESIGN DRAWING	APPROVED FOR CONSTRUCTION DRAWING	AS-BUILT DRAWING
PROJECT ENGINEER:			
DETAILS AND SURNAME		SIGNATURE & PRE NUMBER	DATE
INSPECTOR OF WORKS:			
SIGNATURE		DATE	
REMARKS:		ORIGINAL PAPER SIZE:	
		A0	
DRAWING NO:		SHEET NO:	
0076-03U01		SHEET	

AMENDMENTS				
NR.	DATE	APPROVED	DESCRIPTION	PAR.

CONSULTANTS DETAIL

DIKGATO ENGINEERING CONSULTANTS (PTY) LTD
3 SKURWBERG STREET
NOORDWYK EXT.6
MIDRAND
1687

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

DIKGATO
ENGINEERING CONSULTANTS

CITY OF POLOKWANE

POLOKWANE MUNICIPALITY

DIKGATO ENGINEERING CONSULTANTS (PTY) LTD
GAAL Airport Building
Court No.1 - Suite 3
POLOKWANE
0699

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POLOKWANE
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FAX : 015 288 1697
eMAIL: dikgato@dikgato.co.za

CIVIC CENTRE, CNR LANDROSS
MARE & BODENSTEIN STREETS
POLOKWANE
0699

TEL : (015) 290 2102
FAX : (015) 290 2106

CITY OF POLOKWANE

POLOKWANE MUNICIPALITY

DESIGNED
T. LETSISOLO

DRAWING CHECKED BY
L. NGOCBO

DRAWN
M. NKOSI

CIVIL DRAUGHTING SERVICES
T.M. NGOCBO

DRAWING APPROVED BY PM/MANAGER
MR. P. RANOTHWALA

DATE

LOCATION OF PROJECT:

NTSIMA TO SEFATENG - PHASE 2

DESCRIPTION OF PROJECT

TARRING OF NTSIMA TO SEFATENG ROAD
ROAD LAYOUT PLAN

CONTRACT No.:
30/2015

PROJECT No.:
0076_P

SCALE:
1:5000

DATE:
OCTOBER, 2016

CONCEPT DRAWING

DESIGN DRAWING

APPROVED FOR CONSTRUCTION DRAWING

AS-BUILT DRAWING

PROJECT ENGINEER:

DETAILS AND SURNAME

SIGNATURE & PRE NUMBER

DATE

INSPECTOR OF WORKS:

SIGNATURE

DATE

REMARKS:

ORIGINAL PAPER SIZE:

A0

DRAWING NO:

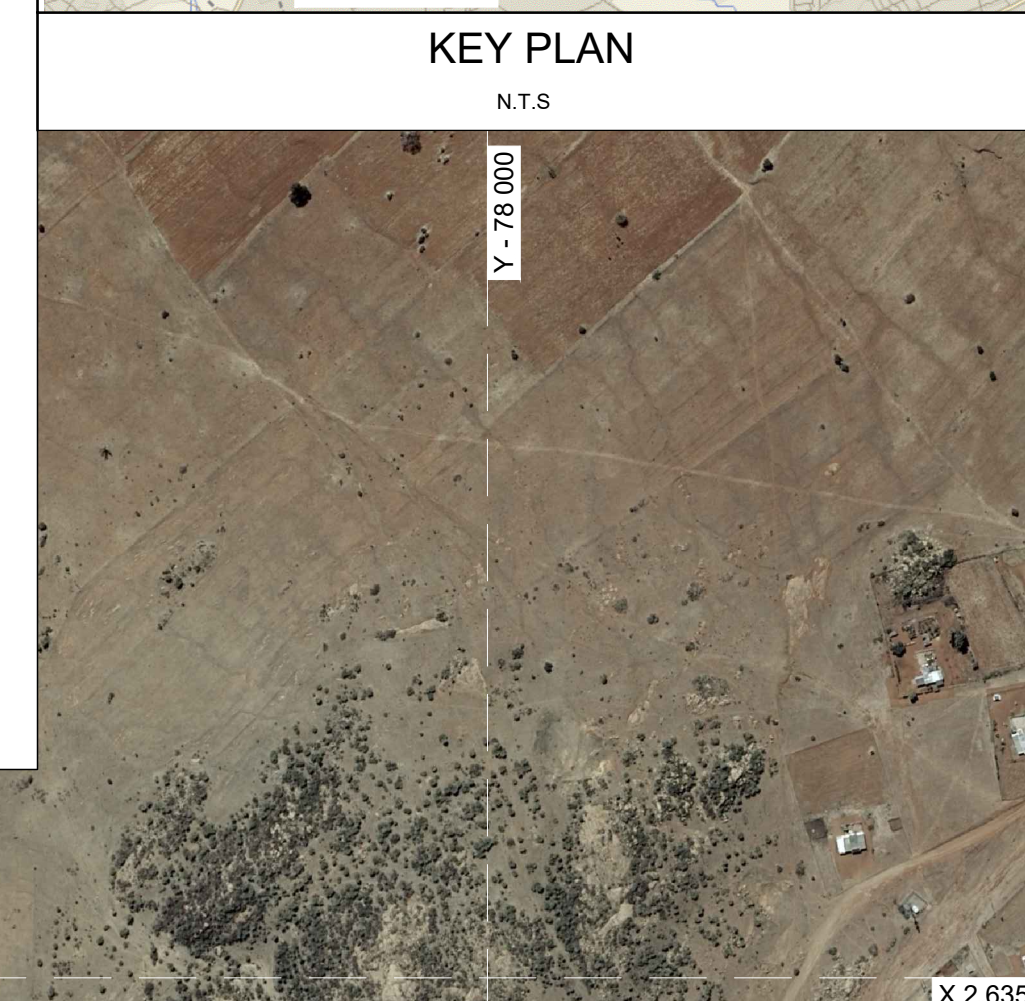
0076-03U01

SHEET NO:

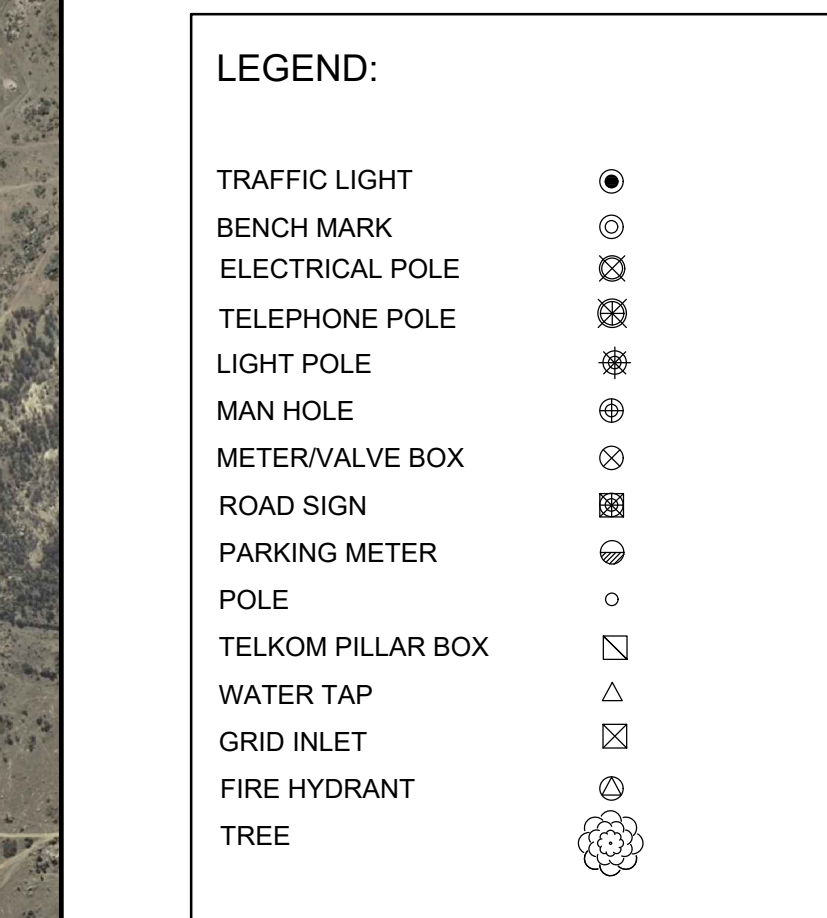
SHEET



ROAD - SETTING OUT DATA - W9 29									
PI NO	Y-COORD	X-COORD	RAD (m)	BC (m)	EC (m)	DA DMS	TL (m)	AL (m)	
CONST:	-73505.143	263640.152							
P1	-74208.626	263621.965	100	719.886	760.585	25.810	20.6355	40.691	
P2	-74526.648	263620.500	300	1045.909	1052.250	57.540	13.143	26.811	
P3	-75029.584	263618.103	600	1548.213	1591.239	280.126	21.024	42.026	
P4	-75347.426	263634.594	360	1866.216	1916.130	276.119	26.309	52.625	
P5	-75591.285	263476.912	360	2122.634	2159.860	284.323	16.1283	36.226	
P6	-75793.547	263476.912	360	2122.634	2159.860	284.323	16.1283	36.226	
P7	-75970.905	2635020.700	180	2501.281	2547.736	276.025	23.105	45.959	
P8	-761130.988	2635553.786	60	2657.421	2661.130	281.403	30.6799	58.92	
P9	-761718.108	2636171.794	100	2716.013	2806.816	323.386	32.881	90.804	
P10	-76380.635	2636623.502	60	2943.711	2976.677	321.366	16.1909	32.697	
P11	-76438.591	2636661.276	0	3028.946	3028.946	303.052	0	0	
P12	-76453.762	2636605.800	60	3264.006	3264.006	303.377	205.201	27.343	82.693
P13	-76453.762	2636477.477	0	3113.500	3204.856	176.421	13.3808	91.346	
P14	-76530.733	2636457.315	142	3713.374	3298.741	300.031	25.791	51.041	
P15	-76645.349	2636424.29	240	3354.673	3429.180	353.635	37.5555	74.567	
P16	-76802.342	2636318.951	240	3545.361	3615.502	326.0821	35.3222	70.141	
P17	-77027.471	2635084.819	80	3887.022	3973.317	219.2340	47.8801	86.291	
END	-77011.682	2636059.507	40	3801.087					



GENERAL

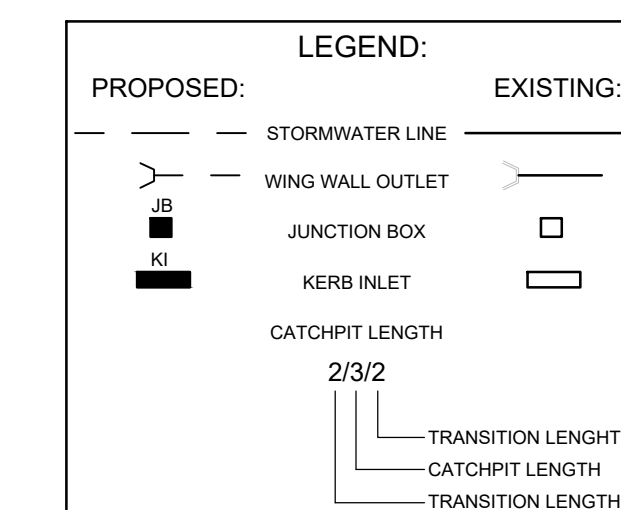
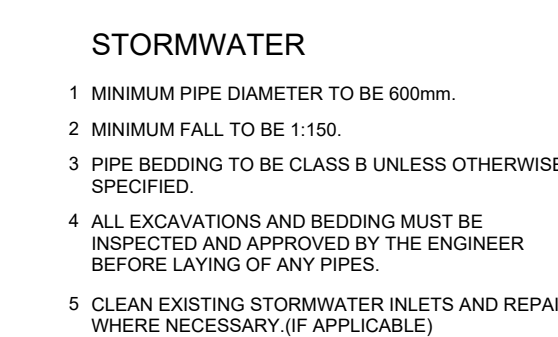


ROADS:
 KERBS TO BE AS PER STANDARD DETAIL PLANS

¹ TRAFFIC CONTROL MUST COMPLY WITH THE REQUIREMENTS OF THE SOUTH AFRICAN ROAD TRAFFIC SIGNS MANUAL (THIRD EDITION).

VERTICAL AND HORIZONTAL ALIGNMENT TO FOLLOW THE EXISTING ROADS, WITH A MINIMUM CROSS FALL OF 2% (IF APPLICABLE)

³



PROJECT STATUS

TARRING OF NTSIMA TO SEFATENG ROAD ROAD LAYOUT PLAN

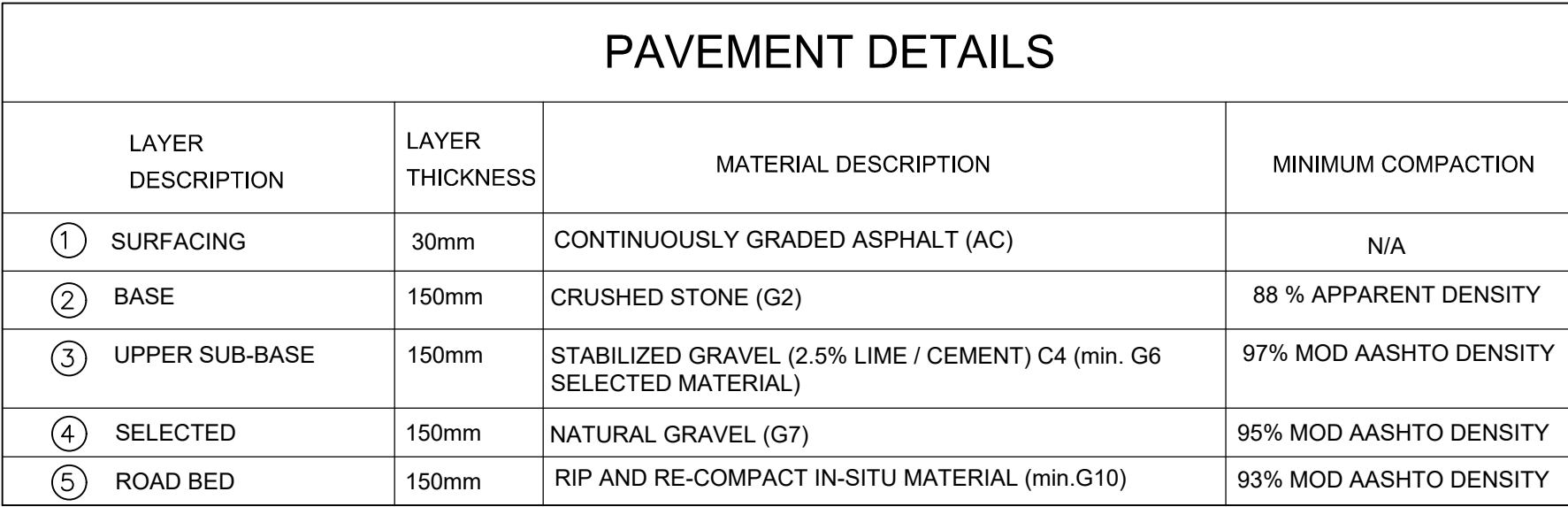
DRAWING NO.	0076-03U01
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CONSULTANTS DETAIL	
<p>3 DIKGATO ENGINEERING CONSULTANTS (PTY) LTD 3 SKURWEBERG STREET NOORDWYK EXT.6 MIDRAND 1687</p> <p>TEL : 011 318 1698 FAX : 011 318 1691 eMAIL: dikgato@dikgato.co.za</p>	<p>DIKGATO ENGINEERING CONSULTANTS (PTY) LTD GAAI Airport Building Court No. 1 - Suite 3 POLOKWANE 0699</p> <p>TEL : 015 288 1688 FAX : 015 288 1697 eMAIL: dikgato@dikgato.co.za</p>

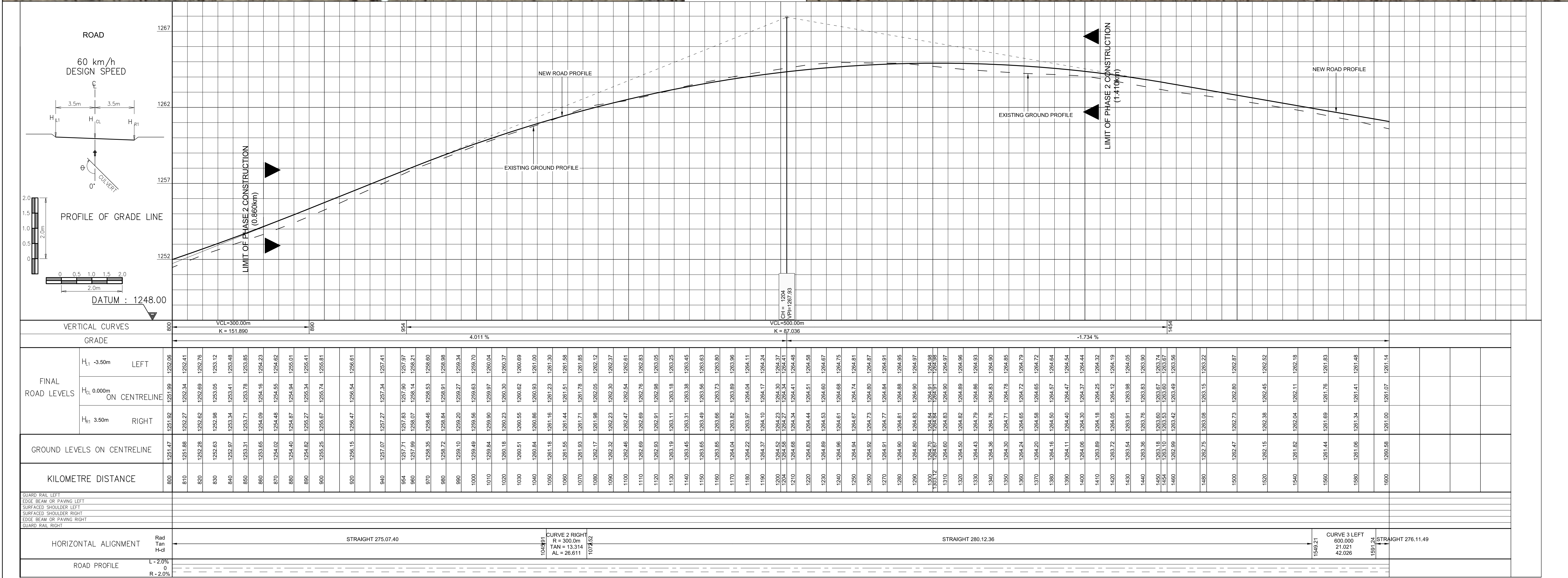


City of
Polokwane
NATURALLY PROGRESSIVE

LOCATION OF PROJECT:				<input type="radio"/> CONCEPT DRAWING <input type="radio"/> TRACED DRAWING <input checked="" type="radio"/> REPRODUCED FOR CONSTRUCTION <input type="radio"/> ASSEMBLY DRAWING	
<h1 style="text-align: center;">NTSIMA TO SEFATENG - PHASE 3</h1>					
DESCRIPTION OF PROJECT					
<h2 style="margin: 0;">TARRING OF NTSIMA TO SEFATENG ROAD</h2> <h2 style="margin: 0;">ROAD LAYOUT PLAN</h2>					
PROJECT ENGINEER INITIALS AND SURNAME _____ SIGNATURE & PIV NUMBER _____ DATE _____ INSPECTOR OF WORKS _____ _____ DATE _____				REMARKS: ORIGINAL PAPER SIZE:	
CONTRACT No. - 30/2015		PROJECT No. - 0076_P	SCALE: 1:5000	DATE: OCTOBER 2016	DRAWING NO. 0076-03U01
					SHEET NO. SHEET



BENCHMARKS - WG 29				
CODE	X-COORD	X-COORD	Z-COORD	DESCRIPTION
NS1	-73503.772	2636354.866	1231.969	IRON PEG ON CONCRETE
NS2	-73603.423	2636394.347	1239.911	IRON PEG ON CONCRETE
NS3	-74108.163	2636395.358	1248.614	IRON PEG ON CONCRETE
NS4	-74243.839	2636292.564	1267.916	IRON PEG ON CONCRETE
NS5	-75758.075	2636395.282	1239.969	IRON PEG ON CONCRETE
NS6	-75071.707	2636396.591	1280.132	IRON PEG ON CONCRETE
NS7	-75366.362	2636434.044	1258.227	IRON PEG ON CONCRETE
NS8	-75657.318	2636461.282	1262.869	IRON PEG ON CONCRETE
NS9	-75955.849	2636507.463	1272.387	IRON PEG ON CONCRETE
NS10	-76248.363	2636507.019	1283.652	IRON PEG ON CONCRETE
NS13	-76950.856	2636152.379	1310.204	IRON PEG ON CONCRETE
NS14	-77200.785	2636070.105	1323.208	IRON PEG ON CONCRETE

[illegible]

CONSULTANTS DETAIL			
DIKGATO ENGINEERING CONSULTANTS (PTY) LTD 3 SKURWEBERG STREET NOORDWYK EXT 5 MIDRAND 1687		DIKGATO ENGINEERING CONSULTANTS (PTY) LTD GAAL Airport Building Court No 1 - Suite 3 POLOKWANE 0699	
TEL : 011 318 1698 FAX : 011 318 1691 eMAIL: dikgato@dikgato.co.za		TEL : 015 288 1688 FAX : 015 288 1697 eMAIL: dikgato@dikgato.co.za	

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POLOKWANE
0700

TEL: (015) 290 2102
FAX: (015) 290 2106

CITY OF POLOKWANE






POLOKWANE MUNICIPALITY



NATURALLY PROGRESSIVE

DESIGNED T. LETSALO	
SIGNATURE	DATE
DRAWING CHECKED BY L. NGCOBO	
SIGNATURE	DATE
DRAWN M. NKOSI	
CIVIL DRAUGHTING SERVICES T.M NGCOBO	
SIGNATURE	DATE
DRAWING APPROVED BY PMU MANAGER MR. P. RAMOTHWALA	
SIGNATURE	DATE

LOCATION OF PROJECT:			
NTSIMA TO SEFATENG - PHASE 2			
DESCRIPTION OF PROJECT			
TARRING OF NTSIMA TO SEFATENG ROAD ROAD LAYOUT PLAN & LONG SECTION (CH 0.800 TO 1.600)			
CONTRACT No.:	PROJECT No.:	SCALE:	DATE:
30/2015	0079_P	1:1000	OCTOBER, 2016

 CONCEPT DRAWING	 TENDER DRAWING	 APPROVED FOR CONSTRUCTION DRAWING	 AS-BUILT DRAWING
PROJECT ENGINEER: _____			
INITIALS AND SURNAME: _____		SIGNATURE & PR NUMBER: _____	
INSPECTOR OF WORKS: _____		DATE: _____	
SIGNATURE: _____		DATE: _____	
REMARKS:		ORIGINAL PAPER SIZE:	
DRAWING NO.		A0	
0079-03LO1		SHEET NO.	
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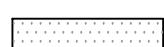




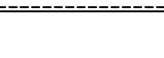
NOTES AND SPECIFICATIONS	
GENERAL	
LEGEND:	
TRAFFIC LIGHT	⦿
BENCH MARK	⊙
ELECTRICAL POLE	⊗
TELEPHONE POLE	⊠
LIGHT POLE	⊛
MAN HOLE	⊕
METER/VALVE BOX	⊗
ROAD SIGN	⊞
PARKING METER	⊖
POLE	○
TĚLKOM PILLAR BOX	⎓
WATER TAP	△
GRID INLET	⊠
FIRE HYDRANT	⊙
TREE	🌳

ROADS:

REFERRING TO BE AS PER STANDARD DETAIL PLANS

- 1 TRAFFIC CONTROL MUST COMPLY WITH THE REQUIREMENTS OF THE SOUTH AFRICAN ROAD
- 2 TRAFFIC SIGNS MANUAL (THIRD EDITION)
- 3 THE VERTICAL AND HORIZONTAL ALIGNMENT TO FOLLOW THE EXISTING ROADS, WITH A MINIMUM CROSS FALL OF 2% (IF APPLICABLE)

LEGEND:

EXISTING BLOCK PAVING	
PROPOSED BLOCK PAVING	
NO KERBING	
MOUNTABLE KERBING	
EDGE BEAM	
SPEED HUMP	

STORMWATER


1. MINIMUM PIPE DIAMETER TO BE 600mm.
2. MINIMUM FALL TO BE 1:50
3. PIPE BEDDING TO BE CLASS B UNLESS OTHERWISE SPECIFIED.

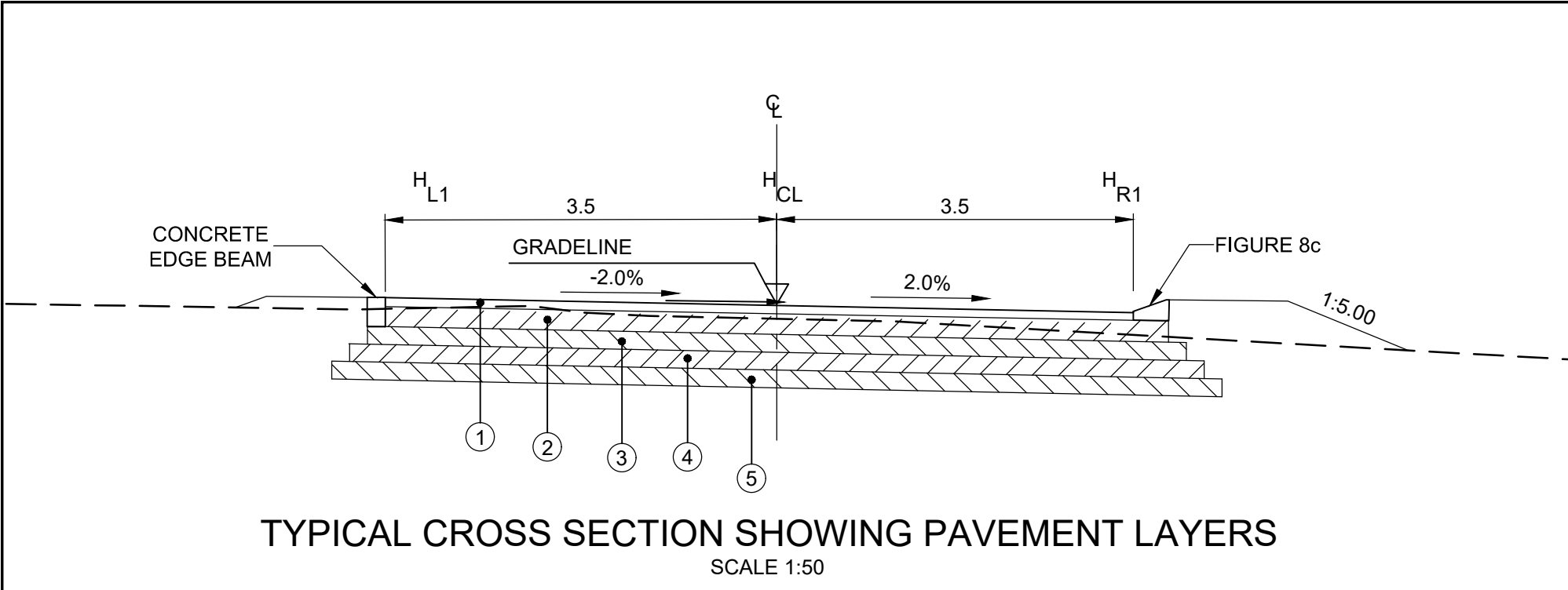
ALL EXCAVATIONS AND BEDDING MUST BE INSPECTED AND APPROVED BY THE ENGINEER BEFORE LAYING OF ANY PIPES.

BE CLEAN EXISTING STORMWATER INLETS AND REPAIR WHERE NECESSARY (IF APPLICABLE).

PROPOSED:	LEGEND:	EXISTING:
	STORMWATER LINE	
	WING WALL OUTLET	
	JUNCTION BOX	
	KERB INLET	
CATCHPIPE LENGTH		
2/3/2		

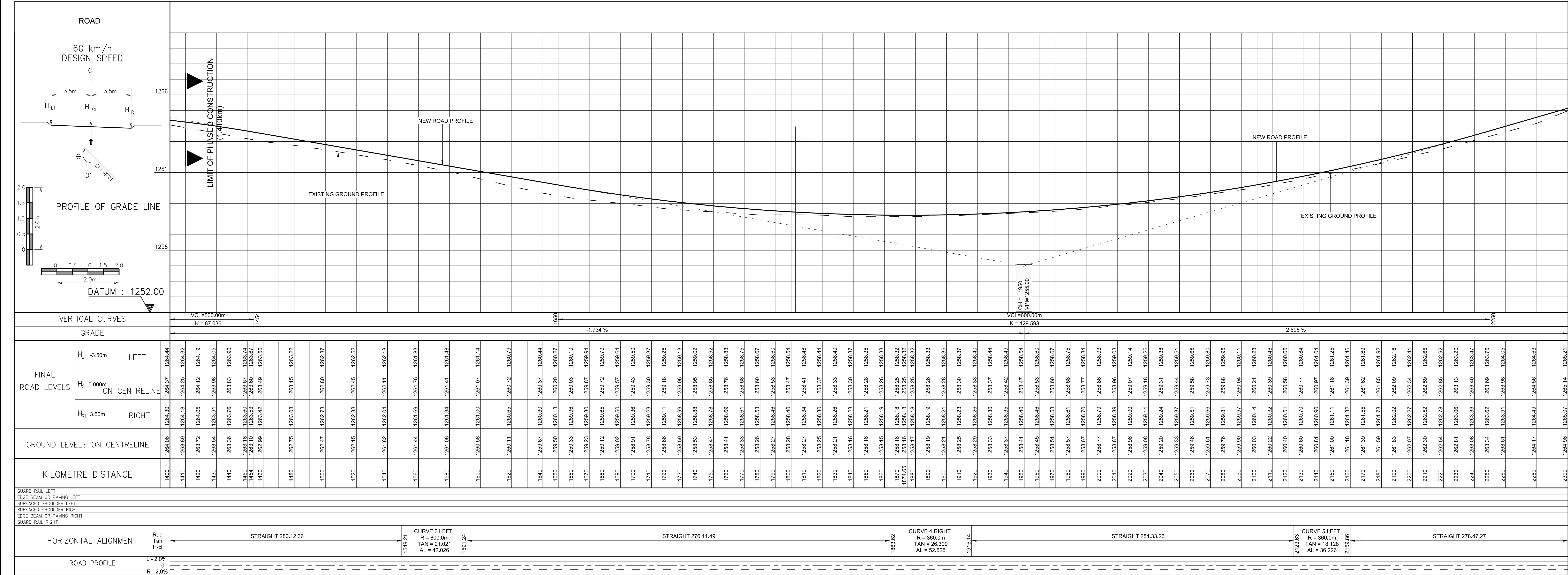
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<h1 style="margin: 0;">SHEET LAYOUT</h1>			
<h2 style="margin: 0;">PROJECT STATUS</h2>			
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CONCEPT DRAWING	TENDER DRAWING	APPROVED FOR CONSTRUCTION DRAWING	AS-BUILT DRAWING
PROJECT ENGINEER _____			
ENTAILS AND SURNAME _____		SIGNATURE & PR NUMBER _____	
REFLECTOR OF WORKS: _____		DATE _____	
SIGNATURE _____		DATE _____	
REMARKS _____		ORIGINAL PAPER SIZE: A0	
DRAWING NO. 0079-03L01		SHEET NO. SHEET	
			



PAVEMENT DETAILS			
LAYER DESCRIPTION	LAYER THICKNESS	MATERIAL DESCRIPTION	MINIMUM COMPACTION
① SURFACING	30mm	CONTINUOUSLY GRADED ASPHALT (AC)	N/A
② BASE	150mm	CRUSHED STONE (G2)	88 % APPARENT DENSITY
③ UPPER SUB-BASE	150mm	STABILIZED GRAVEL (2.5% LIME / CEMENT) C4 (min. G6 SELECTED MATERIAL)	97% MOD AASHTO DENSITY
④ SELECTED	150mm	NATURAL GRAVEL (G7)	95% MOD AASHTO DENSITY
⑤ ROAD BED	150mm	RIP AND RE-COMPACT IN-SITU MATERIAL (min G10)	93% MOD AASHTO DENSITY

BENCHMARKS - WG 29				
CODE	Y-COORD	X-COORD	Z-COORD	DESCRIPTION
NS1	-73503.776	2636514.886	1231.969	IRON PEG ON CONCRETE
NS2	-73603.423	2636363.447	1239.911	IRON PEG ON CONCRETE
NS3	-74108.163	2636305.578	1247.614	IRON PEG ON CONCRETE
NS4	-74423.839	2636292.564	1258.194	IRON PEG ON CONCRETE
NS5	-74758.075	2636326.282	1264.999	IRON PEG ON CONCRETE
NS6	-75071.707	2636396.591	1280.132	IRON PEG ON CONCRETE
NS7	-75366.392	2636430.944	1296.227	IRON PEG ON CONCRETE
NS8	-75657.318	2636471.282	1262.869	IRON PEG ON CONCRETE
NS9	-75965.849	2636506.843	1272.387	IRON PEG ON CONCRETE
NS12	-76748.383	2636369.019	1302.852	IRON PEG ON CONCRETE
NS13	-76952.856	2636152.379	1310.204	IRON PEG ON CONCRETE
NS14	-77200.785	2636070.105	1323.208	IRON PEG ON CONCRETE



NOTES AND SPECIFICATIONS

GENERAL

LEGEND:

TRAFFIC LIGHT	●
BENCH MARK	⊙
ELECTRICAL POLE	⊗
TELEPHONE POLE	⊗
LIGHT POLE	⊗
MAN HOLE	⊗
METER/VALVE BOX	⊗
ROAD SIGN	⊗
PARKING METER	⊗
POLE	⊙
TELKOM PILLAR BOX	⊗
WATER TAP	△
GRID INLET	⊗
FIRE HYDRANT	⊗
TREE	⊗

ROADS:

KERBING TO BE AS PER STANDARD DETAIL PLANS

1. TRAFFIC CONTROL MUST COMPLY WITH THE REQUIREMENTS OF THE SOUTH AFRICAN ROAD
2. TRAFFIC SIGNS MANUAL (THIRD EDITION).
3. VERTICAL AND HORIZONTAL ALIGNMENT TO FOLLOW THE EXISTING ROADS, WITH A MINIMUM
3. CROSS FALL OF 2 % (IF APPLICABLE)

LEGEND:

EXISTING BLOCK PAVING	▨
PROPOSED BLOCK PAVING	▨
NO KERBING	---
MOUNTABLE KERBING	---
EDGE BEAM	---
SPEED HUMP	---

STORMWATER

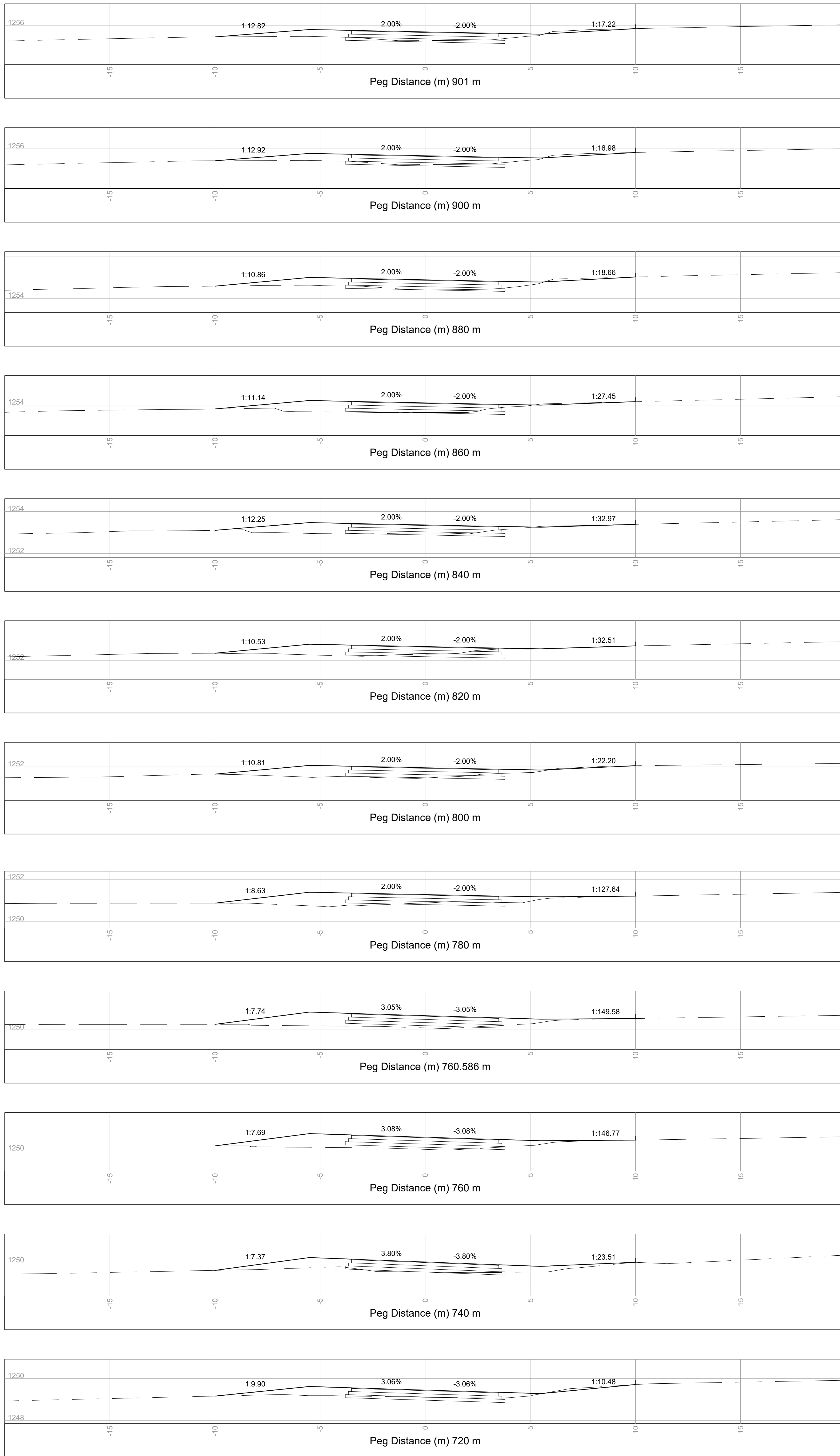
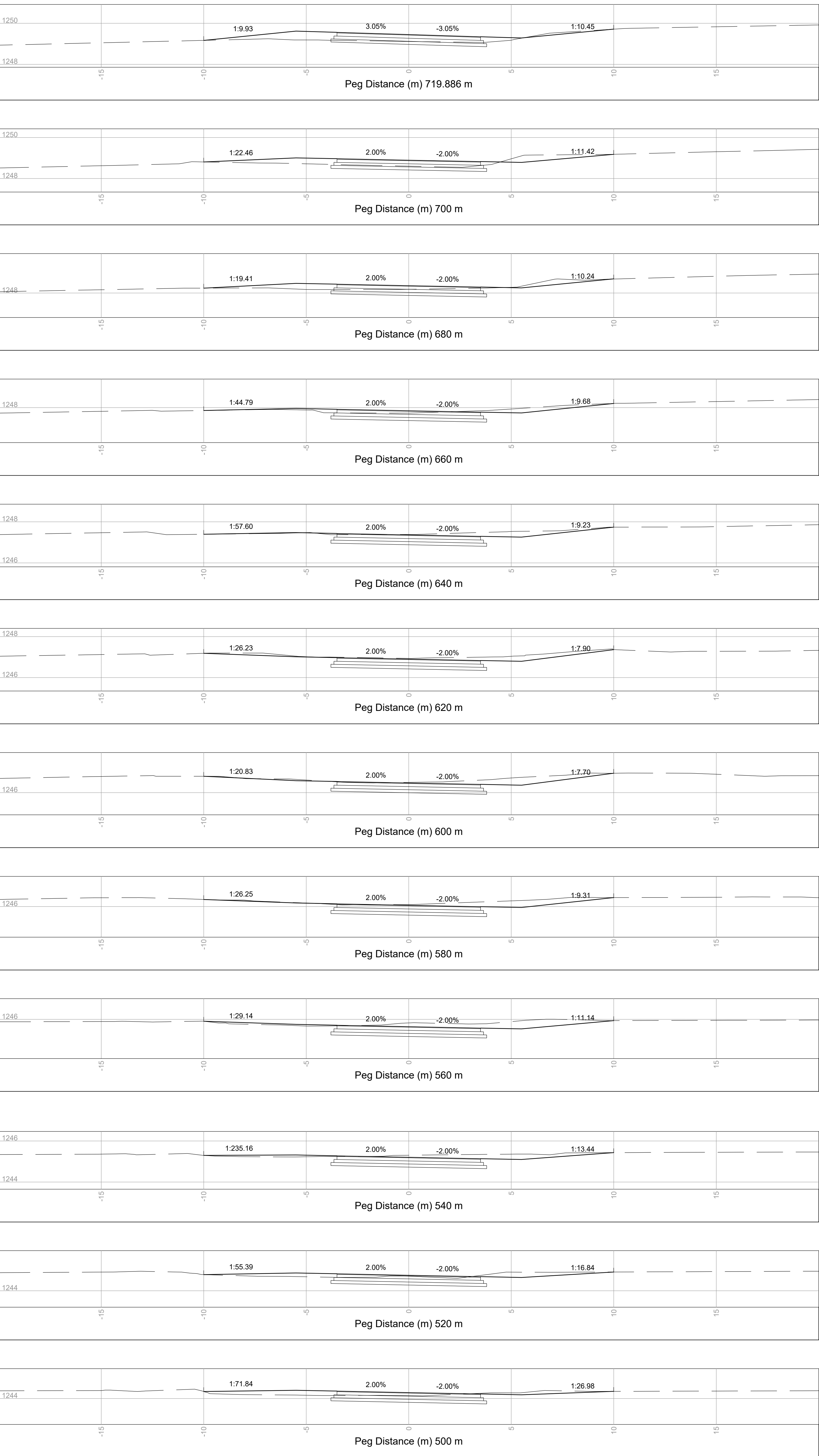
1. MINIMUM PIPE DIAMETER TO BE 600mm.
2. MINIMUM FALL TO BE 1:100.
3. PIPE BEARING TO BE CLASS B UNLESS OTHERWISE SPECIFIED.
4. ALL LAYING AND BEDDING MUST BE INSPECTED AND APPROVED BY THE ENGINEER BEFORE LAYING OF ANY PIPES.
5. CLEAN EXISTING STORMWATER INLETS AND REPAIR WHERE NECESSARY (IF APPLICABLE)

PROPOSED:	LEGEND:	EXISTING:
STORMWATER LINE	---	---
WING WALL OUTLET	---	---
JUNCTION BOX	---	---
KERB INLET	---	---
CATCHPIE LENGTH	---	---
2/3/2	---	---
TRANSITION LENGTH	---	---
CATCHPIE LENGTH	---	---
TRANSITION LENGTH	---	---

SHEET LAYOUT

PROJECT STATUS

CONCEPT DRAWING	DESIGN DRAWING	APPROVED FOR CONSTRUCTION	AS-BUILT DRAWING
PROJECT ENGINEER:	DESIGNED BY: T. LETSISO	DATE: 30/2015	PROJECT NO.: 0076_P
DETAILS AND SURNAME	SIGNATURE & PRE NUMBER	DATE	INSPECTOR OF WORKS
SIGNATURE	DATE	REMARKS	ORIGINAL PAPER SIZE: A0
DRAWING NO.: 0076-03X01	SHEET NO. SHEET	SCALE: 1:1000	DATE: OCTOBER, 2016

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SCALE 1:1000

AMENDMENTS				
NR.	DATE	APPROVED	DESCRIPTION	PAR.

CONSULTANT'S DETAIL

DIKGATO ENGINEERING CONSULTANTS (PTY) LTD
3 SKURWEGER STREET
NOORDWYK EXT.6
MIDRAND
1687

TEL : 011 318 1698
FAX : 011 318 1691
eMAIL: dikgato@dikgato.co.za



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Court No.1 - Suite 3
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P.O. BOX 111
POLOKWANE
0700

TEL: (015) 290 2102
FAX: (015) 290 2106

CITY OF POLOKWANE

POLOKWANE MUNICIPALITY



DESIGNED BY: T. LETSISO	DATE: 30/2015
DRAWING CHECKED BY: L. NGCIBO	DATE: 30/2015
DRAWN BY: M. NKOSI	DATE: 30/2015
CIVIL DRAUGHTING SERVICES: T.M. NGCIBO	DATE: 30/2015
DRAWING APPROVED BY: P.M. MANAGER	DATE: 30/2015
MR. P. RANOTHWALA	DATE: 30/2015

LOCATION OF PROJECT:

NTSIMA TO SEFATENG - PHASE 2

DESCRIPTION OF PROJECT

TARRING OF NTSIMA TO SEFATENG ROAD
ROAD CROSS SECTIONS (CH 0.500 TO 0.901)

CONTRACT NO.: 30/2015

PROJECT NO.: 0076_P

SCALE: 1:1000

DATE: OCTOBER, 2016

DRAWING NO.: 0076-03X01

SHEET NO. SHEET

ORIGINAL PAPER SIZE: A0

DATE: OCTOBER, 2016

DRAWING NO.: 0076-03X01

SHEET NO. SHEET

ORIGINAL PAPER SIZE: A0

DATE: OCTOBER, 2016

DRAWING NO.: 0076-03X01

SHEET NO. SHEET

ORIGINAL PAPER SIZE: A0

NOTES AND SPECIFICATIONS

GENERAL

LEGEND:

TRAFFIC LIGHT	●
BENCH MARK	⊙
ELECTRICAL POLE	⊗
TELEPHONE POLE	⊗
LIGHT POLE	⊗
MAN HOLE	⊗
METER/VALVE BOX	⊗
ROAD SIGN	⊗
PARKING METER	⊗
POLE	○
TELKOM PILLAR BOX	⊗
WATER TAP	⊗
GRID INLET	⊗
FIRE HYDRANT	⊗
TREE	⊗

ROADS:

- KEERING TO BE AS PER STANDARD DETAIL PLANS
1. TRAFFIC CONTROL MUST COMPLY WITH THE REQUIREMENTS OF THE SOUTH AFRICAN ROAD
 2. TRAFFIC SIGNS MANUAL (THIRD EDITION).
 3. VERTICAL AND HORIZONTAL ALIGNMENT TO FOLLOW THE EXISTING ROADS, WITH A MINIMUM
 4. CROSS FALL OF 2 % (IF APPLICABLE)

LEGEND:

EXISTING BLOCK PAVING	▨
PROPOSED BLOCK PAVING	▨
NO KERBING	---
MOUNTABLE KERBING	---
EDGE BEAM	---
SPEED HUMP	---

STORMWATER

1. MINIMUM PIPE DIAMETER TO BE 600mm.
2. MINIMUM FALL TO BE 1:100.
3. PIPE BEHIND TO BE CLASS B UNLESS OTHERWISE SPECIFIED.
4. ALL DRAINAGE AND BEDDING MUST BE INSPECTED AND APPROVED BY THE ENGINEER BEFORE LAYING OF ANY PIPES.
5. CLEAN EXISTING STORMWATER INLETS AND REPAIR WHERE NECESSARY (IF APPLICABLE).

PROPOSED:

STORMWATER LINE	---
WING WALL OUTLET	---
JUNCTION BOX	---
KERB INLET	---
CATCHPIE LENGTH	---
TRANSITION LENGTH	---
CATCHPIE LENGTH	---
TRANSITION LENGTH	---

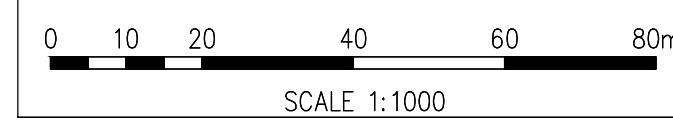
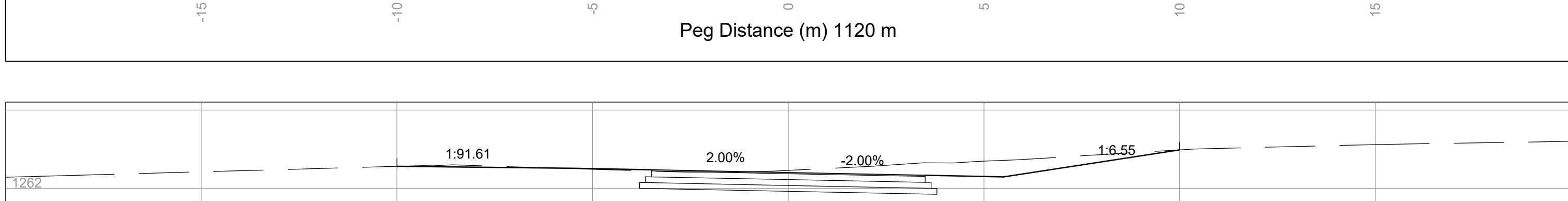
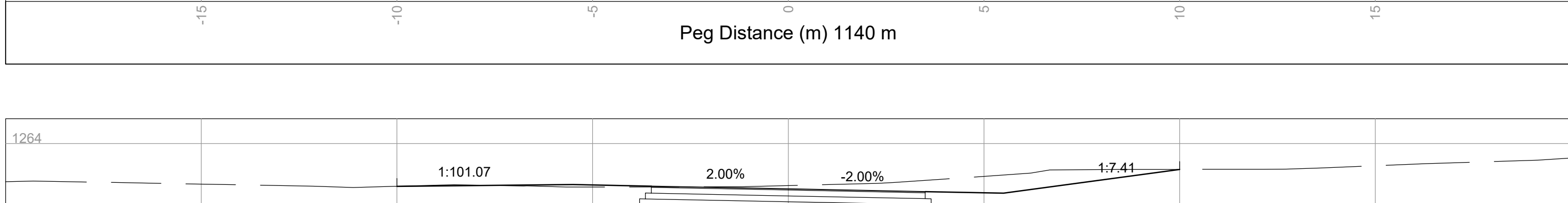
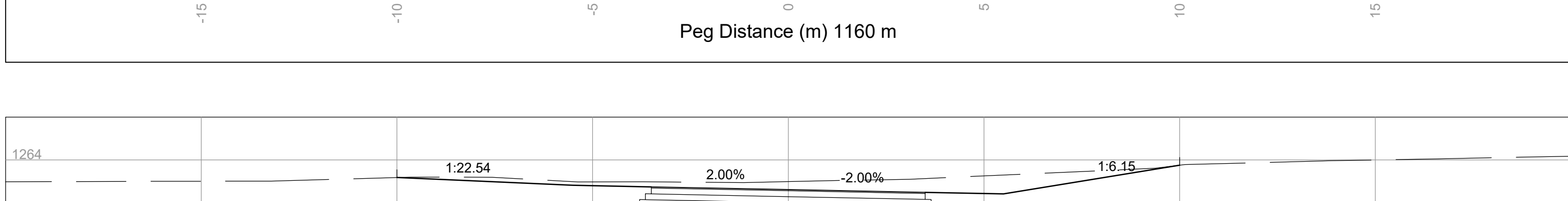
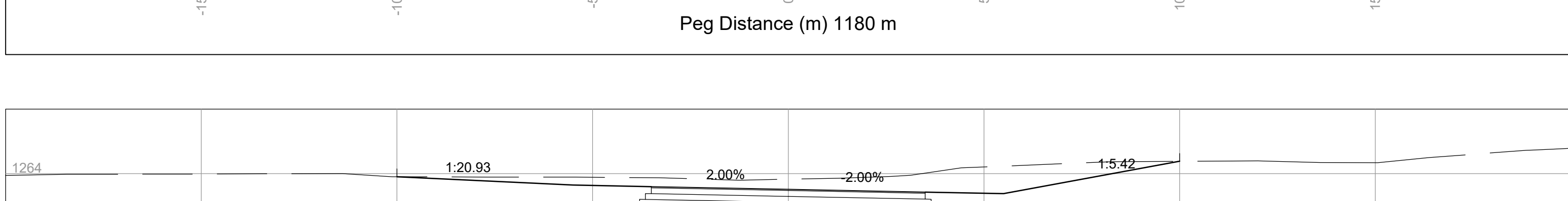
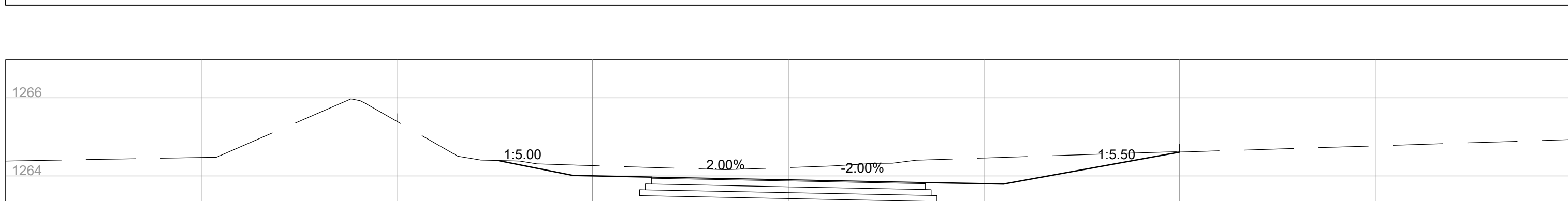
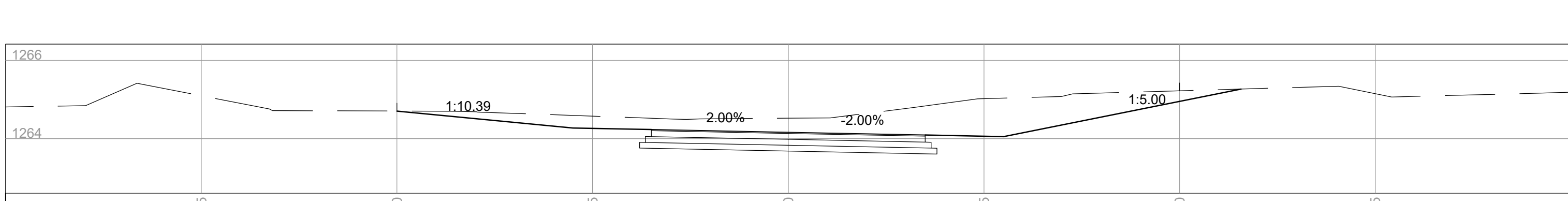
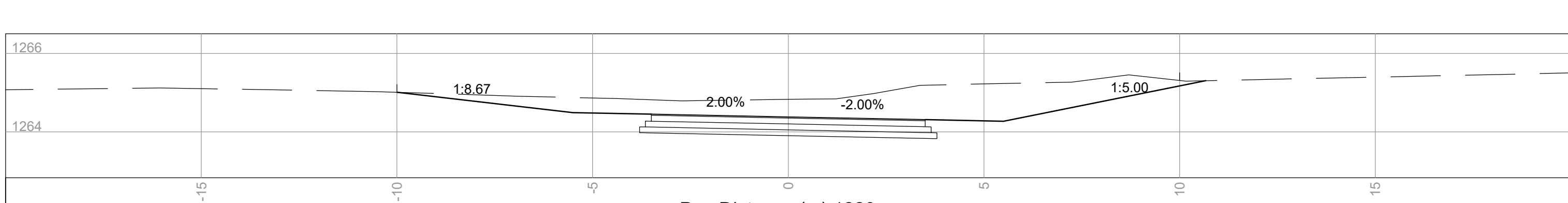
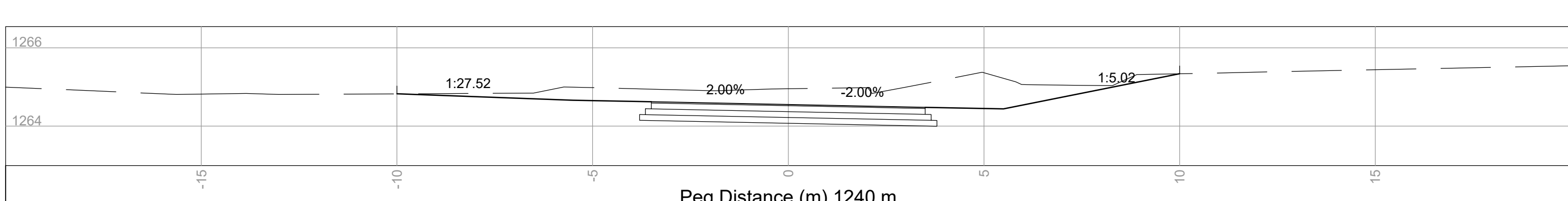
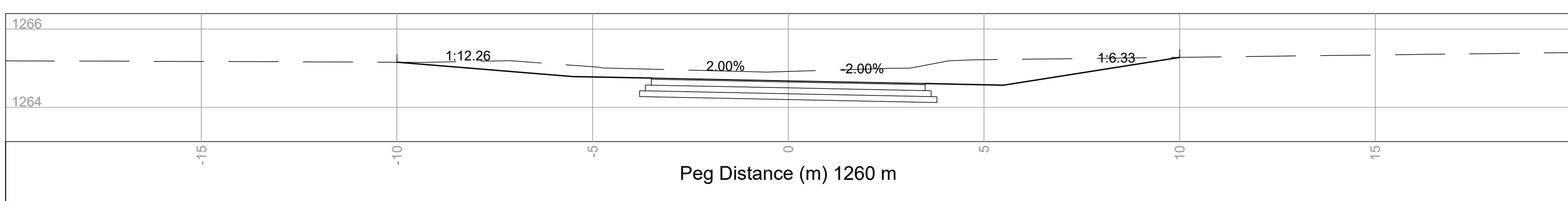
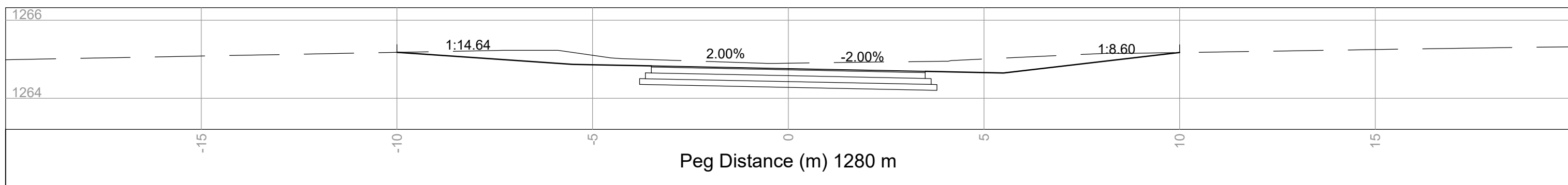
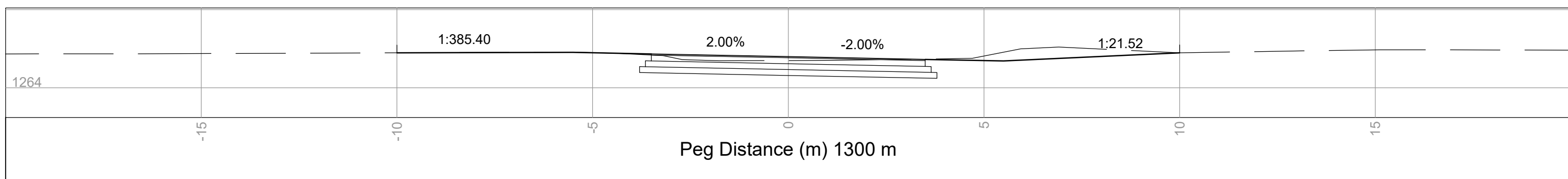
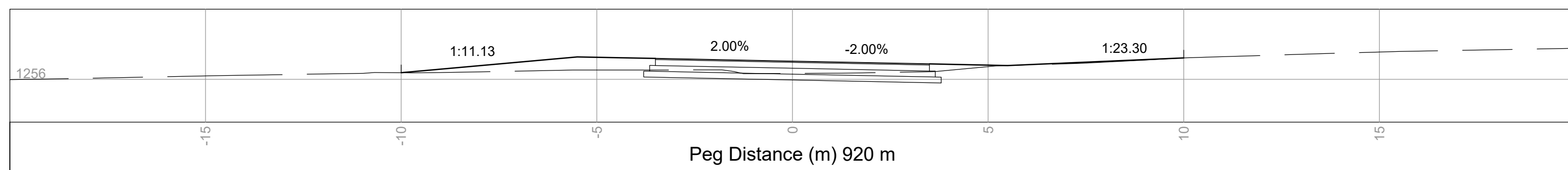
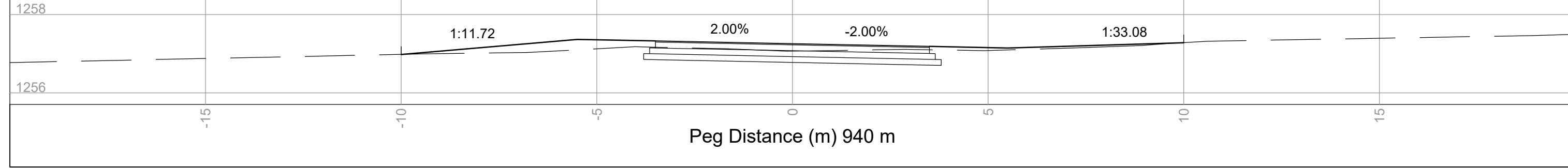
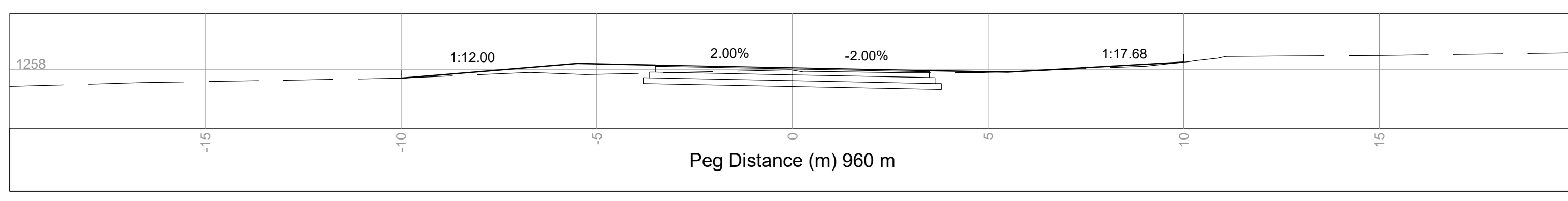
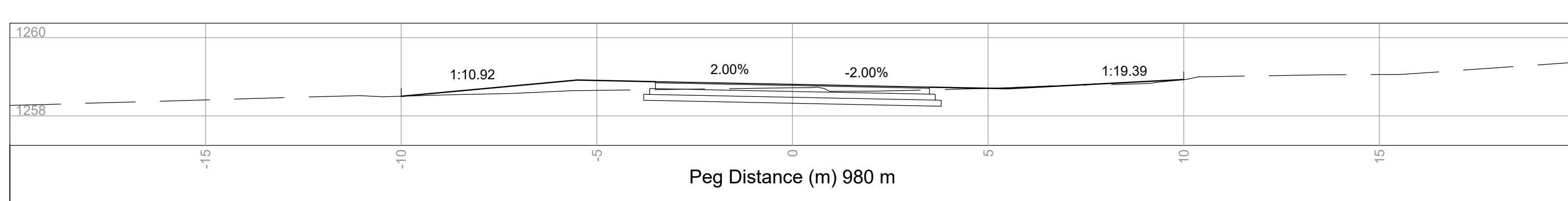
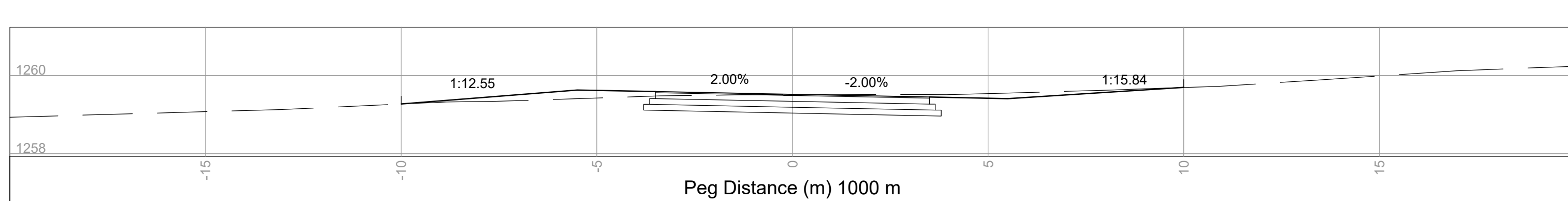
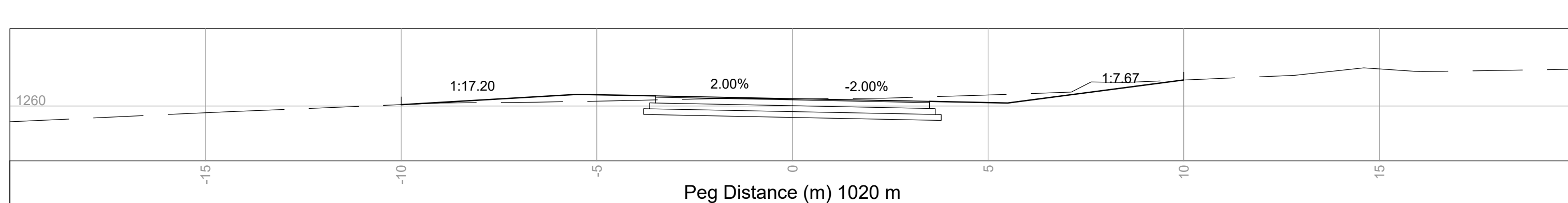
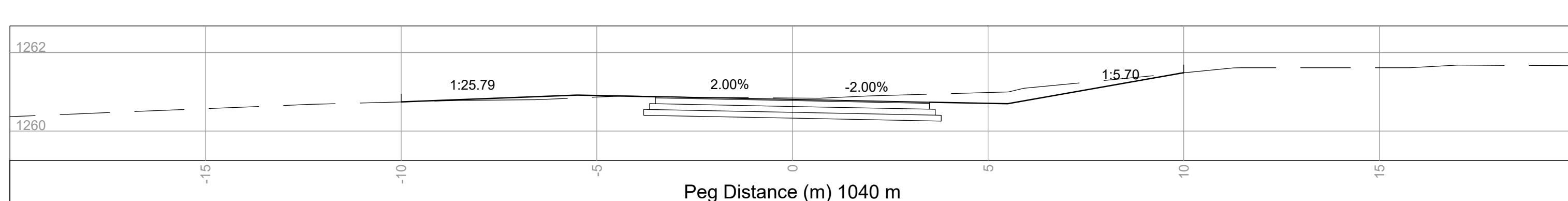
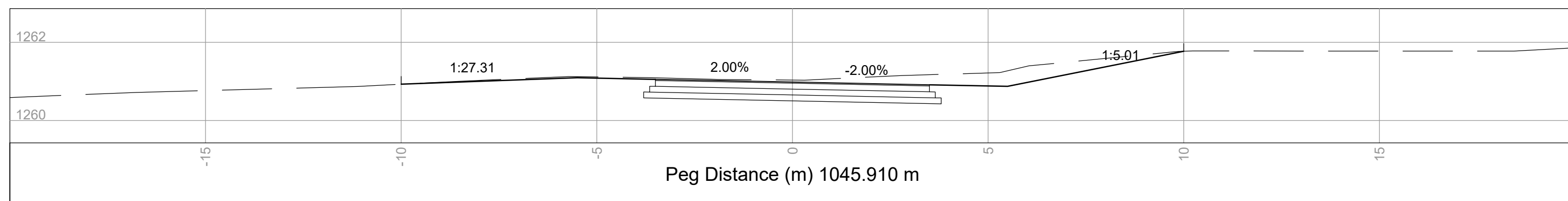
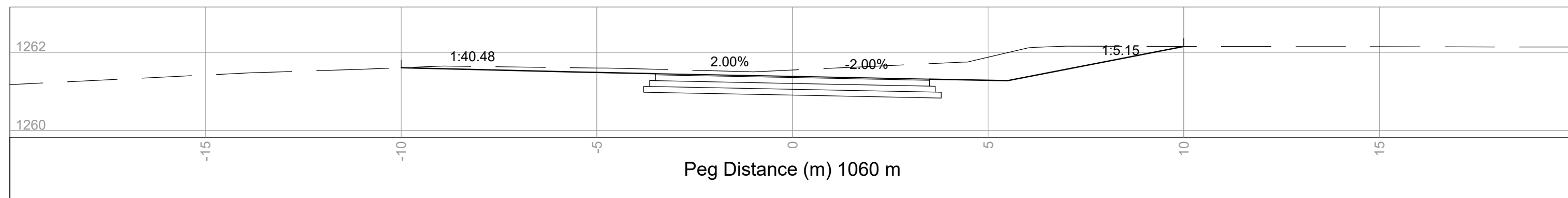
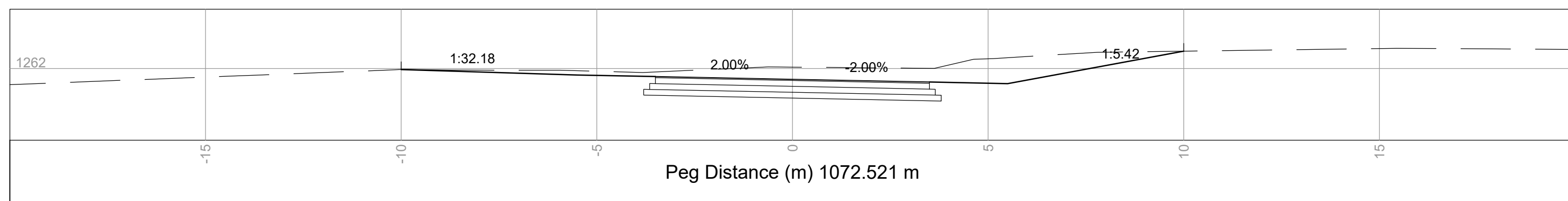
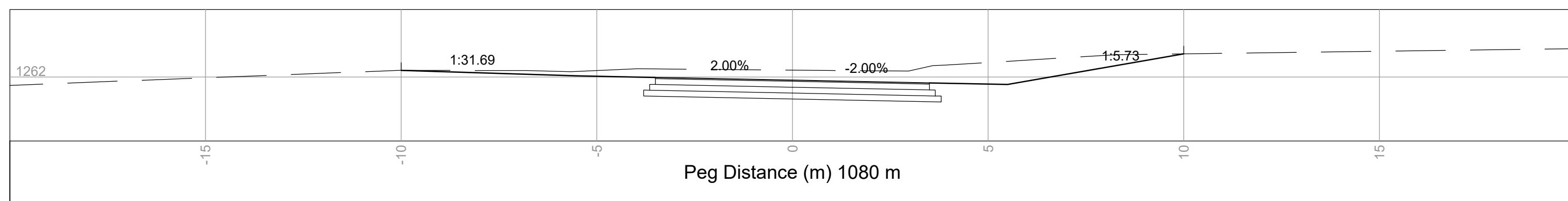
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EXISTING:	---
TRANSITION LENGTH	---
CATCHPIE LENGTH	---
TRANSITION LENGTH	---

SHEET LAYOUT

PROJECT STATUS

CONCEPT DRAWING	DESIGN DRAWING	APPROVED FOR CONSTRUCTION	AS-BUILT DRAWING
PROJECT ENGINEER:	SIGNATURE & PRE NUMBER	DATE	
INSITIALS AND SURNAME	SIGNATURE & PRE NUMBER	DATE	
INSPECTOR OF WORKS:	SIGNATURE	DATE	
REMARKS:	ORIGINAL PAPER SIZE:		
	A0		
DRAWING NO:	0076-03X02	SHEET NO:	
		SHEET	



AMENDMENTS				
NR.	DATE	APPROVED	DESCRIPTION	PAR.

CONSULTANTS DETAIL

DIKGATO ENGINEERING CONSULTANTS (PTY) LTD
3 SKURWEGERS STREET
NOORDWYK EXT.6
MIDRAND
1687

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



DIKGATO ENGINEERING CONSULTANTS (PTY) LTD
GAAL Airport Building
Court No.1 - Suite 3
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0699

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CIVIC CENTRE, CNR LANDROOS
MARE & BODENSTEIN STREETS
POLOKWANE
0699

P.O. BOX 111
POLOKWANE
0700
TEL: (015) 290 2102
FAX: (015) 290 2106

CITY OF POLOKWANE
POLOKWANE MUNICIPALITY

DESIGNED T. LETSOSHO	DATE
DRAWING CHECKED BY L. NGOCBO	DATE
DRAWN M. NKOSI	DATE
CIVIL DRAWING SERVICES T.M. NGOCBO	DATE
DRAWING APPROVED BY PM/MANAGER MR. P. RAMOTHWALA	DATE
DATE	DATE

LOCATION OF PROJECT:

DESCRIPTION OF PROJECT

CONTRACT NO.:

DATE:

PROJECT NO.:

SCALE:

SHEET NO.:

SHEET

PROJECT NO.:

SCALE:

SHEET NO.:

DATE:

PROJECT NO.:

SCALE:

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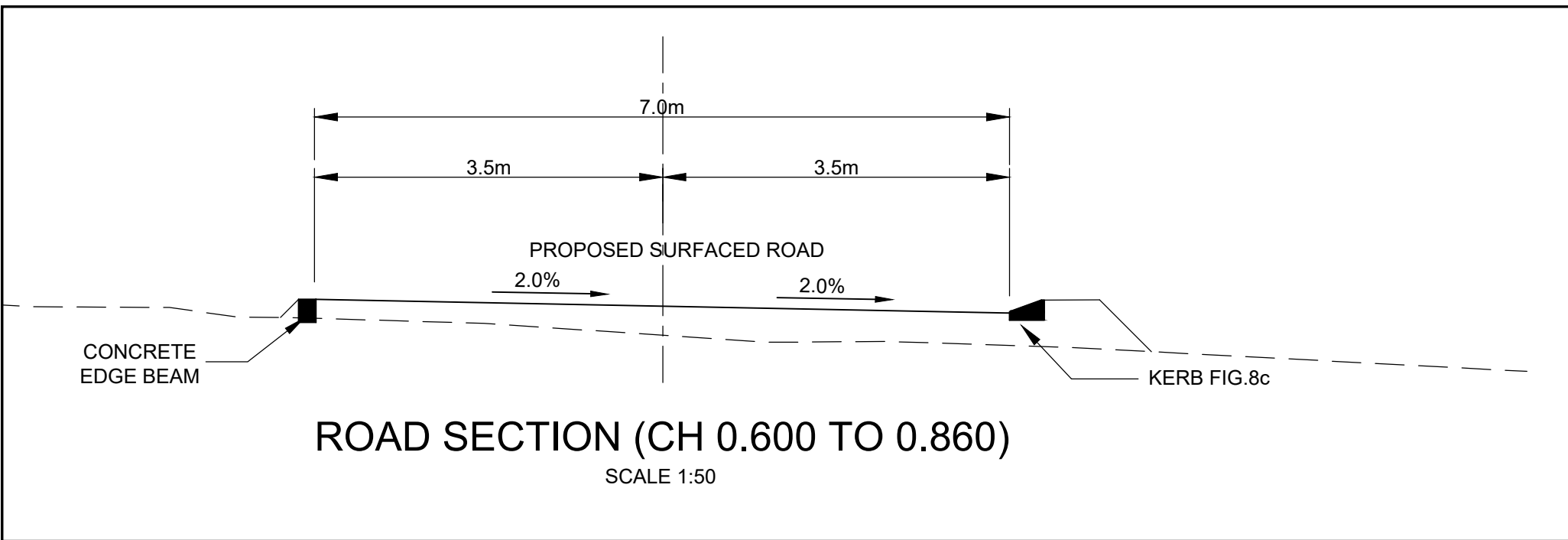
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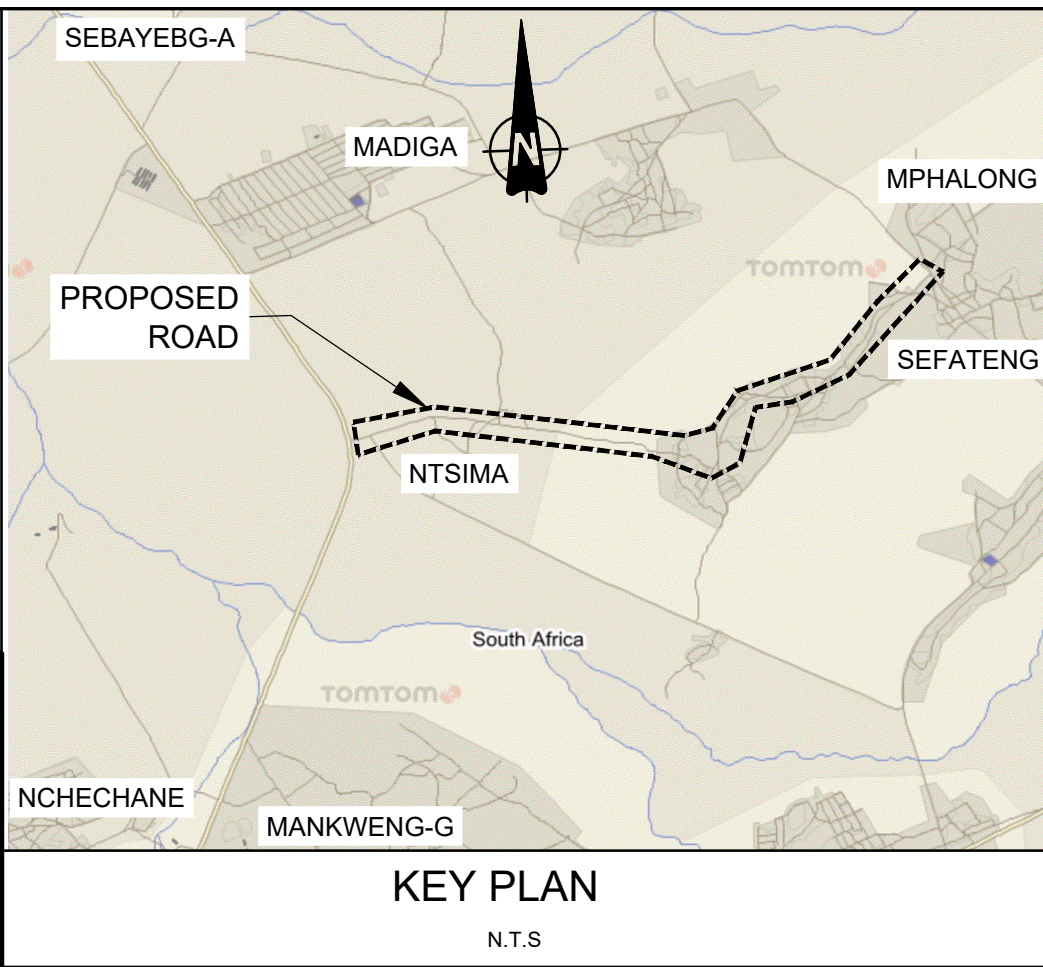
SHEET NO.:

DATE:

PROJECT NO.:



BENCHMARKS - WG 29				
CODE	Y-COORD	X-COORD	Z-COORD	DESCRIPTION
NS1	-73503.776	2636514.866	1231.969	IRON PEG ON CONCRETE
NS2	-73803.423	2636383.447	1239.911	IRON PEG ON CONCRETE
NS3	-74108.163	2636305.578	1247.614	IRON PEG ON CONCRETE
NS4	-74423.639	2636292.564	1258.194	IRON PEG ON CONCRETE
NS5	-74758.075	2636326.282	1264.999	IRON PEG ON CONCRETE
NS6	-75071.707	2636396.591	1260.132	IRON PEG ON CONCRETE
NS7	-75366.392	2636430.944	1258.227	IRON PEG ON CONCRETE
NS8	-75657.318	2636471.262	1262.869	IRON PEG ON CONCRETE
NS9	-75965.849	2636506.843	1272.367	IRON PEG ON CONCRETE
NS12	-76748.383	2636369.019	1302.852	IRON PEG ON CONCRETE
NS13	-76950.856	2636152.379	1310.204	IRON PEG ON CONCRETE
NS14	-77200.785	2636070.105	1323.208	IRON PEG ON CONCRETE



NOTES AND SPECIFICATIONS

GENERAL

LEGEND:

TRAFFIC LIGHT

BENCH MARK

ELECTRICAL POLE

TELEPHONE POLE

LIGHT POLE

MAN HOLE

METER/VALVE BOX

ROAD SIGN

PARKING METER

POLE

TELKOM PILLAR BOX

WATER TAP

GRID INLET

FIRE HYDRANT

TREE

ROADS:

KERBING TO BE AS PER STANDARD DETAIL PLANS

1 TRAFFIC CONTROL MUST COMPLY WITH THE REQUIREMENTS OF THE SOUTH AFRICAN ROAD TRAFFIC SIGNS MANUAL (THIRD EDITION).

2 TRAFFIC SIGNS MANUAL (THIRD EDITION).

VERTICAL AND HORIZONTAL ALIGNMENT TO FOLLOW THE EXISTING ROADS, WITH A MINIMUM CROSS FALL OF 2 % (IF APPLICABLE)

LEGEND:

EXISTING BLOCK PAVING

PROPOSED BLOCK PAVING

NO KERBING

MOUNTABLE KERBING

EDGE BEAM

SPEED HUMP

STORMWATER

1 MINIMUM PIPE DIAMETER TO BE 600mm.

2 MINIMUM FALL TO BE 1:50.

3 PIPE BEHOLDING TO BE CLASS B UNLESS OTHERWISE SPECIFIED.

4 ALL LAYING AND BEDDING MUST BE INSPECTED AND APPROVED BY THE ENGINEER BEFORE LAYING OF ANY PIPES.

5 CLEAN EXISTING STORMWATER INLETS AND REPAIR WHERE NECESSARY (IF APPLICABLE)

LEGENDS

STORMWATER

PROPOSED STORMWATER PIPE

EXISTING STORMWATER PIPE

PROPOSE JUNCTION BOX

PROPOSED KERB INLET

PROPOSED GRID INLET

PROPOSED STORMWATER MANHOLE

PROPOSE JUNCTION BOX

PROPOSED CONCRETE OPEN CHANNEL

WING WALL OUTLET

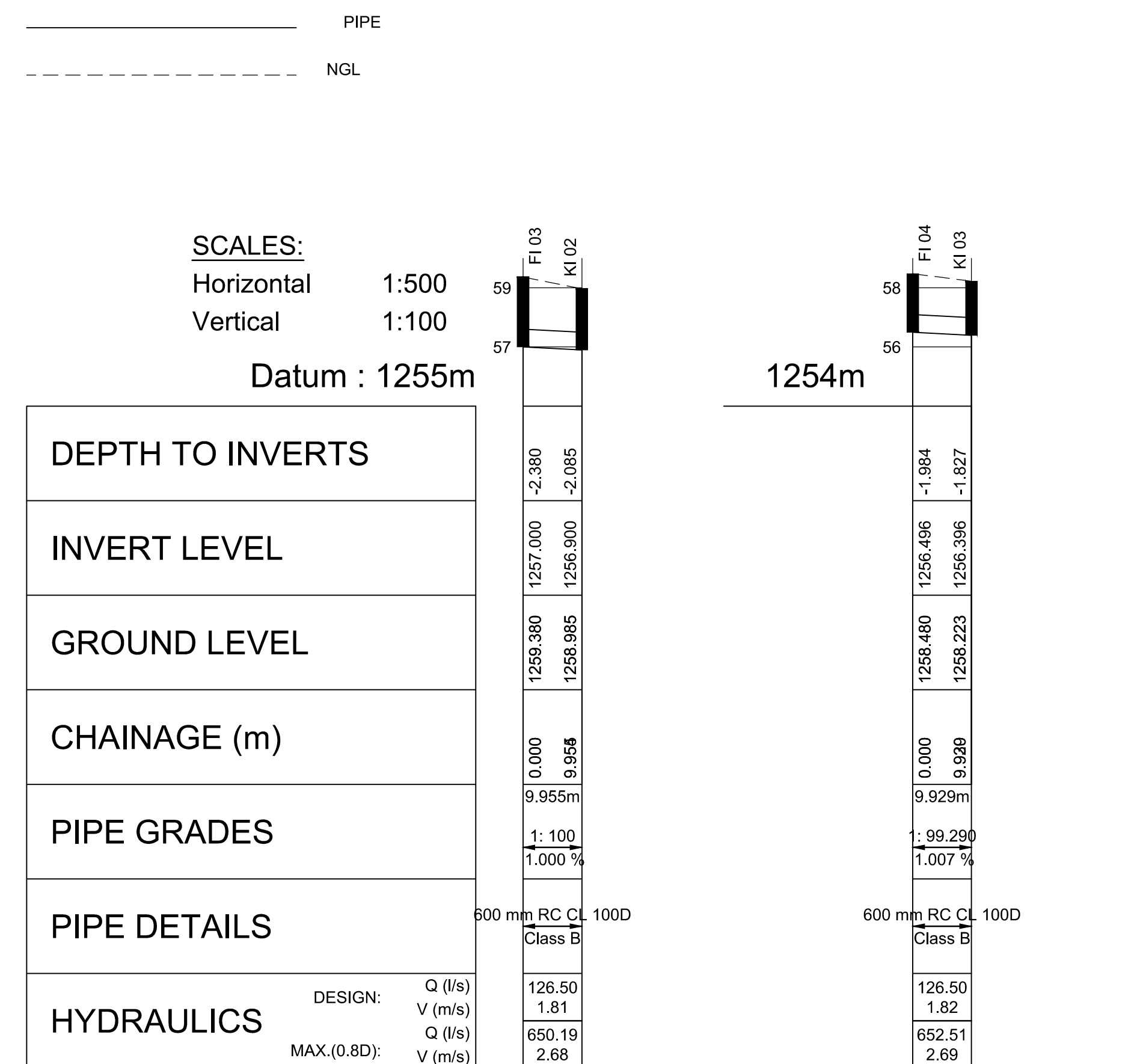
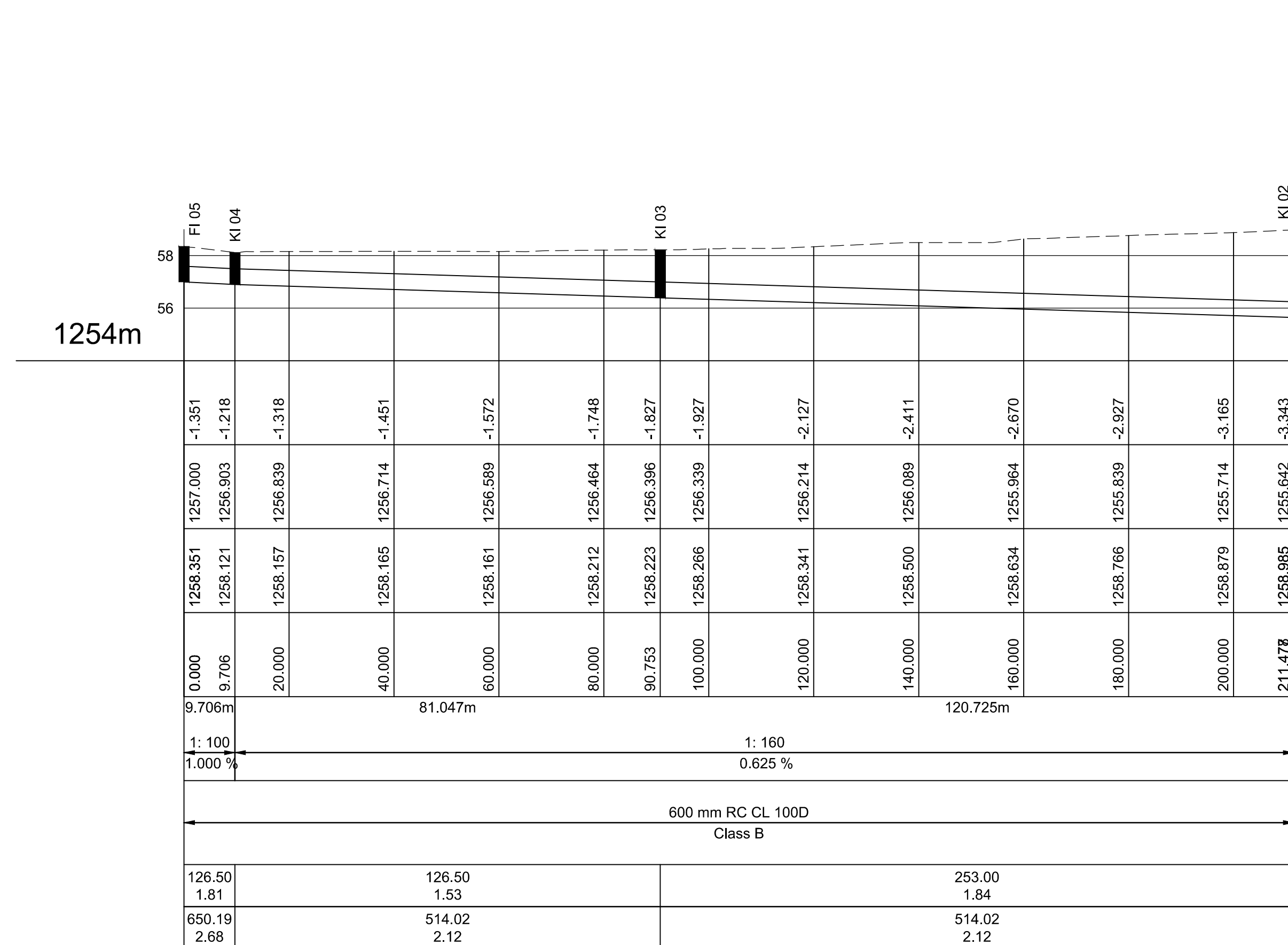


AMENDMENTS					CONSULTANTS DETAIL		CITY OF POLOKWANE		NTSIMA TO SEFATENG - PHASE 2		PROJECT STATUS	
NR.	DATE	APPROVED	DESCRIPTION	PAR.	DIKGATO ENGINEERING CONSULTANTS (PTY) LTD 3 SKURWEBERG STREET NOORDWYK EXT.6 MIDRAND 1687 TEL : 011 318 1698 FAX : 011 318 1891 eMAIL: dikgato@dikgato.co.za		CIVIC CENTRE: CNR LANDROSS MARE & BODENSTEIN STREETS POLOKWANE 0699 P.O. BOX 111 POLOKWANE 0700 TEL: (015) 290 2102 FAX: (015) 290 2106		TARRING OF NTSIMA TO SEFATENG ROAD STORMWATER LAYOUT PLAN		CONCEPT DRAWING	
					DIKGATO ENGINEERING CONSULTANTS		POLOKWANE MUNICIPALITY		DESCRIPTION OF PROJECT		TENDER DRAWING	
					TEL : 011 318 1698		NATURALLY PROGRESSIVE		CONTRACT NO. 30/2015		APPROVED FOR CONSTRUCTION	
					eMAIL: dikgato@dikgato.co.za				PROJECT NO. 0076_P		SHEET NO. 0076-05U01	
									SCALE: 1:1000		DATE: OCTOBER, 2016	
											REMARKS:	
											ORIGINAL PAPER SIZE: A0	
											SHEET NO. SHEET	

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LEGEND:	
TRAFFIC LIGHT	
BENCH MARK	
ELECTRICAL POLE	
TELEPHONE POLE	
LIGHT POLE	
MAN HOLE	
METER/VALVE BOX	
ROAD SIGN	
PARKING METER	
POLE	
TELKOM PILLAR BOX	
WATER TAP	
GRID INLET	
FIRE HYDRANT	
TREE	


PIPE DATA LIST			
MH - MH	Distance	Diam.	
SW1	(m)	(mm)	
FI 02 - KI 01	9.870	600	
KI 01 - KI 02	123.517	600	
KI 02 - OUTLET No 2	42.262	600	
FI 05 - KI 04	9.706	600	
KI 04 - KI 03	81.047	600	
KI 03 - KI 02	120.725	600	
FI 03 - KI 02	9.955	600	
FI 04 - KI 03	9.929	600	

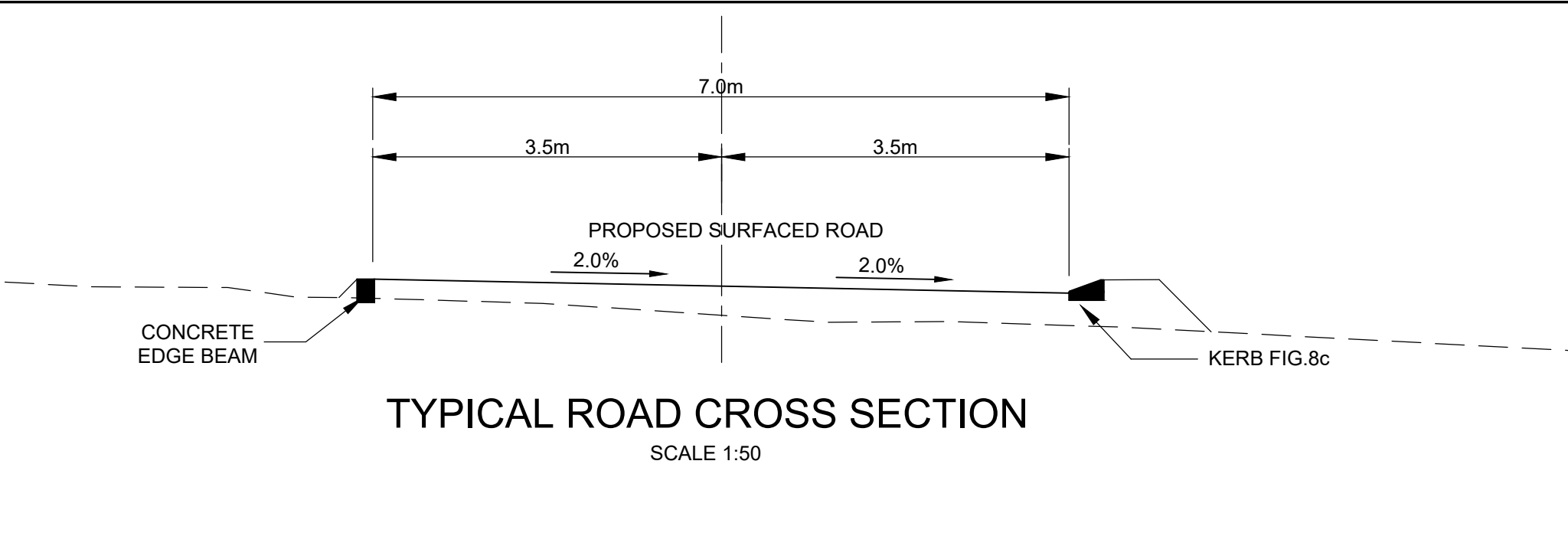
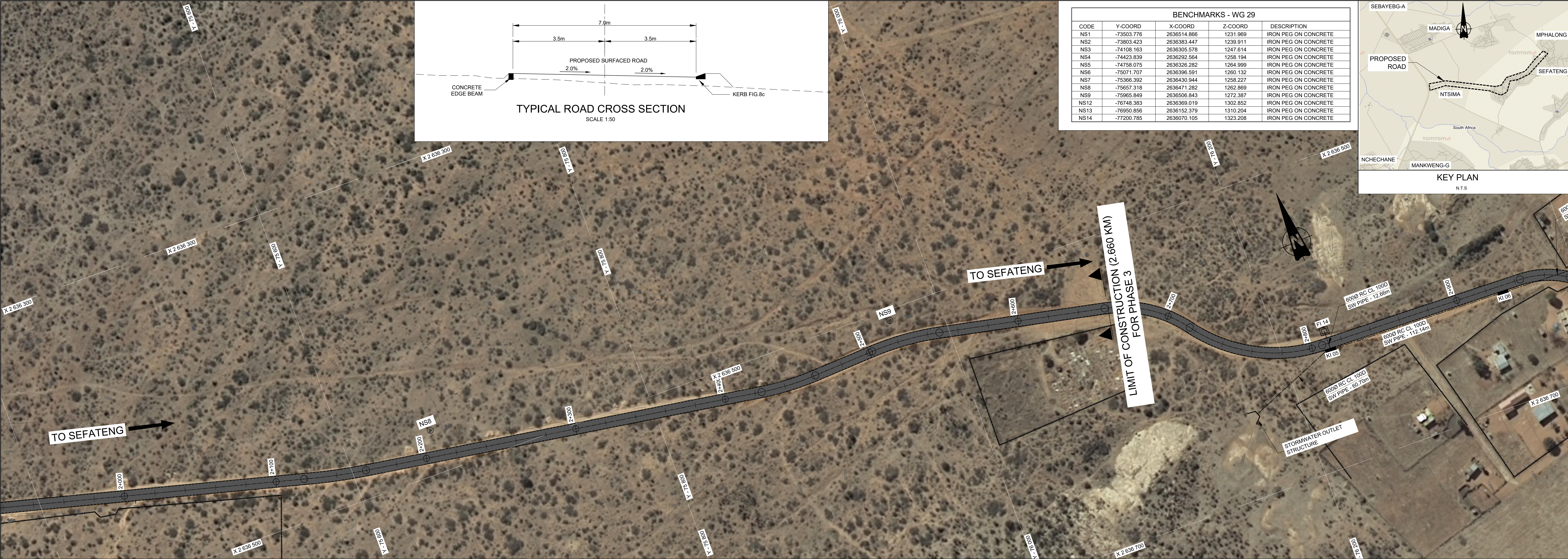


FI 04 - KI 03

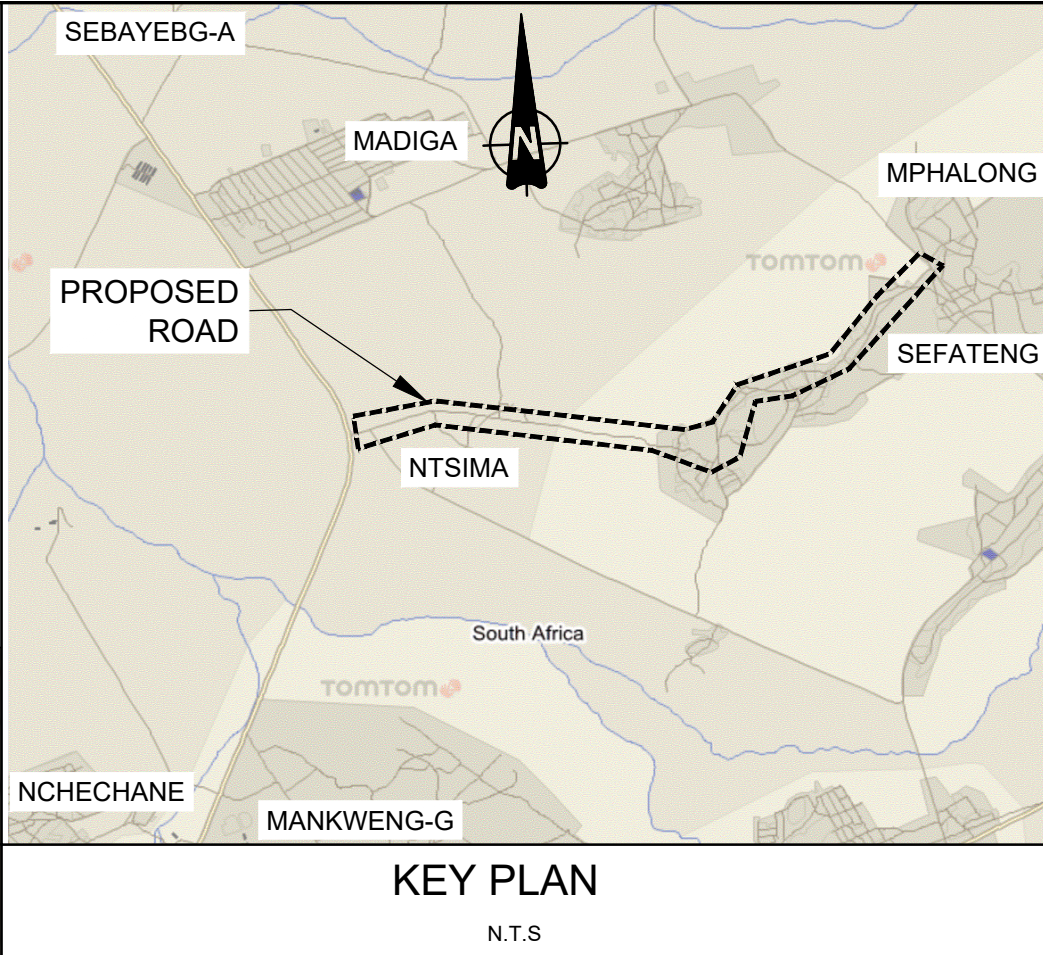
CONSULTANTS DETAIL			
R 3 3 MIDRAND 1687	DIKGATO ENGINEERING CONSULTANTS (PTY) LTD 3 SKURWEBERG STREET NOORDWYK EXT.6 MIDRAND 1687	DIKGATO ENGINEERING CONSULTANTS (PTY) LTD GAAL Airport Building Court No 1 - Suite 3 POLOKWANE 0699	TEL : 015 318 1698 FAX : 015 288 1697 eMAIL: dikgato@dikgato.co.za

LOCATION OF PROJECT:			
NTSIMA TO SEFATENG - PHASE 3			
DESCRIPTION OF PROJECT			
TARRING OF NTSIMA TO SEFATENG ROAD STORMWATER LAYOUT PLAN			
CONTRACT No.: 30/2015	PROJECT No.: 0076_P	SCALE: 1:1000	DATE: OCTOBER 2016

<h1 style="text-align: center;">SHEET LAYOUT</h1> <h2 style="text-align: center;">PROJECT STATUS</h2>			
○	○	●	○
CONCEPT DRAWING	TENDER DRAWING	APPROVED FOR CONSTRUCTION DRAWING	ADULT'S DRAWING
PROJECT'S ENGINEER			
INITIALS AND SURNAME: _____		SIGNATURE & PR NUMBER: _____	
DATE: _____		DATE: _____	
INSPECTOR OF WORKS			
SIGNATURE: _____		DATE: _____	
REMARKS:		ORIGINAL PAPER SIZE:	
DRAWING NO. 0076-05U01		A0	
		SHEET NO.	
		SHEET	
			



BENCHMARKS - WG 29				
CODE	Y-COORD	X-COORD	Z-COORD	DESCRIPTION
NS1	-73503.776	2636514.866	1231.969	IRON PEG ON CONCRETE
NS2	-73803.423	2636383.447	1239.911	IRON PEG ON CONCRETE
NS3	-74108.163	2636305.578	1247.614	IRON PEG ON CONCRETE
NS4	-74423.839	2636292.564	1258.194	IRON PEG ON CONCRETE
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NS7	-75366.392	2636430.944	1258.227	IRON PEG ON CONCRETE
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NS12	-76748.383	2636369.019	1302.852	IRON PEG ON CONCRETE
NS13	-76950.856	2636152.379	1310.204	IRON PEG ON CONCRETE
NS14	-77200.785	2636070.105	1323.208	IRON PEG ON CONCRETE



NOTES AND SPECIFICATIONS

GENERAL

LEGEND:

TRAFFIC LIGHT

BENCH MARK

ELECTRICAL POLE

TELEPHONE POLE

LIGHT POLE

MAN HOLE

METER/VALVE BOX

ROAD SIGN

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WATER TAP

GRID INLET

FIRE HYDRANT

TREE

ROADS:

KERBING TO BE AS PER STANDARD DETAIL PLANS

1 TRAFFIC CONTROL MUST COMPLY WITH THE REQUIREMENTS OF THE SOUTH AFRICAN ROAD

2 TRAFFIC SIGNS MANUAL (THIRD EDITION)

VERTICAL AND HORIZONTAL ALIGNMENT TO FOLLOW THE EXISTING ROADS, WITH A MINIMUM

3 CROSS FALL OF 2 % (IF APPLICABLE)

LEGEND:

EXISTING BLOCK PAVING

PROPOSED BLOCK PAVING

NO KERBING

MOUNTABLE KERBING

EDGE BEAM

SPEED HUMP

STORMWATER

1 MINIMUM PIPE DIAMETER TO BE 600mm.

2 MINIMUM FALL TO BE 1:100

3 PIPE BEGGING TO BE CLASS B UNLESS OTHERWISE SPECIFIED

4 ALL LAYING AND BEDDING MUST BE INSPECTED AND APPROVED BY THE ENGINEER BEFORE LAYING OF ANY PIPES

5 CLEAN EXISTING STORMWATER INLETS AND REPAIR WHERE NECESSARY (IF APPLICABLE)

LEGENDS

STORMWATER

PROPOSED STORMWATER PIPE

EXISTING STORMWATER PIPE

PROPOSE JUNCTION BOX

PROPOSED KERB INLET

PROPOSED GRID INLET

PROPOSED STORMWATER MANHOLE

PROPOSE JUNCTION BOX

PROPOSED CONCRETE OPEN CHANNEL

WING WALL OUTLET

AMENDMENTS				
NR.	DATE	APPROVED	DESCRIPTION	PAR.

CONSULTANTS DETAIL

DIKGATO ENGINEERING CONSULTANTS (PTY) LTD
3 SKURWEBERG STREET
NOORDWYK EXT.6
MIDRAND
1687

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

DIKGATO
ENGINEERING CONSULTANTS

DIKGATO ENGINEERING CONSULTANTS (PTY) LTD
GAAL Airport Building
Court No.1 - Suite 3
POLOKWANE
0699

TEL : 015 288 1688
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DIKGATO
ENGINEERING CONSULTANTS

CIVIC CENTRE, CNR LANDDROS
MARE & BODENSTEIN STREETS
POLOKWANE
0699

P.O. BOX 111
POLOKWANE
0700

TEL: (015) 290 2102
FAX: (015) 290 2106

CITY OF POLOKWANE
POLOKWANE MUNICIPALITY

NATURALLY PROGRESSIVE

CITY OF POLOKWANE
POLOKWANE MUNICIPALITY

DESIGNED
T. LETSISO
DATE:

DRAWING CHECKED BY
L. NGCIBO
DATE:

DRAWN
M. NKOSI
DATE:

CIVIL DRAUGHTING SERVICES
T.M NGCIBO
DATE:

DRAWING APPROVED BY PM/MANAGER
MR. P. RAKOTHWALA
DATE:

DATE:

LOCATION OF PROJECT:
NTSIMA TO SEFATENG - PHASE 3

DESCRIPTION OF PROJECT
**TARRING OF NTSIMA TO SEFATENG ROAD
STORMWATER LAYOUT PLAN**

CONTRACT No.: 30/2015

PROJECT No.: 0076_P

SCALE: 1:1000

DATE: OCTOBER, 2016

SHEET LAYOUT

PROJECT STATUS

CONCEPT DRAWING

TECHNICAL DRAWING

APPROVED FOR CONSTRUCTION

ASUILT DRAWING

PROJECT ENGINEER:

DETAILS AND SURNAME:

SIGNATURE & PRE NUMBER:

DATE:

INSPECTOR OF WORKS:

SIGNATURE:

DATE:

REMARKS:

ORIGINAL PAPER SIZE: A0

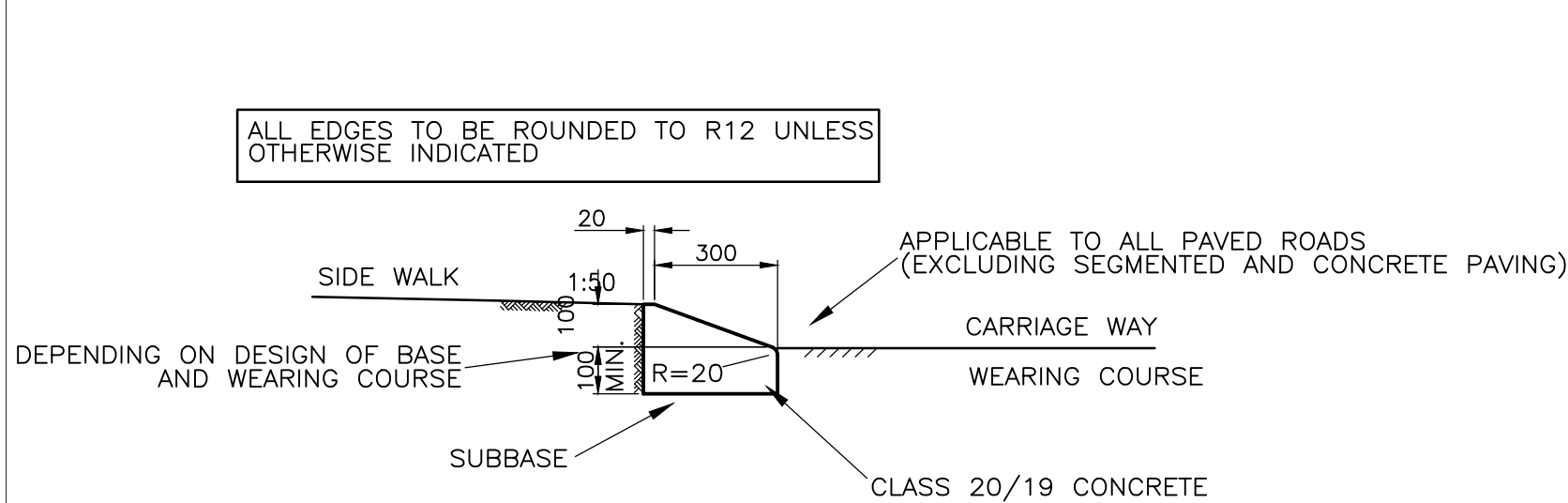
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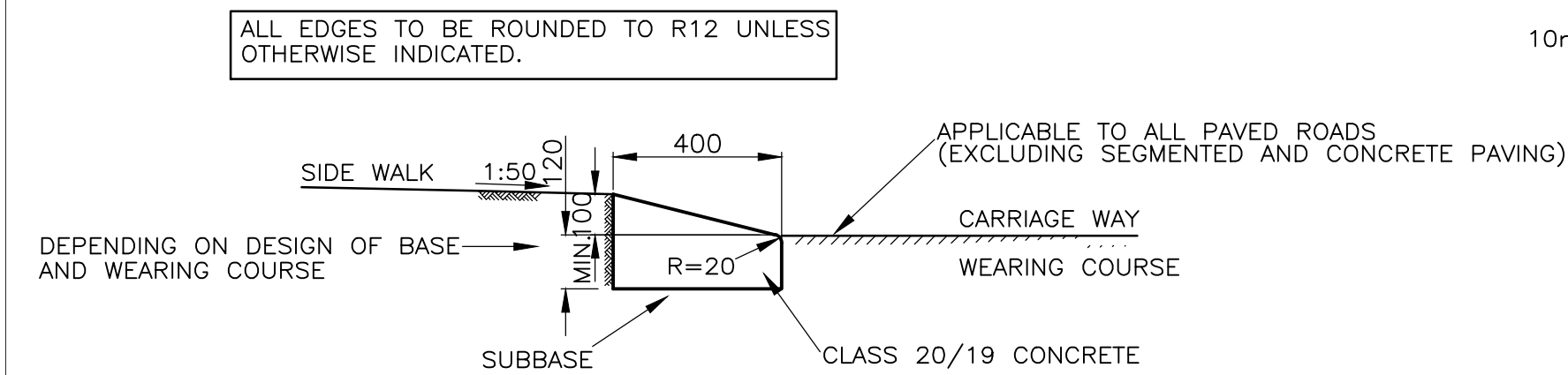
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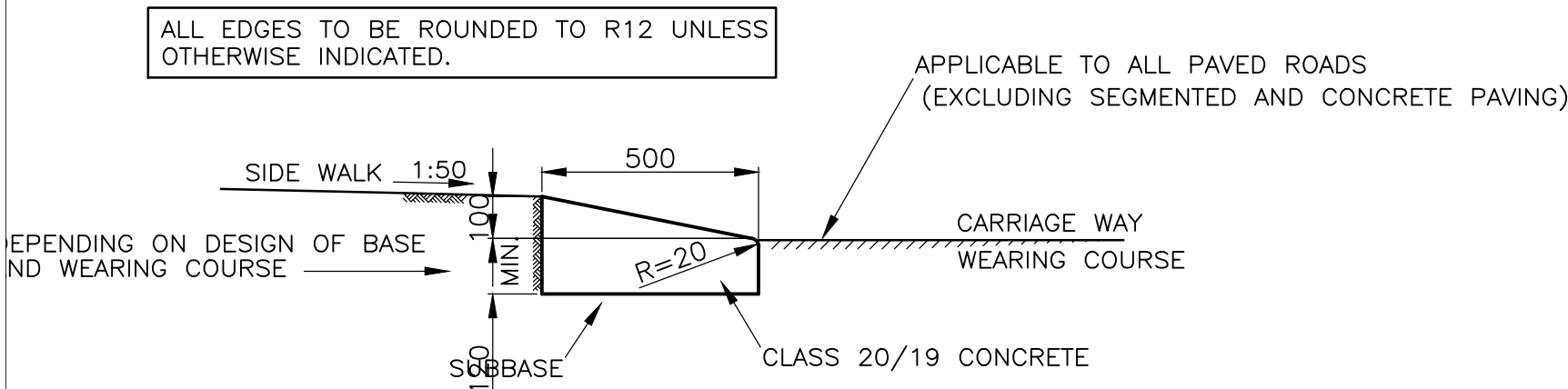
1. KERBS - GENERAL
- 1.1 Refer to Table A for the usage of kerbs
- 1.2 The 20mm lip on all kerbs is applicable to all paved roads except where block or concrete paving is used.
- 1.3 Also refer to Section 503 of the Standard Specifications for Municipal Civil Engineering Works, 3rd Edition, 2005.
2. 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 insitu 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.



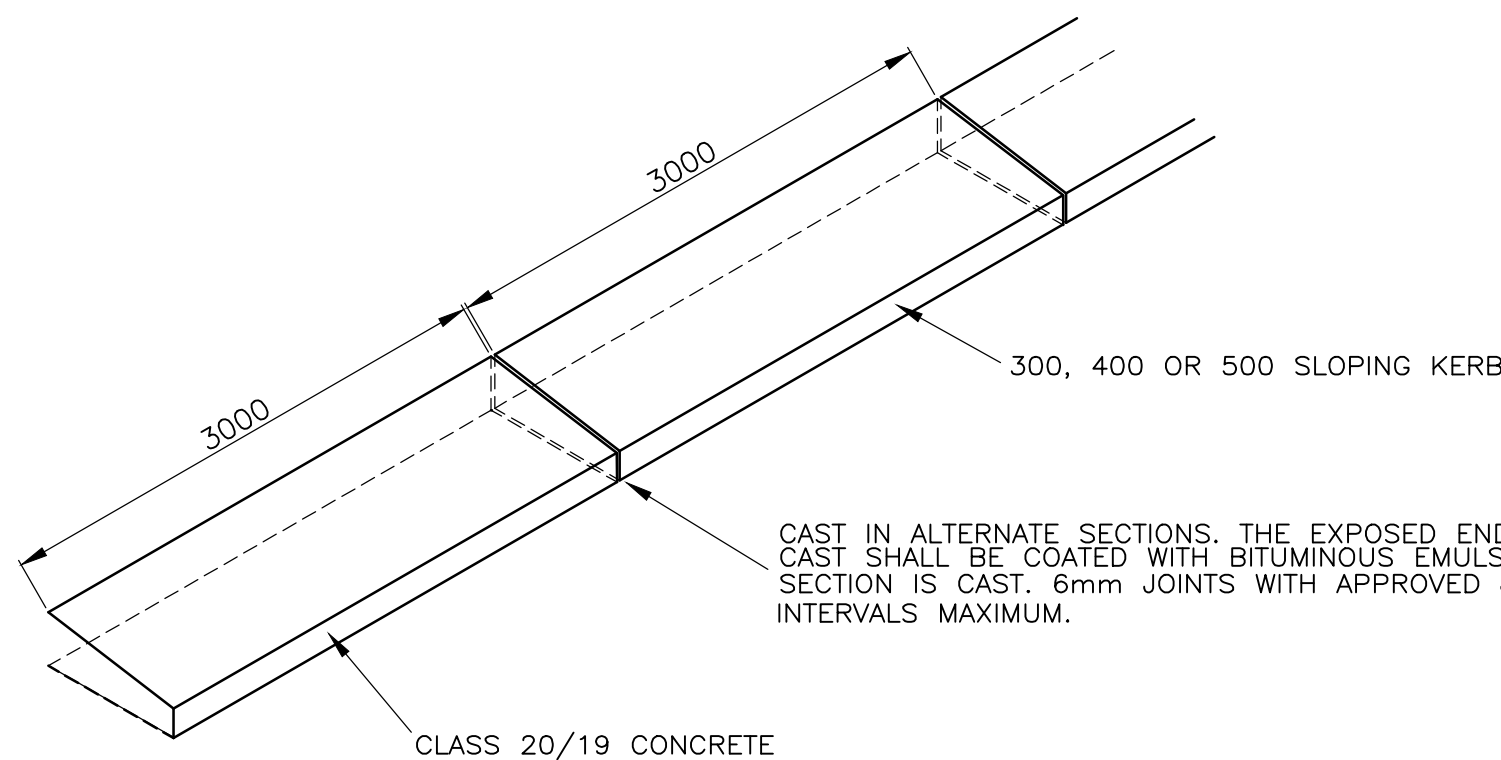
300 SLOPING KERB



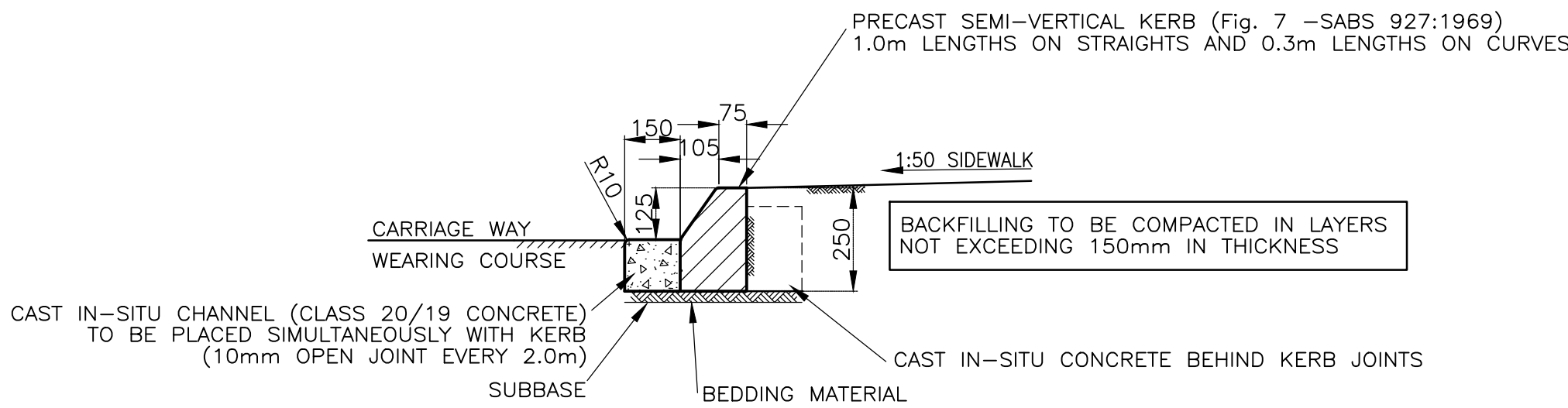
400 SLOPING KERB



500 SLOPING KERB

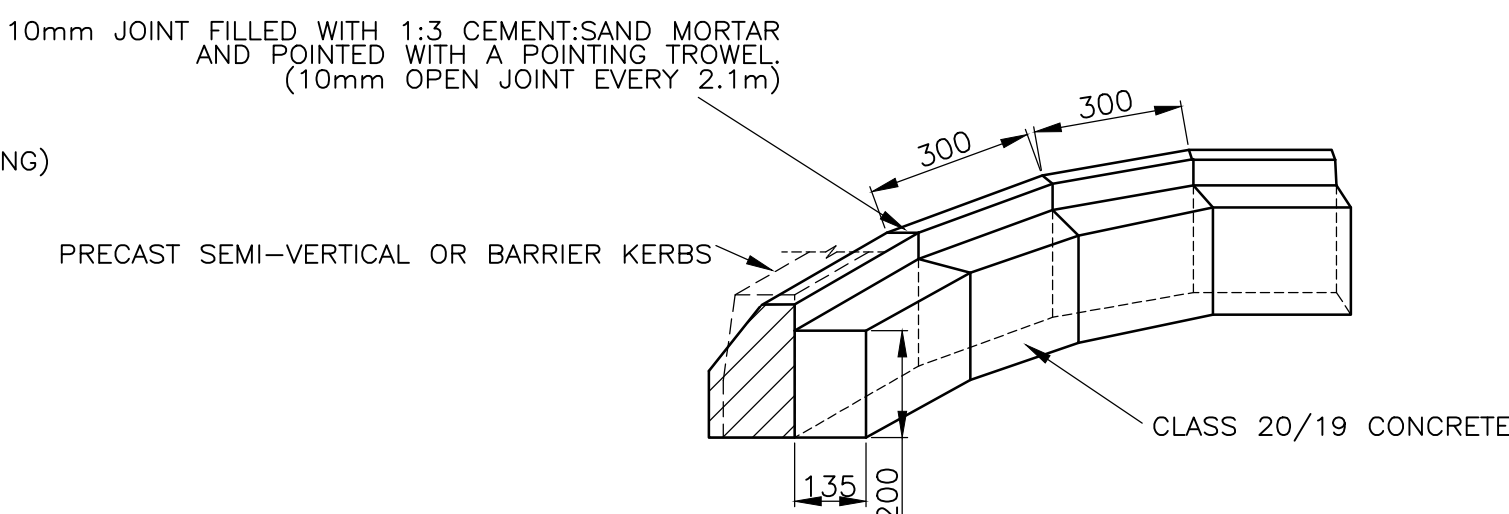


DETAIL OF SLOPING KERB

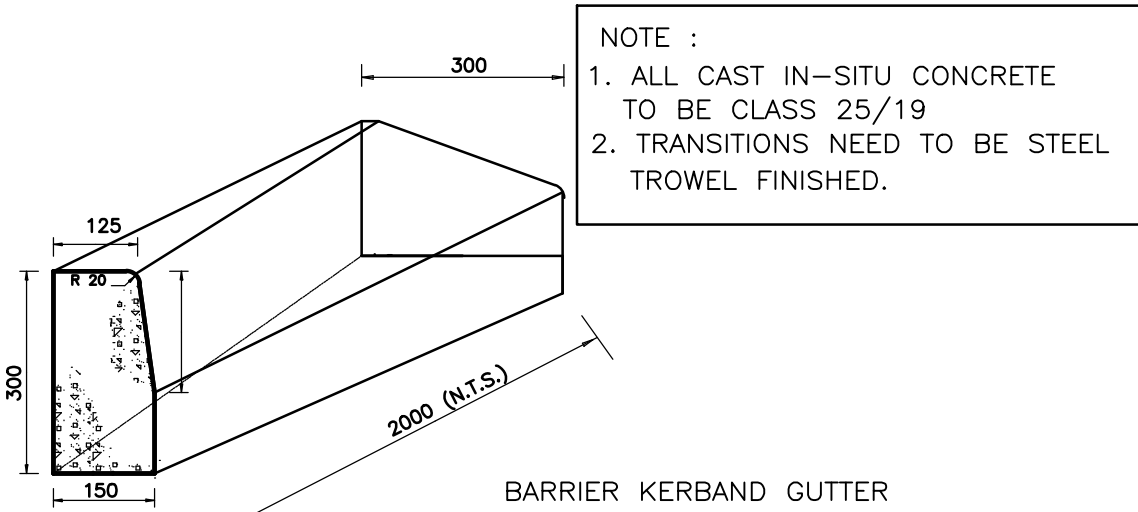


SEMI-VERTICAL KERB WITH CHANNEL

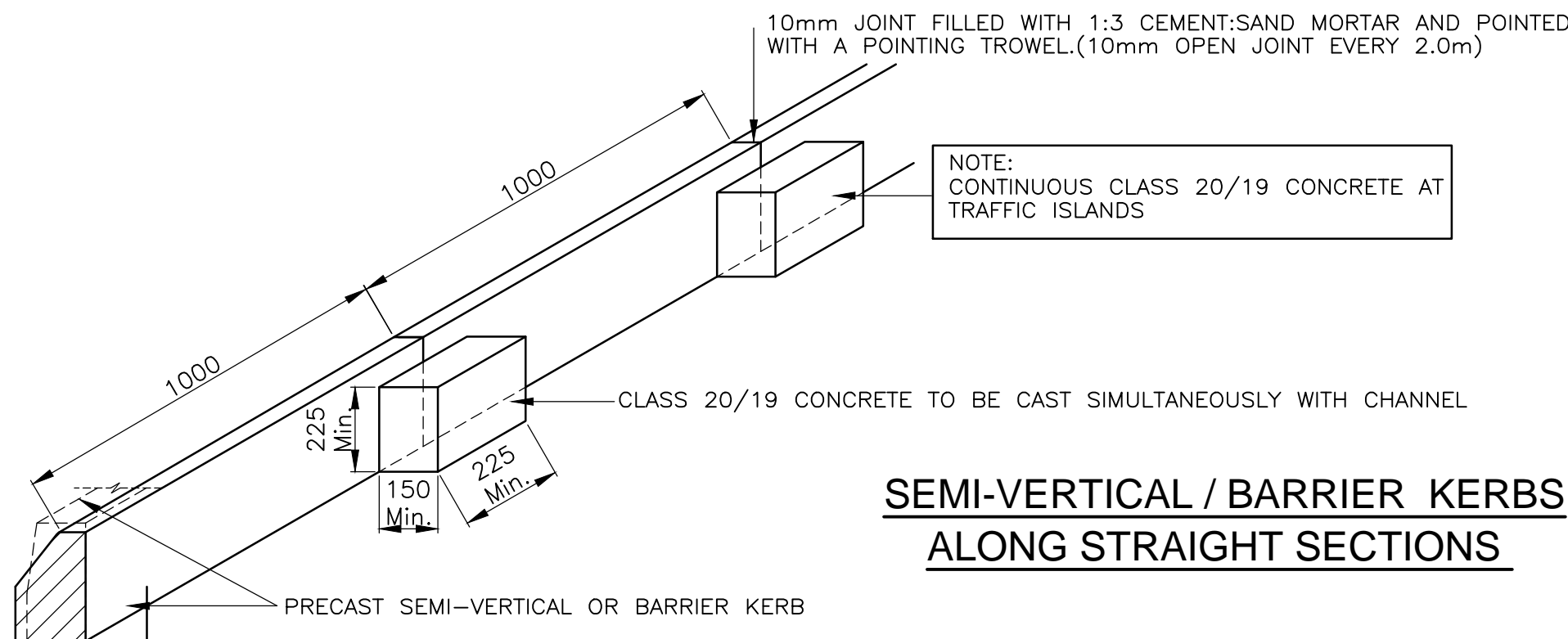
(FIG. 7 - SABS 927:1969)



SEMI-VERTICAL / BARRIER KERBS ON CURVED SECTIONS



TYPICAL DETAILS OF KERB TRANSITIONS



SEMI-VERTICAL / BARRIER KERBS ALONG STRAIGHT SECTIONS

TABLE A: KERBS TO BE USED FOR ROAD CONSTRUCTION

APPLICATION		TYPE OF KERB					
		300 Sloping Kerb	400 Sloping Kerb	500 Sloping Kerb	Edge Beam	Semi-vertical Kerb (Fig.7) with channel	Barrier Kerb (Fig.3) with channel
Roads up to 5m wide.	Straights and curves	⊗			⊗ (See Note 1.)		
	Bellmouths (See Note 2 at the bottom)	⊗					
Road wider than 5m and up to 6m wide.	Straights and curves		⊗		⊗ (See Note 1.)		
	Bellmouths (See Note 2 at the bottom)		⊗				
Road wider than 6m	Straights and curves			⊗			
	Bellmouths (See Note 2 at the bottom)					⊗	
Bus and Taxi bays.							⊗
Where vehicles crossing the kerb is discouraged.						⊗	
Where vehicles crossing the kerb is prohibited.							⊗
Joint between asphalt and block paving					⊗		
Temporarily edge restraint in asphalt paving to be removed when road is extended.					⊗		

- NOTES: 1) An edge beam shall be constructed on the high side of roads with a single cross-fall.
- 2) At the intersection of roads with different road widths, the bellmouths shall be constructed with kerbs prescribed for the bellmouths of the wider roads.

SHEET LAYOUT

PROJECT STATUS

<input type="radio"/> CONCEPT DRAWING	<input type="radio"/> TENDER DRAWINGS	<input checked="" type="radio"/> APPROVED FOR CONSTRUCTION DRAWING	<input type="radio"/> ASBUILT DRAWING
PROJECT ENGINEER:			
INITIALS AND SURNAME		SIGNATURE & PR NUMBER	DATE
INSPECTOR OF WORKS:			
SIGNATURE		DATE	
REMARKS:		ORIGINAL PAPER SIZE:	
DRAWING NO. STD01		A1	
SHEET NO. 10F1		REVISION	

AMENDMENTS				
NR.	DATE	APPROVED	DESCRIPTION	PAR.

CONSULTANTS DETAIL

DIKGATO ENGINEERING CONSULTANTS (PTY) LTD
3 SKURWEBERG STREET
NOORDWYK EXT.6
MIDRAND
1687

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

DIKGATO
ENGINEERING CONSULTANTS

CITY OF POLOKWANE

CIVIC CENTRE, CNR LANDDROS MARE & BODENSTEIN STREETS
POLOKWANE 0699

P.O. BOX 111
POLOKWANE 0700

TEL: (015) 290 2102
FAX: (015) 290 2106

POLOKWANE MUNICIPALITY

City of Polokwane
NATURALLY PROGRESSIVE

DESIGNED
T. LETSOALO

SIGNATURE: DATE:

DRAWING CHECKED BY
L. NGCOBO

SIGNATURE: DATE:

DRAWN
M. NKOSI

CIVIL DRAUGHTING SERVICES
M. NKOSI

SIGNATURE: DATE:

APPROVED BY TECHNICAL DEPARTMENT
MR. N. MATABESE

SIGNATURE: DATE:

LOCATION OF PROJECT:

NTSIMA TO SEFATENG - PHASE 2 & 3

DESCRIPTION OF PROJECT

TARRING OF NTSIMA TO SEFATENG ROAD KERBING
DETAILS:
SLOPING KERB, SEMI-VERTICAL KERBS
AND EDGE BEAM

CONTRACT NO.: 30/2015

PROJECT NO.: 0076-P

SCALE: N.T.S

DATE: OCTOBER-2016

NOTES

CONSTRUCTION METHOD: SPEED HUMPS

1. Setting out of hump - few days before construction.
2. Saw cuts one to two days before construction.

ON CONSTRUCTION DAY:

3. Remove 500 mm asphalt strips.
4. Start erecting road signs and paint warning road marking.
5. Place asphalt in strips and compact with two passes without vibrator.
6. Place templates - both sides of one lane at a time.
7. Place asphalt and rake till slightly higher than templates.
8. Shape asphalt with straight edge (channel section 6 m long).
9. Remove templates and compact without vibrator (three passes)
10. Measure profile and rectify if necessary.
11. Final compaction with three to four passes with vibrator.
12. Place road studs.
13. Paint speed hump the next day.

2. Traffic Signs:

- 2.1 Only galvanised bolts and nuts to be used on W and R series (no uni-struts)

- 2.2 All signs must be according to the Road Traffic Signs Manuals but use 900Φ STOP (60km/h zone) for 3-way and 4-way stops

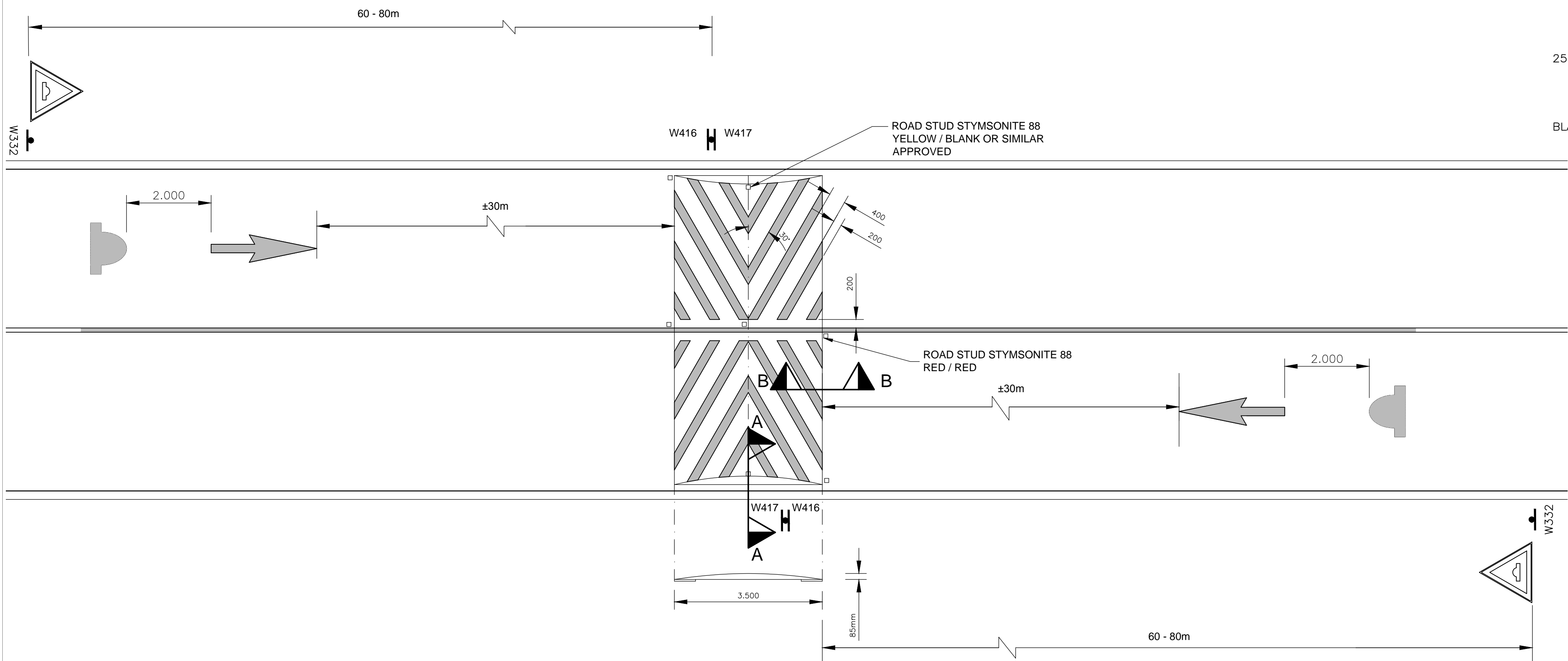
- 2.3 All signs excluding R1 series must have rounded edges

3. **ROADMARKINGS:**
All new road markings in thermoplastic

Colour	Paint application rate (mm)	Premix bead application rate (%)	Initial coefficient of retro-reflective (minicandelas/lux/m ²)
WHITE	1.2	35	200
YELLOW	1.2	35	135

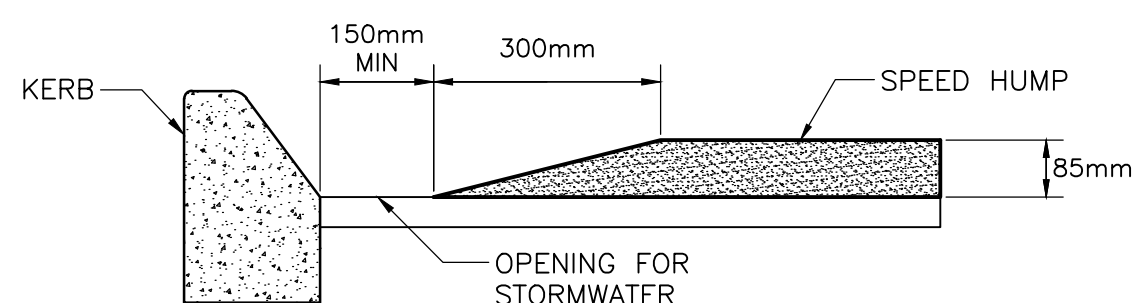
NOTE:

The Traffic Engineering and Operation section must always be consulted to assist with the setting out of speed humps.



PLAN OF SPEED HUMP

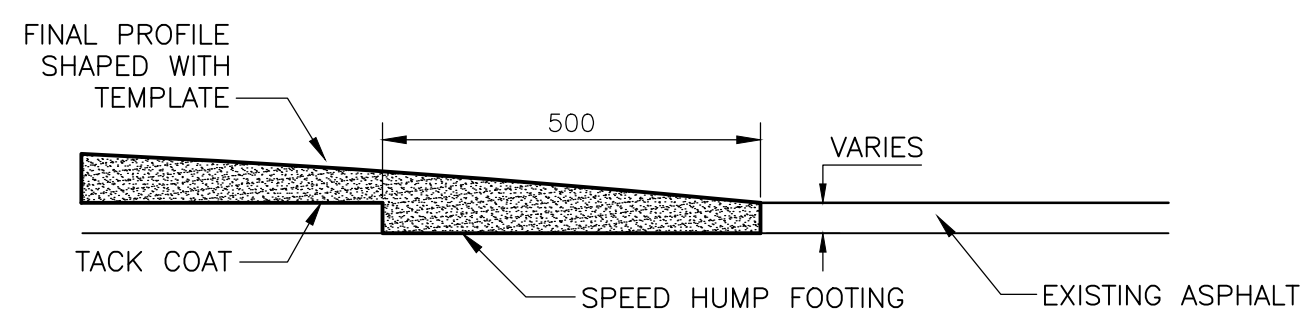
SCALE 1:100



SECTION A-A:
CONSTRUCTION DETAIL OF SPEED HUMP

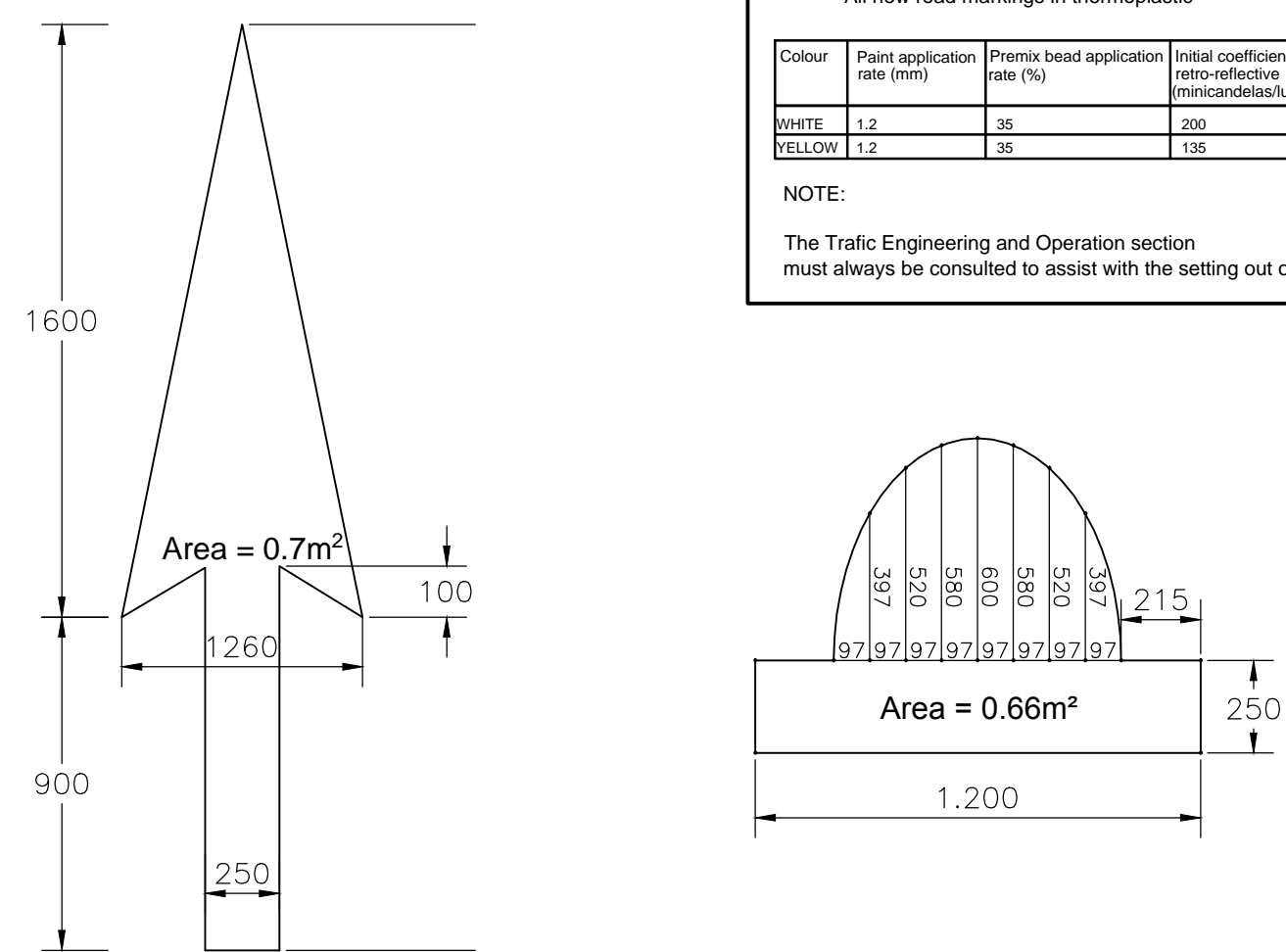
SCALE 1: 100

50/60 Km/h



SECTION B-B:
CONSTRUCTION DETAIL OF SPEED HUMP

SCALE 1: 100



DETAIL OF SPEED HUMP ROAD MARKING

SCALE 1: 20

NOTE:

1. Traffic Signs:

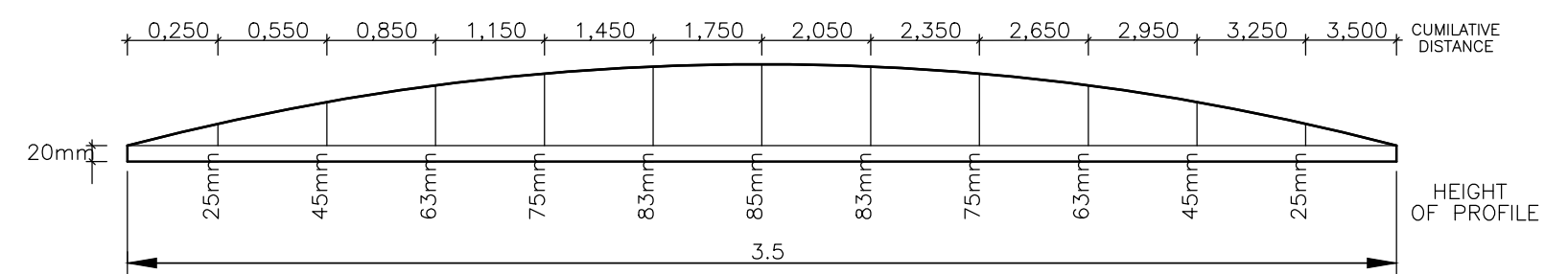
- 1.1 Only galvanised bolts and nuts to be used on W and R series (no uni-struts)
- 1.2 All signs must be according to the Road Traffic Signs Manuals but use 900Φ STOP (60km/h zone) for 3-way and 4-way stops
- 1.3 All signs excluding R1 series must have rounded edges

2. ROADMARKINGS:
All new road markings in thermoplastic

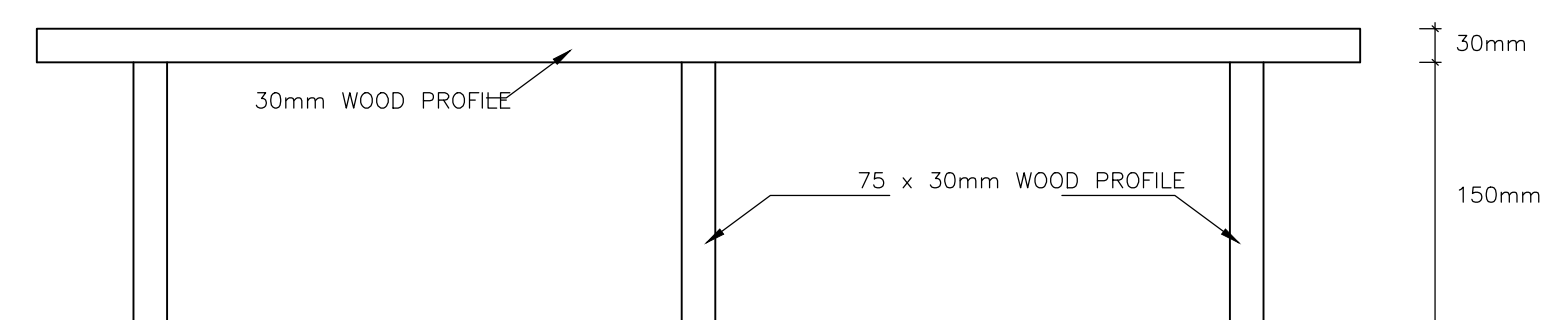
Colour	Paint application rate (mm)	Premix bead application rate (%)	Initial coefficient of retro-reflective (m ² /cd/m ² .km/m ²)
WHITE	1.2	35	200
YELLOW	1.2	35	135

NOTE:

The Traffic Engineering and Operation section must always be consulted to assist with the setting out of speed humps.



SIDE ELEVATION



PLAN

TEMPLATE DETAIL FOR CONSTRUCTION OF SPEED HUMP

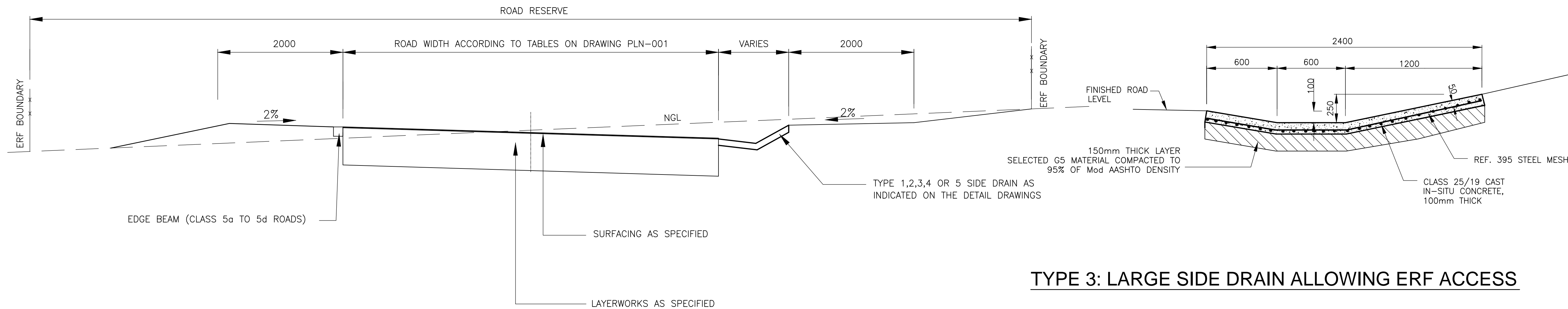
SCALE 1: 20

AMENDMENTS					CONSULTANTS DETAIL		DESIGNED T. LETSOALO		LOCATION OF PROJECT:		<div><div></div><div>CONCEPT DRAWING</div></div> <div><div></div><div>TENDER DRAWING</div></div> <div><div></div><div>APPROVED FOR CONSTRUCTION DRAWING</div></div> <div><div></div><div>ASBUILT DRAWING</div></div>	
NR.	DATE	APPROVED	DESCRIPTION	PAR.						NTSIMA TO SEFATENG - PHASE 2 & 3		
										DESCRIPTION OF PROJECT		
										TARRING OF NTSIMA TO SEFATENG ROAD TRAFFIC CALMING MEASURES TYPICAL SPEED HUMP AND ROAD MARKINGS DETAIL		
										CONTRACT No. :	PROJECT No. :	
										30/2015	0076-P	
										SCALE :	DATE :	
										N.T.S	OCTOBER-2016	
										DRAWING NO.	SHEET NO.	
										STD02	10F1	
											<div><div></div><div>REVISION</div></div>	

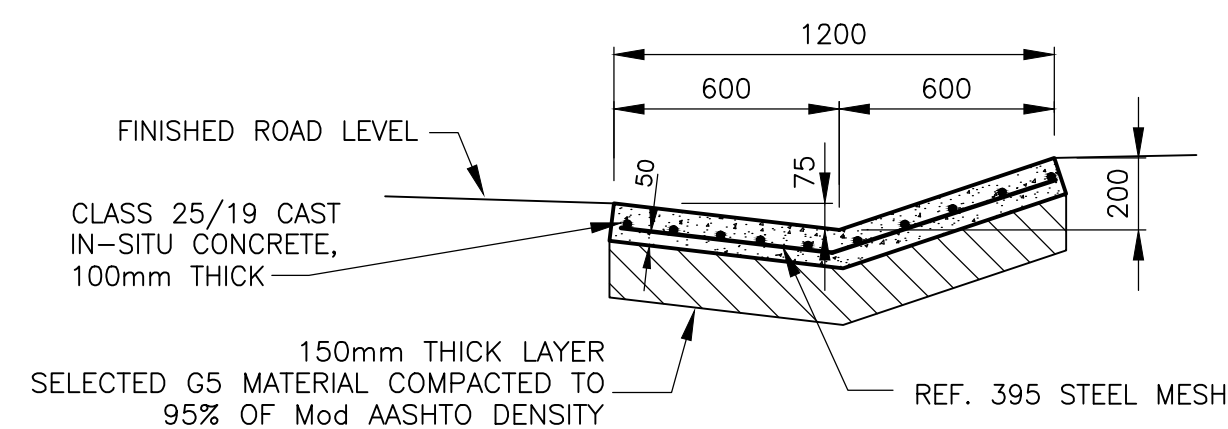
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NOTES

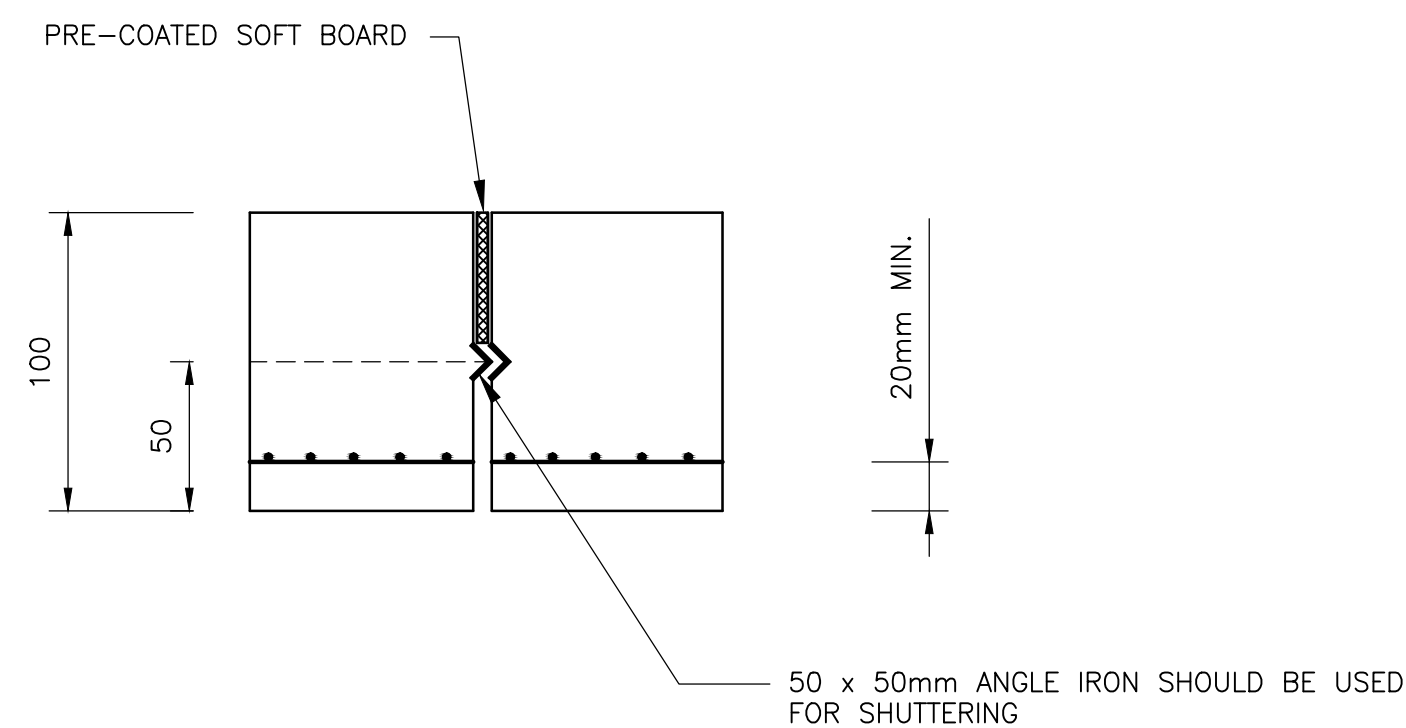
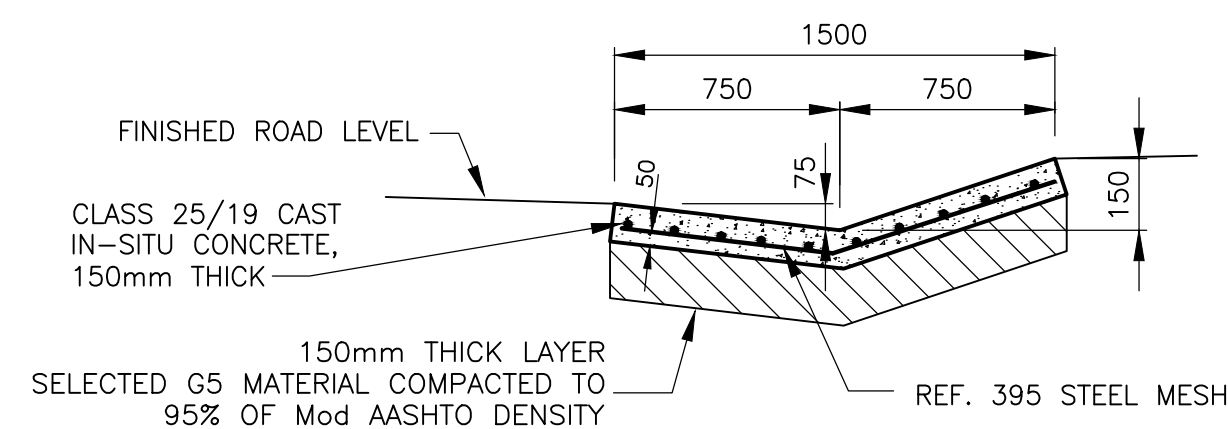
1. **STORMWATER SIDE DRAIN**
- 1.1 MINIMUM LONGITUDINAL SECTION IS 0,67%
- 1.2 MAXIMUM LONGITUDINAL SLOPE SHOULD BE SUCH THAT FLOW VELOCITIES DO NOT EXCEED 3,5 m/s.
- 1.3 MAXIMUM DEPTH FOR TYPE 4 AND 5 SIDE DRAINS IS 500mm. OTHER TYPES AS INDICATED.
- 1.4 UNLINED SIDE DRAINS ARE ONLY PERMITTED WHERE THE FLOW VELOCITY IS LESS THAN 1,5 m/s FOR MINOR STORM (1:2 YEAR RECURRENT 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.



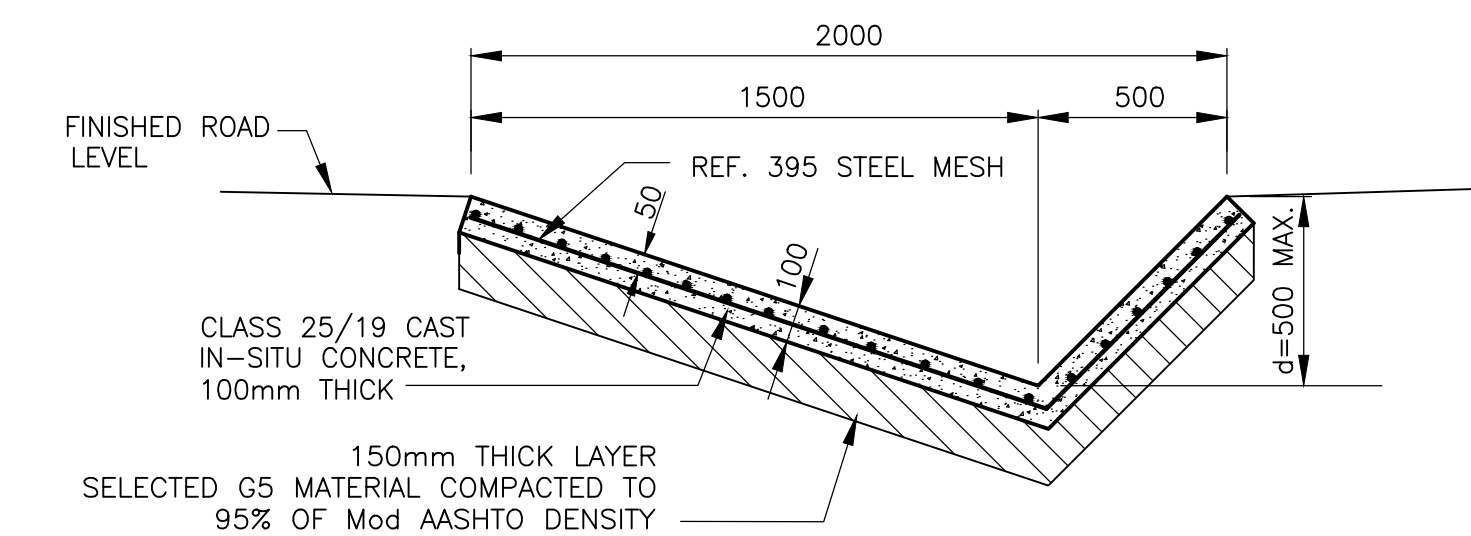
TYPICAL ROAD SECTION



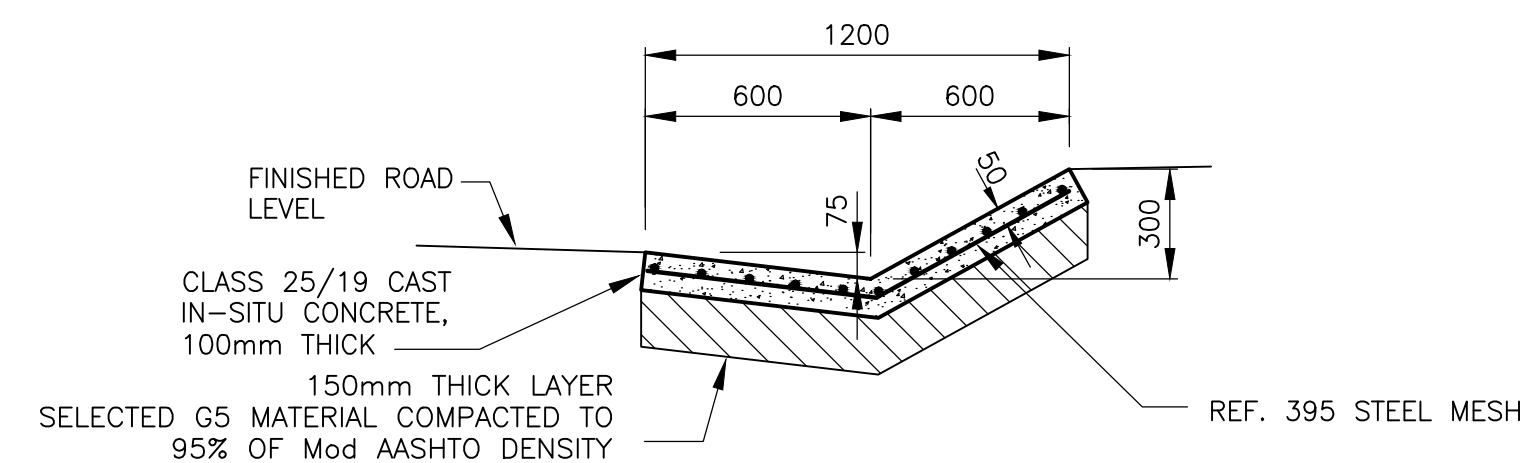
TYPE 1.1: SMALL SIDE DRAIN ALLOWING ERF ACCESS



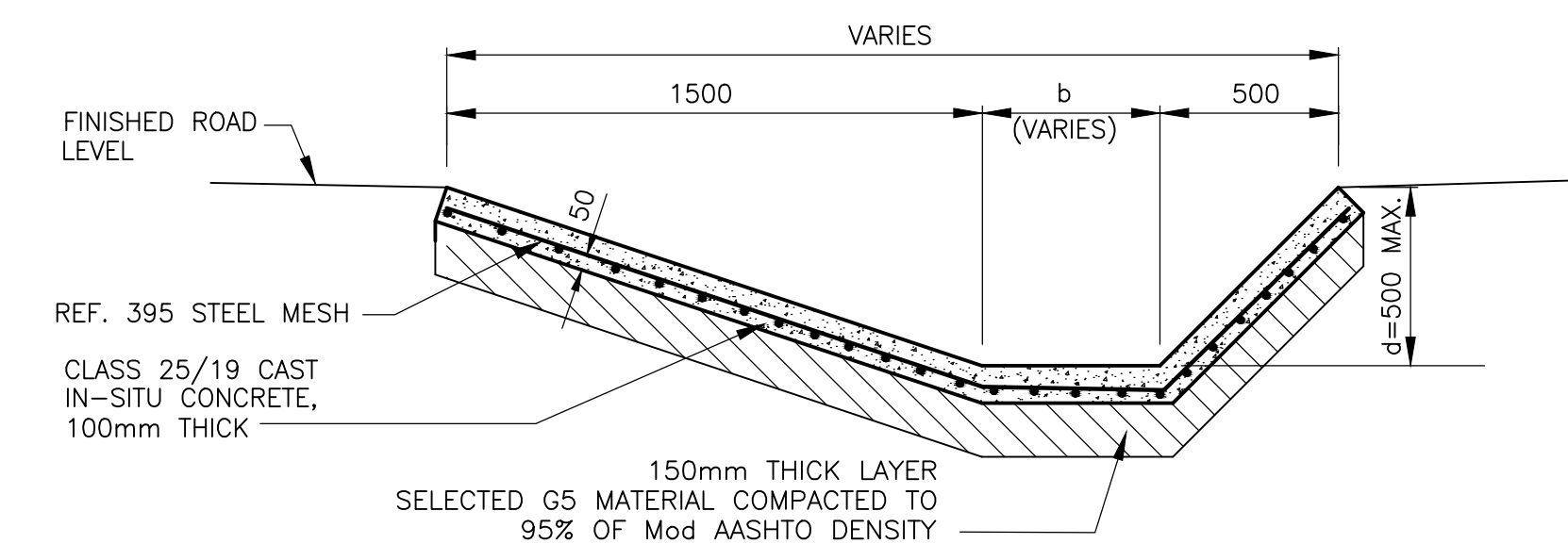
APPLICABLE TO ALL CHANNELS AND V-DRAINS
SECTION OF JOINTS



TYPE 4: LARGE SIDE DRAIN WITH NO ERF ACCESS



TYPE 2 :SMALL SIDE DRAIN WITH NO ERF ACCESS



TYPE 5: LARGE SIDE DRAIN WHERE REQUIRED CAPACITY EXCEEDS THAT OF TYPE 4

AMENDMENTS					CONSULTANTS DETAIL				
NR.	DATE	APPROVED	DESCRIPTION	PAR.	<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;">  <p>DIKGATO ENGINEERING CONSULTANTS (PTY) LTD 3 SKURWEBERG STREET NOORDWYK EXT.6 MIDRAND 1687</p> <p>TEL : 011 318 1698 FAX : 011 318 1891 eMAIL: dikgatoc@dikgato.co.za</p> </div> <div style="width: 30%;"> <p>CITY OF POLOKWANE</p> <p>CIVIC CENTRE. CNR LANDROS MARE & BODENSTEIN STREETS POLOKWANE 0699</p> <p>P.O. BOX 111 POLOKWANE 0700</p> <p>City of Polokwane NATURALLY PROGRESSIVE</p> </div> <div style="width: 30%;"> <p>DIKGATO ENGINEERING CONSULTANTS (PTY) LTD GAAL Airport Building Court No.1 - Suite 3 POLOKWANE 0699</p> <p>TEL : 015 288 1688 FAX : 015 288 1697 eMAIL: dikgatoc@dikgato.co.za</p> </div> </div>				

DESIGNED T. LETSOALO SIGNATURE: _____ DATE: _____		LOCATION OF PROJECT: NTSIMA TO SEFATENG -PHASE 2 & 3	
DRAWING CHECKED BY L. NGCOSO SIGNATURE: _____ DATE: _____		DESCRIPTION OF PROJECT TARRING OF NTSIMA TO SEFATENG ROAD ROAD AND SURFACE DRAINAGE DETAILS FOR LOW-COST DEVELOPMENT ROAD CROSS-SECTION AND SIDE DRAIN	
DRAWN M. NKOSI SIGNATURE: _____ DATE: _____			
CIVIL DRAUGHTING SERVICES M. NKOSI SIGNATURE: _____ DATE: _____			
APPROVED BY TECHNICAL DEPARTMENT MR. N. MATABESE SIGNATURE: _____ DATE: _____		CONTRACT No. : 30/2015	
		PROJECT No. : 0076-P	
		SCALE : N.T.S	
		DATE : OCTOBER-2016	
		DRAWING NO. STD03	
		SHEET NO. 10F1	

☐ CONCEPT DRAWING

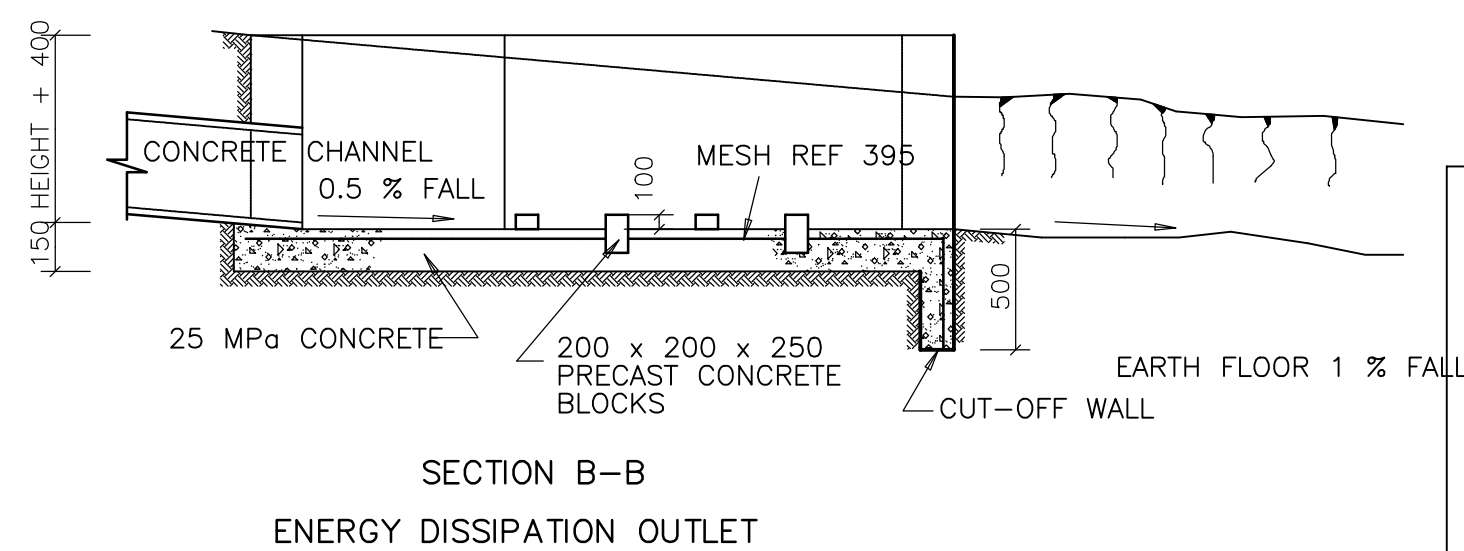
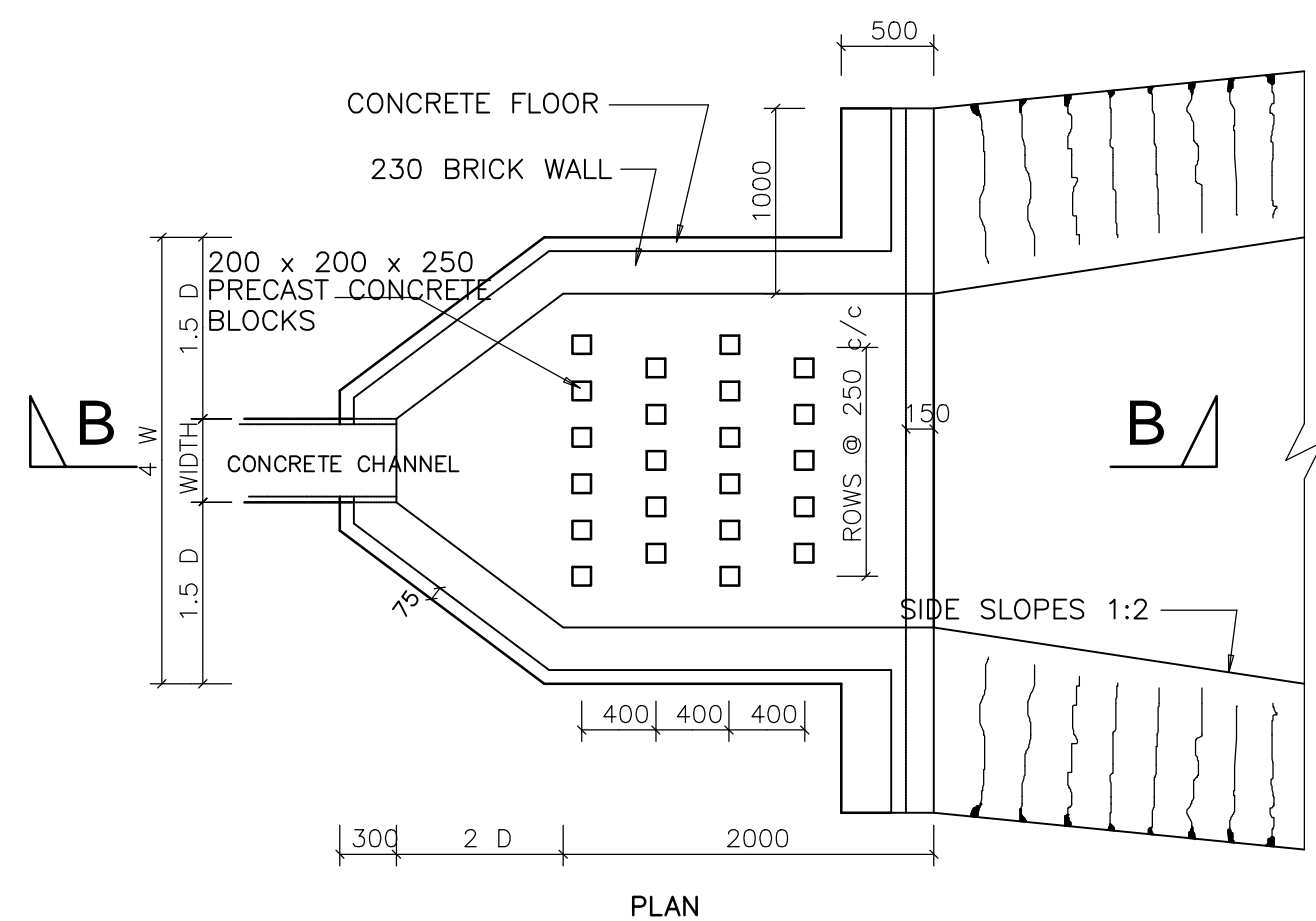
☐ TENDER DRAWING

☒ APPROVED FOR CONSTRUCTION DRAWING

☐ ASBUILT DRAWING

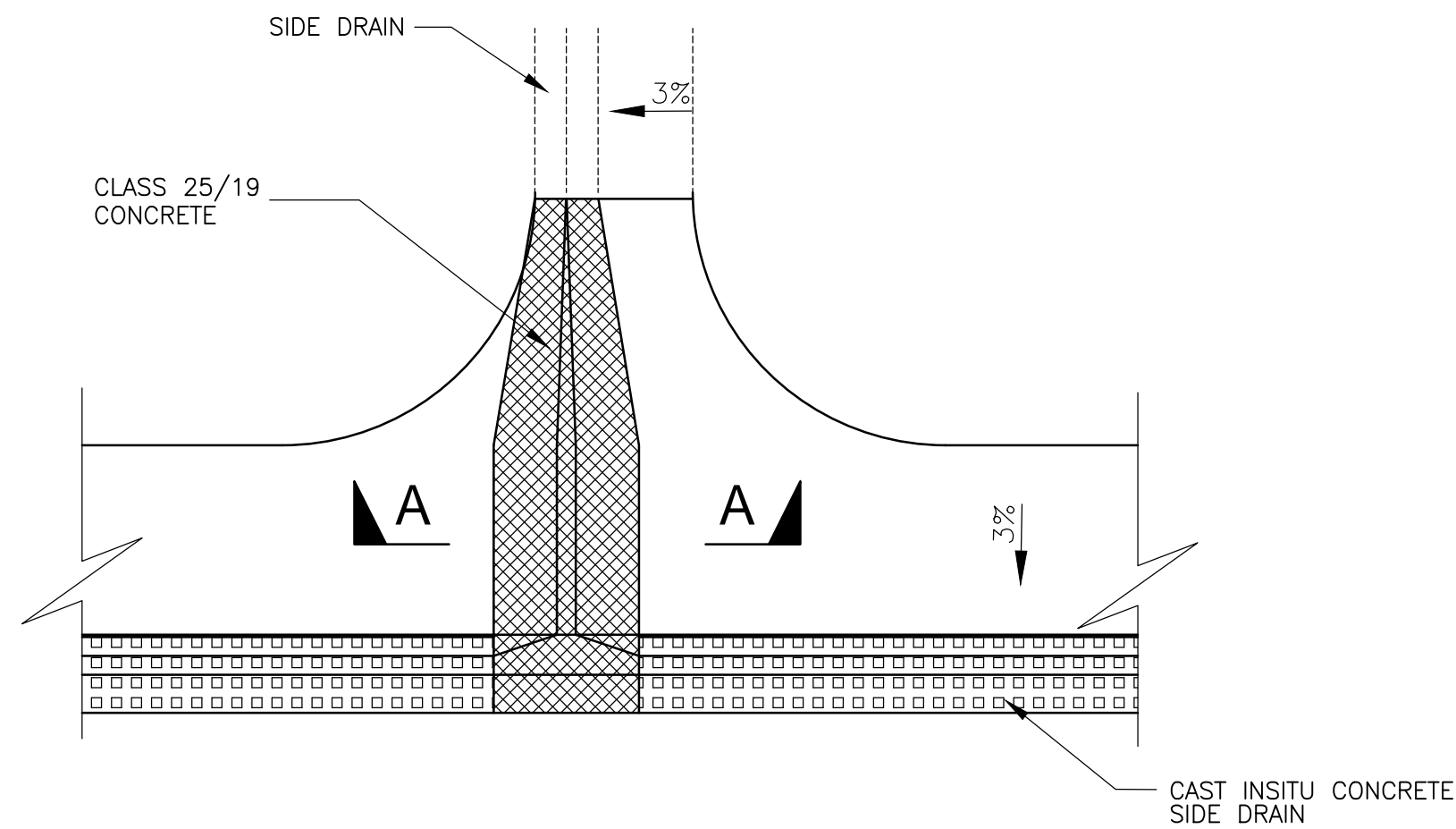
PROJECT ENGINEER:	
INITIALS AND SURNAME	SIGNATURE & PR NUMBER
INSPECTOR OF WORKS:	
SIGNATURE	
DATE	
REMARKS:	ORIGINAL PAPER SIZE:
	A1



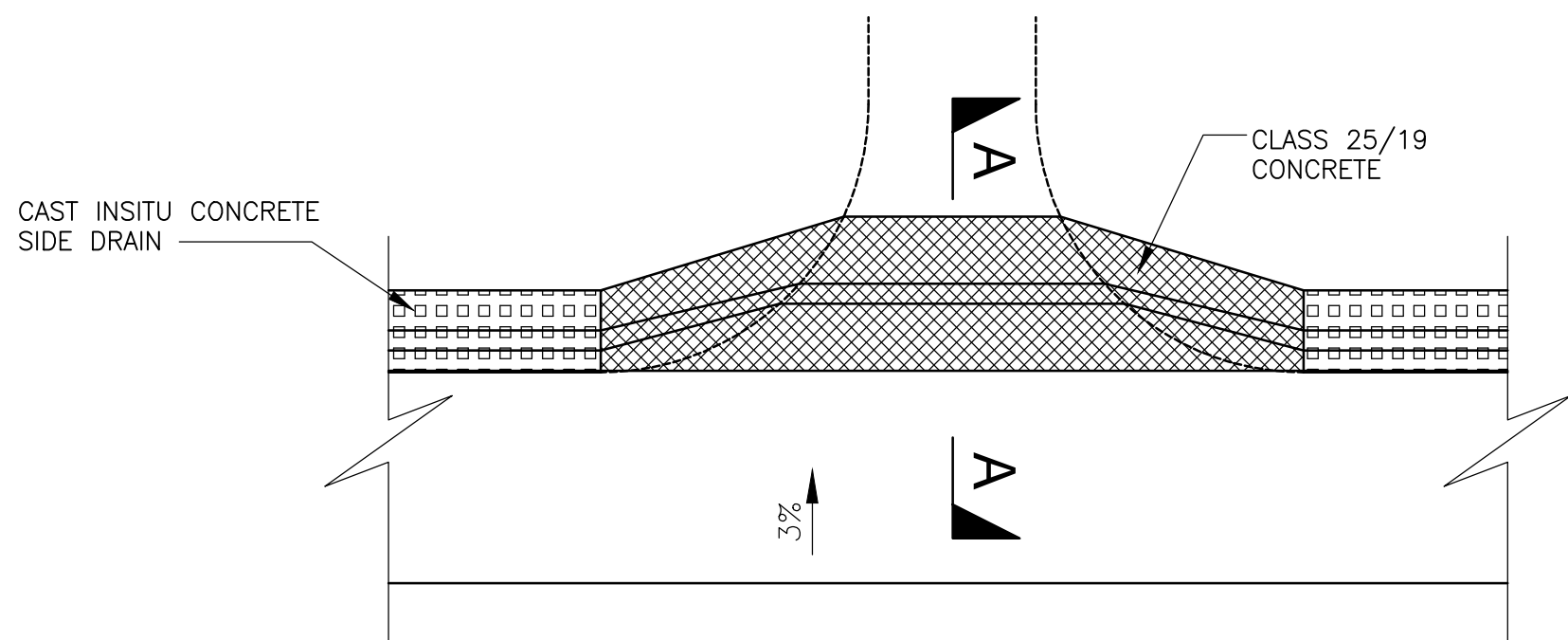


- NOTE:
- ONE LAYER OF MESH REF 395 TO BE PLACED ON FLOOR AND CUT-OFF WALL AS SHOWN WITH 40mm COVER AND MIN. LAP LENGTH OF 350mm.
 - ALL CONCRETE INCLUDING PRECAST CONCRETE BLOCKS IN ENERGY DISSIPATING OUTLETS TO BE CHAMFERED 25 x 25 ON EXPOSED EDGES.
 - WITH WATER ABSORPTION <14% AND EFFLORESCENCE <10.
 - ALL BRICKWORK TO BE IN ENGLISH BOND.
 - NO PLASTERING OF BRICKWORK WILL BE ALLOWED.
 - ALL BRICKS TO BE OF QUALITY FBSE30 TO SABS 227-1986

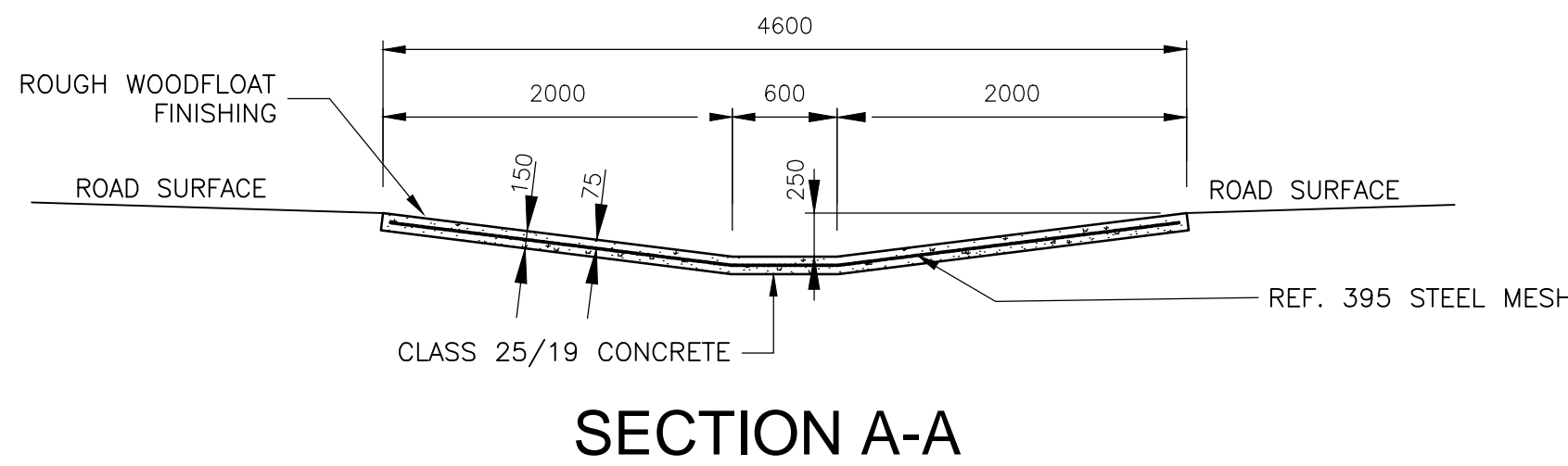
TYPICAL OUTLET STRUCTURE DETAILS



TYPICAL INTERSECTION CROSSING
SCALE 1:250



TYPICAL INTERSECTION CROSSING



SHEET LAYOUT

PROJECT STATUS

<input type="radio"/> CONCEPT DRAWING	<input type="radio"/> TENDER DRAWINGS	<input checked="" type="radio"/> APPROVED FOR CONSTRUCTION DRAWING	<input type="radio"/> ASBUILT DRAWING
PROJECT ENGINEER:			
INITIALS AND SURNAME		SIGNATURE & PR NUMBER	DATE
INSPECTOR OF WORKS:			
SIGNATURE		DATE	
REMARKS:			ORIGINAL PAPER SIZE:
DRAWING NO. STD04			A1
SHEET NO. 10F1			REVISION

AMENDMENTS				
NR.	DATE	APPROVED	DESCRIPTION	PAR.

CONSULTANTS DETAIL

DIKGATO ENGINEERING CONSULTANTS (PTY) LTD
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CITY OF POLOKWANE
CIVIC CENTRE, CNR LANDDROS MARE & BODENSTEIN STREETS
POLOKWANE
0699

P.O. BOX 111
POLOKWANE
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DESIGNED
T. LETSOALO

DRAWING CHECKED BY
L. NGCOBO

DRAWN
M. NKOSI

CIVIL DRAUGHTING SERVICES
M. NKOSI

APPROVED BY TECHNICAL DEPARTMENT
MR. N. MATABESE

CITY OF POLOKWANE
NATURALLY PROGRESSIVE

LOCATION OF PROJECT:
NTSIMA TO SEFATENG - PHASE 2 & 3

DESCRIPTION OF PROJECT
**TARRING OF NTSIMA TO SEFATENG ROAD
ROAD AND SURFACE DRAINAGE
DETAILS FOR LOW-COST DEVELOPMENT
DRAINAGE STRUCTURES**

CONTRACT NO.: 30/2015

PROJECT NO.: 0076-P

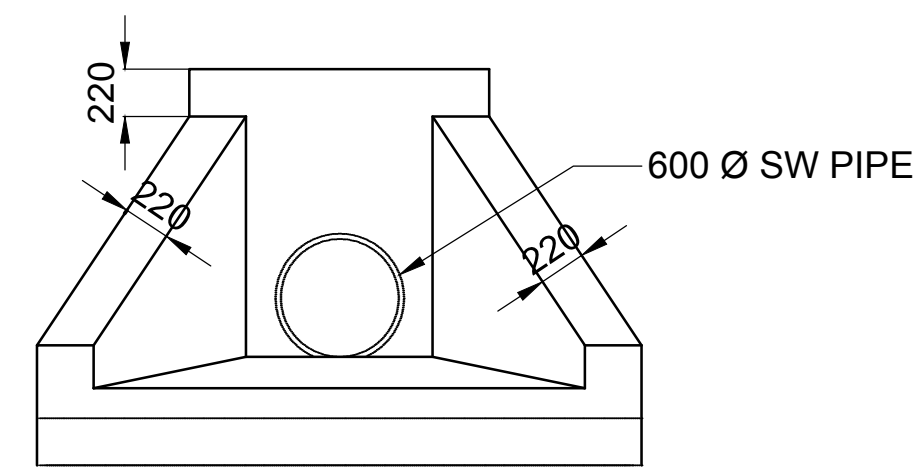
SCALE: N.T.S

DATE: OCTOBER-2016

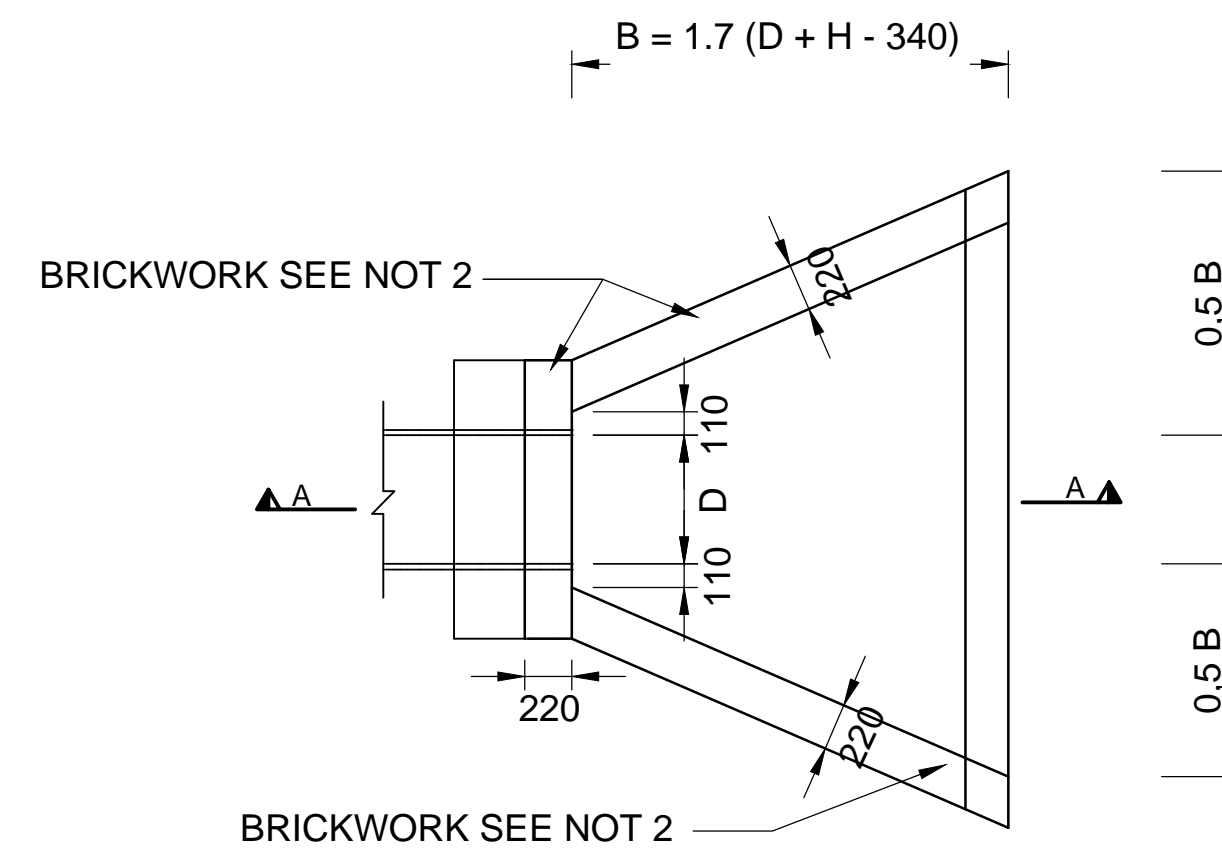
NOTES

1. APPLICATION OF TYPICAL OUTLET STRUCTURE

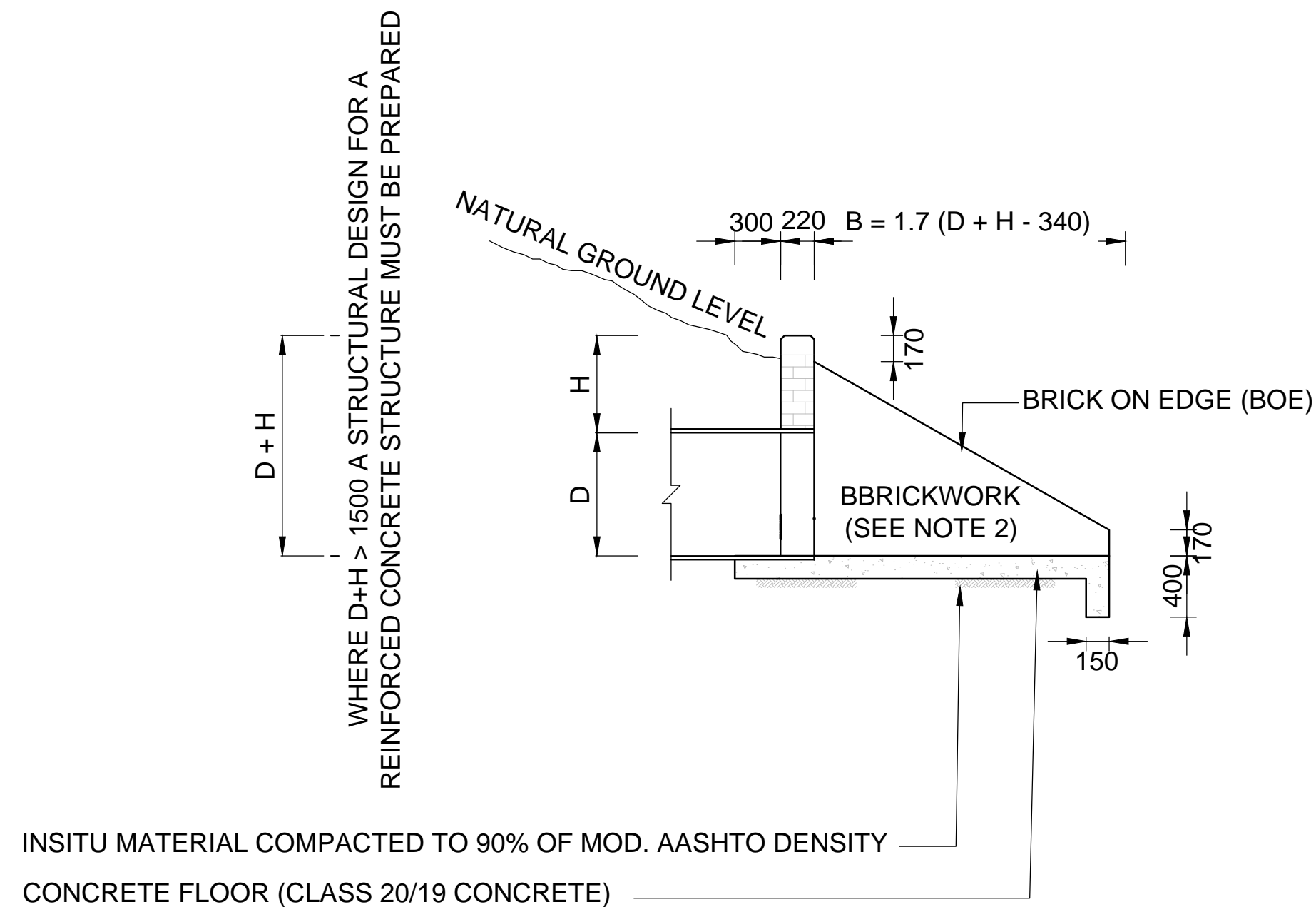
- 1.1 THE TYPICAL STORMWATER OUTLET STRUCTURE MAY ONLY BE USED WHERE:
 - SPECIFIED BY THE ENGINEER
 - THE FLOW_VELOCITY AT THE OUTLET PERMITS THE USE - $D + H < 1500$
- 1.2 FOR HIGHER FLOW VELOCITIES THE STRUCTURE MUST BE MODIFIED OR ANOTHER TYPE OF STRUCTURE MUST BE USED, ACCORDING TO THE SPECIFICATIONS OF THE ENGINEER.
- 1.3 NO SCOURING OR EROSION MAY OCCUR DOWNSTREAM OF THE OUTLET STRUCTURE.
- 1.4 FOR LARGER STRUCTURES A STRUCTURAL REINFORCED CONCRETE DESIGN IS REQUIRED.
- 2. MASONRY WALLS OF OUTLET STRUCTURE**
- 2.1 MASONRY WALLING SHALL CONFORM IN ALL RESPECTS TO THE REQUIREMENTS OF SANS 10164-1
- 2.2 MORTAR SHALL BE CLASS II (COMPRESSIVE STRENGTH OF 7 MPa AT 28 DAYS).
- 2.3 THE REQUIREMENTS SET OUT IN APPENDIX B OF SANS 10164-1: SHALL BE ADHERED TO UNLESS OTHERWISE APPROVED OR DIRECTED BY THE ENGINEER.
- 2.4 ALL BRICKS SHALL COMPLY WITH SANS 227 AND SHALL BE ENGINEERING UNITS OF CLASS FBS (FACE BRICK STANDARD) WITH A NOMINAL COMPRESSIVE STRENGTH OF 12 MPa.
- 3. CONCRETE**
- 3.1 ALL CONCRETE TO BE CURED FOR A MINIMUM PERIOD OF 7 DAYS.



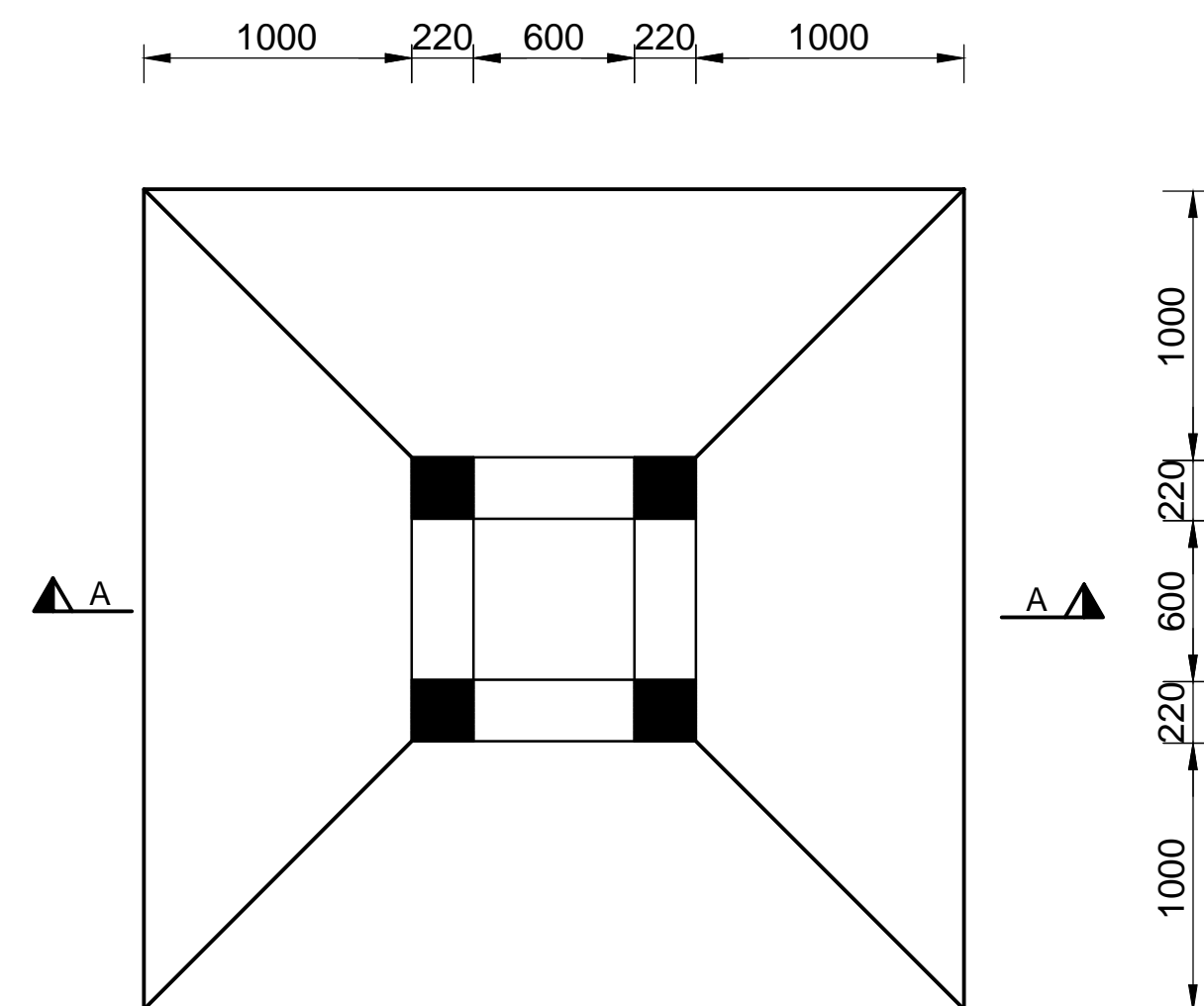
ELEVATION OF TYPICAL STORMWATER OUTLET STRUCTURE



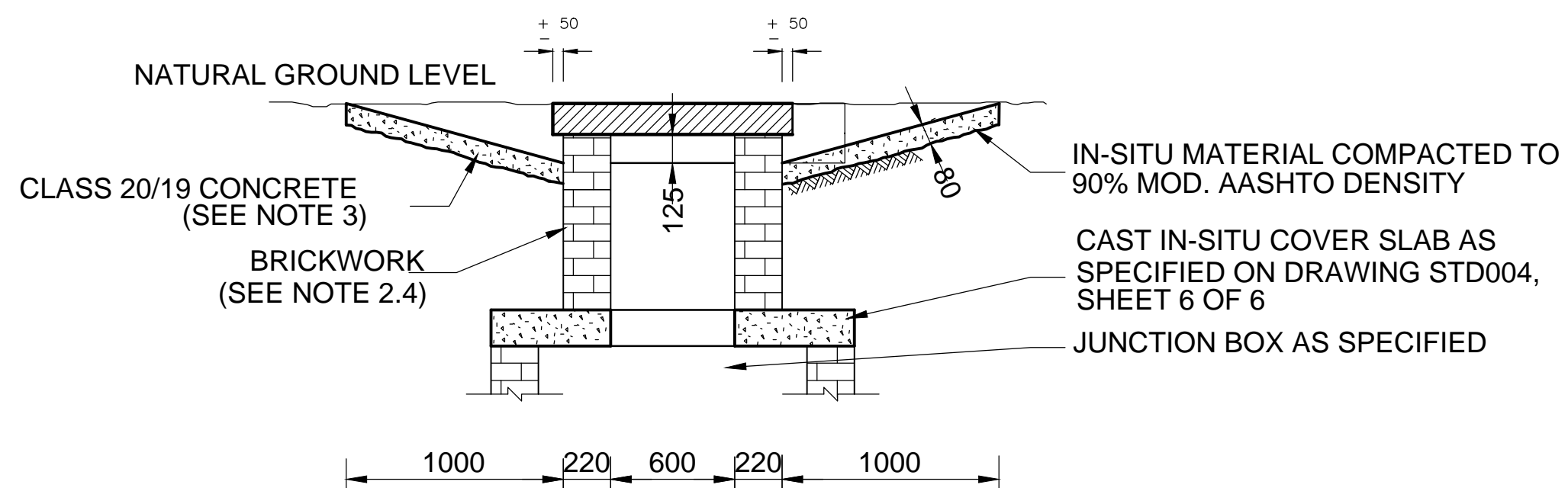
PLAN OF TYPICAL STORMWATER OUTLET STRUCTURE



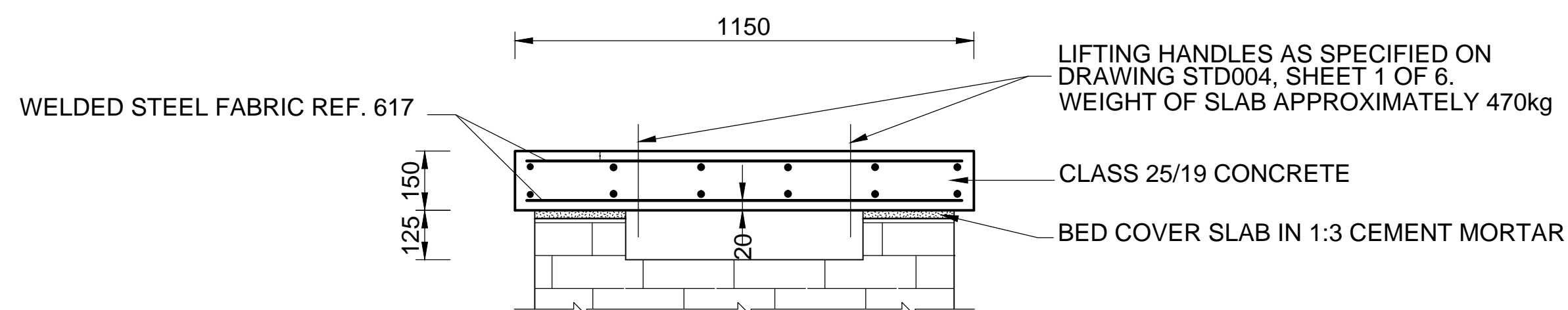
SECTION A-A



PLAN OF FIELD INLET (Without cover slab)

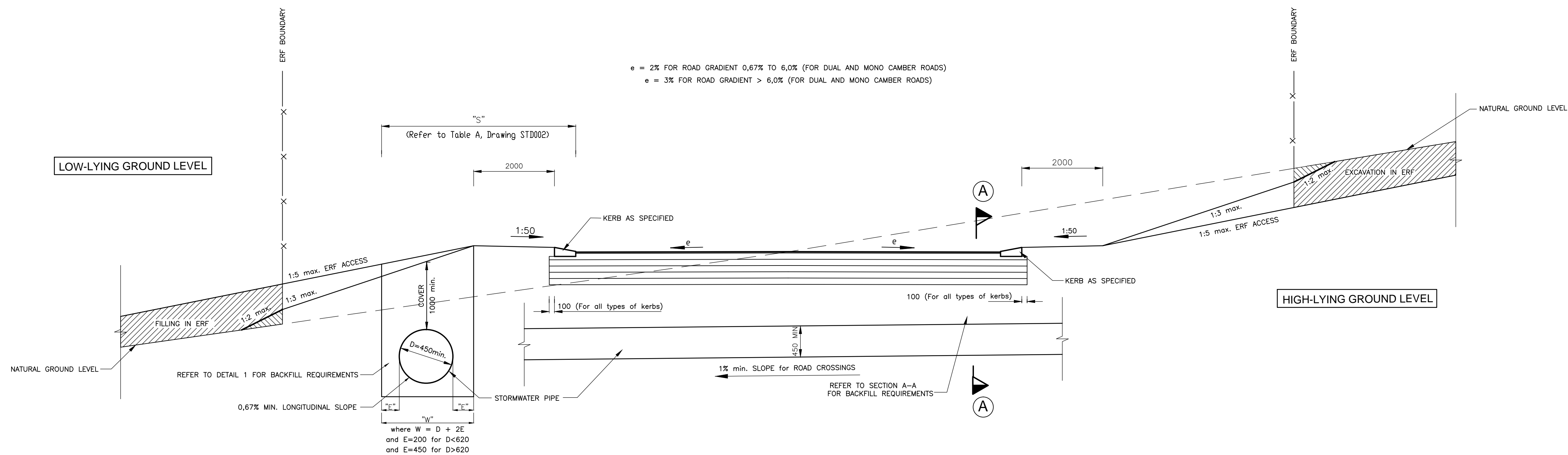


SECTION B-B



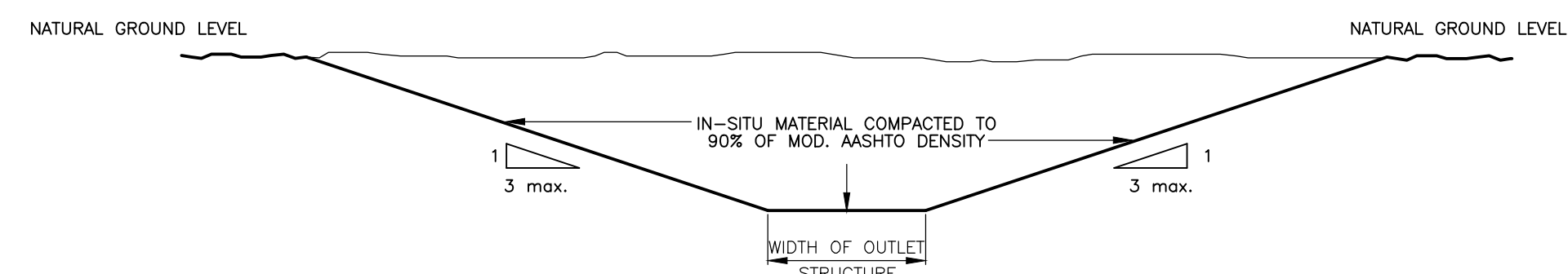
DETAIL OF PRECAST COVER SLAB

[illegible]

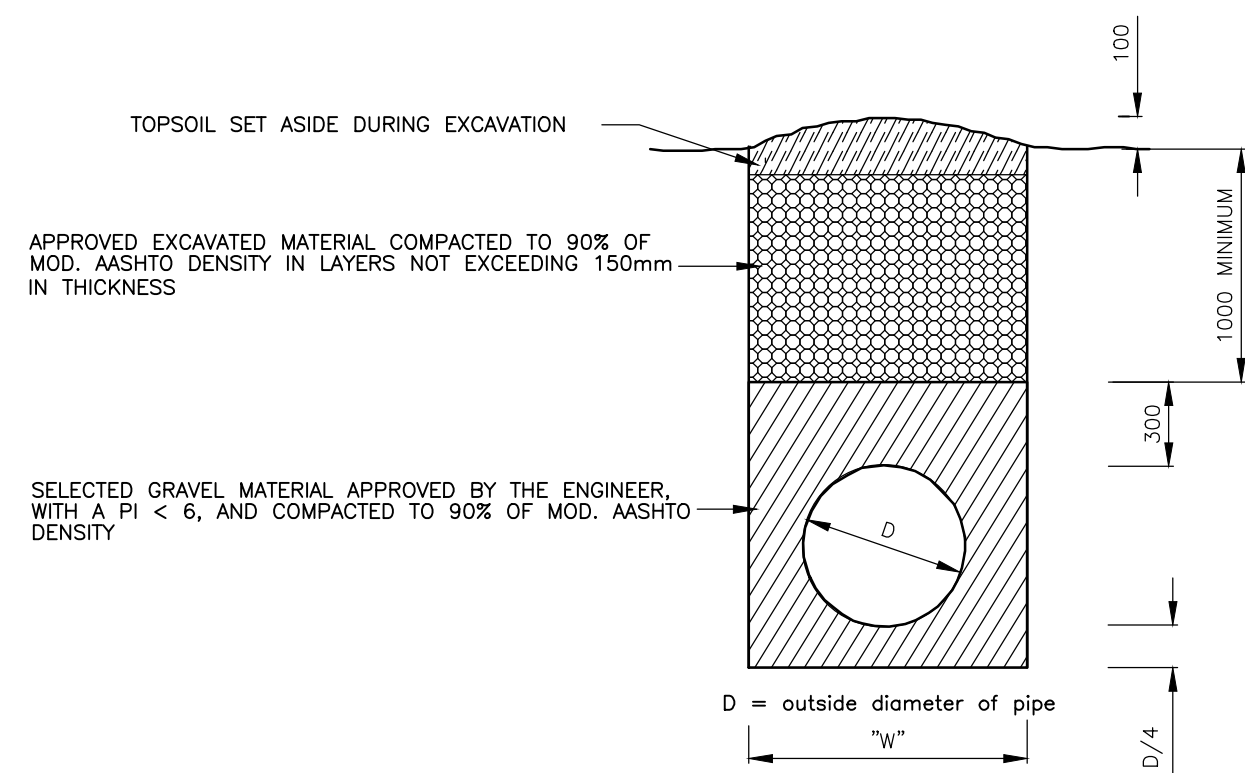


TYPICAL SECTION THROUGH ROAD RESERVE

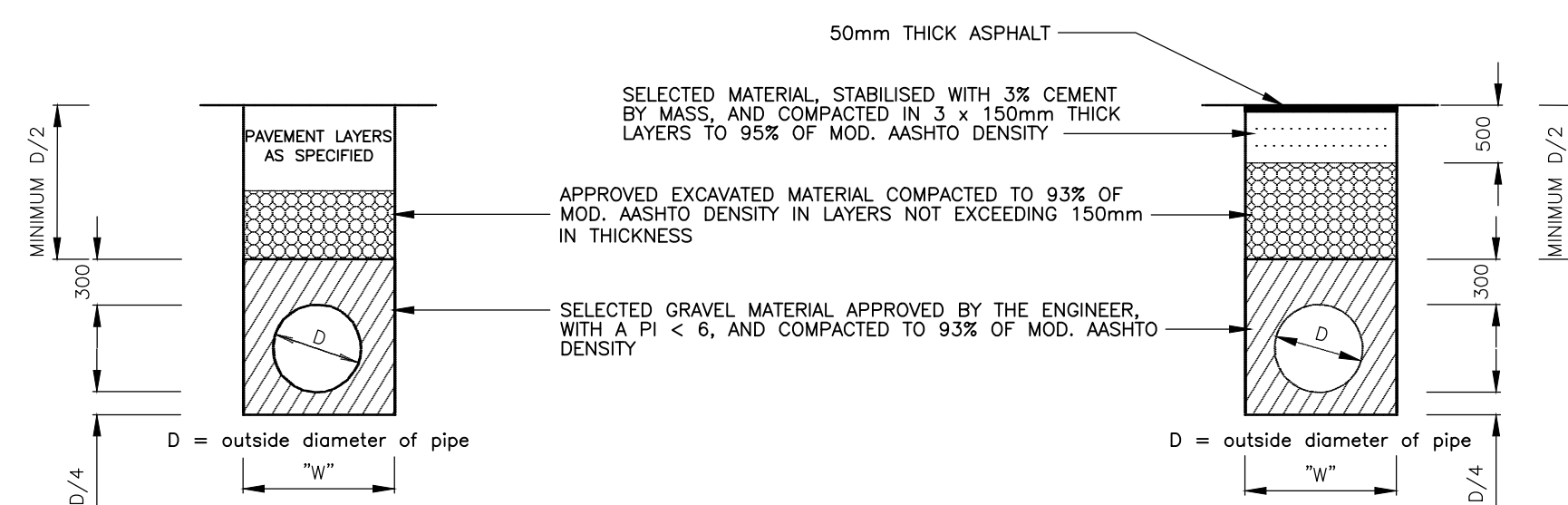
EROSION PROTECTION MEASURES AS SPECIFIED BY THE ENGINEER. WHERE GRASS IS SPECIFIED, SCARIFY AND HYDROSEED WITH THE FOLLOWING MIX OF GRASS SEED UNLESS ANOTHER MIX HAS BEEN SPECIFIED.
 - CLORIS GYANA (10kg/ha)
 - CYNODON DACTYLON (15kg/ha)
 - ERAGROSTIS TEF (5kg/ha)



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**

NOTES

- STORMWATER**
 - ALL STORMWATER PIPES TO BE LAID SOFFIT TO SOFFIT.
 - MINIMUM PIPE DIAMETER IS 450mm.
 - MAXIMUM ANGLE BETWEEN ADJOINING PIPES IS 60%.
 - MINIMUM SLOPE FOR ROAD CROSSINGS IS 1% AND FOR OTHER PIPES 0,67%.
 - ALSO REFER TO SECTION 101, 104, 202, 502 AND 504 OF THE STANDARD SPECIFICATIONS FOR MUNICIPAL CIVIL ENGINEERING WORKS, 3rd EDITION, 2005.
- ROADS.**
 - ALL MATERIALS FOR PAVEMENT LAYERS SHALL, UNLESS OTHERWISE SPECIFIED IN THE PROJECT SPECIFICATIONS, CONFORM TO THE REQUIREMENTS OF TRH 14.
 - ALSO REFER TO SECTION 101, 104, 203, 503 AND 601 TO 606 OF THE STANDARD SPECIFICATIONS FOR MUNICIPAL CIVIL ENGINEERING WORKS, 3rd EDITION, 2005.

AMENDMENTS					CONSULTANTS DETAIL		CITY OF POLOKWANE		DESIGNED		LOCATION OF PROJECT:		CONCEPT		TENDER		APPROVED FOR CONSTRUCTION		ASBUILT	
NR.	DATE	APPROVED	DESCRIPTION	PAR.	DIKGATO ENGINEERING CONSULTANTS (PTY) LTD 3 SKURWEBERG STREET NOORDWYK EXT.6 MIDRAND 1687 TEL : 011 318 1698 FAX : 011 318 1891 eMAIL: dikgato@dikgato.co.za		CIVIC CENTRE, CNR LANDROS MARE & BODENSTEIN STREETS POLOKWANE MUNICIPALITY 0699 P.O. BOX 111 POLOKWANE 0700 TEL: (015) 290 2102 FAX: (015) 290 2106		T. LETSOALO DATE: _____ DRAWING CHECKED BY L. NGCOBO DATE: _____ DRAWN M. NKOSI DATE: _____ CIVIL DRAUGHTING SERVICES M. NKOSI DATE: _____ APPROVED BY TECHNICAL DEPARTMENT MR. N. MATABESE DATE: _____		NTSIMA TO SEFATENG - PHASE 2 & 3		PROJECT ENGINEER:		INSPECTOR OF WORKS:		REMARKS:		ORIGINAL PAPER SIZE:	
					DIKGATO ENGINEERING CONSULTANTS		POLOKWANE MUNICIPALITY		DRAWING NO. STD06_1		DESCRIPTION OF PROJECT		INITIALS AND SURNAME		SIGNATURE & PR NUMBER		DATE		SHEET NO. 10F1	
					TEL : 011 318 1698 FAX : 015 288 1697 eMAIL: dikgato@dikgato.co.za		TEL: (015) 290 2102 FAX: (015) 290 2106		SCALE: N.T.S		CONTRACT No.: 30/2015		PROJECT No.: 0076-P		DATE: OCTOBER-2016		DRAWING NO. STD06_1		SHEET NO. 10F1	