

CONTRACT

PART C1: AGREEMENTS AND CONTRACT DATA

PART C2: PRICING DATA

PART C3: SCOPE OF WORK

PART C4: SITE INFORMATION

CONTRACT

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PART C1: AGREEMENTS AND CONTRACT DATA

C1.1: FORM OF OFFER AND ACCEPTANCE

C1.1.1: OFFER

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

CONTRACT NO. ZNB02874/00000/00/PMC/INF/25/T: BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1009, BRIDGE 1053, STC2347 BRIDGE, STC 1704, & STC 2673 IN DC22 UNDER PIETERMARITZBURG REGION.

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

By the representative of the Tenderer, deemed to be duly authorised, 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..... (in figures).

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

Signature: (of person authorised to sign the tender)

Name: (of signatory in capitals)

Capacity: (of signatory)

Name of Tenderer: (organisation)

Address:

.....

Telephone number: **E-mail:**

Witness:

Signature:

Name: (in capitals)

Date:

[Failure of a Tenderer to sign this form will invalidate the tender]

***NOTE:** Part C1.1 in its entirety must form part of the electronic submission.

This form is to be completed by the Employer only

C1.1.2: ACCEPTANCE

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

The terms of the contract are contained in

- Part C1 Agreements and Contract Data (which includes this Agreement)
- Part C2 Pricing Data
- Part C3 Scope of Work
- Part C4 Site Information

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

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

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

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

Signature:

Name: *(in capitals)*

Capacity:

Name of Employer: *(organisation)*

Address:

.....

Witness: Signature: **Name:** *(in capitals)*

Date:

any confirmation, clarification or change to the terms of the offer agreed by the Tenderer and the Employer during this process of offer and acceptance.

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

FOR THE TENDERER:

Signature:

Name:

Capacity:

Tenderer: *(Name and address of organisation)*

.....

Witness:

Signature:

Name:

Date:

FOR THE EMPLOYER:

Signature:

Name:

Capacity:

Employer: *(Name and address of organisation)*

.....

Witness:

Signature:

Name:

Date:

C1.2: CONTRACT DATA

C1.2.1: CONDITIONS OF CONTRACT

C1.2.1.1 GENERAL CONDITIONS OF CONTRACT

This Contract will be based on the 'General Conditions of Contract for Construction Works, Third Edition (2015)', issued by the South African Institution of Civil Engineering (abbreviated title: 'GCC 2015').

It is agreed that the only variations from the GCC 2015 are those set out hereafter under "C1.2.1.2 SPECIAL CONDITIONS OF CONTRACT".

C1.2.1.2 SPECIAL CONDITIONS OF CONTRACT

C1.2.1.2.1 GENERAL

These Special Conditions of Contract (SCC) form an integral part of the Contract. The Special Conditions of Contract shall amplify, modify or supersede, as the case may be, the GCC 2015 to the extent specified below, and shall take precedence and shall govern.

The clauses of the Special Conditions of Contract hereafter are numbered "SCC" followed in each case by the number of the applicable clause or subclause in the GCC 2015, and the applicable heading, or (where a new special condition that has no relation to the existing clauses is introduced) by a number that follows after the last clause number in the GCC 2015, and an appropriate heading.

C1.2.1.2.2 AMENDMENTS TO THE GCC 2015

SCC 1.1 Definitions

SCC 1.1.1.14: *delete* "Commencement Date" *in the definition and substitute* "date of commencement of the Works".

Add the following to the end of Clause 1.1:

"SCC 1.1.1.35 "Construction Manager" means the person approved of in writing by the Employer's Agent, as the Contractor's representative on Site.

SCC 1.1.1.36 "Targeted Enterprise" means an enterprise as defined in PART F: Small Contractor Development of section C3.3 Particular Specifications in Part C3: Scope of Work.

SCC 1.1.1.37 "Targeted Labour" means labour as defined in PART F: Small Contractor Development of section C3.3 Particular Specifications in Part C3: Scope of Work."

SCC 4.1.1 Extent of Contractor's obligations

Add the following new paragraphs to the end of Clause 4.1.1:

"If the Contractor fails to achieve the monetary value of the contract participation goal stated in the Contract Data for local labour content in terms of PART E: Expanded Public Works Programme of section C3.3 Particular Specifications in Part C3: Scope of Work, the Contractor shall be liable to the Employer for a sum calculated in accordance with the Contract Data and the aforementioned Scope of Work as a penalty for such underachievement.

If the Contractor fails to achieve the monetary value of the contract participation goal stated in the Contract Data for contract participation by Targeted Enterprises in terms of PART F: Small Contractor Development of section C3.3 Particular Specifications in Part C3: Scope of Work, the Contractor shall be liable to the Employer for a sum calculated in accordance with the Contract Data and the aforementioned Scope of Work

as a penalty for such underachievement.”

SCC 4.4.2 Subcontractor to be approved

Add the following to Clause 4.4.2:

“The Contractor shall comply with the subcontracting restrictions stated in the Contract Data.”

SCC 4.10.1 Engagement of employees

Add the following to Clause 4.10.1:

“The contractor shall pay rates and wages, and observe conditions of labour, which are not lower than those established for the trade or industry where the work is carried out, as stated in the Contract Data.”

SCC 5.3.1 Commencement of the Works

Delete the first sentence of Clause 5.3.1 and substitute the following:

“The Employer’s Agent shall give the Contractor not less than 7 days’ notice of the date of commencement of the Works on which date the Contractor is instructed to commence carrying out the Works, save as may be otherwise provided in the Contract, or be legally or physically impossible. The date of commencement of the Works shall be within the period after the Commencement Date stated in the Contract Data.”

SCC 5.3.3 Time to instruct commencement of the Works

Delete Clause 5.3.3.

SCC 5.14.4 Certification of Completion

Insert the following in the first sentence after the words “has been duly completed,”:

“and the Contractor has submitted the information stated in the Contract Data,”.

SCC 5.14.6 Occupation by the Employer

Add the following to Clause 5.14.6:

“The use of any completed roadway or parts of the Works, whether for unhindered use by the public or for accommodation of traffic, while other parts are being constructed, shall not constitute occupation of the Works by the Employer.”

SCC 6.2.1 Delivery of security

In the last two lines of Clause 6.2.1, delete the words “the type of security for the due performance of the Contract, as selected in the Contract Data” and replace them with the words “a fixed performance guarantee as security for the due performance of the Contract in accordance with the Contract Data Part A: Data Provided by the Employer”.

Delete the entirety of Clause 6.2.2 and replace it with the following:

“SCC 6.2.2 Contractor failing to provide security

If the Contractor fails to provide the required fixed performance guarantee within the time period stated in the Contract Data, or if the performance guarantee shall differ substantially from the pro forma, it shall legally be deemed that the Contractor has selected a security of ten per cent retention of the value of the Works without limiting the Employer’s right to terminate the Contract in terms of Clause 9.2.”

SCC 6.2.3 Validity of performance guarantee

Delete the entirety of the first sentence of Clause 6.2.3 and replace it with the following:

“The Contractor shall ensure that the performance guarantee remains valid and enforceable until the Certificate of Completion is issued. The performance guarantee shall specify an expire date. If the Contractor has not become entitled to receive the Certificate of Completion of the Works 30 days prior to the expire date of the performance guarantee, the Contractor shall extend the validity of the performance guarantee until he reaches the Works completion”

SCC 6.10.4 Delivery, dissatisfaction with and payment of payment certificate

Delete “within 28 days” in the third sentence and substitute “within 30 days”.

SCC 6.10.8 Contractor’s completion statement

Delete “within 28 days” in the third sentence and substitute “within 30 days”.

SCC 6.10.9 Final Payment Certificate

Delete “within 28 days” in the second sentence and substitute “within 30 days”.

SCC 10.1.5 Employer’s Agent’s ruling on Contractor’s Claim

Delete “within 28 days” in the first sentence and in Clause 10.1.5.1, and substitute “within 56 days”.

C1.2.2: DATA PROVIDED BY THE EMPLOYER

The following contract specific data are applicable to this contract.

CLAUSE	CONTRACT SPECIFIC DATA PROVIDED BY THE EMPLOYER								
<p>1.</p> <p>1.1.1.13</p> <p>SCC 1.1.1.14</p> <p>1.1.1.26</p> <p>1.1.1.15</p> <p>1.2.1.2</p> <p>1.1.1.16</p> <p>1.2.1.2</p>	<p>GENERAL</p> <p>The Defects Liability Period is 12 months.</p> <p>The time for achieving Practical Completion is <u>12 months</u> from the date of commencement of the Works, including non-working days and special non-working days. This duration also includes the procurement of all contracts as part of the Indirect Targeting for Enterprise Development.</p> <p>Pricing Strategy: The Contract is to be a Re-measurement Contract.</p> <p>Name of Employer: Province of KwaZulu-Natal represented by Cost Centre PMB under PMB Region: Department of Transport</p> <p>Address of Employer:</p> <table border="0"> <tr> <td><u>Physical:</u></td> <td><u>Postal:</u></td> </tr> <tr> <td>1 Woodlands Road Mountain Rise Pietermaritzburg 3201</td> <td>Private Bag X9043 Pietermaritzburg 3200</td> </tr> </table> <p>E-mail: Lusanda.khanyile@kzntransport.gov.za</p> <p>Telephone No: 033 392 6600/033 392 6694</p> <p>Name of Employer's Agent: Ingerop</p> <p>Address of Employer's Agent:</p> <table border="0"> <tr> <td><u>Physical:</u></td> <td><u>Postal:</u></td> </tr> <tr> <td>1 Woodlands Road Mountain Rise Pietermaritzburg 3201</td> <td>53 Richeford circle Umhlanga Rocks Durban 4319</td> </tr> </table> <p>E-mail: njithoo@ingerop.co.za</p> <p>Telephone No: 031 266 8363</p>	<u>Physical:</u>	<u>Postal:</u>	1 Woodlands Road Mountain Rise Pietermaritzburg 3201	Private Bag X9043 Pietermaritzburg 3200	<u>Physical:</u>	<u>Postal:</u>	1 Woodlands Road Mountain Rise Pietermaritzburg 3201	53 Richeford circle Umhlanga Rocks Durban 4319
<u>Physical:</u>	<u>Postal:</u>								
1 Woodlands Road Mountain Rise Pietermaritzburg 3201	Private Bag X9043 Pietermaritzburg 3200								
<u>Physical:</u>	<u>Postal:</u>								
1 Woodlands Road Mountain Rise Pietermaritzburg 3201	53 Richeford circle Umhlanga Rocks Durban 4319								
<p>3.</p> <p>3.2.3</p>	<p>EMPLOYER'S AGENT</p> <p>The Employer's Agent is required to obtain the specific approval of the Employer before executing any of his functions or duties according to the following Clauses:</p> <p>SCC 5.3.1: Give the Contractor notice of the commencement date of the Works.</p> <p>6.3.1: Order any work as a Variation Order.</p> <p>6.3.1: Order any work which requires the utilisation of the provision for contingencies in the Contract Sum.</p> <p>6.3.1: Order any work which requires the Contract Price to exceed the Contract Sum.</p> <p>10.1.5: Ruling on a Contractor's claim.</p>								

CLAUSE	CONTRACT SPECIFIC DATA PROVIDED BY THE EMPLOYER
<p>4.</p>	<p>CONTRACTOR'S GENERAL OBLIGATIONS</p>
<p>SCC 4.1.1</p>	<p>The contract participation goal for local labour content is <u>3%</u>.</p> <p>The penalty for failing to achieve the monetary value of the above target set by the Employer for local labour content in terms of PART E: Expanded Public Works Programme of section C3.3 Particular Specifications in Part C3: Scope of Work, is 5% of the monetary value by which the achieved monetary value falls short of the target monetary value.</p>
<p>SCC 4.4.2</p>	<p>The Contractor may not subcontract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level of contributor than the Contractor, unless the contract is subcontracted to an EME that has the capability and ability to execute the subcontract.</p> <p>The Contractor and his subcontractors shall be registered with the Bargaining Council for the Civil Engineering Industry, and comply with the wage rates and conditions of labour agreed by the Bargaining Council for the Civil Engineering Industry, except where a specific industry publishes its own wage rates and conditions of labour.</p>
<p>SCC 4.10.1</p>	<p>The wage rates and conditions of labour employed under the Expanded Public Works Programme, shall comply with the Ministerial Determination 4, issued in terms of the Basic Conditions of Employment Act of 1997 by the Minister of Labour in Government Notice No. R347 of 4 May 2012.</p> <p>The wage rates and the implementation shall be as per the Standard for Developing Skills through Infrastructure Contracts, Published in the Government Gazette No. 43495 of 3 July 2020, issued in terms of sections 5(2) of the Construction Industry Development Board Act, 2000(Act no. 38 of 2000).</p>

CLAUSE	CONTRACT SPECIFIC DATA PROVIDED BY THE EMPLOYER
<p>5.</p> <p>SCC 5.3.1 and 5.3.2</p>	<p>TIME AND RELATED MATTERS</p> <p>The date of commencement of the Works shall be within 28 days, or 56 days if a construction work permit is required, after the Commencement Date.</p> <p>The following documentation shall be submitted within <u>14 days</u> of the Commencement Date by the Contractor before commencing to carry out the Works:</p> <ul style="list-style-type: none"> (i) Health and Safety Plan (refer to Clause 4.3); (ii) Form C1.4 'Agreement in terms of Section 37(2) of the Occupational Health and Safety Act No. 85 of 1993' to be signed by the Contractor and the Employer (refer to Clause 4.3); (iii) Proof of registration and good standing with the compensation fund or with a licensed compensation insurer as contemplated in the Compensation for Occupational Injuries and Diseases Act, 1993 (Act No. 130 of 1993) (refer to Clause 4.3); (iv) Initial Programme (refer to Clause 5.6); (v) Security (refer to Clause 6.2); and (vi) Insurance (refer to Clause 8.6); <p>and if the Employer is required to apply for a construction work permit to perform construction work in terms of regulation 3(1) of the Construction Regulations 2014, the following documentation shall also be submitted:</p> <ul style="list-style-type: none"> (vii) Temporary works designer's appointment duties in terms of Regulation 6(2) as have been agreed upon plus proof of registration with ECSA [CR 3(5)(b)(iii) read with CR 5(1)(e) and CR 6(2)]; (viii) Evidence that the Principal contractor has made adequate provision for the cost of Health and Safety, i.e., bill of quantities [CR 3(5)(b)(iii) read with CR 5(1)(g)]; and (ix) Evidence that the Principal contractor has the necessary competencies to carry out construction work safely, namely, schedule of activities, relevant appointments and proofs of competency [CR 5(1)(h)]. <p>The non-working days are Sundays.</p>
<p>5.8.1</p>	<p>The special non-working days are:</p> <ul style="list-style-type: none"> (i) the statutory public holidays in terms of the Public Holidays Act; (ii) the foreseeable election days declared as a statutory public holiday; and (iii) the annual year-end shutdown period as recommended by the Bargaining Council for the Civil Engineering Industry.
<p>5.13.1</p>	<p>The penalty for failing to complete the Works is 0,05% of the Contract Sum per day, up to a maximum limit of twenty-five thousand rand per day (R25 000,00 per day).</p>
<p>5.14.1</p>	<p>The requirements for achieving Practical Completion are as stated in General Conditions of Contract 2015.</p>
<p>SCC 5.14.4</p>	<p>The Contractor shall submit the following:</p> <ul style="list-style-type: none"> (i) evidence that the local labour has been paid, and that the Targeted Enterprise subcontractors have received all amounts due in terms of their respective subcontract agreements; and (ii) the survey and materials information which the Employer's Agent requires to complete the as-built drawings and records.
<p>5.16.3</p>	<p>The latent defects period is 10 years.</p>

CLAUSE	CONTRACT SPECIFIC DATA PROVIDED BY THE EMPLOYER
<p>6.</p> <p>SCC 6.2.1</p> <p>6.5.1.2.3</p> <p>6.8.2</p> <p>6.8.3</p>	<p>PAYMENT AND RELATED MATTERS</p> <p>The security to be provided by the Contractor shall be:</p> <p style="padding-left: 40px;">Fixed Performance Guarantee of 8% of the first One Million Rand plus 3,5% of the balance of the Contract Sum. If the Contractor provides the performance guarantee after the date specified in the Contract Data, the acceptance of such performance guarantee shall be to the discretion of the Employer, considering the progress of the project at the time of submission of the performance guarantee.</p> <p>The percentage allowance to cover overhead charges is 10%.</p> <p>The value of payment certificates issued shall be adjusted in accordance with the Contract Price Adjustment Schedule with the following data.</p> <p>The values of the coefficients for calculating the Contract Price Adjustment Factor are: Compiler to select coefficients and Civil Engineering Material Index according to the work category (Scope of Work) detailed in the Employer's 'Open Tender Document Checklist'.</p> <p style="padding-left: 40px;">Road works – upgrade (Schedules A, D, F and G):</p> <p style="padding-left: 80px;">a = 0,2 b = 0,4 c = 0,25 d = 0,15</p> <p style="padding-left: 40px;">Structures (Schedule B):</p> <p style="padding-left: 80px;">a = 0,15 b = 0,2 c = 0,55 d = 0,1</p> <p>"L", "P", "M" and "F" are defined as follows:</p> <p>"L" is the "Labour Index" and shall be the Consumer Price Index for "Geographic Indices > CPI per province > KwaZulu-Natal" as published in Table A of the Statistical Release P0141 of Statistics South Africa.</p> <p>"P" is the "Construction Equipment Index" and shall be the Construction Materials Price Index for "Plant and equipment" as published in Table 4 of the Statistical Release P0151.1 of Statistics South Africa.</p> <p>"M" is the "Materials Index" and shall be the Construction Materials Price Index as published in Table 6 of the Statistical Release P0151.1 of Statistics South Africa for:</p> <p style="padding-left: 40px;">Road works (Schedules A, E and F): "Civil engineering material – roads, general (excluding bitumen)"</p> <p style="padding-left: 40px;">Structures (Schedule B): "Civil engineering material – structures (excluding bitumen)"</p> <p>"F" is the "Fuel Index" and shall be the Producer Price Index for "Coke, petroleum, chemical, rubber and plastic products > Coal and petroleum products > Diesel" as published in Table 1 of the Statistical Release P0142.1 of Statistics South Africa.</p> <p>The base month is the month preceding the month of tender closure.</p> <p>Any index calculated by means of a linking factor between an old and new index, shall be rounded to one decimal place.</p> <p>Price adjustments for variations in the cost of bitumen as a special material are</p>

CLAUSE	CONTRACT SPECIFIC DATA PROVIDED BY THE EMPLOYER
<p>6.10.1.5</p> <p>6.10.3</p>	<p>allowed.</p> <p>Only the net bitumen content of asphalt and bituminous products shall be subject to variations in cost, and no account shall be taken of transport, emulsifiers, diluents or modifiers that may be supplied ex refinery or added later.</p> <p>The percentage advance on Plant and materials not yet built into the Permanent Works is 80%.</p> <p>The percentage retention on the amounts due to the Contractor is 10%.</p> <p>The limit of retention money is 5% of the first One Million Rand plus 1,6% of the balance of the Contract Sum excluding contingencies, contract price adjustment, and VAT.</p> <p>A retention guarantee in lieu of a cash retention is permitted.</p>
<p>8.</p> <p>8.6.1.1.2</p> <p>8.6.1.1.3</p> <p>8.6.1.2</p> <p>8.6.1.3</p>	<p>RISKS AND RELATED MATTERS</p> <p>The value of Plant and materials supplied by the Employer to be included in the insurance sum is <u>nil</u>.</p> <p>The amount to cover professional fees for repairing or reinstatement of damage to the Works to be included in the insurance sum is <u>nil</u>.</p> <p>Special Risks Insurance issued by SASRIA is required.</p> <p>The limit of indemnity for liability insurance is <u>R10 000 000,00 (ten million Rand only)</u> for any single liability claim. Liability insurance shall include spread of fire risk.</p>
<p>10.</p> <p>10.5.2</p> <p>10.5.3</p> <p>10.8.1</p>	<p>CLAIMS AND DISPUTES</p> <p>Disputes shall be referred to ad-hoc adjudication.</p> <p>The number of Adjudication Board members to be appointed shall be one.</p> <p>Unresolved disputes shall be determined by court proceedings.</p>

C1.2.3: DATA PROVIDED BY THE CONTRACTOR

The following contract specific data are applicable to this contract.

CLAUSE	CONTRACT SPECIFIC DATA PROVIDED BY THE CONTRACTOR															
<p>1.</p> <p>1.1.1.9</p> <p>1.2.1.2</p>	<p>GENERAL</p> <p>Name of Contractor:</p> <p>Address of Contractor:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; text-align: center;"><u>Physical:</u></td> <td style="width: 50%; text-align: center;"><u>Postal:</u></td> </tr> <tr> <td>.....</td> <td>.....</td> </tr> <tr> <td>.....</td> <td>.....</td> </tr> <tr> <td>.....</td> <td>.....</td> </tr> <tr> <td>.....</td> <td>.....</td> </tr> </table>	<u>Physical:</u>	<u>Postal:</u>					
<u>Physical:</u>	<u>Postal:</u>															
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<p>6.</p> <p>6.8.3</p>	<p>PAYMENT AND RELATED MATTERS</p> <p>The tenderer shall complete the table below with respect to each of the special materials listed. This information shall be used to calculate the variation in cost of the special materials.</p> <p>The rates and prices for the special materials for the base month which is the month preceding the month of tender closure, shall exclude VAT but shall include all other obligatory taxes and levies.</p> <p>The tenderer shall append to this page a letter from the supplier confirming the supply price for the net bitumen content of asphalt and bituminous products.</p> <p>A change of supplier due to circumstances beyond the control of the Contractor may be considered, subject to the submission of supporting documentation to the Employer's Agent for valuation to calculate the difference between the rate or price of the special material entered in the table below and the equivalent rate or price actually paid by the Contractor, and for approval.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 60%;">SPECIAL MATERIALS <i>Compiler to list bitumen types:</i></th> <th style="width: 10%;">UNIT</th> <th style="width: 30%;">RATE OR PRICE FOR THE BASE MONTH</th> </tr> </thead> <tbody> <tr> <td>35/50 penetration grade bitumen</td> <td style="text-align: center;">ton</td> <td>.....</td> </tr> <tr> <td>50/70 penetration grade bitumen</td> <td style="text-align: center;">ton</td> <td>.....</td> </tr> <tr> <td>70/100 penetration grade bitumen</td> <td style="text-align: center;">ton</td> <td>.....</td> </tr> <tr> <td>NIL (if not applicable)</td> <td></td> <td></td> </tr> </tbody> </table> <p>Signed on behalf of the Tenderer:</p>	SPECIAL MATERIALS <i>Compiler to list bitumen types:</i>	UNIT	RATE OR PRICE FOR THE BASE MONTH	35/50 penetration grade bitumen	ton	50/70 penetration grade bitumen	ton	70/100 penetration grade bitumen	ton	NIL (if not applicable)		
SPECIAL MATERIALS <i>Compiler to list bitumen types:</i>	UNIT	RATE OR PRICE FOR THE BASE MONTH														
35/50 penetration grade bitumen	ton														
50/70 penetration grade bitumen	ton														
70/100 penetration grade bitumen	ton														
NIL (if not applicable)																

C1.3: PERFORMANCE GUARANTEE

PRO FORMA

PERFORMANCE GUARANTEE

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

1. GUARANTOR DETAILS AND DEFINITIONS

“Guarantor” means:

Physical address:

“Employer” means:

“Contractor” means:

“Employer’s Agent” means:

“Works” means:

“Site” means:

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

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

Amount in words:

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

Amount in words:

“Expiry Date” means: or any other later date set by the Contractor and/or Employer provided such instruction is received prior to the Expiry Date as indicated here.

2. CONTRACT DETAILS

Employer’s Agent issues: Interim Payment Certificates, Final Payment Certificate and the Certificate of Completion of the Works as defined in the Contract.

3. GUARANTOR’S LIABILITY

3.1 The Guarantor’s liability shall be limited to the amount of the Guaranteed Sum.

3.2 The Guarantor’s period of liability shall be from and including the date on which the Performance Guarantee is signed, up to and including the Expiry Date, or the date of issue by the Employer’s Agent of the Certificate of Completion of the Works, or the date of payment in full of the Guaranteed Sum, whichever occurs first.

3.3 The Employer’s Agent and/or the Employer shall advise the Guarantor in writing of the date on which the Certificate of Completion of the Works has been issued.

4. CONDITIONS APPLICABLE TO THIS PERFORMANCE GUARANTEE

4.1 The Guarantor hereby acknowledges that:

4.1.1 Any reference in this Performance Guarantee to the Contract is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship.

4.1.2 Its obligation under this Performance Guarantee is restricted to the payment of money.

4.2 Subject to the Guarantor's maximum liability referred to in 3.1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 4.2.1 to 4.2.3:

4.2.1 A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Employer's Agent 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 4.2.2;

4.2.2 A first written demand issued by the Employer to the Guarantor at the Guarantor's physical address with a copy to the Contractor stating that a period of seven (7) days has elapsed since the first written demand in terms of 4.2.1 and the sum certified has still not been paid;

4.2.3 A copy of the aforesaid payment certificate which entitles the Employer to receive payment in terms of the Contract of the sum certified in 4.2.

4.3 Subject to the Guarantor's maximum liability referred to in 3.1, the Guarantor undertakes to pay to the Employer the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the Employer to the Guarantor at the Guarantor's physical address calling up this Performance Guarantee, such demand stating that:

4.3.1 the Contract has been terminated due to the Contractor's default and that this Performance Guarantee is called up in terms of 4.3; or

4.3.2 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 4.3; and

4.3.3 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.

4.4 It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 4.2 and 4.3 shall not exceed the Guarantor's maximum liability in terms of 3.1.

4.5 Where the Guarantor has made payment in terms of 4.3, the Employer shall upon the date of issue of the Final Payment Certificate submit an expense account to the Guarantor showing how all monies received in terms of this Performance Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this Performance Guarantee shall bear interest at the prime overdraft rate of the Employer's bank compounded monthly and calculated from the date payment was made by the Guarantor to the Employer until the date of refund.

4.6 Payment by the Guarantor in terms of 4.2 or 4.3 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.

4.7 Payment by the Guarantor in terms of 4.3 will only be made against the return of the original Performance Guarantee by the Employer.

4.8 The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer may consider fit and the Guarantor shall not have the right to claim his release from this Performance Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.

- 4.9 The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.
- 4.10 This Performance Guarantee is neither negotiable nor transferable and shall expire in terms of 3.2, where after no claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.
- 4.11 This Performance Guarantee, with the required demand notices in terms of 4.2 or 4.3, shall be regarded as a liquid document for the purposes of obtaining a court order.
- 4.12 Where this Performance Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrates' Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.

Signed at

Date

Guarantor's signatory (1)

Capacity

Guarantor's signatory (2)

Capacity

Witness signatory (1)

Witness signatory (2)

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

THIS AGREEMENT is made between The Province of KwaZulu-Natal represented by Head of Department: Department of Transport (hereinafter called the EMPLOYER) of the one part, herein represented by:

.....

in his capacity as:

AND:

(hereinafter called the CONTRACTOR) of the other part, herein represented by:.....

.....

in his capacity as:

duly authorised to sign on behalf of the Contractor.

WHEREAS the CONTRACTOR is the Mandatary of the EMPLOYER in consequence of an agreement between the CONTRACTOR and the EMPLOYER in respect of:

CONTRACT NO. ZNB02874/00000/00/PMC/INF/25/T: BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1: BRIDGE 1009, BRIDGE 1053, STC2347 BRIDGE, STC 1704, & STC 2673 IN DC22 UNDER PIETERMARITZBURG REGION.

for the construction, completion and maintenance of the works;

AND WHEREAS the EMPLOYER and the CONTRACTOR have agreed to enter into an agreement in terms of the provisions of Section 37(2) of the Occupational Health and Safety Act No 85 of 1993, as amended by the Occupational Health and Safety Amendment Act No 181 of 1993 (hereinafter referred to as the ACT);

NOW THEREFORE the parties agree as follows:

1. The CONTRACTOR undertakes to acquaint the appropriate officials and employees of the CONTRACTOR with all relevant provisions of the ACT and the regulations promulgated in terms thereof.
2. The CONTRACTOR undertakes to fully comply with all relevant duties, obligations and prohibitions imposed in terms of the ACT and Regulations: Provided that should the EMPLOYER have prescribed certain arrangements and procedures that same shall be observed and adhered to by the CONTRACTOR, his officials and employees. The CONTRACTOR shall bear the onus of acquainting himself/herself/itself with such arrangements and procedures.
3. The CONTRACTOR hereby accepts sole liability for such due compliance with the relevant duties, obligations, prohibitions, arrangements and procedures, if any, imposed by the ACT and Regulations, and the CONTRACTOR expressly absolves the EMPLOYER and the EMPLOYER'S AGENT from being obliged to comply with any of the aforesaid duties, obligations, prohibitions, arrangements and procedures in respect of the work included in the contract.
4. The CONTRACTOR agrees that any duly authorised officials of the EMPLOYER shall be entitled, although not obliged, to take such steps as may be necessary to ensure that the CONTRACTOR has complied with his undertakings as more fully set out in paragraphs 1 and 2 above, which steps may include, but shall not be limited to, the right to inspect any appropriate site or premises occupied by the CONTRACTOR, or to take such steps the EMPLOYER may deem necessary to remedy the default of the CONTRACTOR at the cost of the CONTRACTOR.

5. The CONTRACTOR shall be obliged to report forthwith to the EMPLOYER any investigation, complaint or criminal charge which may arise as a consequence of the provisions of the ACT and Regulations, pursuant to work performed in terms of this agreement, and shall, on written demand, provide full details in writing of such investigation, complaint or criminal charge.

Thus signed at for and on behalf of the **EMPLOYER**

on this the day of 20.....

SIGNATURE:

NAME AND SURNAME:

CAPACITY:

WITNESSES: 1.

2.

Thus signed at for and on behalf of the **CONTRACTOR**

on this the day of 20.....

SIGNATURE:

NAME AND SURNAME:

CAPACITY:

WITNESSES: 1.

2.

C1.5: RETENTION MONEY GUARANTEE

PRO FORMA

RETENTION MONEY GUARANTEE

THE HEAD: TRANSPORT
PROVINCE OF KWAZULU-NATAL
PRIVATE BAG X9043
PIETERMARITZBURG
3200

CONTRACT NO. _____ FOR _____

ISSUED TO: the **PROVINCE OF KWAZULU-NATAL**, represented by **HEAD: TRANSPORT** (hereinafter referred to as "the Employer")

ON BEHALF OF: (hereinafter referred to as "the Contractor")

In connection with

CONTRACT NO. ZNB (hereinafter referred to as "the Contract")

WHEREAS the Employer and the Contractor have agreed that the Contractor may provide a guarantee in lieu of the whole or portion of the retention monies provided for under the Contract;

NOW THEREFORE we, the undersigned, undertake, in accordance with the following provisions, to pay the Employer such amounts as the Employer may, from time to time, demand from us.

1. Each demand by the Employer shall be in writing signed by the Employer and delivered to us at

.....
or such other address as we shall in writing notify to the Employer and shall be accompanied by a certificate complying with Clause 2, signed by the Employer's Agent as such in terms of the Contract.

2. The Employer's Agent's certificate referred to in Clause 1 shall certify

(a) that he is the Employer's Agent in terms of the Contract,
(b) that the Contractor is in breach of his obligations under the Contract, and
(c) that the amount demanded, which amount the certificate shall specify,

(i) does not exceed the amount of retention monies which, but for this guarantee, would have been retained by the Employer in terms of the Contract at the date of the certificate, less the aggregate of the amounts of retention money actually retained by the Employer and the amounts previously paid by us to the Employer in terms hereof, and

(ii) does not exceed a genuine estimate of the cost to the Employer of having the breach referred to in paragraph (b) remedied less the aggregate of any amounts withheld by the Employer from payments due the Contractor in terms of the Contract by reason of the breach referred to, and any amount in retention money actually held by the Employer save to the extent that the same had been deducted from any previous demand in terms hereof.

3. We shall within 28 days after our receipt of a demand complying with the provisions of Clauses 1 and 2 make payment to the Employer of the amount demanded at 172 Burger Street, Pietermaritzburg or at such other address as the Employer shall in writing notify us.

4. Subject to compliance with the provisions thereof, our liability to make the payments herein referred to shall be unconditional and shall not be affected nor diminished by any disputes, claims or counterclaims between the Employer and the Contractor.

5. Our aggregate liability under this guarantee is limited to R
6. This guarantee shall expire on the date on which the last of the retention monies, which but for this guarantee would have been retained by the Employer, becomes payable to the Contractor.
7. This guarantee is not transferable and must be produced for endorsement if any part payment is made and must be returned to us against final payment of our aggregate liability or on the date of the expiry of the guarantee in terms of Clause 6, whichever is the earlier.

Signed in the presence of the witnesses named hereunder:

At for and on behalf of

on this day of

Signature:

Capacity:

Address:

As Witnesses:

1. Name in Block Letters

2. Name in Block Letters

C1.6: TRANSFER OF RIGHTS

TRANSFER OF RIGHTS AND INDEMNITY

(To be completed during construction by successful Tenderer only)

Claim for Plant and materials on site, Payment Certificate No. Date:

Contract No: For (contract title)

I, the undersigned (name of signatory) in my capacity as
..... of (name of Contractor)

duly authorised hereto on behalf of the Contractor hereby transfer, cede and assign all the Contractor's rights, title and interest in and to the Plant and materials, for which evidence of bona fide ownership is attached hereto, unto and in favour of (name of Employer)

Insofar as the Contractor retains actual control of the materials and goods, the right of ownership thereof passes to the Employer by *constitutum possessorium*.

I herewith indemnify the Employer against any claim to and in respect of the said Plant and materials by reason of the Contractor's sequestration or liquidation or of any defect in the Contractor's title to the materials and agree that no payment for materials on site will be made by the Employer until such time as I have submitted documentary proof of bona fide ownership of the said Plant and materials.

This transfer shall become effective upon conclusion of the Contractor receiving payment from the Employer or from any other person on behalf of the Employer for the Plant and materials as Plant and materials on Site, payment of retention money thereon excluded.

I further confirm that I am fully responsible for all Plant and materials listed under this Transfer of Rights and that they have been insured adequately against all risks and will remain insured until they are built into or used in the permanent works and taken over by the Employer.

This certificate of Transfer of Rights applies only to the Plant and materials as listed in the following table.

DESCRIPTION OF ITEM	UNIT	QUANTITY	RATE	AMOUNT	SUPPLIER
TOTAL VALUE OF PLANT AND MATERIALS					

Signed by: Date:
for and on behalf of the Contractor.

Witnessed by:

NOTE: This form, together with the documentary proof of ownership or proof of payment by the Contractor to the supplier, shall accompany the Contractor's claim for payment for Plant and materials on site in terms of Clause 6.10.1.5 of the General Conditions of Contract 2015.

PART C2: PRICING DATA

C2.1 PRICING ASSUMPTIONS

1. GENERAL

The Bill of Quantities forms part of the Contract Documents and must be read and priced in conjunction with all the other documents comprising the Contract Documents, which include the Conditions of Tender, Conditions of Contract, the Specifications (including the Project Specifications) and the Drawings.

The contractor shall determine the contract skills participation goals, expressed in Rand, which shall not be less than the **SUB-TOTAL 1** multiplied by a percentage factor given in Table 2 in the Standard for the applicable class of construction works. For this contract, the percentage shall be 0.25%. This is indicated by the percentage factor in the Final Tender Summary section. **Minimum Contract Skills Development Goal (CSDG) sum = Civil Engineering CE (0.25%) x SUB – TOTAL 1** of the tender amount.

2. DESCRIPTION OF ITEMS IN THE SCHEDULE

The Bill of Quantities has been drawn up generally in accordance with the relevant provisions of the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020.

The short descriptions of the items in the Bill of Quantities are for identification purposes only and the measurement and payment clause of the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020. and the Particular Specifications, read together with the relevant clauses of the amendments and additions contained in the Project Specifications and directives on the drawings, set out what ancillary or associated work and activities are included in the rates for the operations specified.

The item numbers appearing in the Bill of Quantities refer to the corresponding item numbers in the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020. Item numbers prefixed by the letter PS refer to items of payment described in Part B Amendments to the Standard Specifications.

For the purposes 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 specifications.

Quantity: The number of units of work for each item.

Rate: The payment per unit of measurement at which the Tenderer tenders to do the work.

Amount: The product of the quantity and the rate tendered for an item.

Lump Sum: An amount tendered 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.

3. QUANTITIES REFLECTED IN THE BILL OF QUANTITIES

The quantities given in the Bill of Quantities are estimates only and are subject to re-measure during the execution of the work. The quantities finally accepted and certified for payment, and not the quantities given in the Bill of Quantities, shall be used to determine payments to the Contractor. The Contractor shall obtain the Employer's Agent's detailed instructions for all work before ordering any materials or executing work or making arrangements for it. The quantities of material or work stated in the Bill of Quantities shall not be regarded as authorisation for the Contractor to order material or to execute work.

The Works as finally completed in accordance with the Contract shall be measured and paid for as specified in the Bill of Quantities and in accordance with the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020, the Project Specifications and the Drawings. Unless otherwise stated, items are measured net in accordance with the Drawings, and no allowance has been made for waste. The validity of the contract will in no way be affected by differences between the quantities in the Bill of Quantities and the quantities finally certified for payment.

4. PROVISIONAL SUMS

Where Provisional sums or Prime Cost sums are provided for items in the Bill of Quantities, payment for the work done under such items will be made in accordance with Clause 6.6 of the General Conditions of Contract 2015. The Employer reserves the right, during the execution of the works, to adjust the stated amounts upwards or downwards according to the work actually done under the item, or the item may be omitted altogether, without affecting the validity of the Contract.

The Tenderer shall not under any circumstances whatsoever delete or amend any of the sums inserted by the Employer in the "Amount" column of the Bill of Quantities and in the Summary of the Bill of Quantities unless so ordered or authorised in writing by the Employer before closure of tenders. Any unauthorised changes made by the Tenderer to provisional items in the Bill of Quantities, or to the provisional percentages and sums in the Summary of the Bill of Quantities, at the Employer's discretion, may invalidate the Tenderer's offer or may be treated as arithmetical errors and the provisional items and percentages corrected without change to the Contract Sum.

5. PRICING OF THE BILL OF QUANTITIES

The prices and rates to be inserted by the Tenderer in the Bill of Quantities shall be the full inclusive prices to be paid by the Employer for the work described under the several items, and shall include full compensation for all costs and expenses that may be required in and for the completion and maintenance during the defects liability period of all the work described and as shown on the drawings as well as all overheads, profits, incidentals and the cost of all general risks, liabilities and obligations set forth or implied in the documents on which the Tender is based. The rates and lump sums shall be comprehensive in accordance with Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020.

Each item shall be priced and extended to the "Amount" column by the Tenderer, with the exception of the items for which only rates are required, or items which already have Prime Cost or Provisional Sums affixed thereto. If the Tenderer omits to price any items in the Bill of Quantities, then these items will be considered to have a nil rate or price.

All items for which terminology such as "inclusive" or "not applicable" have been added by the Tenderer will be regarded as having a nil rate which shall be valid irrespective of any change in quantities during the execution of the Contract.

Should the Tenderer group a number of items together and tender 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.

The tendered lump sums and rates shall be valid irrespective of any change in the quantities during the execution of the contract.

The Tenderer shall fill in rates for all items where the words "rate only" appear in the "Amount" column. The provisions of subclause C1.1.3.6 of the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020 shall apply to rate only items. "Rate Only" items have been included where:

- (a) an alternative item or material is contemplated;
- (b) variations of specified components in the make-up of a pay item may be expected; and
- (c) no work under the item is foreseen at tender stage but the possibility that such work may be required is not excluded.

For "Rate Only" items, no quantities are given in the "Quantity" column, but the quoted rate shall apply in the event of work under this item being required. The Tenderer shall, however, note that in terms of the Tender Data the Tenderer may be asked to reconsider any such rates which the Employer may regard as imbalanced.

Reasonable compensation will be received where no pay item appears in respect of work required in terms of the Contract which is not covered in any other pay item.

All rates and amounts quoted in the Bill of Quantities shall be in Rands and cents and shall include all levies and taxes (other than VAT). VAT will be added in the summary of the Bill of Quantities. Note that fractions of a cent in all rates shall be omitted.

6. CORRECTION OF ENTRIES

Incorrect entries shall not be erased or obliterated with correction fluid but must be crossed out neatly. The correct figures must be entered above or adjacent to the deleted entry, and the alteration must be initialled by the Tenderer.

7. INTERIM PAYMENTS

Unless otherwise specified, progress payments in Interim Certificates, referred to in Clause 6.10 of the General Conditions of Contract 2015, in respect of "sum" items in the Bill of Quantities shall be by means of interim progress instalments assessed by the Employer's Agent and based on the measure in which the work actually carried out relates to the extent of the work to be executed by the Contractor.

Notwithstanding any custom to the contrary, the work as executed will be measured for payment in accordance with the methods described in the contract documents under the various items of payment.

Attention is directed to the provisions of Clause C1.1.2 of the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020 regarding the measurement of quantities for payment. Except where specified otherwise, the nett measurements or mass of the finished work in place shall be taken for payment, but any quantity of work in excess of that prescribed shall be excluded.

8. ITEMS SCHEDULED FOR CONSTRUCTION USING LABOUR ENHANCED METHODS

Those parts of the Works to be constructed using labour enhanced methods are numbered with the specific COTO, Draft Standard (DS), October 2020 Specifications items in the Bill of Quantities.

9. UNITS OF MEASUREMENT

The units of measurement described in the Bill of Quantities are metric units. The following abbreviations are used in the Bill of Quantities:

mm	= millimetre	m ³ .km	= cubic metre kilometre	Prov sum	= provisional sum
m	= metre	l	= litre	kPa	= kilopascal
km	= kilometre	kl	= kilolitre	MPa	= megapascal
km.pass	= kilometre pass	kg	= kilogram	MN	= meganewton
m ²	= square metre	t	= ton (1 000 kg)	t.km	= ton kilometre
m ² .pass	= square metre pass	No	= number	h	= hour
ha	= hectare	%	= percent	dia	= diameter
m ³	= cubic metre	PC sum	= prime cost sum	Sum	= lump sum
kW	= kilowatt	MN.m	= meganewton metre		

10. CONSISTENCY OF RATES

In order to ensure that payments certified by the Employer's Agent are reasonably consistent with the market value of the work done, and that variations in quantities do not distort the contract valuation, the rates, prices and amounts tendered in the Bill of Quantities are required to be in balance.

A tender will be considered out of balance if:

- (i) the combined, extended total tendered for the item:

C1.3.1 The contractor's general obligations:

C1.3.1.1 Fixed obligations

C1.3.1.3 Time-related obligations

exceeds a maximum of 15% of the Contract Sum (excluding contingencies, contract price adjustment and VAT).

- (ii) the rate, price or amount tendered for any other item differs by more than 20 (twenty) percent from the average of the rates, prices or amounts for the same item as tendered by those tenderers who submitted the lowest five responsive tender offers (or as tendered by all the responsive tenderers if there are less than five responsive tenderers).

Any such out of balance tender may be rejected if, after three (3) working days of having been given written notice by the Employer to adjust those rates or lump sums which are unreasonable or out of balance, the Tenderer fails to make the necessary satisfactory adjustments. These adjustments in rectification will be such that increases are balanced by decreases, leaving the tender offer unchanged.

C2.2 BILL OF QUANTITIES

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BRIDGE 1009

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE 1 : BRIDGE 1009 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C1.2
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C1.2	GENERAL REQUIREMENTS AND PAYMENT				
C1.2.2	Programming and Reporting				
C1.2.2.1	Submission of a Scheme 1 Programme	Lump Sum	1		
C1.2.2.2	Reviewing and updating a Scheme 1 Programme	month	2		
C1.2.2.6	Preparation and submission of all information and reports specified in the Contract Documentation	month	2		
C1.2.3	Routine road maintenance of existing public roads within the Site of the Works or other public roads outside the Site of the Works which are used as detours:				
C1.2.3.1	Grass cutting	ha	0.2		
C1.2.3.2	Drain cleaning	km	0.5		
C1.2.4	Stakeholder liaison	month	2		
C1.2.5	Safety				
C1.2.5.1	Health and safety plan	Lump Sum	1		
C1.2.5.2	Implementation of health and safety plan	month	2		
C1.2.8	Dayworks				
C1.2.8.1	Personnel				
(a)	Unskilled labourer	hour	100		
(b)	Semi-skilled labourer	hour	40		
(c)	Skilled labourer	hour	20		
(d)	Gang leader	hour	20		
(e)	Foreman	hour	20		
(f)	Skilled Artisan	hour	100		
TOTAL CARRIED FORWARD TO NEXT PAGE					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	TOTAL BROUGHT FROWARD FROM PREVIOUS PAGE				
C1.2.8.2	Construction Equipment (specify size and/or model number)				
(a)	Excavator	hour	5		
(b)	Compressor (portable)	hour	5		
(c)	Other equipment (Generator)	Hour	5		
C1.2.8.3	Vehicles				
(a)	Light delivery vehicles (1t)	Km	400		
(b)	Flatbed truck (7t with hydraulic crane)	Km	100		
(c)	Dump Truck	Km	100		
(d)	TLB	Km	100		
(e)	Mobile crane	Km	100		
(f)	Lowbed	Km	100		
PS1	Provisional Sum: Allowance for specialist coordination with Railway Authority, including all fees, flagmen, and occupation protocols	Prov Sum	1		
C1.2	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1009 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C1.3
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C1.3	CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS				
C1.3.1	The Contractor's general obligations				
C1.3.1.1	Fixed obligations	Lump Sum	1		
C1.3.1.3	Time-related obligations	month	2		
C1.3.2	Contract sign boards	m ²	2		
C1.3	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1009 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER PSC1.5
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
PSC1.5	ACCOMMODATION OF TRAFFIC				
C1.5.2	Accommodation of vehicular traffic	month	2		
C1.5.7.2	Traffic cones, minimum height 750 mm	No	10		
C1.5.7.3	Flagmen	man-shift	80		
PSC1.5	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1009 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C1.6
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C1.6	CLEARING AND GRUBBING				
C1.6.1	Clearing				
C1.6.1.1	Clearing with machines and some hand labour where necessary	ha	0.2		
C1.6.2	Grubbing				
C1.6.2.1	Clearing with machines and some hand labour where necessary	ha	0.2		
C1.6	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1009 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C1.7
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C1.7	LOADING AND HAULING				
C1.7.2	Hauling				
C1.7.2.2	Hauling material to spoil and off-loading it at a designated spoil or stockpile are:				
(a)	Cleared and grubbed material (organic matter and all other unsuitable or waste material)	m ³ - km	5		
C1.7	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1009 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C13.7
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C13.7	JOINTS				
C13.7.4	Sealing joints with:				
C13.7.4.1	Sealant (description of joint, sealant and size)(Polyurethane joint sealant for wingwall/abutment joints)	m	40		
C13.7.4.1	Sealant (description of joint, sealant and size)(Polyurethane joint sealant for approach slab joints)	m	20		
C13.7	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1009 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C13.11
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C13.11	STRUCTURAL STEELWORK FOR MAJOR STRUCTURES				
C13.11.1	Supply, fabrication and erection of steelwork (As specified by Engineer)	t	1.5		
C13.11.2	Miscellaneous metalwork (location and member to be specified by Engineer)	t	2		
C13.11	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1009 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C13.12
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C13.12	STRUCTURAL STEEL PROTECTIVE TREATMENT OF MAJOR STRUCTURES				
C13.12.1	Steelwork protective system:				
C13.12.1.1	Steelwork protective system: (System 2: Blast clean to Sa 2.5, Zinc-rich primer, 2x Epoxy MIO, 1x Polyurethane finish) to (Steel Girders)	m ²	100		
C13.12	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1009 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.1
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.1	ACCESS FOR BRIDGE REHABILITATION				
C14.1.1	Temporary access structures and work platforms (by element)				
C14.1.1.1	Access and platforms to locations as described as well as dismantling and removal at completion (heights assessed by contractor)				
(a)	Rail Over Road				
(a.i)	Steel Girders - Soffit	No	1		
C14.1	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1009 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.3
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.3	DEMOLITION AND REMOVAL OF STRUCTURAL CONCRETE AND STEELWORK				
C14.3.1.2	Partial member or element (location and description) (Break out unsound concrete in deck slab)	m ³	10		
C14.3.5	Removal of metal sections embedded in concrete (description)	No	10		
C14.3	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1009 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.4
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.4	SURFACE AND STRUCTURAL REPAIR OF CONCRETE MEMBERS				
C14.4.1	Cementitious mortar or concrete (Class 30) to (description)	ℓ	1000		
C14.4.2	Epoxy mortar	ℓ	500		
C14.4.3	Proprietary cementitious repair system (Class and generic description) in positions as indicated in accordance with Table A14.4.5-1.				
C14.4.3.1	Class R4 - (Generic Description)				
(a)	(Structural concrete repair to deck slab, As directed by Engineer)	ℓ	500		
(b)	(Etc. for other positions)	ℓ	50		
C14.4.3.2	Class R3 - (Generic Description)				
(a)	(Position indicated)	ℓ	50		
(b)	(Etc. for other positions)	ℓ			
C14.4.3.3	Class R2 - (Generic Description)				
(a)	(Position indicated)	ℓ	50		
(b)	(Etc. for other positions)	ℓ			
C14.4.3.4	Class R1 - (Generic Description)				
(a)	(Position indicated)	ℓ	50		
(b)	(Etc. for other positions)	ℓ			
C14.4.4	Curing of repair surfaces				
C14.4.4.1	By coating the surface with (type indicated) to (description)	m ²	200		
C14.4.4.2	Curing by (method indicated) to (description)	m ²	100		
C14.4.5	Sounding survey (Prior to repair of surface)	m ²	10		
C14.4	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1009 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.5
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.5	ANCHORING OF REINFORCEMENT, GROUTING AND CRACK INJECTION				
C14.5.1	Anchoring of reinforcing steel:				
C14.5.1.1	Reinforcing (Crack-stitching bars - deck) into formed holes (details as per drawings)	No	150		
C14.5.1.1	Reinforcing (Crack-stitching bars - wingwalls) into formed holes (details as per drawings)	No	100		
C14.5.1.2	Reinforcing (Y20) into pockets (into formed 60 x 70mm holes) in (description of member) pocket preparation	No	100		
C14.5.2	Preparation of contact surfaces for grouting (Prep and cleaning)	No	100		
C14.5.3	Grouting for:				
C14.5.3.1	Bedding (epoxy-based as specified) to (description)	ℓ	200		
C14.5.3.2	Gap filling (Epoxy based as specified)	ℓ	300		
C14.5.4	Establishment on site for crack injection	Lump Sum	1		
C14.5.5	Surface preparation and surface sealing for crack injection to (Deck Slab)	m	50		
C14.5.5	Surface preparation and surface sealing for crack injection to (Abutments and Wingwalls)	m	100		
C14.5.6	Crack injection adhesive to (Low pressure injection- Deck Slab)	ℓ	60		
C14.5.6	Crack injection adhesive to (Abutments and Wingwalls)	ℓ	100		
C14.5.7	Crack filling				
C14.5.7.1	Repair system to (various locations on structure)	m	100		
C14.5	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1009 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.7
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.7	PROTECTIVE COATINGS AND TREATMENTS FOR CONCRETE				
C14.7.1	Cleaning and preparation of concrete surface (method and surface finish indicated)(High-pressure cleaning)	m ²	100		
	Cleaning and preparation of concrete surface (Graffiti removal)	m ²	90		
C14.7.2	Application of protective coatings and treatments (type and application rate indicated)(Concrete surface treatment)	m ²	150		
C14.7.3	On site monitoring and supply of written product performance guarantee	Lump Sum	1		
C14.7.4	Trial sample panels	m ²	10		
C14.7	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1009 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.9
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.9	REPAIR AND REPLACEMENT OF ANCILLARY STRUCTURAL ELEMENTS				
C14.9.1	Removal of debris from expansion gaps (description)	m	20		
C14.9.2	Clear bridge drainage system (description of elements)	No	5		
C14.9.3	Service and repair of existing joint system				
C14.9.3.1	Service and repair of bridge joints (description)	m	20		
C14.9.4	Joint terminations as specified on the drawings in:				
C14.9.4.1	Barriers and Parapets (type of joint indicated)	No	20		
C14.9.5	Cover plates (nonmetallic) in barriers, parapets and sidewalks as specified on the drawings in:				
C14.9.5.1	Barriers and parapets (type of joint indicated)	No	4		
C14.9.6	Repair of handrails (description of work)	m	60		
C14.9.7	Removal and reinstatement of brickwork on bridges (description and wall thickness)	m ²	10		
C14.9.8	Drilling of drainage holes into void formers from deck soffit (size of hole indicated)	No	2		
C14.9.9	Refurbishment of bearings (type and size described)				
C14.9.9.1	Removal and inspection	No	2		
TOTAL CARRIED FORWARD TO NEXT PAGE					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	TOTAL BROUGHT FORWARD FROM PREVIOUS PAGE				
C14.9.9.2	Refurbish and reinstall	No	2		
C14.9.10	Replace PVC junctions in deck (type and size described)	No	2		
C14.9.11	Reseal PVC junctions in deck drainage network (type and size described)	No	2		
C14.9.12	Inlet gratings				
C14.9.12.1	Inlet grating in kerb (size)	No	2		
C14.9.12.2	Other types of gratings (indicate details)	No	2		
C14.9.13	Seal deck drainage outlets at deck level (size)	No	2		
C14.9.14	Bridge number plates				
C14.9.14.1	Refurbishment of existing plates	No			
C14.9.14.2	New number plate	No	2		
C14.9.15	Fix or re-fix ancillary elements				
C14.9	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1009 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.11
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.11	REPAIR OF STEEL ELEMENTS				
C14.11.1	Refurbishment of (Steel Girders)	No	4		
C14.11.2	Replacement of rivets or bolts with HSFG bolts (diameter and class indicated)	t	0.5		
C14.11	TOTAL CARRIED FORWARD TO SUMMARY				

BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1009 IN DC22 UNDER PIETERMARITZBURG REGION			
SCHEDULE A: ROADWORKS - SUMMARY			
CHAPTER	DESCRIPTION	FROM PAGE	AMOUNT
C1.2	GENERAL REQUIREMENTS AND PAYMENT	C31	
C1.3	CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS	C32	
C1.5	ACCOMMODATION OF TRAFFIC	C33	
C1.6	CLEARING AND GRUBBING	C34	
C1.7	LOADING AND HAULING	C35	
C13.7	JOINTS	C36	
C13.11	STRUCTURAL STEELWORK FOR MAJOR STRUCTURES	C37	
C13.12	STRUCTURAL STEEL PROTECTIVE TREATMENT OF MAJOR STRUCTURES	C38	
C14.1	ACCESS FOR BRIDGE REHABILITATION	C39	
C14.3	DEMOLITION AND REMOVAL OF STRUCTURAL CONCRETE AND STEELWORK	CC40	
C14.4	SURFACE AND STRUCTURAL REPAIR OF CONCRETE MEMBERS	C41	
C14.5	ANCHORING OF REINFORCEMENT, GROUTING AND CRACK INJECTION	C42	
C14.7	PROTECTIVE COATINGS AND TREATMENTS FOR CONCRETE	C43	
C14.9	REPAIR AND REPLACEMENT OF ANCILLARY STRUCTURAL ELEMENTS	C45	
C14.11	REPAIR OF STEEL ELEMENTS	C46	
TOTAL SCHEDULE A: ROADWORKS			

BRIDGE 1053

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1053 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C1.2
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C1.2	GENERAL REQUIREMENTS AND PAYMENT				
C1.2.2	Programming and Reporting				
C1.2.2.1	Submission of a Scheme 1 Programme	Lump Sum	1		
C1.2.2.2	Reviewing and updating a Scheme 1 Programme	month	3		
C1.2.2.6	Preparation and submission of all information and reports specified in the Contract Documentation	month	3		
C1.2.3	Routine road maintenance of existing public roads within the Site of the Works or other public roads outside the Site of Works which are used as detours				
C1.2.4	Stakeholder liaison	month	3		
C1.2.5	Safety				
C1.2.5.1	Health and safety plan	Lump Sum	1		
C1.2.5.2	Implementation of health and safety plan	month	3		
C1.2.8	Dayworks				
C1.2.8.1	Personnel				
(a)	Unskilled labourer	hour	100		
(b)	Semi-skilled labourer	hour	40		
(c)	Skilled labourer	hour	20		
(d)	Gang leader	hour	20		
TOTAL CARRIED FORWARD TO NEXT PAGE					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
TOTAL BROUGHT FORWARD FROM PREVIOUS PAGE					
(e)	Foreman	hour	20		
(f)	Skilled Artisan	hour	100		
C1.2.8.2	Construction Equipment (specify size and/or model number)				
(a)	Motor grader (+- 140 kW)	hour	10		
(b)	Vibratory roller (min 12 ton)	hour	5		
(c)	Pneumatic roller (27 ton)	hour	5		
(d)	Front end loader backhoe (min 53 kW)	hour	5		
(e)	Excavator	hour	5		
(f)	Compressor (portable)	hour	5		
(h)	Other equipment (Generator)	hour	5		
C1.2.8.3	Vehicles				
(a)	Light delivery vehicle (1t)	km	400		
(b)	Flatbed truck (7t with hydraulic crane)	km	100		
(c)	Dump Truck (10m ³)	km	100		
(d)	TLB	km	100		
	Mobile crane (25 Ton)	km	100		
	Lowbed	km	100		
C1.2	TOTAL CARRIED FORWARD				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1053 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C1.3
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C1.3	CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS				
C1.3.1	The Contractor's general obligations				
C1.3.1.1	Fixed obligations	Lump Sum	1		
C1.3.1.3	Time-related obligations	month	3		
C1.3	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1053 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C1.5
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C1.5	ACCOMMODATION OF TRAFFIC				
C1.5.2	Accommodation of vehicular traffic	month	3		
C1.5.7.1	Delineators including mounting bases and ballast:				
(a)	Single sided, reversible left or right (1000mm x 250mm)	No	10		
(b)	Double sided, reversible left or right (1000 mm x 250mm)	No	10		
C1.5.7.2	Traffic cones, minimum height 750 mm	No	10		
C1.5.7.3	Flagmen	man-shift	80		
C1.5	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1053 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C1.6
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C1.6	CLEARING AND GRUBBING				
C1.6.1	Clearing				
C1.6.1.1	Clearing with machines and some hand labour where necessary	ha	0.2		
C1.6.2	Grubbing				
C1.6.2.1	Clearing with machines and some hand labour where necessary	ha	0.2		
C1.6	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1053 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C1.7
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C1.7	LOADING AND HAULING				
C1.7.2	Hauling				
C1.7.2.2	Hauling material to spoil and off-loading it at a designated spoil or stockpile are:				
(a)	Cleared and grubbed material (organic matter and all other unsuitable or waste material)	m ³ - km	5		
C1.7	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1053 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C12.6
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C12.6	MECHANICALLY STABILISED FILL AND GABIONS				
C12.6.11	Backfill (material type and compaction requirements indicated)	m ³	170		
C12.6.14.1(a)	Foundation trench excavation for gabions, soft material, 0-1.5m depth.	m ³	23		
C12.6.16	Gabions and mattresses:				
C12.6.16.1	Galvanized gabion boxes (1x1x1)	m ³	18		
C12.6.16.3	Galvanized gabion mattresses (1x2x0.5)	m ³	27		
C12.6.17	Geotextile placed behind and under gabion works as a filter layer.	m ²	100		
C12.6	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1053 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C13.7
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C13.7	JOINTS				
C13.7.4	Sealing joints with:				
C13.7.4.1	Sealant (Polyurethane joint sealant, size as per drawings)	m	135		
C13.7	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1053 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C13.11
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C13.11	STRUCTURAL STEELWORK FOR MAJOR STRUCTURES				
C13.11.1	Supply, fabrication and erection of steelwork (As spcified by Engineer)	t	1		
C13.11.2	Miscellaneous metalwork (location and member to be specified by Engineer)	No	1		
C13.11	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1053 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C13.12
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C13.12	STRUCTURAL STEEL PROTECTIVE TREATMENT OF MAJOR STRUCTURES				
C13.12.1	Steelwork protective system:				
C13.12.1.1	Steelwork protective system: (System 2: Blast clean to Sa 2.5, Zinc-rich primer, 2x Epoxy MIO, 1x Polyurethane finish) to (Steel Girders)	m ²	125		
C13.12	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1053 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.1
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.1	ACCESS FOR BRIDGE REHABILITATION				
C14.1.1	Temporary access structures and work platforms (by element)				
C14.1.1.1	Access and platforms to locations as described as well as dismantling and removal at completion (heights assessed by contractor)				
(a)	Deck Soffit	No	1		
C14.1	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1053 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.3
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.3	DEMOLITION AND REMOVAL OF STRUCTURAL CONCRETE AND STEELWORK				
C14.3.1	Demolition of concrete members or elements				
C14.3.1.2	Partial member or element (Deck Soffit)				
(a)	Break out spalls from deck soffit	m ³	5		
C14.3	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1053 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.11
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.11	REPAIR OF STEEL ELEMENTS				
C14.11.1	Refurbishment of (describe item)	No	1		
C14.11.2	Replacement of rivets or bolts with HSFG bolts (diameter and class indicated)	No	1		
C14.11	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1053 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.4
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.4	SURFACE AND STRUCTURAL REPAIR OF CONCRETE MEMBERS				
C14.4.1	Cementitious mortar or concrete (Class 30) to (Deck soffit and wingwalls)	ℓ	1000		
C14.4.2	Epoxy mortar	ℓ	500		
C14.4.3	Proprietary cementitious repair system (Class and generic description) in positions as indicated in accordance with Table A14.4.5-1.				
C14.4.3.1	Class R4 - (Generic Description)				
(a)	Structural concrete repair (Class R4) to deck soffit. Work includes breaking out all unsound concrete, cleaning exposed reinforcement of all corrosion, priming surfaces, and recasting with a high-strength, polymer-modified repair mortar.	ℓ	500		
C14.4.3.3	Class R2 - (Non-structural concrete repair to address minor spalling and honeycombing on general concrete surfaces)				
(a)	General Surfaces	ℓ	200		
C14.4	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1053 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.5
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.5	ANCHORING OF REINFORCEMENT, GROUTING AND CRACK INJECTION				
C14.5.1	Anchoring of reinforcing steel:				
C14.5.1.1	Anchoring of new reinforcing steel bars into existing concrete, including drilling and grouting with an approved anchoring adhesive	No	50		
C14.5.5	Surface preparation and sealing of vertical mid-span crack (5-10mm width) on parapet wall in preparation for epoxy injection	m	5		
C14.5.6	Crack injection with low-viscosity epoxy adhesive to restore structural integrity of the parapet wall	ℓ	8		
C14.5	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1053 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.7
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.7	PROTECTIVE COATINGS AND TREATMENTS FOR CONCRETE				
C14.7.1	Cleaning and preparation of concrete surface (High-pressure cleaning)	m ²	400		
C14.7.2	Application of protective coatings and treatments (type and application rate indicated)	m ²	200		
C14.7.3	On site monitoring and supply of written product performance guarantee	Lump Sum	1		
C14.7.4	Trial sample panels	m ²	10		
C14.7	TOTAL CARRIED FORWARD TO SUMMARY				

BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1053 IN DC22 UNDER PIETERMARITZBURG REGION			
SCHEDULE A: ROADWORKS - SUMMARY			
CHAPTER	DESCRIPTION	FROM PAGE	AMOUNT
C1.2	GENERAL REQUIREMENTS AND PAYMENT	C50	
C1.3	CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS	C51	
C1.5	ACCOMMODATION OF TRAFFIC	C52	
C1.6	CLEARING AND GRUBBING	C53	
C1.7	LOADING AND HAULING	C54	
C12.6	MECHANICALLY STABILISED FILL AND GABIONS	C55	
C13.7	JOINTS	C56	
C13.11	STRUCTURAL STEELWORK FOR MAJOR STRUCTURES	C57	
C13.12	STRUCTURAL STEEL PROTECTIVE TREATMENT OF MAJOR STRUCTURES	C58	
C14.1	ACCESS FOR BRIDGE REHABILITATION	C59	
C14.3	DEMOLITION AND REMOVAL OF STRUCTURAL CONCRETE AND STEELWORK	C60	
C14.11	REPAIR OF STEEL ELEMENTS	C61	
C14.4	SURFACE AND STRUCTURAL REPAIR OF CONCRETE MEMBERS	C62	
C14.5	ANCHORING OF REINFORCEMENT, GROUTING AND CRACK INJECTION	C63	
C14.7	PROTECTIVE COATINGS AND TREATMENTS FOR CONCRETE	C64	
TOTAL SCHEDULE A: ROADWORKS			

SCHEDULE E: EXPANDED PUBLIC WORKS PROGRAMME (EPWP)					CHAPTER E
BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1053 IN DC22 UNDER PIETERMARITZBURG REGION.					
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
E	EXPANDED PUBLIC WORKS PROGRAMME (EPWP)				
E6.01	Provision of training venue facility, including the cost of transport the learners to and from this facility	Lump Sum	1	7000.00	R7000.00
E6.02	Training of learners employed by the contractor or by the Targeted Enterprise subcontractors:				
(a)	Generic Skills:				
(a.i)	Training costs	Prov Sum	1	100 000.00	R100 000
(a.ii)	Handling costs and profit in respect of subitem E6.02(a)(i) above.	%	100 000.00	0.1	R10 000
(b)	Entrepreneurial skills:				
(b.i)	Training costs	Prov Sum	1	100 000.00	R100 000
(b.ii)	Handling costs and profit in respect of subitem E6.02(b)(i) above.	%	100 000.00	0.1	R10 000
(c)	Construction skills:				
(c.i)	Training costs	Prov Sum	1	100 000.00	R100 000
(c.ii)	Handling costs and profit in respect of subitem E6.02(c)(i) above.	%	100 000.00	0.1	R10 000
TOTAL CARRIED FORWARD TO NEXT PAGE					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	TOTAL BROUGHT FORWARD FROM PREVIOUS PAGE				
(d)	Transportation and accommodation costs of selected learners only, while receiving off-site training:				
(d.i)	Transportation and accommodation costs	Prov Sum	1	25 000.00	R25 000
(d.ii)	Handling costs and profit in respect of subitem E6.02(d)(i) above.	%	25 000.00	0.1	R2500
E6.03	Payments associated with the NYS programme:				
(a)	Employment of NYS workers	Prov Sum	1	100 000.00	R100 000
(b)	Provision of tools and apparel for the NYS workers	Prov Sum	1	10 000.00	R10 000
(c)	Handling cost and profit in respect of subitem E6.03(a) and (b) above	%	110 000.00	0.1	R11 000
(d)	Training of NYS workers:				
(d.i)	Provision of training for NYS workers	Prov Sum	1	50000.00	R50 000
(d.ii)	Handling costs and profit in respect of subitem subitem E6.03(d)(i) above	%	50000.00	0.1	R5000
(e)	Liaison with the Employer's project manager and the training service provider:				
(e.i)	Liaison conducted by the construction manager	hr	30	500.00	R15 000
(e.ii)	Liaison conducted by senior site foreman	hr	30	R300.00	R9 000
E	TOTAL CARRIED FORWARD TO SUMMARY				

BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1053 IN DC22 UNDER PIETERMARITZBURG REGION.			
SCHEDULE E : EXPANDED PUBLIC WORKS PROGRAMME (EPWP)			
CHAPTER	DESCRIPTION	FROM PAGE	AMOUNT
E	EXPANDED PUBLIC WORKS PROGRAMME (EPWP)	C67	R564 500.00
TOTAL SCHEDULE E : EXPANDED PUBLIC WORKS PROGRAMME (EPWP)			R564 500.00

BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1053 IN DC22 UNDER PIETERMARITZBURG REGION.		
C2.3 SUMMARY OF BILL OF QUANTITIES		
SCHEDULE	FROM PAGE	AMOUNT
TOTAL SCHEDULE A: ROADWORKS	C65	R -
TOTAL SCHEDULE E : EXPANDED PUBLIC WORKS PROGRAMME (EPWP)	C67	R -
SUBTOTAL 1-BRIDGE 1053		

Signed on behalf of the Tenderer: (Signature)

Date:

Tenderer's Name: (Company Name)

DISCLAIMER

Kindly note that the responsibility lies with Tenderer to check the tender document and the tender addenda (if issued) to verify that all the information is correct and all changes have been incorporated as no claims will be entertained in this regard afterwards. Accordingly, we confirm that the hard copies of the original tender document and the tender addenda are to be regarded to contain the correct items and quantities.

BRIDGE 2347

SCHEDULE A: ROADWORKS					CHAPTER C1.2
BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE/STC 2347 IN DC22 UNDER PIETERMARITZBURG REGION.					
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C1.2	GENERAL REQUIREMENTS AND PAYMENT				
C1.2.2	Programming and Reporting				
C1.2.2.1	Submission of a Scheme 1 Programme	Lump Sum	1		
C1.2.2.2	Reviewing and updating a Scheme 1 Programme	month	3		
C1.2.2.6	Preparation and submission of all information and reports specified in the Contract Documentation	month	3		
C1.2.3	Routine road maintenance of existing public roads within the Site of the Works or other public roads outside the Site of Works which are used as detours				
C1.2.4	Stakeholder liaison	month	3		
C1.2.5	Safety				
C1.2.5.1	Health and safety plan	Lump Sum	1		
C1.2.5.2	Implementation of health and safety plan	month	3		
C1.2.8	Dayworks				
C1.2.8.1	Personnel				
(a)	Unskilled labourer	hour	20		
(b)	Semi-skilled labourer	hour	20		
(c)	Skilled labourer	hour	10		
(d)	Gang leader	hour	20		
(e)	Foreman	hour	50		
(f)	Skilled Artisan	hour	50		
C1.2	TOTAL CARRIED FORWARD TO NEXT PAGE				

SCHEDULE A: ROADWORKS					CHAPTER C1.2
BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE/STC 2347 IN DC22 UNDER PIETERMARITZBURG REGION.					
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	TOTAL BROUGHT FORWARD FROM PREVIOUS PAGE				
C1.2.8.2	Construction Equipment (specify size and/or model number)				
(a)	Front end loader backhoe	hour	30		
(b)	Excavator	hour	20		
(c)	Compressor	hour	5		
C1.2	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE/STC 2347 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C1.3
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C1.3	CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS				
C1.3.1	The Contractor's general obligations				
C1.3.1.1	Fixed obligations	Lump Sum	1		
C1.3.1.3	Time-related obligations	month	3		
C1.3.2	Contract sign boards	m ²	2		
C1.3	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE/STC 2347 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER PSC1.5
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
PSC1.5	ACCOMMODATION OF TRAFFIC				
C1.5.2	Accommodation of vehicular traffic	Month	3		
C1.5.5	Maintenance of temporary deviations				
C1.5.5.1	Grass cutting	ha	0.35		
C1.5.5.2	Drain cleaning	km	0.1		
C1.5.5.3	Cleaning out culverts	m ³	15		
C1.5.5.4	Collection of rubbish / litter	km	1		
C1.5.7.2	Traffic cones, minimum height 750 mm	No	20		
C1.5.7.3	Flagmen	man-shift	45		

PSC1.5	TOTAL CARRIED FORWARD	
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SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE/STC 2347 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C1.6
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C1.6	CLEARING AND GRUBBING				
C1.6.1	Clearing				
C1.6.1.1	Clearing with machines and some hand labour where necessary (Vegetation clearing from waterway)	ha	0.2		
C1.6.1.2	Clearing with hand labour only when labour enhanced work is specified	ha	0.1		
C1.6.1.3	Clearing for new fence lines (over a width of 2,0 m)	km	1		
C1.6.2	Grubbing				
C1.6.2.1	Clearing with machines and some hand labour where necessary	ha	0.2		
C1.6.2.2	Clearing with hand labour only when labour enhanced work is specified or it is not practical to use a machine	ha	0.1		
C1.6.2.3	Grubbing by hand for new fence lines (over a width of 2,0 m)	km	1		
C1.6.2.4	Grubbing by hand for service trenches (over the agreed width required)	m ²	1		
C1.6	TOTAL CARRIED FORWARD				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE/STC 2347 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C1.7
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C1.7	LOADING AND HAULING				
C1.7.2	Hauling				
C1.7.2.1	Hauling material for use in the Works and off-loading it on the site of the Works:	m ³ - km	-		
(a)	Soil, gravel, crushed stone and pavement layer material	m ³ - km	10		
(b)	Boulders and hard material	m ³ - km	5		
C1.7.2.2	Hauling material to spoil and off-loading it at a designated spoil or stockpile are:				
(a)	Cleared and grubbed material (organic matter and all other unsuitable or waste material)	m ³ - km	5		
(b)	Soil and gravel material	m ³ - km	68		
C1.7	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE/STC 2347 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C12.6
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C12.6	MECHANICALLY STABILISED FILL AND GABIONS				
C12.6.2	Excavation for wall base foundation	m ³	15		
C12.6.3	Concrete for wall base foundation	m ³	15		
C12.6.4	Reinforcing steel in wall base foundation				
C12.6.4.1	Mild steel	t	0.35		
C12.6.11	Backfill (material type and compaction requirements indicated)	m ³	50		
C12.6.13	Drainage (110 dia weepholes)	No	10		
C12.6.14	Foundation trench excavation:				
C12.6.14.1	Excavating all material situated within the following depth ranges below the surface level				
(a)	0 m to 1,5 m	m ³	20		
C12.6.15	Surface preparation for bedding the gabions	m ²	15		
C12.6.16	Gabions and mattresses:				
C12.6.16.1	Galvanized gabion boxes(1x1x1)	m ³	30		
C12.6.16.3	Galvanized gabion mattresses (1x2x0.5)	m ³	10		
C12.6.17	Geotextile (SABS Approved)	m ²	75		
C12.6	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE/STC 2347 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C13.2
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C13.2	FALSEWORK, FORMWORK AND CONCRETE FINISH				
C13.2.1	Formwork to provide (board) surface finish to (Pier head)	m ²	5		
C13.2	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE/STC 2347 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C13.3
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C13.3	STEEL REINFORCEMENT				
C13.3.1	Reinforcement for:				
C13.3.1.1	Extension of pier head and central support				
(b)	High-yield-stress-steel bars (type indicated)	t	0.50		
C13.3	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS					
BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE/STC 2347 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C13.4
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C13.4	CONCRETE				
C13.4.1.1	Strength concrete (class C):				
(a)	Strength Concrete (class C):(Pier Head, C30/35-20-indicated)	m ³	5		
C13.4.2.1	Commercially- Sourced concrete	m ³	5		
C13.4	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1: BRIDGE/STC 2347, STC 2673, STC 1704 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C13.7
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C13.7	JOINTS				
C13.7.4	Sealing joints with:				
C13.7.4.1	Sealant (Polyurethane joint sealant for wingwall/abutment joints)	m	20		
C13.7.4.1	Sealant (Polyurethane joint sealant for approach slab joints)	m	10		
C13.7	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE/STC 2347 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C13.8
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C13.8	ANCILLARY STRUCTURAL ELEMENTS				
C13.8.1	Concrete barriers and parapets (refer to drawings)				
C13.8.1.1	Barriers	m	40		
C13.8	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE/STC 2347 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C13.10
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C13.10	PAINTING OF MINOR STRUCTURES				
C13.10.1	Painting:				
C13.10.1.1	Structural Steel Beams on Super Structure	m ²	30		
C13.10	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE/STC 2347 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.1
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.1	ACCESS FOR BRIDGE REHABILITATION				
C14.1.1	Temporary access structures and work platforms (by element)				
C14.1.2	Mobile access units				
C14.1.2.1	Establishment of mobile access unit on site (description of type of unit)	Lump Sum	1		
C14.1.2.5	De-establishment and removal of mobile access unit from site after completion of work	Lump Sum	1		
C14.1	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE/STC 2347 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.2
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.2	CORROSION SURVEY METHODS AND TESTING OF NEAR SURFACE CONCRETE PROPERTIES				
C14.2.1	Delamination Survey:				
C14.2.1.1	using hammer tapping technique to (description)	m ²	100		
C14.2.1.2	using chain drag technique to (description)	m ²	100		
C14.2.1.3	using extracted core samples (description of location, core size and length)	No	8		
C14.2.2	Concrete cover survey	m ²	100		
C14.2.2.1	(description and location on structure)				
C14.2.3	Concrete compressive strength				
C14.2.3.1	using extracted core samples (description of location, core size and length)	No	8		
C14.2.4	Carbonation depth testing				
C14.2.4.1	using extracted core samples or fragment removed for (description of location, core size and length)	No	8		
C14.2	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE/STC 2347 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.3
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.3	DEMOLITION AND REMOVAL OF STRUCTURAL CONCRETE AND STEELWORK				
C14.3.1	Demolition of concrete members or elements				
C14.3.1.2	Partial member or element (Break out damaged concrete from central pier head)	m ³	5		
C14.3.3	Demolition of structural steel structures, members or elements (location and description)				
C14.3.3.1	(Structural concrete repair to deck slab, As directed by Engineer)	t	1		
C14.3	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE/STC 2347 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.4
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.4	SURFACE AND STRUCTURAL REPAIR OF CONCRETE MEMBERS				
C14.4.2	Epoxy mortar	ℓ	100		
C14.4.3	Proprietary cementitious repair system (Class and generic description) in positions as indicated in accordance with Table A14.4.5-1.				
C14.4.3.1	Class R4 - (Generic Description)				
(a)	Structural repair to central pier headstock	ℓ	500		
(b)	Affected area of Structures as indicated	ℓ	50		
C14.4	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE/STC 2347 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.5
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.5	ANCHORING OF REINFORCEMENT, GROUTING AND CRACK INJECTION				
C14.5.1	Anchoring of reinforcing steel:				
C14.5.1.1	Reinforcing (Y16) into formed holes (18mm-20mm/ 200mm socket length) into existing pier head.	No	150		
C14.5.2	Preparation of contact surfaces for grouting (type, position and size indicated)	No	100		
C14.5.3	Grouting for:				
C14.5.3.2	Gap filling (type, thickness and size indicated) to (description)	ℓ	300		
C14.5.4	Establishment on site for crack injection	Lump Sum			
C14.5.5	Surface preparation and surface sealing for crack injection to (location on structure)	m	50		
C14.5.6	Crack injection adhesive to (asn indicated)	ℓ	60		
C14.5.7	Crack filling				
C14.5.7.1	Repair system to (location on structure)	m	100		
C14.5.8	Site and core tests				
C14.5.8.1	Drilling of cores (specify diameter of cores)	m	10		
C14.5.8.2	Site testing and testing of cores	Prov Sum	1	15000.00	R 15.000.00
C14.5.8.3	Percentage on provisional sum for charges and profit	%	10	1500	R1500.00
C14.5	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE/STC 2347 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.7
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.7	PROTECTIVE COATINGS AND TREATMENTS FOR CONCRETE				
C14.7.1	Cleaning and preparation of concrete surface (method and surface finish indicated)	m ²	50		
C14.7.2	Application of protective coatings and treatments (Protective coating to repaired sections)	m ²	50		
C14.7.3	On site monitoring and supply of written product performance guarantee	Lump Sum	1		
C14.7.4	Trial sample panels	m ²	5		
C14.7	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE/STC 2347 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.11
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.11	REPAIR OF STEEL ELEMENTS				
C14.11.1	Refurbishment of (steel girders)	No	2		
C14.11.2	Replacement of rivets or bolts with HSFG bolts (diameter and class indicated)	No	0.25		
C14.11	TOTAL CARRIED FORWARD TO SUMMARY				

BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE/STC 2347 IN DC22 UNDER PIETERMARITZBURG REGION.			
SCHEDULE A: ROADWORKS - SUMMARY			
CHAPTER	DESCRIPTION	FROM PAGE	AMOUNT
C1.2	GENERAL REQUIREMENTS AND PAYMENT	C71	
C1.3	CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS	C72	
PSC1.5	ACCOMMODATION OF TRAFFIC	C73	
C1.6	CLEARING AND GRUBBING	C74	
C1.7	LOADING AND HAULING	C75	
C12.6	MECHANICALLY STABILISED FILL AND GABIONS	C76	
C13.2	FALSEWORK, FORMWORK AND CONCRETE FINISH	C77	
C13.3	STEEL REINFORCEMENT	C77	
C13.4	CONCRETE	C78	
C13.7	JOINTS	C79	
C13.8	ANCILLARY STRUCTURAL ELEMENTS	C79	
C13.10	PAINTING OF MINOR STRUCTURES	C80	
C14.1	ACCESS FOR BRIDGE REHABILITATION	C81	
C14.2	CORROSION SURVEY METHODS AND TESTING OF NEAR SURFACE CONCRETE PROPERTIES	C82	
C14.3	DEMOLITION AND REMOVAL OF STRUCTURAL CONCRETE AND STEELWORK	C83	
C14.4	SURFACE AND STRUCTURAL REPAIR OF CONCRETE MEMBERS	C84	
C14.5	ANCHORING OF REINFORCEMENT, GROUTING AND CRACK INJECTION	C85	
C14.7	PROTECTIVE COATINGS AND TREATMENTS FOR CONCRETE	C86	
C14.11	REPAIR OF STEEL ELEMENTS	C87	
TOTAL SCHEDULE A: ROADWORKS			

BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE/STC 2347 IN DC22 UNDER PIETERMARITZBURG REGION.		
C2.3 SUMMARY OF BILL OF QUANTITIES		
SCHEDULE	FROM PAGE	AMOUNT
TOTAL SCHEDULE A: ROADWORKS	C88	R -
SUBTOTAL 1- STC 2347		

Signed on behalf of the Tenderer: (Signature)

Date:

Tenderer's Name: (Company Name)

DISCLAIMER

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STC 1704

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 :STC 1704 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C1.2
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C1.2	GENERAL REQUIREMENTS AND PAYMENT				
C1.2.2	Programming and Reporting				
C1.2.2.1	Submission of a Scheme 1 Programme	Lump Sum	1		
C1.2.2.2	Reviewing and updating a Scheme 1 Programme	month	2		
C1.2.2.6	Preparation and submission of all information and reports specified in the Contract Documentation	month	2		
C1.2.3	Routine road maintenance of existing public roads within the Site of the Works or other public roads outside the Site of Works which are used as detours				
C1.2.3.1	Grass cutting	ha	0.1		
C1.2.3.2	Drain cleaning	km	0.1		
C1.2.4	Stakeholder liaison	month	2		
C1.2.5	Safety				
C1.2.5.1	Health and safety plan	Lump Sum	1		
C1.2.5.2	Implementation of health and safety plan	month	2		
C1.2.8	Dayworks				
C1.2.8.1	Personnel				
(a)	Unskilled labourer	hour	100		
C1.2	TOTAL CARRIED FORWARD				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	TOTAL BRUGHT FORWARD FROM PREVIOUS PAGE				
(b)	Semi-skilled labourer	hour	40		
(c)	Skilled labourer	hour	20		
(d)	Gang leader	hour	20		
(e)	Foreman	hour	20		
(f)	Skilled Artisan	hour	100		
C1.2.8.2	Construction Equipment (specify size and/or model number)				
(a)	Motor grader	hour	10		
(b)	Vibratory roller	hour	5		
(c)	Pneumatic roller	hour	5		
(d)	Front end loader backhoe	hour	5		
(e)	Excavator	hour	5		
(f)	Compressor	hour	5		
(h)	Other equipment (specify)	hour	5		
C1.2.8.3	Vehicles (specify size)				
(a)	Light delivery vehicle	km	400		
(b)	Flatbed truck	km	100		
(c)	Dump Truck	km	100		
(d)	Other vehicles (TLB)	km	100		
(e)	Mobile Crane (25 ton)	km	100		
(f)	Lowbed	km	100		
C1.2	TOTAL CARRIED FORWARD				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 :STC 1704 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C1.3
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C1.3	CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS				
C1.3.1	The Contractor's general obligations				
C1.3.1.1	Fixed obligations	Lump Sum	1		
C1.3.1.3	Time-related obligations	month	2		
C1.3.2	Contract sign boards	m ²	2		
C1.3	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 :STC 1704 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C1.5
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C1.5	ACCOMMODATION OF TRAFFIC				
C1.5.2	Accommodation of vehicular traffic	month	3		
C1.5.7	Temporary traffic control facilities				
C1.5.7.1	Delineators including mounting bases and ballast:				
(a)	Single sided, reversible left or right (size indicated)	No	10		
(b)	Double sided, reversible left or right (size indicated)	No	10		
C1.5.7.2	Traffic cones, minimum height 750 mm	No	10		
C1.5.7.3	Flagmen	man-shift	80		
C1.5	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 :STC 1704 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C1.6
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C1.6	CLEARING AND GRUBBING				
C1.6.1	Clearing				
C1.6.1.1	Clearing with machines and some hand labour where necessary (Vegetation Clearing)	ha	0.2		
C1.6.2	Grubbing				
C1.6.2.1	Clearing with machines and some hand labour where necessary (Tree Removal)	ha	0.2		
C1.6	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 :STC 1704 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C1.7
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C1.7	LOADING AND HAULING				
C1.7.2	Hauling				
C1.7.2.2	Hauling material to spoil and off-loading it at a designated spoil or stockpile are:				
(a)	Cleared and grubbed material (organic matter and all other unsuitable or waste material)	m ³ - km	5		
(b)	Soil and gravel material	m ³ - km	5		
(c)	Boulders, hard material and concrete	m ³ - km	4		
C1.7	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 :STC 1704 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C12.6
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C12.6	MECHANICALLY STABILISED FILL AND GABIONS				
C12.6.11	Backfill (material type and compaction requirements indicated)	m ³	5		
C12.6	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 :STC 1704 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C13.2
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C13.2	FALSEWORK, FORMWORK AND CONCRETE FINISH				
C13.2.2	Vertical formwork to provide (Board) surface finish to (Headwalls)	m ²	20		
C13.2	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS					CHAPTER C13.3
BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 :STC 1704 IN DC22 UNDER PIETERMARITZBURG REGION.					
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C13.3	STEEL REINFORCEMENT				
C13.3.1	Reinforcement for:				
C13.3.1.1	(Description of portion of structure to which applicable):				
(b)	High-yield-stress-steel bars (As per drawings)	t	0.5		
C13.3	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS					CHAPTER C13.4
BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 :STC 1704 IN DC22 UNDER PIETERMARITZBURG REGION.					
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C13.4	CONCRETE				
C13.4.1	Cast in situ concrete (Class of concrete and use or position in structure stated):				
C13.4.1.1	Strength concrete (class C):				
(a)	Strength concrete (class C): (Inlet Headwall, C30/35-20 indicated)	m ³	5		
(b)	Strength concrete (class C): (Outlet Headwall, C25/30-20 indicated)	m ³	5		
(c)	Strength concrete (class C): (Wingwall repairs, C20/25-20 indicated)	m ³	5		
C13.4	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 :STC 1704 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C13.7
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C13.7	JOINTS				
C13.7.4	Sealing joints with:				
C13.7.4.1	Sealant (Polyutherane Joint Sealant- Headwalls)	m	25		
C13.7	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS					CHAPTER C13.11
BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 :STC 1704 IN DC22 UNDER PIETERMARITZBURG REGION.					
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C13.11	STRUCTURAL STEELWORK FOR MAJOR STRUCTURES				
C13.11.1	Supply, fabrication and erection of steelwork (As specified by Engineer)	t	1		
C13.11.2	Miscellaneous metalwork (As specified by Engineer)	No	1		
C13.11	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 :STC 1704 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C13.12
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C13.12	STRUCTURAL STEEL PROTECTIVE TREATMENT OF MAJOR STRUCTURES				
C13.12.1	Steelwork protective system:				
C13.12.1.1	(System 2: Blast clean to Sa 2.5, Zinc-rich primer, 2x Epoxy MIO, 1x Polyurethane finish) to (Steel I-Beams)	m ²	50		
C13.12	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 :STC 1704 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.1
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.1	ACCESS FOR BRIDGE REHABILITATION				
C14.1.1.1	Access and platforms to locations as described as well as dismantling and removal at completion (heights assessed by contractor)				
(a)	Provide temporary access structures and work platforms, including all necessary scaffolding, for all work on the new/existing headwalls.	No	1		
(b)	Provide temporary access structures and work platforms for minor concrete rehabilitation and spall repairs on the main culvert structure.	No	1		
C14.1	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 :STC 1704 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.3
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.3	DEMOLITION AND REMOVAL OF STRUCTURAL CONCRETE AND STEELWORK				
C14.3.2	Demolition of concrete members or elements by labour enhanced construction				
C14.3.2.1	Full member or element :Demolish (break up as required in-situ), remove from waterway, and dispose of the existing fallen concrete headwall.	m ³	5		
C14.3.2.2	Partial member or element (Break out unsound concrete in headwall)	m ³	2		
C14.3	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 :STC 1704 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.4
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.4	SURFACE AND STRUCTURAL REPAIR OF CONCRETE MEMBERS				
C14.4.1	Cementitious mortar or concrete (Class 30) to (Headwall)	ℓ	1000		
C14.4.2	Epoxy mortar	ℓ	100		
C14.4.3	Proprietary cementitious repair system (Class and generic description) in positions as indicated in accordance with Table A14.4.5-1.				
C14.4.3.2	Class R3 - (Generic Description)				
(a)	Proprietary cementitious repair system (Class R3): For the repair of spalling to the existing culvert structure (Positions to be instructed by the Engineer).	ℓ	500		
(b)	Barrel walls	ℓ	50		
C14.4	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 :STC 1704 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.5
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.5	ANCHORING OF REINFORCEMENT, GROUTING AND CRACK INJECTION				
C14.5.1	Anchoring of reinforcing steel:				
C14.5.1.1	Reinforcing (Dowel/Stitching bars) into formed holes (details as per drawings)	No	100		
C14.5.3	Grouting for:				
C14.5.3.2	Gap filling (non-shrink cementitious grout)	ℓ	60		
C14.5.4	Establishment on site for crack injection	Lump Sum	1		
C14.5.5	Surface preparation and surface sealing for crack injection to (Cell walls)	m	70		
C14.5.6	Crack injection adhesive to (Cell walls)	ℓ	20		
C14.5.7	Crack filling				
C14.5.7.1	Repair system to (various location on structure)	m	50		
C14.5	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 :STC 1704 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.7
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.7	PROTECTIVE COATINGS AND TREATMENTS FOR CONCRETE				
C14.7.1	Cleaning and preparation of concrete surface (High-pressure cleaning)	m ²	80		
C14.7.2	Application of protective coatings and treatments (Concrete surface treatment)	m ²	80		
C14.7.3	On site monitoring and supply of written product performance guarantee	Lump Sum	1		
C14.7.4	Trial sample panels	m ²	2		
C14.7	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 :STC 1704 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.11
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.11	REPAIR OF STEEL ELEMENTS				
C14.11.1	Refurbishment of (Steel I Beams- wire brushing, removal of rust)	No	10		
C14.11.2	Replacement of rivets or bolts with HSFG bolts (As required by Engineer)	t	0.2		
C14.11	TOTAL CARRIED FORWARD TO SUMMARY				

BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 :STC 1704 IN DC22 UNDER PIETERMARITZBURG REGION.			
SCHEDULE A: STRUCTURES - SUMMARY			
CHAPTER	DESCRIPTION	FROM PAGE	AMOUNT
C1.2	GENERAL REQUIREMENTS AND PAYMENT	C92	
C1.3	CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS	C93	
C1.5	ACCOMMODATION OF TRAFFIC	C94	
C1.6	CLEARING AND GRUBBING	C95	
C1.7	LOADING AND HAULING	C96	
C12.6	MECHANICALLY STABILISED FILL AND GABIONS	C97	
C13.2	FALSEWORK, FORMWORK AND CONCRETE FINISH	C98	
C13.3	STEEL REINFORCEMENT	C99	
C13.4	CONCRETE	C100	
C13.7	JOINTS	C101	
C13.11	STRUCTURAL STEELWORK FOR MAJOR STRUCTURES	C102	
C13.12	STRUCTURAL STEEL PROTECTIVE TREATMENT OF MAJOR STRUCTURES	C103	
C14.1	ACCESS FOR BRIDGE REHABILITATION	C104	
C14.3	DEMOLITION AND REMOVAL OF STRUCTURAL CONCRETE AND STEELWORK	C105	
C14.4	SURFACE AND STRUCTURAL REPAIR OF CONCRETE MEMBERS	C106	
C14.5	ANCHORING OF REINFORCEMENT, GROUTING AND CRACK INJECTION	C107	
C14.7	PROTECTIVE COATINGS AND TREATMENTS FOR CONCRETE	C108	
C14.11	REPAIR OF STEEL ELEMENTS	C109	
TOTAL SCHEDULE A: ROADWORKS			

BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 :STC 1704 IN DC22 UNDER PIETERMARITZBURG REGION.		
C2.3 SUMMARY OF BILL OF QUANTITIES		
SCHEDULE	FROM PAGE	AMOUNT
TOTAL SCHEDULE A: ROADWORKS	C110	R -
SUBTOTAL 1		
<p>Signed on behalf of the Tenderer: (Signature)</p> <p>Date:</p> <p>Tenderer's Name: (Company Name)</p> <p>DISCLAIMER</p> <p>Kindly note that the responsibility lies with Tenderer to check the tender document and the tender addenda (if issued) to verify that all the information is correct and all changes have been incorporated as no claims will be entertained in this regard afterwards. Accordingly, we confirm that the hard copies of the original tender document and the tender addenda are to be regarded to contain the correct items and quantities.</p>		

BRIDGE STC 2673

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : STC 2673 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C1.2
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C1.2	GENERAL REQUIREMENTS AND PAYMENT				
C1.2.2	Programming and Reporting				
C1.2.2.1	Submission of a Scheme 1 Programme	Lump Sum	1		
C1.2.2.2	Reviewing and updating a Scheme 1 Programme	month	2		
C1.2.2.6	Preparation and submission of all information and reports specified in the Contract Documentation	month	2		
C1.2.3.1	Grass cutting	ha	0.2		
C1.2.3.2	Drain cleaning	km	0.1		
C1.2.4	Stakeholder liaison	month	2		
C1.2.5	Safety				
C1.2.5.1	Health and safety plan	Lump Sum	1		
C1.2.5.2	Implementation of health and safety plan	month	3		
C1.2.8	Dayworks				
C1.2.8.1	Personnel				
(a)	Unskilled labourer	hour	100		
(b)	Semi-skilled labourer	hour	40		
(c)	Skilled labourer	hour	20		
(d)	Gang leader	hour	20		
(e)	Foreman	hour	20		
(f)	Skilled Artisan	hour	100		
C1.2.8.2	Construction Equipment				
TOTAL CARRIED FORWARD TO NEXT PAGE					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	TOTAL BROUGHT FORWARD FROM PREVIOUS PAGE				
(a)	Front end loader backhoe	hour	5		
(b)	Excavator	hour	5		
(c)	Compressor	hour	5		
(d)	Other equipment (specify)	hour	5		
C1.2.8.3	Vehicles (specify size)				
(a)	Light delivery vehicle	km	400		
(b)	Flatbed truck	km	100		
(c)	Dump Truck	Km	100		
(e)	Mobile Crane	Km	100		
(f)	Lowbed	Km	100		
C1.2	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : STC 2673 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C1.3
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C1.3	CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS				
C1.3.1	The Contractor's general obligations				
C1.3.1.1	Fixed obligations	Lump Sum	1		
C1.3.1.2	Time-related obligations	month	2		
C1.3	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : STC 2673 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER PSC1.5
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
PSC1.5 C1.5.2	ACCOMMODATION OF TRAFFIC Accommodation of vehicular traffic	month	2		
PSC1.5	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : STC 2673 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C1.6
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C1.6	CLEARING AND GRUBBING				
C1.6.1	Clearing				
C1.6.1.1	Clearing with machines and some hand labour where necessary	ha	0.2		
C1.6.2	Grubbing				
C1.6.2.1	Clearing with machines and some hand labour where necessary	ha	0.2		
C1.6	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS					CHAPTER C1.7
BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : STC 2673 IN DC22 UNDER PIETERMARITZBURG REGION.					
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C1.7	LOADING AND HAULING				
C1.7.2.2	Hauling material to spoil and off-loading it at a designated spoil or stockpile are:				
(a)	Cleared and grubbed material (organic matter and all other unsuitable or waste material)	m ³ - km	5		
(b)	Soil and gravel material	m ³ - km	5		
(c)	Boulders, hard material and concrete	m ³ - km	5		
C1.7	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS					CHAPTER C3.1
BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : STC 2673 IN DC22 UNDER PIETERMARITZBURG REGION.					
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C3.1	DRAINS				
(a)	Excavation, clearing and disposal of accumulated sediment, debris, and obstructions (including metal gate, tyre, etc.) from the existing culvert barrel and inlet/outlet.	m ³	15		
C3.1	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS					CHAPTER C12.3
BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : STC 2673 IN DC22 UNDER PIETERMARITZBURG REGION.					
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C12.3	GROUND IMPROVEMENT				
C12.3.1	Site Establishment				
C12.3.1.7	Underpinning	Lump Sum	1		
C12.3.2	Moving to and setting up equipment at each position for:				
C12.3.2.7	Underpinning	No	1		
C12.3	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : STC 2673 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C12.6
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C12.6	MECHANICALLY STABILISED FILL AND GABIONS				
C12.6.4.1.2	Backfill (material type and compaction requirements indicated)	m ³	10		
C12.6.14	Foundation trench excavation:				
C12.6.14.1	Excavating all material situated within the following depth ranges below the surface level				
(a)	0 m to 1,5 m	m ³	10		
C12.6.14.2	Extra over sub-item C11.2.1.1 for excavation in hard material, irrespective of depth	m ³	5		
C12.6.14.3	Excavating soft material within 1,5 m below the surface level using labour enhancement construction methods:	m ³	10		
C12.6.15	Surface preparation for bedding the gabions	m ²	10		
C12.6.16	Gabions and mattresses:				
C12.6.16.4	Polymer coated gabion mattresses (1x2x0.5) for scour protection at inlet and outlet, including rockfill and lacing wire.	m ³	10		
C12.6.17	Geotextile: Supply and place geotextile (Nonwoven and Grade A4) as a filter separator under gabion mattresses.	m ²	20		
C12.6	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS

**BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : STC
2673 IN DC22 UNDER PIETERMARITZBURG REGION.**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C13.1	FOUNDATIONS				
C13.1.3	Excavation:				
C13.1.3.1	Excavating soft material situated within the following successive depth ranges (New wingwall and apron slab):				
(a)	0 m up to 1,5 m	m ³	45		
(b)	> 1,5 m and < 3,0 m	m ³	-		
(c)	Etc. in increments of 1,5 m	m ³	-		
C13.1.3.2	Extra over subitem C13.1.3.1 for excavation in hard material irrespective of depth	m ³	12		
C13.1.8.2	Backfill to structures: Supply, place, and compact approved imported G5 or G7 material behind reconstructed wingwalls to 93% MDD.	m ³	10		
C13.1.23	Lateral support for excavations:	m ²	-		
C13.1.23.1	Excavation or fill at (indicate location)				
(a)	0 to 2,5 m depth	m ²	-		
C13.1	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS					CHAPTER C13.2
BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : STC 2673 IN DC22 UNDER PIETERMARITZBURG REGION.					
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C13.2	FALSEWORK, FORMWORK AND CONCRETE FINISH				
C13.2.2	Vertical Formwork to provide (Class F2) surface finish to (wingwalls)	m ²	20		
C13.2.3	Horizontal formwork (Class F1 finish) to foundations and apron slabs.	m ²	20		
C13.2	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : STC 2673 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C13.3
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C13.3	STEEL REINFORCEMENT				
C13.3.1	Reinforcement for:				
C13.3.1.1	(Description of portion of structure to which applicable):				
(a)	Mild-steel bars	t	-		
(b)	Steel reinforcement (High-yield-stress-steel) supplied, cut, bent, and fixed in new concrete works.	t	1		
(c)	Welded Steel Fabric	kg	-		
C13.3	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS					CHAPTER C13.4
BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : STC 2673 IN DC22 UNDER PIETERMARITZBURG REGION.					
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C13.4	CONCRETE				
C13.4.1	Cast in situ concrete (Class of concrete and use or position in structure stated):				
C13.4.1.1	Strength concrete (class C):				
(a)	Cast in situ strength concrete (C28/35-20) in new eastern-northern wingwall and new inlet/outlet apron slabs.	m ³	20		
C13.4	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS					CHAPTER C13.7
BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : STC 2673 IN DC22 UNDER PIETERMARITZBURG REGION.					
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C13.7	JOINTS				
C13.7.4	Sealing joints with:	m	-		
C13.7.4.1	Sealant (Polyutherane Joint Sealant- Headwalls)	m	25		
C13.7	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS **CHAPTER C13.8**
BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : STC
2673 IN DC22 UNDER PIETERMARITZBURG REGION.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C13.8	ANCILLARY STRUCTURAL ELEMENTS				
C13.8.7.3	Numbers formed in concrete	No	1		
C13.8.10.1	Drainage pipes:				
(a)	M65 Netlon Pipes	m	20		
C13.8.10.2	Weep holes:				
(a)	Non Ferrous 50mm dia.	m	20		
C13.8	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS **CHAPTER**
BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : STC **C13.10**
2673 IN DC22 UNDER PIETERMARITZBURG REGION.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C13.10	PAINING OF MINOR STRUCTURES				
C13.10.1	Painting:				
C13.10.1.1	Existing Steelwork	m ²	30		
C13.10	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : STC 2673 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C13.11
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C13.11	STRUCTURAL STEELWORK FOR MAJOR STRUCTURES				
C13.11.1	Supply, fabrication and erection of steelwork (location, member, grade and type identified by engineer)	t	1		
C13.11.2	Miscellaneous metalwork (location and member to be specified by engineer)	t	1		
C13.11	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS					CHAPTER C14.1
BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : STC 2673 IN DC22 UNDER PIETERMARITZBURG REGION.					
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.1	ACCESS FOR BRIDGE REHABILITATION				
C14.1.2	Mobile access units				
C14.1.2.1	Establishment of mobile access unit on site (description of type of unit)	Lump Sum	1		
C14.1.2.5	De-establishment and removal of mobile access unit from site after completion of work	Lump Sum	1		
C14.1	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS					CHAPTER
BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : STC 2673 IN DC22 UNDER PIETERMARITZBURG REGION.					C14.2
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.2	CORROSION SURVEY METHODS AND TESTING OF NEAR SURFACE CONCRETE PROPERTIES				
C14.2.1	Delamination Survey:				
C14.2.1.1	using hammer tapping technique to (description)	m ²	100		
C14.2.1.2	using chain drag technique to (description)	m ²	100		
C14.2.1.3	using extracted core samples (description of location, core size and length as directed by engineer)	No	8		
C14.2.2	Concrete cover survey	m ²	100		
C14.2.2.1	(As directed by engineer)				
C14.2.3	Concrete compressive strength				
C14.2.3.1	using extracted core samples (description of location, core size and length)	No	8		
C14.2.3.2	using extracted core samples (description of location, core size and length)	No	8		
C14.2	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : STC 2673 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.3
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.3	DEMOLITION AND REMOVAL OF STRUCTURAL CONCRETE AND STEELWORK				
C14.3.1.2	Demolition of concrete members or elements				
(a)	Demolition of reinforced concrete: Partial demolition and removal of existing damaged downstream apron slab & Wingwall.	m ³	10		
(b)	Demolition of concrete: Breaking out sections of existing wingwall joints to sound material for repair, as directed by the Engineer.	m ³	10		
C14.3	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS					CHAPTER
BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : STC 2673 IN DC22 UNDER PIETERMARITZBURG REGION.					C14.4
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.4	SURFACE AND STRUCTURAL REPAIR OF CONCRETE MEMBERS				
C14.4.1	Cementitious mortar or concrete (Class 30) to (Headwall)	ℓ	1000		
C14.4.2	Epoxy mortar	ℓ	100		
C14.4.3	Proprietary cementitious repair system (Class and generic description) in positions as indicated in accordance with Table A14.4.5-1.				
C14.4.3.2	Class R3 - (Generic Description)				
(a)	Proprietary cementitious repair system (Class R3): For the repair of spalling to the existing culvert structure (Positions to be instructed by the Engineer).	ℓ	500		
(b)	Barrel walls	ℓ	50		
C14.4	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : STC 2673 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.5
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.5	ANCHORING OF REINFORCEMENT, GROUTING AND CRACK INJECTION				
C14.5.1	Anchoring of reinforcing steel:				
C14.5.1.1	Anchoring of reinforcement: Drill holes into existing concrete (state diameter/depth) for dowel bars.	No	100		
C14.5.1.2	Supply and anchor high-yield-stress dowel bars using approved epoxy adhesive.	No	100		
C14.5.3	Grouting for:				
C14.5.3.2	Grouting (Non-shrink cementitious grout / epoxy mortar) for filling voids and re-casting stabilized wingwall joints	ℓ	60		
C14.5.4	Establishment on site for crack injection	Lump Sum	1		
C14.5.5	Surface preparation and surface sealing for crack injection to (Cell walls)	m	70		
C14.5.6	Crack injection adhesive to (Cell walls)	ℓ	20		
C14.5.7	Crack filling				
C14.5.7.1	Repair system to (various location on structure)	m	50		
C14.5	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : STC 2673 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.7
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C14.7	PROTECTIVE COATINGS AND TREATMENTS FOR CONCRETE				
C14.7.1	Cleaning and preparation of concrete surface (High-pressure cleaning)	m ²	80		
C14.7.2	Application of protective coatings and treatments (Concrete surface treatment)	m ²	80		
C14.7.3	On site monitoring and supply of written product performance guarantee	Lump Sum	1		
C14.7.4	Trial sample panels	m ²	2		
C14.7	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : STC 2673 IN DC22 UNDER PIETERMARITZBURG REGION.					CHAPTER C14.11
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C14.11	REPAIR OF STEEL ELEMENTS				
C14.11.1	Refurbishment of structural steel: Prepare corroded surfaces of existing steel I-beams (min. prep std Sa 2.5) and apply an approved anti-corrosion coating system (specify system).	No	10		
C14.11.2	Replacement of rivets or bolts with HSFG bolts (diameter and class indicated)	t	0.25		
C14.11	TOTAL CARRIED FORWARD TO SUMMARY				

BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : STC 2673 IN DC22 UNDER PIETERMARITZBURG REGION.			
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BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : STC 2673 IN DC22 UNDER PIETERMARITZBURG REGION.		
C2.3 SUMMARY OF BILL OF QUANTITIES		
SCHEDULE	FROM PAGE	AMOUNT
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SUBTOTAL 1 - STC 2673		

Signed on behalf of the Tenderer: (Signature)

Date:

Tenderer's Name: (Company Name)

DISCLAIMER

Kindly note that the responsibility lies with Tenderer to check the tender document and the tender addenda (if issued) to verify that all the information is correct and all changes have been incorporated as no claims will be entertained in this regard afterwards. Accordingly, we confirm that the hard copies of the original tender document and the tender addenda are to be regarded to contain the correct items and quantities.

Province of KwaZulu-Natal Department of Transport	
BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 : BRIDGE 1009, BRIDGE 1053, BRIDGE/STC 2347, STC 2673, STC 1704 IN DC22 UNDER PIETERMARITZBURG REGION.	
C2.3 SUMMARY OF BILL OF QUANTITIES	
SCHEDULE	AMOUNT
TOTAL SCHEDULE E: EXPANDED PUBLIC WORKS PROGRAMME (EPWP)	
SCHEDULE A: ROADWORKS FOR ALL STRUCTURES:	
BRIDGE 1009	
BRIDGE 1053	
STC 2347	
STC 1704	
STC 2637	
TOTAL SCHEDULE A: ROADWORKS	
SUBTOTAL 1 (SCHEDULE E + TOTAL SCHEDULE A ROADWORKS)	
CONTINGENCIES (10.0% OF SUBTOTAL 1)	
SUB TOTAL 2	
CONTRACT PRICE ADJUSTMENT AND RISE & FALL (7.0% of Subtotal 2)	
SUBTOTAL 3	
VAT (15% OF SUBTOTAL3)	
TOTAL CARRIED FORWARD TO FROM OF OFFER	

Signed on behalf of the Tenderer: (Signature)

Date:

Tenderer's Name: (Company Name)

PART C3: SCOPE OF WORK

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C3.1: STANDARD SPECIFICATIONS

The Standard Specifications on which this contract is based are the '**Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020**'.

C3.2: PROJECT SPECIFICATIONS

The Project Specifications, consisting of two parts, form an integral part of the Contract and supplement 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 Standard Specifications and, if applicable, the Particular Specifications.

In the event of any discrepancy between a part or parts of the Standard or Particular Specifications and the Project Specifications, the Project Specifications 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 Employer's Agent 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 road contracts, and they may therefore cover items not applicable to this particular contract.

C3.2: PROJECT SPECIFICATIONS

PART A: GENERAL

1. DESCRIPTION OF THE WORKS

1.1 Employer's objectives

This Project forms part of the Province of KwaZulu-Natal Department of Transport's Rehabilitation of bridges and culverts in DC22 under Pietermaritzburg Region. This Contract represents BRIDGE AND CULVERT REHABILITATION UMGUNGUNDLOVU DISTRICT PHASE1 in DC22 under Umsunduzi municipality for the 2026/2027 financial year.

The contract is located in a region of KwaZulu-Natal that has been historically impoverished by a lack of infrastructure access. It is therefore mandatory that the Contractor shall interact with the community via proactive project liaison with and project participation by its leaders and constituted organisations and forums, as well as through the employment of its people, and these activities shall constitute essential facets of the project.

The Employer's objectives in delivering public infrastructure and services for this project include the provision of temporary work opportunities to the local community through the application of labour-enhanced construction methods to the maximum extent feasible, in accordance with the Expanded Public Works Programme Guidelines.

The requirements of the Expanded Public Works Programme (EPWP) are contained in PART E of section C3.3 Particular Specifications. These EPWP requirements also include provisions for the National Youth Service programme where applicable.

1.2 Location of the Works

1.2.1. Bridge 1009

Location (Route): P1-6, km on route: 6.2
Coordinates: 29°28'20.2"S, 30°10'28.5"E
Structure type: Single-span road-over-rail bridge
Dimensions: 10.9 m Length

1.2.2. Bridge 1053- Mersey Rail G/S

Location (Route): P6-1 (R33)
km on route: 9.9
Coordinates: 29°23'5.6"S, 30°28'41.5"E
Structure type: Single-span concrete rail-over-road bridge
Dimensions: Approximately 27.3 m Length x 5.8 m Width

1.2.3. Structure No.: STC 2347 - Greenhill River Bridge

Location: Near New Hanover uMshwathi Local Municipality Ward 1
Coordinates: 29°19'28.88"S 30°30'41.57"E

1.2.4. Structure No.: STC 1704

Location (Route): P1-5
Coordinates: 29°39'31.2"S, 30°26'32.5"E
Structure type: Single cell box culvert
Dimensions: 3.0 m Wide x 2.5 m High, with an approximate length of 16.4 metres

1.2.5. Structure No.: STC 2673

Location (Route): P1-5
Coordinates: 29°40'26.4"S, 30°27'26.1"E
Structure type: Single cell box culvert
Dimensions: 1.9 m Wide x 2.0 m High, with an approximate length of 10 metres

1.3 Overview of the Works

The project entails the major structural rehabilitation of four (5) high-priority structures within the uMgungundlovu District Municipality (DC22) that have been identified as being in a critical or poor condition. The structures are STC 2673, Bridge 1009, STC 1704, Bridge 2347 and Bridge 1053.

The primary objective of this project is to address widespread and severe defects to restore the structural integrity, ensure public safety, and improve the long-term serviceability of these vital assets. The rehabilitation work is critical due to findings of active structural distress, including significant foundation failures, severe scour, concrete spalling with exposed reinforcement, and critical safety deficiencies from failed or missing vehicle restraint systems.

1.4 Extent of the Works

The Works to be carried out include the following main activities:

- (a) Establishment on site and clearing and grubbing.
- (b) Provision of traffic accommodation facilities.
- (c) Demolition and removal of failed and deteriorated concrete and structural elements.
- (d) Major earthworks, including bulk excavation for foundation reconstruction, scour rectification, and backfilling.
- (e) Construction of structural concrete for piers, abutments, wingwalls, headwalls, and deck elements.
- (f) Specialist concrete repair, including patch repairs for spalling and low-pressure crack injection.
- (g) Geotechnical and scour protection works, including the construction of gabions, stone pitching, and foundation underpinning where required.
- (h) Installation of new, compliant safety barriers, including guardrails on bridges and their approaches.
- (i) Rehabilitation of road approaches, including asphalt patching and reinstatement where damaged by structural failure.
- (j) Clearing of waterways to remove debris, silt, and vegetation to restore hydraulic capacity.
- (k) Corrosion treatment and application of protective coatings to existing and new steel and concrete elements.
- (l) Survey requirements.
- (m) Finishing and cleaning up of the road and road reserve.
- (n) Continuous quality control over materials and workmanship, and compliance with the Particular Specifications with regard to environmental management and occupational health and safety, during all the above construction activities.
- (o) Removal of all site establishment facilities and construction plant on completion of the Works.
- (p) Making good of any defects during the Defects Liability Period.
- (q) Undertaking maintenance work during the defect liability period

1.5 Detailed description of the Works

The following description is a broad outline of the works and does not limit the work to be executed by the Contractor in terms of the contract. The description of some of the major items indicated in this section are indicative, not absolute, and are provided to define in general terms the overall scope of the project.

The Employer requires the Contractor to establish the necessary machinery, equipment, methodology and personnel to carry out the rehabilitation of these structures, inclusive of, but not necessarily limited to the main activities mentioned in Section 1.4.

The site shall not only comprise the proclaimed road reserve but shall be extended in the broader sense to take account of all areas occupied by the Contractor, be it deliberate or unintentional, in the execution of the contract. The site includes all the land within the proclaimed limits of the road reserve along the extent of the works, borrow pits and quarry sites, stockpile areas, locations set aside for construction and supervision accommodation and any other location required for the execution of the Works.

Incidental intrusion into private or tribal property outside the road reserve shall not be permitted without the owner's written authority. Any such agreement reached with a private or tribal landowner (occupier) shall include the proviso that any material or equipment on that site shall remain the exclusive property of the Employer in terms of the contract.

1.5.1 Access to the Site

1. Bridge 1009

Location (Route): P1-6, km on route: 6.2
Coordinates: 29°28'20.2"S, 30°10'28.5"E
Structure type: Single-span road-over-rail bridge
Dimensions: 10.9 m Length

2. Bridge 1053- Mersey Rail G/S

Location (Route): P6-1 (R33)
km on route: 9.9
Coordinates: 29°23'5.6"S, 30°28'41.5"E
Structure type: Single-span concrete rail-over-road bridge
Dimensions: Approximately 27.3 m Length x 5.8 m Width

3. Structure No.: STC 2347 - Greenhill River Bridge

Location: Near New Hanover uMshwathi Local Municipality Ward 1
Coordinates: 29°19'28.88"S 30°30'41.57"E

4. Structure No.: STC 1704

Location (Route): P1-5
Coordinates: 29°39'31.2"S, 30°26'32.5"E
Structure type: Single cell box culvert
Dimensions: 3.0 m Wide x 2.5 m High, with an approximate length of 16.4 metres

5. Structure No.: STC 2673

Location (Route): P1-5
Coordinates: 29°40'26.4"S, 30°27'26.1"E
Structure type: Single cell box culvert
Dimensions: 1.9 m Wide x 2.0 m High, with an approximate length of 10 metres

1.5.2 Scope of works per structure

1.5.2.1 Bridge 1009

The Works shall comprise the replacement of safety barriers and structural repairs to the concrete substructure and deck. The scope shall include, but not be limited to, the complete removal of existing damaged steel parapets and the installation of a new, compliant safety barrier system; a detailed structural investigation and engineered repair of deck slab cracks; repairing significant structural cracks in the wing walls using high-pressure epoxy injection; rectifying the approach slab settlement; cleaning and applying a new anti-corrosion paint system to the primary steel girders; and resurfacing the roadway with a new asphalt overlay..

1.5.2.2 STC 1704

The Works shall comprise the complete reconstruction of the failed inlet headwall and the rehabilitation of the outlet headwall and steel superstructure. The scope shall include, but not be limited to, the removal of the completely broken inlet headwall from the waterway; the construction of a new, dowelled reinforced concrete headwall; the rehabilitation of the damaged outlet headwall through crack sealing and surface repair; cleaning and removing all surface rust from the steel I-beams; and the application of a suitable anti-corrosion coating to the steelwork.

1.5.2.3 Bridge STC 2347 – Greenhill River Bridge

The Works shall comprise the rehabilitation of the bridge substructure, the reinstatement of failed embankment protection, and the installation of safety barriers. The scope shall include, but not be limited to, the formal concrete repair to the damaged central pier head using high-strength mortar; the complete removal of collapsed gabion baskets; re-grading and backfilling of eroded embankments; the construction of new engineered scour protection using gabions and stone pitching; the supply and installation of a new, compliant W-beam guardrail system on both sides of the bridge and its approaches; and the cleaning and corrosion protection of the existing steel beams.

1.5.2.4 Bridge 1053 – Mersey Rail G/S

The Works shall comprise the structural rehabilitation of the single-span rail-over-road bridge to address active concrete deterioration and substructure distress. The scope shall include, but not be limited to, a formal structural concrete repair to the large spall on the deck soffit, including cleaning and treating exposed reinforcement; repair of the vertical crack in the concrete parapet; stabilisation and repair of the deflected wingwall joint; construction of new gabion protection to arrest erosion at the abutments; and the application of protective coatings to repaired concrete surfaces.

1.5.2.4 STC 2673

The Works shall comprise the reconstruction of a failed wingwall, stabilization of remaining wingwalls, and replacement of the apron slab. The scope shall include, but not be limited to, the reconstruction of the displaced eastern-northern wingwall using reinforced concrete; underpinning and stabilizing the remaining wingwalls by dowelling and re-casting joints; replacing the damaged downstream apron slab; installing new Reno mattresses or gabion protection at the outlet toe; removing debris and obstructions from the culvert inlet; and applying a protective coating to all exposed steel beams.

1.5.3 Demolition work

The Contractor shall be required to carry out demolition work to existing structures as detailed in Clause 1.5.2 above and specified in the Bill of Quantities. This includes the controlled removal of failed concrete sections of wingwalls, piers, headwalls, and culvert barrels. All demolition shall be executed in a manner that ensures the stability of the remaining structure and the safety of the public and the workforce.

1.5.4 Spoiling of surplus material

Surplus material shall be spoiled in designated areas approved by the Employer's Agent. The spoil material shall be disposed of in accordance with subclause A4.1.7.2(l) of the COTO Standard Specifications.

1.5.5 Material investigations

Materials information is furnished in section C4.4 at the end of this document.

1.5.6 Material sources, spoil and stockpile areas

Material for structural concrete, gabion rock fill, and engineered backfill (G5/G7) shall be obtained from approved commercial sources unless otherwise specified. Spoil areas and areas for the temporary stockpiling of construction materials shall be determined and agreed on site in conjunction with the Employer's Agent, the PLC (where applicable) and the local communities (where applicable). The Contractor shall be permitted to use only these agreed spoil and stockpile areas, which shall be landscaped and vegetated on completion of the work.

1.5.7 Accommodation of traffic

The Contractor shall be required to accommodate traffic on all affected routes for the duration of the contract. Construction shall be managed using appropriate traffic control measures such as half-width construction with STOP/GO controls, temporary diversions, and temporary traffic signals as specified and directed by the Employer's Agent. The Contractor's attention is drawn to the requirements of Series 1500 in the Standard Specifications and the relevant pay items in the Bill of Quantities.

1.5.8 Accommodation of other contractors

None currently anticipated.

In order to ensure the smooth running of all contracts, the Contractor shall be required to liaise with, cooperate with and accommodate all other contractors working on the site, particularly when such other contractors are working in the same area simultaneously.

1.5.9 Existing services

It is expected that unknown domestic services crossings requiring relocation or protection may be encountered along the route as the work proceeds. The Contractor shall make every effort to establish the location of these services in any area prior to excavations commencing in that area. Such efforts shall include diligent enquiry and discussions with adjacent landowners, visual surface inspection and exploratory trenching investigation as necessary.

1.5.10 Employer's Agent's site offices and laboratory

The Contractor shall be required to provide furnished site office facilities, laboratory facilities, ablution facilities, and carparks for the Employer's Agent at a site located in close proximity to the Contractor's office establishment and to the Works. A possible area for such site establishment shall be indicated at the Site Clarification Meeting.

1.5.11 Climate

The structures are located in a high summer rainfall region with a 30 year mean annual precipitation of 750 mm.

1.5.12 Environment

The Contractor's attention is called to clause A1.2.3.3 of Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020 and to the requirements of Part C: Environmental Management Specification contained in section C3.3 Particular Specifications.

1.5.13 Labour

Local labour is to be used, and the employment of such labour is to be done in conjunction with the Community structure in the particular area and the various Amakhosi in the area.

1.5.14 Labour-enhanced construction methods

Labour enhanced construction shall mean the economically efficient employment of as great a portion of local labour as is technically feasible to produce a standard of construction as demanded by the specifications with completion by the Due Completion Date, where local labour is the primary resource, supported by plant for activities that cannot be carried out feasibly by labour only.

Labour enhanced construction activities are to be planned as task-based work as a general rule. A task means a fixed quantity of work, to be performed to a clearly defined quality. Task based work means work in which a worker is paid a fixed rate for performing a task, which is clearly defined in terms of quantity and quality. Typically, a particular task can be completed within a working day.

Appropriate portions of the Works included in the Contract shall be carried out using labour enhanced construction methods.

Except where the use of equipment is essential in order, in the opinion of the Employer's Agent, to meet the specified requirements by the Due Completion Date, or where the use of equipment is essential as a result of occupational health and safety considerations, the Contractor shall use only hand tools and equipment in the construction of those portions of the Works that are required in terms of these Project Specifications to be constructed using labour enhanced construction methods.

Such portions of the Works shall be constructed utilizing only the local labour of the Contractor and/or the local labour of subcontractors, supplemented by the Contractor's key personnel to the extent necessary and unavoidable, unless otherwise instructed by the Employer's Agent and in accordance with the further provisions of the relevant sections of Part B of the Project Specifications.

Subject to considerations of occupational health and safety, and subject to the nature of the in situ materials being such that they can be excavated efficiently by hand, the portions of the Works to be carried out under supervision using labour enhanced construction methods are listed under the labour enhanced item numbers as per COTO - Draft Standard(DS) October 2020 specifications in the bill of quantities, include, but are not limited to, the following:

- Erection of the Contractor's and Employer's Agent's site establishment facilities;
- Provision of domestic services at the site establishment facilities;
- Provision of flagmen and labour for erecting traffic accommodation facilities;
- Clearing of the Site and waterway channels;
- Excavation for structures and open drains up to 1,5 m deep where the depth of the water table permits such excavation to be carried out safely, and the subsequent backfilling thereof;
- Backfilling and compaction of trenches and around structures
- Transportation and spoiling of all trench materials, where the disposal site is located within 20 metres of the source;
- Mixing and placing of concrete for minor drainage structures, blinding layers, and erosion protection works;
- Erection of falsework and formwork;
- Fixing of reinforcement;
- Excavation for and construction of stone pitching, and subsequent backfilling;
- Excavation for and construction of gabion boxes and mattresses, and subsequent backfilling;
- Construction of stone pitching and gabion boxes/mattresses
- Dismantling / erection of fences;
- Excavation and subsequent backfilling for guardrail;
- Dismantling / erection of guardrail;
- Excavation and subsequent backfilling for road signs;
- Dismantling / erection of road signs;
- Spreading of topsoil;
- Planting of grass cuttings, grass sodding and hand sowing of grass seeds; and
- Cleaning and tidying up of the Site.

In respect of those portions of the Works which are not listed above, the construction methods adopted and the equipment utilized shall be at the discretion of the Contractor, provided always that the construction methods adopted and the equipment utilized by the Contractor are appropriate in respect of the nature of the Works to be executed and the standards to be achieved in terms of the Contract.

1.6 Temporary Works

The Temporary Works required under this Contract shall include the traffic accommodation measures implemented, the provision of drainage control, falsework and formwork during the construction of the minor drainage structures, and the provision of any scaffolding or temporary propping used during the erection of the road signs.

All Temporary Works shall be removed from the Site on completion of the Contract.

1.7 Maintenance of the Works during the construction period

The Contractor shall take note of the various requirements of the General Conditions of Contract 2015 and the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020 with respect to the care and protection of the Works.

The handing-over of the road reserve for this contract is described in clause A1.2.3 of Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020. The Contractor shall be responsible for maintaining this portion of the road from the date of hand-over until the issue of the Certificate of Practical Completion.

1.8 Testing of materials

A prime cost sum has been allowed in chapter 20 of the Bill of Quantities for all acceptance control testing laboratory work to be carried out by the Employer's Agent using the laboratory facilities which may include and/or commercial laboratory facilities.

The Contractor shall carry out at his own cost the required process control testing as specified in terms of the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020.

1.9 Power supply and other services

The Contractor shall make his own arrangements concerning the supply of electrical power and all other services. No direct payment shall be made for the provision of electrical and other services. The cost thereof shall be deemed to be included in the rates and amounts tendered for the various items of work for which these services are required.

1.10 Construction in confined areas

It may be necessary for the Contractor to work within confined areas. Except where provided for in the specifications, no additional payment shall be made for work done in restricted 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. However, the Contractor shall note that, unless otherwise provided for in terms of the scheduled payment items in the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020 or these project specifications, measurement and payment shall be in accordance with the specified cross sections and dimensions only, irrespective of the method used for achieving these cross sections and dimensions, and that the tendered rates and amounts shall 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, and that no extra payment shall be made nor shall any claim for additional payment be considered in such cases.

1.11 Contractor's campsite (Project Specific)

Possible locations for a campsite shall be pointed out at the clarification meeting. (Project Specific Clarification meetings)

The Contractor shall make his own arrangements for the provision of his campsite and housing for construction personnel but the chosen site shall be subject to the approval of the Employer's Agent, the local authorities and, where applicable.

The standard of the Contractor's camp, offices, accommodation, ablution, and other facilities must comply with the requirements of all local authority, environmental and industrial regulations concerned. In establishing and maintaining his campsite, due cognisance is to be taken of the requirements of clause A1.3.3 of the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020.

The Contractor is to fully familiarise himself with all local by-laws and Government regulations for the employment, transport and accommodation of labour on site.

The Contractor shall particularly note that there is a high risk of theft, vandalism and damage to property in this area and strict security will be required for all plant, establishment, temporary works and partially completed works. The Contractor shall be responsible for providing security for all plant, establishment, temporary works and partially completed works. No separate payment shall be made for the provision of such security since full compensation for these costs shall be deemed to be included in the amount tendered for item C1.3.1.3 (The contractor's general obligations: Time-related obligations).

1.12 Additional requirements for construction activities

The travelling public shall have the right of way on public roads, and the Contractor shall make use of approved methods to control the movement of his equipment and vehicles so as not to constitute a hazard on the road.

The Contractor's tendered rates shall include full compensation for all costs which may arise from the construction and maintenance of deviations and construction under traffic. No claim for additional costs which may arise from these methods of traffic accommodation and no additional payment owing to inconvenience as a result of the Contractor's method of working shall be considered.

1.13 Construction programme

The Contractor shall submit a detailed time programme in accordance with clause 5.6.2 of the General Conditions of Contract 2015, clause A1.2.7 of the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020.

In addition to any other restrictions accommodated by the Contractor in compiling the construction programme, the following constraints shall be taken into account in the preparation thereof:

- (a) The whole of the Works (and the portions of the Works if completion in portions is required) shall be completed within the time period(s) stated (refer to the Contract Data in section C1.2.2).
- (b) Working days lost due to abnormal rainfall shall be treated as set out in clause A1.2.3.4 (b)
- (c) Allowance shall be made for non-working days and special non-working days (refer to the Contract Data in section C1.2.2).
- (d) Construction activities must comply with all the specified environmental requirements including clause A1.2.3.3 of Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020 and the requirements of Part C: Environmental Management Specification contained in section C3.3 Particular Specifications.
- (e) Construction activities must comply with all the specified health and safety obligations including the requirements of Part D: OHS 1993 Health and Safety Specification contained in section C3.3 Particular Specifications.
- (f) Strict control of access to and from local public roads shall be required when construction vehicles, plant or equipment leave or enter the site.
- (g) Throughout the contract period traffic must be accommodated through the site and all other contractors engaged on the construction of identified roads must be accommodated.
- (h) The Contractor's programme of work shall take due cognisance of risks by limiting the duration of the exposure of the various construction elements to natural phenomena.

2. DRAWINGS

The drawings that form part of the Tender documents are issued on a CD and shall be used for Tender purposes only.

The Contractor will be supplied with three complete sets of A0 paper print drawings, and one set of drawings on a CD. These A0 paper prints and CD are issued free of charge and the Contractor shall make any additional copies he may require at his own cost.

Any information in the possession of the Contractor which the Employer's Agent requires to complete the as-built drawings shall be supplied to the Employer's Agent before a certificate of completion will be issued.

Only figured dimensions shall be used and drawings shall not be scaled unless so instructed by the Employer's Agent. The Employer's Agent will supply all figures / dimensions omitted from the drawings.

The levels given on the drawings are subject to confirmation on site, and the Contractor shall submit all levels to the Employer's Agent for confirmation before he commences any structural construction work. The Contractor shall also check all clearances given on the drawings and shall inform the Employer's Agent of any discrepancies.

3. PROCUREMENT

The contractor shall procure goods and services under provisional sums and prime cost sums according to the Employer's standards.

4. CONSTRUCTION

4.1 Applicable SANS 2001 standards for construction work

All construction work must conform with the relevant SABS or SANS specifications referred to in the 'Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020', or in Section C3.2 Project Specifications, Part B: Amendments to the Standard Specifications, of this document.

4.2 Applicable national and international standards

All construction work must be undertaken in accordance with the 'Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020 and as amended in Section C3.2 Project Specifications, Part B: Amendments to the Standard Specifications, of this document.

4.3 Particular / generic specifications

As well as the 'Amendments to the Standard Specifications' contained in Part B of Section C3.2 Project Specifications, of this document, the following Particular Specifications as contained in Section C3.3, are applicable to this Contract:

- Part C: Environmental Management Specification
- Part D: OHS 1993 Health and Safety Specification
- Part E: Expanded Public Works Programme

The 'General Conditions of Contract for Construction Works, Third Edition (2015)', published by the South African Institution of Civil Engineering which is applicable to this Contract.

4.4 Certification by recognized bodies

No certification of items included in the Works is required.

4.5 Plant and materials provided by the Employer

No plant and materials are to be provided by the Employer.

4.6 Services and facilities provided by the Employer

The Employer's Agent's site office and laboratory facilities will be paid for in terms of the Contract. No other services or facilities are to be provided by the Employer.

5. MANAGEMENT

5.1 Applicable SANS 1921 standards

The following parts of SANS 1921 and associated specification data are applicable:

5.1.1 SANS 1921-1 Part 1: General engineering and construction works

Specification data associated with SANS 1921-1	
Clause No.	Essential data
4.1.7	There are no requirements for drawings, information and calculations for which the Contractor is responsible.
4.2.1	The responsibility strategy assigned to the Contractor for the works is 'A'.
4.3.1	The programme must conform to clause A1.2.7.1 (Scheme 1) 'Programme of Work' of the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020 and clause 5.6 'Programme' of the 'General Conditions of Contract 2015'.
4.3.3	The Contractor must give 24 hours' notice for inspection of work that is to be covered up.
4.7.3	Where applicable, the Contractor is afforded the opportunity of pricing an item to cover costs of unavoidable over-break.
4.12.2	The samples of materials, workmanship and finishes that the Contractor is to provide and deliver to the Employer/Employer's Agent are to be as described in clause A1.2.8 'Workmanship and Quality Control' of the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020 and clause 7 'Quality and Related Matters' of the 'General Conditions of Contract 2015'.
4.12.2	The fabrication drawings that the Contractor is to provide to the Employer are: none.
4.14.5	The Contractor is to provide latrine and ablution facilities as described in Part C 'Environmental Management Plan' in Section C3.3 Particular Specifications of these Project Specifications.
4.14.6	The requirements for the provision and erection of signboards are as described in clause A1.2.3.10 'Notices, Signs and Advertisements' of the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020, and as detailed in the 'Example of Contract Signboard Details' in Section C4: Site Information of these Project Specifications.
4.17.1	The requirements for the termination, diversion or maintenance of existing services are described in clause A1.2.7.3 and Chapter 2 of the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020.
4.17.3	Services that are known to exist on the site are described in clause A1.2.7.3 and Chapter 2 of the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020.
4.17.4	The requirements for detection apparatus for locating underground services are: none.
4.18	The additional health and safety requirements are described in Part D 'OHS 1993 Health and Safety Specification' in Section C3.3 Particular Specifications of these Project Specifications.

5.1.1.1 Additional clauses:

(a) Site meetings and procedures

Site meetings shall be convened as described in clause A1.2.3.16 'Monthly Site Meetings' of the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020. The Contractor shall keep on site a set of minutes of all site meetings, daily records of resources (people and equipment employed), a site memoranda book, a complete set of contract working drawings and a copy of the procurement document, and shall make these available at all reasonable times to all persons concerned with the contract.

(b) Water and electricity

The Contractor is to provide water and electricity as described in clauses A1.2.3.21 'Water' and A1.4.7.3 'Services' of the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020.

5.1.2 SANS 1921-6 Part 6: HIV/AIDS awareness

Specification data associated with SANS 1921-6	
Clause No.	Essential data
4.2.1(a)	A qualified service provider is one that is an accredited or provisionally accredited training service provider in the HIV/AIDS field. A list of accredited service providers can be obtained from the Construction SETA (CETA) (tel. 011 265 5900), Health and Welfare SETA (HWSETA) (011 622 6852) or on the Health and Welfare SETA website: www.hwseta.org.za .
4.2.1(a)	The HIV/AIDS awareness programme is to be repeated at four monthly intervals throughout the duration of the contract.

5.1.2.1 Additional clauses:

(a) Workshops

The duration of each workshop shall not be less than 2½ hours.

5.2 Recording of weather

The Contractor shall erect a rain gauge and record the rainfall as described in clause A1.2.3.4 of the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020. This information together with other details of the prevailing weather conditions shall be recorded in the daily site diary.

5.3 Unauthorised persons

The Contractor shall keep unauthorised persons away from the Works at all times. Under no circumstances may the Contractor's personnel be accommodated on the site.

5.4 Management meetings

Management meetings are to be held weekly at a time convenient to all concerned, to discuss planning and health and safety amongst other things. Attendance by the Construction Manager and the Employer's Agent's Representatives on site is mandatory, and attendance by other interested parties will be by invitation.

5.5 Forms for contract administration

The Employer's Agent's Representative will provide standard forms for 'Site Diary', 'Site Memoranda', 'Requests for Inspection' and any others deemed to be necessary during the contract.

5.6 Electronic payments

Payments of approved payment claims will be made electronically upon submission of the Contractor's banking details.

5.7 Daily records

A site diary is to be compiled jointly by the Construction Manager and the Employer's Agent's Representatives on site and is to be agreed and signed by both parties. The original signed copy is to be retained by the Employer's Agent's Representative.

The Contractor is to keep daily records of people and equipment on site in a format to be agreed by the Employer's Agent's Representative, and is to provide copies to the Employer's Agent's Representative when requested.

5.8 Payment certificates

Details of measurements, proof of payment for items contained in provisional sums and prime cost sums, proof of ownership of Plant and materials on site and documentation pertaining to contract price adjustment and special materials, are required as substantiation of claims for payment.

5.9 Permits

No security/entrance permits are required by the Contractor's personnel to enter the site.

5.10 Proof of compliance with the law

There are no requirements for the Contractor to verify compliance with any legislation.

5.11 Submission of reports

The contractor shall submit monthly reports in accordance with the specifications in Part E: Expanded Public Works Programme and Part F: Small Contractor Development.

C3.2: PROJECT SPECIFICATIONS

PART B: AMENDMENTS TO THE STANDARD SPECIFICATIONS

PROJECT SPECIFICATIONS RELATING TO THE STANDARD SPECIFICATIONS AND OTHER ADDITIONAL SPECIFICATIONS

In certain clauses in the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020, allowance is made for 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 the necessary additional specifications required for this Contract.

The clauses and payment items dealt with in this part of the Project Specifications are numbered 'PS' with a number corresponding to the relevant clause or item number in the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020.

New clauses and payment items not covered by clauses or items in the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020 have been included here and have also been designated with the prefix 'PS'. Such clauses and items have been given a new number following upon the last number used in the particular chapter referred to in the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020.

CHAPTER 1.2 GENERAL REQUIREMENTS AND PROVISIONS

PART A: SPECIFICATION

PSA1.2.3.4 EXTENSION OF TIME FOR DELAYS BY RAINFALL

Add the following to the end of A1.2.3.4(b) Method 2 (Critical path method with consequential delays):

The value of "n" working days expected delay caused by normal rainy weather as referred to in Method (ii) shall be as given in the table below for each respective calendar month of any year:

Month	Expected delay of "n" working days due to normal rainy weather	Month	Expected delay of "n" working days due to normal rainy weather
January***	5	July	1
February	4	August	1
March	4	September	2
April	3	October	3
May	2	November	4
June	1	December***	5

*** Includes the whole month of December / January.

PSA1.2.3.11 ORDERING OF DAYWORKS

Replace Clause A1.2.3.11 with the following:

PSA1.2.3.11 DAYWORKS

a. Scope

Rates for daywork shall be entered in the under item C1.2.8.1 in accordance with the following specifications.

b. Daywork Rates

According to Clause 6.5 of the General Conditions of Contract 2015, certain work may be carried out using rates tendered in the daywork schedule. A schedule of personnel, construction equipment and vehicles which may be required to perform work on a daywork basis is included in the Bill of Quantities. The quantities used in the Bill of Quantities are for tender evaluation purposes only and the use or not of these items shall not constitute a variation in terms of Clause 6.3 of the General Conditions of Contract 2015.

No work will be paid for as daywork without the written instruction or approval of the Employer's Agent.

c. Type of Work

The Employer's Agent may order daywork in certain cases where it is necessary to vary or to extend the works due to new or unforeseen circumstances to such an extent that the tendered rates for specific items of work are no longer applicable, or where no suitable combination of tendered rates can be used to pay for such work.

As a general rule, applicable rates for additional work items will be agreed between the Contractor and the Employer's Agent. Daywork will only be used in exceptional circumstances.

d. Construction Equipment

Where daywork is ordered, the tendered rates for construction equipment in C1.2.8 of the Bill of Quantities shall be used in calculating the payment due for any construction equipment required to execute the daywork. If no rate is included in the Bill of Quantities for a particular item of construction equipment, and where no other rate or combination of rates would provide suitable compensation, then the daywork method of payment described in Clause 6.5.1.3 of the General Conditions of Contract 2015 will be used.

The tendered rates for each item of construction equipment shall include for all operating costs associated with the said item of construction equipment. Such costs are deemed to include fuel, re-fuelling costs, lubrication and routine servicing / maintenance, breakdowns and spares, all overhead costs, site management costs and administration costs. The tendered rates shall also include the construction equipment operator and the general supervision of the construction equipment while it is engaged in the daywork.

e. Salaries and Wages of Workmen

The salaries and wages of workmen executing daywork shall be paid for using the tendered rates in the Bill of Quantities. The tendered rates shall include for all costs associated with the employment of personnel, including salaries, wages, allowances, workmen's compensation, medical aid and pension contributions, government levies and taxes, training costs and any costs associated with living on the site. The tendered rates shall also include for the transportation of the workmen to the site of the daywork.

All overhead costs, administration costs, site management costs and the Contractor's profit are deemed to be covered by the daywork rates and no additions or mark ups will be made to the tendered rates.

The tendered rates shall also include any hand tools normally associated with the workmen's job description e.g. picks, shovels, hammers, saws and spirit levels. The tendered rate for labourers shall also include for the casual supervision by a gang leader or foreman. Only when specifically called for by the Employer's Agent, will payment be made for the use of a gang leader or foreman supervising on a continuous basis.

f. Measurement and Payment

The following principles shall also apply to the measurement and payment of daywork.

The unit of measurement for construction equipment shall be the number of Vibroclock hours worked and each item of construction equipment shall be fitted with a Vibroclock, the cost of which shall be included in the rates. Excessive non-productive time when the engine is idling will not be paid for. Where there is ambiguity between the flywheel horsepower and mass of the machine, the flywheel horsepower shall govern the measurement category. Where width and mass are specified, mass shall govern the measurement category.

The Contractor's attention is drawn to the requirements of Clauses 6.5.3 and 6.5.4 of the General Conditions of Contract 2015 with regard to the submission of lists and statements of personnel, materials and construction equipment used for daywork.

The payment items under C1.2.8 in the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020 will be applicable.

PSA1.2.3.15 Routine maintenance

Add the following to Clause 1.2.3.15:

Where the Contractor has been appointed by the Employer as part of the contract to carry out routine maintenance activities on the rehabilitated structures and their immediate approaches during the defect's liability period, the Contractor shall be required to identify all the maintenance activities required timely and shall submit this to the Employer for approval in writing before undertaking the work.

This routine maintenance responsibility shall include maintenance of the structures and their approaches, and shall typically comprise of:
Removal of debris, siltation, and vegetation from the waterway and within the culvert barrels at each structure to maintain hydraulic capacity.

- Clearing and maintenance of approach drainage systems (side drains, channels, etc.).
- Repair of guardrails, signs, and road markings on the immediate approaches to the structures.
- Grass cutting and vegetation control in the immediate vicinity of the abutments and wingwalls.

This routine maintenance shall exclude any repairs of defects in the works. Repairs of defects in the works shall remain the responsibility of the Contractor as per the contractual obligations.

Add the following new payment item.

PSC1.2 MEASUREMENT AND PAYMENT

Item	Description	Unit
------	-------------	------

PSC1.2.11 Maintenance of the rehabilitated works during the defect liability period:

(a)	(i) Removal of debris and clearing of waterways at structure locations.	Prov sum
	(ii) Handling costs and profit in respect of sub-item (i).	%
(b)	(i) Clearing of approach drainage systems.	Prov sum
	(ii) Handling costs and profit in respect of sub-item (i).	%
(c)	(i) Repair/Replacement of guardrails, signs, and road markings on approaches.	Prov sum
	(ii) Handling costs and profit in respect of sub-item (i).	%
(d)	(i) Grass cutting and vegetation control at structure locations.	Prov sum
	(ii) Handling costs and profit in respect of sub-item (i).	%

Payment will only be made when the relevant item of routine maintenance work has been approved in writing by the Employer's Agent. The tendered percentage for handling costs and profit shall include full compensation for all management & supervision.

C1.3 CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS

PART C: MEASUREMENT AND PAYMENT

PSC1.3.1.3 Time-related obligations

Add the following at the end of clause C1.3.1, Under Item C1.3.1.3

"The amount payable to the contractor for time-related general obligations arising from extensions of time granted in accordance with Clause 5.12.1. and Clause 5.12.2 of the GCC 2015, shall be calculated as follows:

- (i) The Contractor shall apply for the extension of time in terms of the number of days delay incurred calculated in accordance with Clause 5.1 of the GCC 2015.
- (ii) The number of days extension of time calculated in accordance with Clause 5.1 of the GCC 2015, finally granted shall then be added to the due completion date of the contract by the Engineer, commencing on the first working day after the day of the original due completion date. Non-working days and special non-working days as defined in the contract data shall not be counted as working days in calculating the extended completion date.
- (iii) The number of calendar days extension of time granted from the original completion date to the extended completion date as calculated in (ii) above shall then be calculated, commencing on the first calendar day after the day of the original completion date.

The following formula shall then be used to calculate the number of months extension of time granted;

$$\begin{aligned} &\text{No. of months extension of time granted} \\ &= [(\text{No. of calendar days extension of time granted} / 365)] \times 12 \end{aligned}$$

- (iv) The number of months extension of time granted calculated as in (iii) above shall be the number of additional months measured for payment for time-related general obligations under item PSC1.3.1.3 and in accordance with Clause 5.12.3 of the GCC 2015 as a result of the extensions of time granted.

NOTE: The number of months extension of time granted calculated as in (iii) above shall also be included in the measurement of any other items scheduled under Sections C1.3, C1.4 and C1.5 or elsewhere in the schedule of quantities that involve the unit of measurement "month" and that were provided on site for the full duration of the extended period. Where such items were provided for a portion of the extended period only, a pro rata payment shall be made, based on the number of calendar days the item was provided on site after the original completion date divided by the number of calendar days as calculated in (iii) above for the extension of time granted."

CHAPTER 14.1 METHOD STATEMENTS

Add the following new clause:

PSA14.1.1 Contractor's Method Statements

The Contractor shall submit for the Employer's Agent's review and approval, a detailed Method Statement for each of the activities listed below, at least fourteen (14) days prior to the planned commencement of the activity. The Method Statement shall outline the proposed materials, plant, labour, procedures, and safety protocols for executing the work in full compliance with the Contract Specifications.

Work shall not commence on any activity until the corresponding Method Statement has been approved in writing by the Employer's Agent.

Activities requiring a Method Statement shall include, but are not limited to:

- a) Demolition and removal of any structural concrete elements.
- b) Excavation for, and construction of, foundations and underpinning works.
- c) All specialist concrete repair work, including epoxy injection and patch repairs to spalled areas with exposed reinforcement.
- d) Installation and stressing of any required ground anchors or soil nails.
- e) Construction of gabion walls and mattresses.
- f) Installation of new guardrails and parapets.

C3.3: PARTICULAR SPECIFICATIONS

In addition to the Standard Specifications and the Project Specifications, the following Particular Specifications shall apply to this contract and are bound in hereafter:

PART C: ENVIRONMENTAL MANAGEMENT SPECIFICATION	C161
PART D: OHSA 1993 HEALTH AND SAFETY SPECIFICATION	C167
PART E: EXPANDED PUBLIC WORKS PROGRAMME.....	C176

3.3 PARTICULAR SPECIFICATIONS

PART C: ENVIRONMENTAL MANAGEMENT SPECIFICATION

PART C: ENVIRONMENTAL MANAGEMENT SPECIFICATION

C1. SCOPE

The Employer recognises environmental management as a key component of road infrastructure development and as part of its environmental policy has developed this environmental management specification as a tool for continual improvement in environmental performance.

This environmental management specification prescribes 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 2015 as the Defects Notification Period (maintenance period).

C2. ENVIRONMENTAL MANAGEMENT PLAN

In order to ensure that the construction work is carried out in an environmentally sensitive manner, strict compliance with the Environmental Management Plan (EMP) guidelines is required. The purpose of the EMP is to:

- Encourage good management practices through planning and commitment to environmental issues,
- Provide rational and practical environmental guidelines to:
 - (i) Minimise disturbance of the natural environment,
 - (ii) Prevent pollution of land, air and water,
 - (iii) Prevent soil erosion and facilitate re-vegetation.
- Adopt the best practicable means available to prevent or minimise adverse environmental impact,
- Develop waste management practices based on prevention, minimisation, recycling, treatment or disposal of wastes,
- Train employees and contractors with regard to environmental obligations.

C3. ADMINISTRATION OF ENVIRONMENTAL OBLIGATIONS

The Contractor is responsible for the implementation of this EMP to ensure sound environmental management during the construction phase of a project.

The Contractor shall receive and implement any instruction issued by the Employer's Agent relating to compliance with the EMP including the removal of personnel or equipment.

Compliance with the provisions contained herein or any condition imposed by the environmental approvals, shall become the responsibility of the Contractor through an approved Environmental Officer (EO). The Contractor shall nominate a person from among his site personnel to fulfil this function and submit to the Employer's Agent for his approval the curriculum vitae of the proposed EO. This request for approval shall be given, in writing, at least fourteen days before the commencement of any construction activity clearly setting out reasons for the nomination, and with sufficient detail to enable the Employer's Agent to make a decision.

Once a nominated representative of the Contractor has been approved as the EO, the EO shall be the responsible person for ensuring that the provisions of this EMP are complied with for the duration of the contract. The EO shall submit monthly written reports of compliance with the EMP to the Employer's Agent.

In addition to the compliance duties relating to this EMP, the EO shall also provide full cooperation whenever the Contractor is subjected to regular environmental audits.

C4. TRAINING AND INDUCTION OF EMPLOYEES

The Contractor has a responsibility to ensure that all those people involved in the project are aware of and familiar with the environmental requirements for the project (this includes subcontractors and local labour). The EMP shall be part of the terms of reference for all contractors, subcontractors and suppliers.

C5. COMPLAINTS REGISTER AND ENVIRONMENTAL INCIDENT BOOK

Any complaints received by the project team from the public will be recorded. The complaint should be brought to the attention of the Construction Manager, who will respond.

The following information must be recorded:

- Time, date and nature of the complaint,
- Type of communication (telephone, letter or email),
- Name, contact address and telephone number of the complainant,
- Response and investigation undertaken, and
- Actions taken and by whom.

All complaints received will be investigated and a response given to the complainant within 14 days.

All environmental incidents occurring on the site will be recorded. The following information will be provided:

- Time, date, location and nature of the incident, and
- Actions taken and by whom.

C6. SITE CLEANLINESS AND NEATNESS

- Location of a construction camp is to be approved by the Employer's Agent and is to be restored to its previous condition after completion of construction.
- The construction camp should preferably be fenced with a 1,8m Bonnox fence or similar approved.
- All materials, equipment, plant and vehicles must be stored within the construction camp.
- A dedicated area must be made available for construction staff to change and store their personal belongings.

C7. ACCESS

- Access to existing roads, schools, buildings, shops and residential properties must not be impeded during construction.
- Access roads utilised by the Contractor must be maintained in good condition.

C8. BORROW PITS

- Mining authorisations (permits) for borrow pits must be obtained from the Department of Mineral Resources (DMR) in consultation with the Department of Water and Sanitation (DWS).
- Spoil dumps resulting from borrow pits must not interfere with any natural surface drainage.
- Borrow pits must be rehabilitated after use in accordance with the requirements of DMR and DWS.

C9. DUST CONTROL / AIR QUALITY

- Dust suppression measures must be implemented during construction by ensuring that all surfaces prone to dust generation are kept damp (e.g. use of water tanker).
- Ensure that vehicles and equipment are in good working condition and that emissions are not excessive.
- Special care must be taken in areas where the route passes close to schools and residential areas.
- The speed of construction vehicles must be reduced.

C10. FAUNA

- Contractors' and subcontractors' staff and workers may not chase, catch or kill animals encountered during construction.

C11. FIRE PREVENTION AND CONTROL

- Smoking is prohibited in the vicinity of flammable substances.
- The Contractor must ensure that fire-fighting equipment is available on site, particularly where flammable substances are being stored or used, and that construction staff are aware of where it

- is kept and how it is operated.
- Fires started for comfort (warmth) are prohibited, due to the risk of veld fires and risk to adjacent property owners' lands.

C12. GRAVE SITES

- Grave sites in close proximity to the road must not be disturbed during construction.

C13. MATERIALS HANDLING AND SPILLS MANAGEMENT

- Any hazardous materials to be used during construction (e.g. lime, fuel and paint) are to be stored in a designated area at the campsite.
- The storage containers/facilities (including any diesel or petrol tanks) must be placed on an impermeable surface and surrounded by a bund wall, in order to ensure that accidental spillage does not pollute the environment.
- Workers must at all times be made aware of the health and safety risks associated with any hazardous substances used (e.g. smoking near fuel tanks), and must be provided with appropriate protective clothing/equipment in case of spillages or accidents.
- Ensure all staff and contractors undergo relevant training in the maintenance of equipment to prevent the accidental discharge or spill of fuel, oil, lubricants and other chemicals.
- Any spill of potentially hazardous materials must be cleaned up immediately (potentially hazardous materials on site include paint, oil, grease, fuel and turpentine).
- The area of contaminated soil or spill must be deposited into the hazardous waste container(s).
- The Contractor should keep Peat Sorb or a similar absorbent on site to clean up any spills. The absorbent must be stored in a designated area and be available for inspection.
- All spills are to be recorded in the environmental incident book.

C14. NOISE

- Noise generating activities must be restricted to between 07:00 and 17:00 Monday to Friday, unless otherwise approved by the appropriate competent person in consultation with adjacent landowners/affected persons.
- All equipment, vehicles and machinery must be in good working condition and be equipped with sound mufflers if necessary.
- Construction staff must be trained and made aware of not creating unnecessary noise such as hooting and shouting.

C15. POLLUTION CONTROL

- Soil and water pollution through usage of fuel, oil, paint, bitumen or other hazardous substances must be avoided.
- All construction vehicles are to be maintained in good working order so as to prevent soil or water pollution from oil, fuel or other leaks, and to reduce noise pollution.

C16. RIVERS AND STREAMS

- During construction of bridge structures, there must be no obstruction of the water flow of rivers and streams.
- Excavated material must not be stockpiled on or near riverbanks, in order to prevent sedimentation occurring.
- Erosion control measures must be employed both during and after construction.
- No impediments to natural surface water flow, other than approved erosion control measures, must occur.

C17. SAFETY

- Safety measures, such as detour signs, must be implemented during construction to ensure the safety of workers, pedestrians and drivers/passengers in vehicles in the vicinity of construction work.
- Special care must be taken in the vicinity of schools to ensure the safety of children wishing to

- cross the road under construction.
- The relevant signage (e.g. speed control signs) must be erected alongside the road during the operation phase in order to control traffic.
- Accommodation must be made for pedestrian pathways alongside the road during the construction and operation phases.

C18. SOIL MANAGEMENT

- Storm water drainage pipes must be installed alongside the road in all areas susceptible to soil erosion.
- Erosion should be minimised by the construction of meadow drains and the planting of indigenous vegetation on the side slopes and drains to reduce flow velocity of storm water.
- Spoil from cuts may be used in existing erosion gullies.
- Stone pitching and gabions should be constructed at pipe culvert outlets.
- Accidental spills of contaminants onto the ground e.g. oil, concrete, fuel and chemicals should be removed together with the contaminated soil.
- If necessary, an absorbent such as Peat Sorb should be used to aid in cleaning up the spill. The contaminated soil should be disposed of in an appropriate container, depending on its classification.
- Servicing and refuelling of vehicles must only be carried out at the construction camp.

C19. WORKER CONDUCT

Code of Conduct for Construction Personnel:

- Do not leave the construction site untidy and strewn with rubbish which will attract animal pests.
- Do not set fires.
- Do not cause any unnecessary, disturbing noise at the construction camp/site or at any designated worker collection/drop off points.
- Do not drive a construction-related vehicle under the influence of alcohol.
- Do not exceed the national speed limits on public roads or exceed the recommended speed limits on the site.
- Do not drive a vehicle which is generating excessive noise or gaseous pollution (noisy vehicles must be reported and repaired as soon as possible).
- Do not litter along the roadsides, including both the public and private roads.
- Do not pollute any water bodies (whether flowing or not).
- No member of the construction team is allowed to enter the areas outside the construction site.

C20. TRAFFIC DISTURBANCES AND DIVERSIONS

- Any traffic diversions must be undertaken with the approval of all relevant authorities and in accordance with all relevant legislation.
- Wherever possible, traffic diversion must only take place on existing disturbed areas and remain within the existing road reserve.
- Traffic diversion routes must be rehabilitated after use.

C21. VEGETATION

- Only vegetation falling directly on the route must be removed where necessary.
- Alien vegetation within the road reserve must be eradicated, and management measures must be implemented for future control of these species.
- Vegetation that has been removed from large areas (e.g. on traffic diversion routes) during construction must be replaced with indigenous vegetation after construction has been completed.

C22. WASTE MANAGEMENT

- All general, non-hazardous waste must be placed in a skip container and disposed of at a registered waste disposal site.
- The Contractor is to ensure that the portable toilet facilities at the campsite are properly maintained and in working order.

- No disposal, or leakage, of sewage must occur on or near the site.
- All hazardous waste (e.g. oil, paint, empty lime bags, and contaminated wash water) must be stored in leakproof containers and disposed of at a registered hazardous waste disposal site.
- The contents of waste storage containers must, under no circumstances, be emptied to the surrounding area. In general, littering, discarding or burying of any materials is not allowed on site or along the route.
- Adequate waste receptacles must be available at strategic points around the construction camp and site for all domestic refuse and to minimise the occurrence of littering.
- Concrete rubble must be collected and disposed of as directed by the Employer's Agent.
- Each working area must be cleared of litter and building waste (e.g. rubble, wood and concrete packets) on completion of the day's work.
- Any spill around the container(s) should be treated as per clause C13 and C18.

C23. MEASUREMENT AND PAYMENT

The contractor shall make provision in the various rates and prices for all costs related to the environmental management specification and measures required in terms of legislation. Provision is made in item C1.2.1 of the Bill of Quantities for the contractor's general obligations, risks and liabilities in accordance with the environmental management specification.

C3.3 PARTICULAR SPECIFICATIONS

PART D: OHS 1993 HEALTH AND SAFETY SPECIFICATION

PART D: OHSA 1993 HEALTH AND SAFETY SPECIFICATION

D1. SCOPE

This part covers the health and safety requirements to be met by the Contractor to ensure a continued safe and healthy working environment for all employees, subcontractors, the Employer, the Employer's Agent, inspectors and all other persons entering the site of works.

This specification shall be read in conjunction with the Occupational Health and Safety Act, 1993 (Act No 85 of 1993 and amendment Act No 181 of 1993) and the corresponding Construction Regulations 2014, and all other safety codes and specifications referred to in the said Act and Construction Regulations.

In terms of the OHSA Agreement in Section C1.4 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 for compliance with all provisions of OHSA 1993 and the Construction Regulations 2014.

This specification and the Contractor's own Health and Safety Plan as well as the Construction Regulations 2014, shall be displayed on site or made available for inspection by inspectors, the Employer, the Employer's Agent, the Construction Health and Safety Agent, subcontractors, employees, representatives of trade unions and any other persons entering the site of works.

D2. DEFINITIONS

For the purpose of this contract the following shall apply:

D2.1 "**Construction Health and Safety Agent**" (CHSA) means any competent person who acts as a representative for the Employer in managing health and safety on a construction project for the Employer and who has satisfied the registration criteria of the SACPCMP to perform the required functions.

D2.2 "**Contractor**" where used in the contract documents and in this specification, means the Contractor as defined in the General Conditions of Contract 2015, and it shall have the exact same meaning as "**principal contractor**" as defined in the Construction Regulations 2014. "**Contractor**" and "**principal contractor**" are therefore interchangeable and shall be read in the context of the relevant document.

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.

D2.3 "**Employer**" where used in the contract documents and in this specification, means the Employer as defined in the General Conditions of Contract 2015 and it shall have the exact same meaning as "**client**" as defined in the Construction Regulations 2014. "**Employer**" and "**client**" are therefore interchangeable and shall be read in the context of the relevant document.

D2.4 "**Employer's Agent**" where used in this specification, means the Employer's Agent as defined in the General Conditions of Contract 2015.

D3. EMPLOYER'S BASELINE RISK ASSESSMENT

D3.1 Risk information

The information presented in this clause is based on the Employer's baseline risk assessment prepared specifically for this contract.

This information describes the type of work required in terms of this contract that will be accompanied by dangers, hazards and risks which the Contractor shall be required to identify, analyse, manage, monitor and review in terms of the Health and Safety Plan and risk assessments.

This information is neither prescriptive nor exhaustive, and is provided as a guideline to Tenderers in

preparing their tender submissions, and to the successful Contractor as a basis for the preparation of the site-specific risk assessments to be performed by the Contractor in terms of Construction Regulation 9.

Tenderers shall make their own assessment of the dangers, hazards and risks that can be expected during the course of this contract, which may include dangers, hazards and risks not identified in the baseline risk assessment, including those that may arise from specific methods of construction employed by the Contractor, and shall make due allowance in their tendered rates and prices for all costs related to complying with the provisions of the Act and Construction Regulations.

This information is given in good faith for the guidance of Tenderers, and no additional payment shall be made as a result of any inaccuracies, discrepancies or omissions contained therein.

D3.2 Baseline risk assessment

The following is a list of risks identified which forms the Baseline Risk Assessment for the project prepared by the Employer in terms of Construction Regulation 5(1)(a).

D4. APPLICATION FOR CONSTRUCTION WORK PERMIT

Where the contract meets the requirements of Construction Regulation 3, the Employer must at least 30 days before commencement of the work and in accordance with the requirements of Construction Regulation 3, apply to the Provincial Director of the Department of Labour in writing for a construction work permit to perform construction work. The Employer's application must be done in a form similar to Annexure 1 of the Construction Regulations, and submitted with the required documentation, some of which the Contractor shall provide as stated in the Contract Data.

A copy of the construction work permit must be kept on site in the occupational health and safety file, available for inspection by inspectors, the Employer, the Employer's Agent, the Construction Health and Safety Agent, subcontractors, employees, representative trade unions and any other persons on the site. The Provincial Director will assign a site-specific number for each construction site, which must be conspicuously displayed at the main entrance to the site.

D5. NOTIFICATION OF CONSTRUCTION WORK

Where the contract meets the requirements of Construction Regulation 4, the Contractor shall, before commencement of the work and in accordance with the requirements of Construction Regulation 4, notify the Provincial Director of the Department of Labour of the intention to carry out the construction work, using the pro forma form included as Annexure 2 to this Health and Safety Specification.

A copy of the notification form must be kept on site, available for inspection by inspectors, the Employer, the Employer's Agent, the Construction Health and Safety Agent, subcontractors, employees, representative trade unions and any other persons on the site. A copy of the notification form shall also be kept on the health and safety file, and a further copy shall be forwarded to the Employer for his records.

D6. HEALTH AND SAFETY PLAN

Before commencement of any construction work, the Contractor shall prepare a project specific Health and Safety Plan complying with the requirements of Construction Regulation 7(1)(a) and this Health and Safety Specification.

The Health and Safety Plan must include a risk assessment performed and recorded in writing by a competent person as required in terms of Construction Regulation 9. 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 and applicable safe work procedures to mitigate, reduce or control the risks and hazards identified.

The Health and Safety Plan shall be available on site for inspection by inspectors, the Employer, the Employer's Agent, subcontractors, employees, representative trade unions, and health and safety representatives and committee members, and must be monitored and reviewed periodically by the Contractor.

D7. APPOINTMENT OF EMPLOYEES AND SUBCONTRACTORS

D7.1 Appointments

The Contractor shall appoint in writing all employees.

The Contractor shall appoint in writing all subcontractors, and such appointments shall be in compliance with the requirements of Construction Regulation 7.

D7.2 Health and safety induction training

No person shall be allowed or permitted to enter the site of the works unless such person has undergone health and safety induction training pertaining to the hazards prevalent on the site.

The Contractor shall ensure that all employees under his control, including subcontractors and their employees, undergo health and safety induction training by a competent person before commencement of construction work in compliance with Construction Regulations 7(5) and 9(3) and (4).

The Contractor shall ensure that all visitors to the construction site undergo health and safety induction and are provided with the necessary personal protective equipment in compliance with Construction Regulation 7(6).

D7.3 Medical certificate of fitness

The Contractor shall ensure that every employee, including subcontractors and their employees, has a valid medical certificate of fitness issued in compliance with Construction Regulation 7(1)(g) or 7(8) as applicable.

D8. APPOINTMENT OF SAFETY PERSONNEL

D8.1 Construction manager

Refer to Construction Regulation 8(1), (2), (3) and (4).

The Contractor shall appoint a full-time **Construction Manager** with the duty of managing all the construction work on the site, including the duty of ensuring occupational health and safety compliance.

The Contractor may also have to appoint one or more **assistant construction managers** to assist the Construction Manager where justified by the scope and complexity of the works.

D8.2 Construction health and safety officer

Refer to Construction Regulation 8(5) and (6).

Taking into consideration the size of the project and the dangers, hazards or risks that can be expected, the Contractor shall appoint in writing a full-time or part-time **construction health and safety officer** to assist in the control of all health and safety related aspects on the site. The construction health and safety officer shall be registered as required by the Chief Inspector of the Department of Labour and shall have the necessary competencies and resources to assist the Contractor.

D8.3 Construction supervisor

Refer to Construction Regulation 8(7), (8), (9) and (10).

The Contractor shall appoint a **construction supervisor** responsible for construction activities and ensuring occupational health and safety compliance on the construction site.

The Contractor 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.

D8.4 Health and safety representatives

In terms of Sections 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 50 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 basis, to participate in consultations with inspectors and to attend meetings of the health and safety committee.

D8.5 Health and safety committee

In terms of Section 19 of the Act (OHSA 1993), the Contractor (as employer) shall establish one or more **health and safety committees** 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, to make recommendations regarding health and safety to the Contractor and to keep record of recommendations and reports made by the committee.

D8.6 Competent persons

The Contractor shall appoint in writing designated competent employees and/or other competent persons as required by the Act and Regulations. Such appointments shall be in accordance with the relevant applicable sections of the Act and Regulations as determined by the requirements of the contract.

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 in 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 for compliance with **all** requirements of the Construction Regulations.

D9. RECORDS AND REGISTERS

The Contractor shall keep records and registers related to health and safety on site as required by the relevant applicable sections of the Act and Regulations as determined by the requirements of the contract. Such records and registers shall be available for periodic inspection by inspectors, the Employer, the Employer's Agent, the Construction Health and Safety Agent, subcontractors, employees and representatives of trade unions.

D10. CONTRACTOR'S RESPONSIBILITIES

For this contract the Contractor will be the mandatary 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 2014.

Before commencement of work under the contract, the Contractor shall enter into an agreement with the Employer (Client) in terms of C1.4 'Agreement in terms of Section 37(2) of the Occupational Health and Safety Act No. 85 of 1993', to confirm his status as mandatary (employer) for the contract under consideration.

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.

D11. MEASUREMENT AND PAYMENT

It is a condition of this contract that contractors who submit tenders for this contract shall make provision in their various tendered rates and prices for all costs related to the health and safety measures required in terms of the Act and Regulations during the construction process.

(a) Health and safety plan

The Contractor shall assess the risks associated with the Works when preparing the health and safety plan. In addition, the Contractor shall implement the health and safety plan, including the provision of a dedicated, full time health and safety officer, carrying out all the required site health and safety training and briefings, staff medical evaluations, monitoring and administering the health and safety plan and for supplying all transport, personal protection safety items, other health and safety equipment, safety notices and any other health and safety related items that are required on site. Provision is made for the costs of preparing and implementing the health and safety plan in item C1.2.5 of the Bill of Quantities.

(b) Safety appointments

No separate additional payment will be made to cover the costs related to persons appointed as required in terms of the Act and Regulations to fulfil the various health and safety functions. Such persons include the Construction Manager, any assistant construction managers, the construction health and safety officer, the construction supervisor, any assistant construction supervisors, health and safety representatives, health and safety committee members and competent persons, all as referred to in subclauses E8.1 to E8.6 above. The Contractor shall therefore make provision in the various tendered rates and prices for all costs related to such persons, and for which no separate additional payment will be made except to the extent provided in item C1.2.5 of the Bill of Quantities.

(c) Records and registers

The keeping of records and registers related to health and safety on site as described in clause E9 above shall be regarded as a normal duty of the Contractor for which payment shall be deemed to be included in the Contractor's various tendered rates and prices, and for which no separate additional payment will be made except to the extent provided in item C1.2.5 of the Bill of Quantities.

(d) Medical certificates

No separate additional payment will be made to cover the costs related to obtaining the medical certificates of fitness required for every employee, including subcontractors and their employees, issued in compliance with Construction Regulation 7(1)(g) or 7(8) as applicable. The Contractor shall therefore make provision in the various tendered rates and prices for all costs related to such medical certificates, and for which no separate additional payment will be made except to the extent provided in item C1.2.5 of the Bill of Quantities.

ANNEXURE 2

**OCCUPATIONAL HEALTH AND SAFETY ACT, 1993
(Regulation 4 of the Construction Regulations, 2014)**

NOTIFICATION OF CONSTRUCTION WORK

1. (a) Name and postal address of principal contractor:

.....
.....

(b) Name and telephone number of principal contractor's contact person:

.....

2. Principal contractor's compensation registration number:

3. (a) Name and postal address of client:

.....
.....

(b) Name and telephone number of client's contact person or agent:

.....

4. (a) Name and postal address of designer(s) for the project:

.....
.....

(b) Name and telephone number of designer's(s') contact person(s):

.....
.....

5. Name and telephone number of principal contractor's construction manager on site appointed in terms of regulation 8(1):

.....
6. Name(s) of principal contractor's assistant construction manager(s) on site appointed in terms of regulation 8(2):

ANNEXURE 2 - Continued

7. Exact physical address of the construction site or site office:

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

8. Nature of the construction work:

.....
.....

9. Expected commencement date:

10. Expected completion date:

.....

11. Estimated maximum number of persons on the construction site:

Total: Male: Female:

.....

12. Planned number of contractors on the construction site accountable to principal contractor:

.....

13. Name(s) of contractors already selected:

.....
.....

.....
Principal Contractor **Date**

.....
Client's Agent (where applicable) **Date**

.....
Client **Date**

- THIS DOCUMENT IS TO BE FORWARDED TO THE OFFICE OF THE DEPARTMENT OF LABOUR **PRIOR TO COMMENCEMENT** OF WORK ON SITE.

C3.3 PARTICULAR SPECIFICATIONS

PART E: EXPANDED PUBLIC WORKS PROGRAMME

PART E: EXPANDED PUBLIC WORKS PROGRAMME

E1. SCOPE

This part provides the specifications with regard to the following:

- (a) The Expanded Public Works Programme (EPWP)
- (b) National Youth Service (NYS)

The Contractor shall be required to participate in job creation (employment of local labour) by executing various portions of the Works using local labour (unskilled or semi-skilled), recruited from the local community, who are South African Citizens or foreigners in possession of a work visa issued by the Department of Home Affairs (only one such foreigner may be employed on any project). Such local labour shall be the targeted participants in the EPWP.

E2. EXPANDED PUBLIC WORKS PROGRAMME (EPWP)

E2.1 Labour enhanced construction, supervision and management for the Expanded Public Works Programme (EPWP)

The Expanded Public Works Programme (EPWP) is a multi-sectoral government initiative to create jobs. In the case of the infrastructure sector, existing government expenditure is realigned using labour enhanced technologies to create job opportunities. This involves the use of both labour and construction equipment, where labour is preferred and construction equipment is used appropriately.

All work undertaken in terms of the Expanded Public Works Programme (EPWP) shall be implemented using labour enhanced construction methods to the extent economically feasible, in accordance with the "Guidelines for the Implementation of Labour-Enhanced Infrastructure Projects under the Expanded Public Works Programme (EPWP) Third Edition 2015".

The aforementioned guidelines can be downloaded from the EPWP website of the Department of Public Works (<http://www.epwp.gov.za/>).

Items scheduled for labour-intensive construction are marked with the letters "LI" in the bill of quantities in the manner described in C2.1 Pricing Assumptions.

Contractors shall note that they shall employ in labour-enhanced works only the following supervisory and management staff that have completed the required Skills Programme in terms of Appendix C of the aforementioned guidelines:

- (a) Foremen / Supervisors at NQF level 4 "National Certificate: Supervision of Civil Engineering Construction Processes";
- (b) Site Agent / Construction Manager at NQF level 5 "Manage Labour-Enhanced Construction Processes" or equivalent Quality Council for Trades and Occupations (QCTO) qualifications at NQF level 5 or 7.

In addition to their normal supervisory and management functions, the aforementioned supervisory and management staff shall also be responsible for setting the workers' daily tasks in accordance with labour-enhanced construction principles, and for ensuring that the EPWP job creation reporting data is accurately recorded on a daily basis and compiled and submitted to the Employer each month in accordance with clause E4 of this PART E.

E2.2 Labour laws applicable to the Expanded Public Works Programme (EPWP)

The work to be undertaken on this contract by unskilled or semi-skilled workers under the Expanded Public Works Programme (EPWP) shall be implemented in accordance with:

- (a) the Code of Good Practice for Employment and Conditions of Work for Expanded Public Works Programmes (EPWP), issued in terms of the Basic Conditions of Employment Act of 1997 by the Minister of Labour in Government Notice No. 129 of 18 February 2011 (Government Gazette No. 34032 of 18 February 2011); and
- (b) Ministerial Determination 4: Expanded Public Works Programmes, issued in terms of the Basic Conditions of Employment Act of 1997 by the Minister of Labour in Government Notice No. R347 of 4 May 2012.

The aforementioned Government Notice No. R347 contains the standard terms and conditions for workers employed in elementary occupations on an Expanded Public Works Programme (EPWP). These terms and conditions do not apply to persons employed in the supervision and management of an Expanded Public Works Programme (EPWP).

The above documents can be downloaded from the EPWP website of the Department of Public Works (<http://www.epwp.gov.za/>).

E2.3 Persons to be employed under the Expanded Public Works Programme (EPWP)

All local labour required for the execution of labour-enhanced works shall be engaged strictly in accordance with prevailing legislation.

The Contractor shall, through the Project Liaison Committee (PLC) and with the assistance of the Community Liaison Officer (CLO), inform the local community of the labour-enhanced works proposed and the employment opportunities thereby presented.

The Contractor shall determine the minimum education level / skills required to undertake the works specified. In consultation with the PLC and the War Room convener for each relevant ward, selection of the local labour shall be made from households on the Operation Sukuma Sakhe (OSS) database profiled through the War Room for each ward. The list obtained from the OSS database must be accompanied by a letter from the War Room convener confirming that all the information provided was sourced from the War Room and that all listed incumbents reside within the relevant ward. The Contractor must maintain records of household profiles as part of the portfolio of evidence for selection. Selection shall be based on the minimum education level / skills required and the most-needy households, as determined by the household profiling. Preference shall be given for at least one person from each household in the community to be employed before further persons are considered for selection.

The Contractor shall endeavour to ensure that the number of temporary jobs using local labour (unskilled or semi-skilled), recruited from the local community, who are South African Citizens or foreigners in possession of a work visa issued by the Department of Home Affairs (only one such foreigner may be employed on any project), shall include for a minimum allocation of:

- (a) 60% women;
- (b) 55% youth who are between the ages of 18 and 35; and
- (c) 2% persons with disabilities.

All labour recruitment, employment and associated risks shall remain the sole responsibility of the contractor.

The contractor shall comply with the minimum supervisor to worker ratio stated below, required to ensure the effective supervision of the labour-enhanced works for all LI activities undertaken on this project:

Minimum supervisor to worker ratio = 1:10

E2.4 Contract of employment with persons employed under the Expanded Public Works Programme (EPWP)

The Contractor shall enter into a formal contract of employment with each person employed under the Expanded Public Works Programme (EPWP), using the pro forma contract of employment attached at the end of this PART E of section 3.3 Particular Specifications.

The Contractor shall note that all such formal contracts of employment entered into with persons employed under the Expanded Public Works Programme (EPWP) shall expire on 31 March each year, and the Contractor shall therefore be required to enter into new contracts with such persons as of 1 April each year.

E2.5 Employment of targeted labour under the Expanded Public Works Programme (EPWP)

The Contractor shall be contractually obliged to:

- (a) brief EPWP workers on the conditions of employment;
- (b) enter into a formal contract of employment with each EPWP worker, which contract will form part of the Employment Agreement;
- (c) keep personnel files for all EPWP workers and make copies available to the Employer if and when requested; and
- (d) ensure that payments to EPWP workers are made in accordance with Government Notice No. R347.

The rate of pay for persons employed under the Expanded Public Works Programme (EPWP) shall be the gazetted rate:

- (i) per task (for task-rated workers); or
- (ii) per day (for time-rated workers).

During those periods when an EPWP worker is engaged in formal classroom training (other than in-service training), the rate of pay shall be equal to the minimum wage rate as set on an annual basis in the Ministerial Determination for the Expanded Public Works Programme.

Tasks set by the Contractor shall be such that:

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

The Contractor shall revise the time taken to complete a task whenever it is established that the time taken per week to complete the tasks set does not fall within the limits indicated in (a) and (b) above.

E2.6 Training of persons employed under the Expanded Public Works Programme (EPWP)

The training of persons employed under the Expanded Public Works Programme (EPWP) is described in clause E4 below.

E2.7 Contractor's obligations towards persons employed under the Expanded Public Works Programme (EPWP)

Over and above implementing in accordance with Government Notice Nos. 129 and R347 the EPWP work to be undertaken on this contract, it shall be the responsibility of the Contractor to carry out the following functions with respect to the EPWP workers:

- (a) ensure that all participants are covered by the Compensation for Occupational Injuries and Diseases Act, 1993, for as long as they are contracted to the Contractor, and pay in full to the Compensation Commissioner such amounts as are due in terms of the Act;
- (b) pay in full to the Unemployment Insurance Fund for all participants such UIF contribution amounts as are due in terms of the Unemployment Insurance Act, 2001, as amended, and the Unemployment Insurance Contributions Act, 2002, as amended, and provide proof of such UIF payments upon request;
- (c) ensure that all participants are paid their wages on time through the pre-agreed payment method as stipulated in the participant contract of employment;

- (d) implement health and safety procedures with respect to the participants, ensuring that the health and safety regulations are adhered to;
- (e) ensure that all participants receive induction on site safety prior to commencing with work on site;
- (f) provide all participants with the necessary protective clothing and equipment as required by law for the specific tasks in which the participants are involved, in addition to the branded overalls stipulated for EPWP workers;
- (g) provide safe on-site storage facilities for apparel and tools issued to the participants;
- (h) assist in the assessment of participants with regard to their competencies;
- (i) provide overall supervision and day-to-day management of participants; and
- (j) implement strict quality control to ensure that the work carried out by the participants is of the required standard, and, where necessary, to train and mentor the participants to assist them in achieving the standards required.

E2.8 Apparel and tools for persons employed under the Expanded Public Works Programme (EPWP)

The Contractor shall provide Personal Protective Equipment (PPE) to all EPWP workers in accordance with the requirements arising from PART D: OHS 1993 Health and Safety Specification and the Contractor's site-specific health and safety plan and accompanying risk assessments.

Where indicated below, certain items of the PPE issued by the Contractor to the EPWP workers shall include branded EPWP markings in accordance with the attached branding requirements.

PPE shall comprise the following:

- (a) Compulsory PPE issued to all EPWP workers for use during general work activities:
 - (i) Protective overalls (two sets), Pentone Yellow in colour, with EPWP branding;
 - (ii) Lime green reflective safety vest with EPWP branding;
 - (iii) Protective footwear; and
 - (iv) Protective gloves.
- (b) PPE issued to EPWP workers for specific activities where required in terms of the Contractor's site-specific health and safety plan and accompanying risk assessments, such as:
Protective headwear, green in colour, with EPWP branding;
 - (i) Protective eyewear such as spectacles and goggles;
 - (ii) Protective face shields;
 - (iii) Protective earplugs and earmuffs;
 - (iv) Respiratory masks;
 - (v) Disposable safety apparel;
 - (vi) Kidney belts;
 - (vii) Safety harnesses; and
 - (viii) Any other protective equipment identified.

The Contractor shall replace any item of issued PPE that becomes unserviceable.

The Contractor shall not charge any fee to the EPWP workers for the prescribed PPE issued except under the following circumstances:

- (i) where the employee requests the issue of additional PPE in excess of what is prescribed;
- (ii) where the employee has patently abused or neglected the issued PPE leading to early failure;
or
- (iii) where the employee has lost the issued PPE.

The Contractor shall instruct and train the EPWP workers in the use of all PPE issued, and shall ensure that they use the prescribed equipment.

EPWP workers shall not have the right to refuse to use or wear the equipment prescribed by the Contractor. If it is not possible for an EPWP worker, through health or any other reason, to use or wear the prescribed PPE issued, such employee shall not be allowed to continue working under the hazardous conditions for

which the equipment was prescribed. Under such circumstances an alternative solution shall be found, and this may include relocating or discharging the employee.

The Contractor shall provide each EPWP worker with hand tools of adequate quality and of the type required to carry out the assigned tasks safely and efficiently.

The Contractor shall instruct and train the EPWP workers in the safe and efficient use of all hand tools issued.

The Contractor shall maintain the issued tools in a serviceable and safe working condition.

The EPWP workers shall be responsible for the safe on-site storage of all PPE and tools issued to them, using the storage facilities provided on site by the Contractor.

No separate payment shall be made for providing the EPWP workers with PPE, or for providing relevant items of PPE in the specified colours with branded EPWP markings. Furthermore, no separate payment shall be made for providing the EPWP workers with hand tools or for providing them with safe storage facilities on site for PPE and tools. The Contractor shall therefore make provision for all costs related to providing the PPE, tools and safe storage facilities in the tendered rates and prices for the various items of work scheduled throughout the bill of quantities.

E2.9 EPWP contract signboard

The Contractor will be required to erect a contract signboard displaying the EPWP logo, indicating that this project is part of the Expanded Public Works Programme (EPWP). Provision for the costs related to the provision, erection and subsequent removal of the contract signboard is made in pay item provided in chapter 1.3 of the bill of quantities for this purpose.

E2.10 Payment matters relating to the EPWP work

E2.10.1 General

No separate pay items shall be provided in terms of PART E of the bill of quantities for the construction work activities carried out by EPWP participants. Payment for such work activities shall be made only indirectly, in terms of the pay items scheduled for the work activities in which such persons are engaged.

Furthermore, no direct payment will be made to cover the Contractor's costs associated with implementing the on-site work programme for the EPWP participants, for planning, organising, directing, controlling and administrating their day to day activities, including the setting of daily tasks, record keeping and any on-site liaison, training and mentoring required, and for the associated job creation reporting, and such costs shall therefore be built into the rates tendered for the various items of work scheduled throughout the bill of quantities.

E2.10.2 Payment for labour-enhanced components of the work

Payment will be made for items which are designated for labour-enhanced construction in the bill of quantities only in those instances where such items are constructed using labour-enhanced methods.

Any unauthorised use of construction equipment to carry out work which was scheduled to be carried out using labour-enhanced methods will not be condoned and any Works so constructed will not be certified for payment. Any non-payment for such Works shall not relieve the Contractor in any way from his obligations either in contract or in delict.

During the course of construction, as a result of unforeseen site conditions or operating conditions encountered, it may happen that an item designated for labour-enhanced construction can no longer be carried out in a safe and economically feasible manner, either in full or in part, using labour-enhanced methods. In such instances the Employer's Agent shall, where necessary, order a variation in terms of clause 6.3 of the of the General Conditions of Contract 2015 with respect to that portion of the item quantity that cannot be carried out using labour-enhanced methods.

E2.11 Penalty applicable to any shortfall in the local labour content achieved

The amount spent on wages for local labour (excluding VAT) for this project, as certified by the Employer's Agent, shall equal or exceed the specified minimum percentage of the contract amount which is the Contract Price (adjusted to exclude penalties and value added tax).

The Contractor is obliged to commit to or exceed the specified minimum percentage of local labour content stated in section C1.2.2 Data Provided by the Employer.

In the event that the Contractor fails to substantiate that any failure to achieve the minimum required local labour content for this project is due to quantitative underruns, the elimination of items contracted to local labour, or any other reason beyond the Contractor's control which may be acceptable to the Employer, the Contractor shall be liable for a financial penalty as prescribed in clause SCC 4.1.1 of section C1.2.1.2 Special Conditions of Contract. The financial penalty shall be calculated as follows:

$$P = 0,05 \times [(E - E_0)/100] \times C_A$$

where:

- E is the specified minimum percentage for local labour content
- E₀ is the local labour content percentage which the Employer's Agent certifies as being achieved upon completion of the contract
- C_A is the contract amount which is the Contract Price (adjusted to exclude penalties and value added tax)
- P is the monetary value of penalty payable

The penalty shall not apply to shortfalls in the allocations to the individual target groups (i.e., Women/Youth/Disabled as per clause F1.3 above), only to shortfalls in the total local labour content achieved.

The evaluation of the Contractor's achievement of the local labour content percentage shall be undertaken monthly by the Employer's Agent, based on the accumulative achievements in comparison to the programmed utilisation of local labour, as a means of monitoring the Contractor's performance in achieving the Contract Participation Goal.

Failure by the Contractor to achieve the Contract Participation Goal target by the time of Practical Completion, shall result in the financial penalty being applied as prescribed in this clause. The Employer's Agent shall make a final determination of the Contractor's achievement of the Contract Participation Goal based on the value of the Final Payment Certificate.

E3. NATIONAL YOUTH SERVICE (NYS)

E3.1 The National Youth Service (NYS) programme

The National Youth Service (NYS) programme aims to train young people and provide them with practical onsite work experience. The NYS shall only be applicable to projects with a duration of 12 months and above.

The Contractor shall not be required to directly employ and provide theoretical training to NYS workers in terms of this contract. An NYS Service Provider has been employed by the Employer to facilitate all the necessary employment and training of NYS participants. The Contractor shall be expected to liaise with the NYS Service provider and shall be expected to provide any practical training requirements on the project as may be required by the NYS Service Provider/Employer to fulfil the NYS programme requirements or other accredited training programme requirements. This may include work suitable for both unskilled or semi-skilled workers.

No additional payments shall be made for medical assessments pertaining to the NYS workers. The medical assessments for the NYS workers shall be covered under Payment item C1.2.5. Therefore, the tendered rates shall include the medicals for the number of NYS workers as indicated in E3.2.

E3.2 Persons to be employed under the NYS programme

For purposes of this contract, the Contractor shall be required to provide practical training opportunities to 10 youths at a given time aged between 18 and 35 for a period of 12 months each under the NYS programme.

E3.3 Payment matters relating to the NYS work

No direct or additional payment will be made to cover the Contractor's costs associated with implementing the on-site work programme for the NYS workers, for planning, organising, directing, controlling and administrating their day to day activities, including the setting of daily tasks, record keeping and any on-site liaison, training and mentoring required, and for the associated job creation reporting, and such costs shall therefore be built into the rates tendered for the various items of work scheduled throughout the bill of quantities for the number of NYS workers as indicated in E3.2.

E3.4 Contractor's obligations towards persons employed under the NYS programme

Over and above implementing in accordance with Government Notice Nos. 129 and R347 the NYS programme work to be undertaken on this contract, it shall be the responsibility of the Contractor to carry out the following functions with respect to the NYS programme workers:

- (a) implement health and safety procedures with respect to the participants, ensuring that the health and safety regulations are adhered to;
- (b) ensure that all participants receive induction on site safety prior to commencing with work on site;
- (c) provide safe on-site storage facilities for apparel and tools issued to the participants;
- (d) assist in the assessment of participants with regard to their competencies in their respective trades;
- (e) provide overall supervision and day-to-day management of participants; and
- (f) implement strict quality control to ensure that the work carried out by the participants is of the required standard, and, where necessary, to train and mentor the participants to assist them in achieving the standards required.

E3.5 EPWP- NYS contract signboard

Where work takes place under the National Youth Service (NYS) programme, the NYS logo shall also be displayed on the EPWP contract signboard referred to in clause F2.9 above, indicating that this project is part of both the Expanded Public Works Programme (EPWP) and the NYS programme. Provision for the costs related to the provision, erection and subsequent removal of the contract signboard in the pay item provided in chapter 1.3 of the bill of quantities for this purpose.

E4. JOB CREATION REPORTING FOR EPWP

In order to assist the Employer in complying with the goal of creating EPWP job opportunities, the Contractor must provide the information specified in clause E4.1 below for reporting purposes.

In addition, the Contractor's payment certificates shall be accompanied by the information specified in clause E4.2 below.

E4.1 Type of project data required per project

Every EPWP project shall collect and keep specific project data for the purpose of EPWP progress reporting on a monthly basis, using the EPWP Data Collection Tool template (this will be made available to the Contractor in Microsoft Excel format - refer to the pro forma spreadsheets at the end of this PART E of the Particular Specifications).

The data that is required to be kept, maintained and reported on a monthly basis for each project includes:

E4.1.1 Participant (local labour) data

A participant list of the local labour employed must be maintained for every EPWP project. The data required in this participant list is indicated below. This data shall be recorded, checked and signed off by the Contractor, and shall be submitted to the Employer at each monthly site meeting. The participant list shall contain the following data and shall be kept and maintained on site for audit purposes:

- (a) Participant identity – name, surname, initials, date of birth and identity number (or other unique identifier) plus certified copy of ID book.
- (b) Participant profiles – nationality, gender, age, education level and disability status.
- (c) Work data for participants – daily wage to be received, number of calendar days training attended and number of calendar days worked.
- (d) Records of training – as required in terms of the EPWP Data Collection Tool template.

In addition, the signed contracts of employment between the Contractor and each EPWP participant shall be kept and maintained on site for audit purposes.

E4.1.2 Project work data

The project work data generally seeks to confirm the number of people at work daily on the project. This data shall be recorded, checked and signed off by the Contractor, and shall be submitted to the Employer at each monthly site meeting. The data shall be maintained on site by the Contractor, in order that it can be provided by the Employer to the National Department of Public Works upon request when the latter is undertaking sample auditing. These records shall be kept by the Contractor for a period of three years after contract completion should they be required for audit purposes.

The data shall include:

- (a) Daily attendance register – register for each day showing all the workers that were registered as being at work on that day. Attendance registers shall be completed on site on a daily basis and signed off by the Contractor on a weekly basis. Refer to pro forma attendance register attached at the end of this PART E of section 3.3.
- (b) Summary of monthly attendance.

E4.1.3 Project payment data

The project payment data generally seeks to confirm what was paid, for how much work and to whom. This data shall be recorded, checked and signed off by the Contractor, and shall be submitted to the Employer at each monthly site meeting.

It is required that the Contractor adopt one of the following methods as standard procedure for recording and maintaining this information:

- (a) Payment register – this is a list of the workers showing the wages paid to each worker, and signed off by each worker as proof of receipt and acceptance of payment. Information on this register must include the name of the worker, either an identity number or other unique identifier, the number of calendar days that the pay period covers, the wage rate and the total wages paid; or
- (b) Bank records showing the transfers to each worker account, signed off by the Contractor as proof of payment – these bank records must specifically show the name of the worker, either an identity number or other unique identifier, the period which the pay covers and the total wages paid.

The project payment data, as recorded and maintained by the Contractor in terms of either (a) or (b) above, must be available and applicable for the entire period for which the Employer claims an incentive reward for person-days of work created in terms of the project.

E4.1.4 Employment output data

The Contractor shall submit to the Employer at each monthly site meeting a progress report detailing production output compared to the programme of works, together with the data necessary to enable the

Employer to calculate the following employment output data in accordance with the EPWP Data Collection Tool template:

- (a) Number of work opportunities created (where one work opportunity = paid work created for one individual on an EPWP project, for any period of time).
- (b) Number of person-days of work created (where one person-day = one day of work carried out by one individual). The total number of person-days of work created on a particular EPWP project shall be obtained by summing the total number of person-days worked by each individual employed during the course of that EPWP project.
- (c) Number of Full Time Equivalents (FTE) created (= total number of person-days of work created on the EPWP project divided by 230 working days). In terms of EPWP policy, one year of work created for one individual is assumed to comprise a total of 230 days of paid work carried out by that individual.
- (d) Average duration of work opportunities created (= total number of person-days of work created on the EPWP project divided by the number of work opportunities created on that EPWP project).
- (e) Average daily wage rates paid (= accumulated total of the wages paid to all individuals employed on an EPWP project divided by the total number of person-days of work created on that EPWP project).
- (f) Training information.

E4.2 Project data to be submitted with the Contractor's payment certificates

The Contractor's payment certificates shall be accompanied by labour returns providing the labour information for the corresponding period in a format specified by the Employer.

Should the Contractor choose to delay submitting payment certificates, the labour returns shall nevertheless still be submitted as per the frequency and timeframes stipulated by the Employer. The Contractor's payment certificates shall not be paid by the Employer until all pending labour information has been submitted.

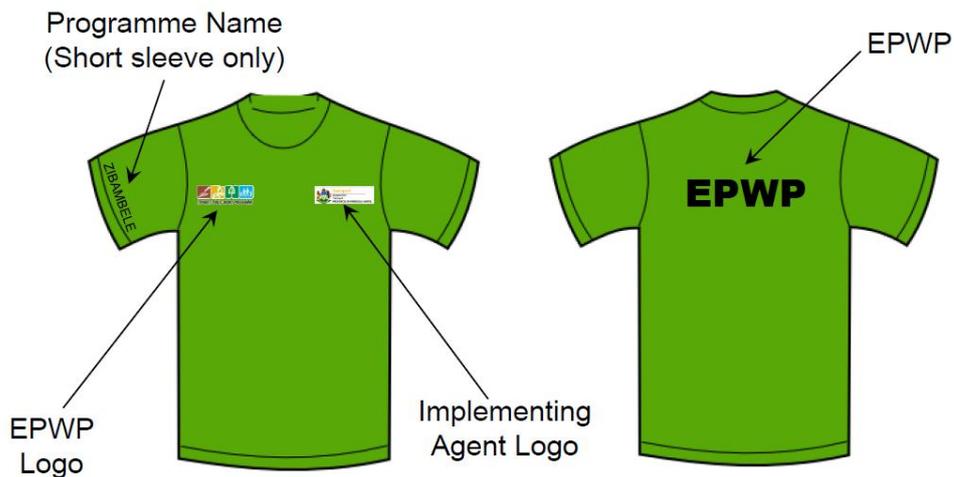
The following information shall be maintained on site and submitted with each payment certificate in the format specified by the Employer:

- (a) Copies of the signed contracts between the Contractor and any new EPWP participants (the Contractor shall note that all such formal contracts of employment entered into with persons employed under the Expanded Public Works Programme (EPWP) shall expire on 31 March each year, and the Contractor shall therefore be required to enter into new contracts with such persons as of 1 April each year, and shall be required to submit copies of all such new contracts with the first payment certificate thereafter);
- (b) Certified ID copies of all local labour employed as EPWP participants;
- (c) Attendance registers for the EPWP participants;
- (d) Proof of payment of EPWP participants; and
- (e) Information as required in terms of the EPWP Data Collection Tool template.

Expanded Public Works Programme: PPE BRANDING For EPWP Projects



T-Shirt/Overall/Safety Vest Branding



Logo Options

Implementing Agent Examples

National Projects



environmental affairs
Department: Environmental Affairs
REPUBLIC OF SOUTH AFRICA

transport
Department: Transport
REPUBLIC OF SOUTH AFRICA

public works
Department: Public Works
REPUBLIC OF SOUTH AFRICA

Contains National Coat Of Arms and name

Provincial Department Projects



education
Department: Education
PROVINCE OF KWAZULU-NATAL

transport
Department: Transport
Province of KwaZulu-Natal

agriculture & environmental affairs
Department: Agriculture and Environmental Affairs
PROVINCE OF KWAZULU-NATAL

Contains Provincial Coat Of Arms and name

Municipal Projects



Ugu District Municipality

ETHEKWINI MUNICIPALITY

PLEASE VERIFY WHICH LOGO NEEDS TO BE USED

EPWP LOGO



EXPANDED PUBLIC WORKS PROGRAMME

The Logo shall not be disproportionately stretched. A monochrome black logo may be used on approval only.

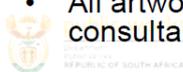
The above logo is the current logo. Logos with green text below the words EXPANDED PUBLIC WORKS PROGRAMME are old logos and should not be utilised.



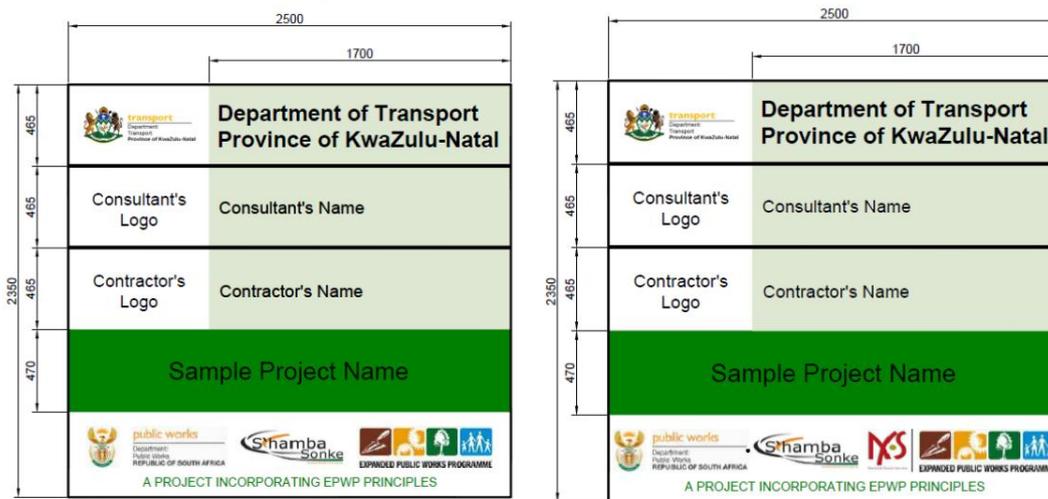
Printing on PPE

PPE (Overalls) shall be Pantone Green with/without reflective tape and shall be branded as follows:

- Implementer's Logo (printed or embroidered) on the left front pocket location ie over the heart position. (full colour)
- EPWP logo on the right front pocket (printed or embroidered) location (full colour)
- The letters EPWP on the back of the PPE in BLACK
- The program name eg Vuk'uphile is to be printed on the right sleeve of short sleeved apparel and need not be placed on long sleeved apparel.
- Where required, lime green safety vests are to be branded with similar specification above. In this instance the Overalls may not necessarily be branded provided that the use of high visibility vests is mandatory.
- All artwork and PPE samples shall be approved and signed off by the consultant prior to printing/embroidering.



Project Signboard



For further information contact:

Petronella Sithebe

Petronella.Sithebe@Kzntransport.gov.za

033-355-8023



PRO FORMA EPWP CONTRACT OF EMPLOYMENT

Contractor's
Logo



EXPANDED PUBLIC WORKS PROGRAMME

This contract must be read in conjunction with the standard terms and conditions of employment on EPWP attached herein.

EPWP CONTRACT OF EMPLOYMENT between

Employer Details

Name	Click or tap here to enter text.	Address	Click or tap here to enter text.
Telephone	Click or tap here to enter text.		
Email	Click or tap here to enter text.		
Contact	Click or tap here to enter text.		

And

Employee Details

Name	Click or tap here to enter text.	Surname	Click or tap here to enter text.
ID:	Click or tap here to enter text.	Cell	Click or tap here to enter text.
Sex (M/F)	Male <input type="checkbox"/> Female <input type="checkbox"/>	Disability	Yes <input type="checkbox"/> No <input type="checkbox"/>
Primary Language	Click or tap here to enter text.	Physical Address	Click or tap here to enter text.
Other Languages	Click or tap here to enter text.		
Highest Education Level Achieved	Click or tap here to enter text.	Local Municipality	Click or tap here to enter text.
Other qualifications	Click or tap here to enter text.	Ward	Click or tap here to enter text.
Grant Received (Y/N)	Yes <input type="checkbox"/> No <input type="checkbox"/>	Grant type:	

Employment Details

Name of project:	Click or tap here to enter text.		
Job Title:	Click or tap here to enter text.		
Duties:	Click or tap here to enter text.		
Contract Start Date	Click or tap here to enter text.	Contract Finish Date	Click or tap here to enter text.
The wage per task/day is:	R Click or tap here to enter text. / Hour/Day/task <i>(Specifier to select correct rate)</i>		

Special Conditions

<p>You must be aware that this employment contract is a limited term contract and not a permanent job. This employment contract may be terminated for any one of the following reasons:</p> <ul style="list-style-type: none"> a) The contractor does not get additional contracts from the EPWP. b) Funding for the programme in your area comes to an end. c) Underperformance: first offence – final written warning. Second offence – dismissal. 	<p>Payment</p> <ul style="list-style-type: none"> a) You will be paid a fixed amount stipulated above for completing a fixed amount of work. b) The amount of work required for the agreed rate of pay will vary from task to task. You will be informed at the beginning of each task or group of tasks how much work you are expected to complete per day. c) You will only be paid for work completed. d) Payment during classroom training shall be R /day
<p>Personal Protective Clothing will be supplied to the employee by the employer depending on the work to be performed, and will remain the property of the employee provided that the employee has worked for at least 3 months.</p>	

Acceptance

Employer Name:	Employer Signature:	Employee Name:	Employee Signature:
Witness 1 Name:	Witness 1 Signature:	Witness 2 Name:	Witness 2 Signature:

APPENDIX E – Conditions of Service

1. Introduction

1.1. This document contains the standard terms and conditions for workers employed in elementary occupations on an Expanded public Works Programme (EPWP). These terms and conditions do NOT apply to persons employed in the supervision and management of an EPWP.

1.2. In this document –

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

2. Terms of Work

- 2.1. Workers on an EPWP are employed on a temporary basis.
- 2.2. A worker may NOT be employed for longer than 24 months in any five-year cycle on an EPWP.
- 2.3. Employment on an EPWP does not qualify as employment as a contributor for the purposes of the Unemployment Insurance Act 30 of 1966.

3. Normal Hours of Work

- 3.1. An employer may not set tasks or hours of work that require a worker to work–
 - a) more than forty hours in any week
 - i. on more than five days in any week; and
 - ii. for more than eight hours on any day.
- 3.2. An employer and worker may agree that a worker will work four days per week. The worker may then work up to ten hours per day.
- 3.3. A task-rated worker may not work more than a total of 55 hours in any week to complete the tasks allocated (based on a 40-hour week) to that worker.

4. Meal Breaks

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

5. Special Conditions for Security Guards

- 5.1. A security guard may work up to 55 hours per week and up to eleven hours per day.
- 5.2. A security guard who works more than ten hours per day must have a meal break of at least one hour or two breaks of at least 30 minutes each.

6. Daily Rest Period

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

7. Weekly Rest Period

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

8. Work on Sundays and Public Holidays

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

9. Sick Leave

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

Employer	Employee
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10. Maternity Leave

- 10.1. A worker may take up to four consecutive months' unpaid maternity leave.
- 10.2. A worker is not entitled to any payment or employment-related benefits during maternity leave.
- 10.3. A worker must give her employer reasonable notice of when she will start maternity leave and when she will return to work.
- 10.4. A worker is not required to take the full period of maternity leave. However, a worker may not work for four weeks before the expected date of birth of her child or for six weeks after the birth of her child, unless a medical practitioner, midwife or qualified nurse certifies that she is fit to do so.
- 10.5. A worker may begin maternity leave –
 - a) four weeks before the expected date of birth; or
 - b) on an earlier date –
 - i. if a medical practitioner, midwife or certified nurse certifies that it is necessary for the health of the worker or that of her unborn child; or
 - ii. if agreed to between employer and worker; or
 - 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.
- 10.6. A worker who has a miscarriage during the third trimester of pregnancy or bears a stillborn child may take maternity leave for up to six weeks after the miscarriage or stillbirth.
- 10.7. A worker who returns to work after maternity leave, has the right to start a new cycle of twenty-four months employment, unless the EPWP on which she was employed has ended.

11. Family responsibility leave

- 11.1. Workers, who work for at least four days per week, are entitled to three days paid family responsibility leave each year in the following circumstances -
 - a) when the employee's child is born;
 - b) when the employee's child is sick;
 - c) in the event of a death of –
 - i. the employee's spouse or life partner;
 - ii. the employee's parent, adoptive parent, grandparent, child, adopted child, grandchild or sibling.

12. Statement of Conditions

- 12.1. An employer must give a worker a statement containing the following details at the start of employment –
 - a) the employer's name and address and the name of the EPWP;
 - 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 EPWP.
- 12.2. An employer must ensure that these terms are explained in a suitable language to any employee who is unable to read the statement.
- 12.3. An employer must supply each worker with a copy of these conditions of employment.

13. Keeping Records

- 13.1. Every employer must keep a written record of at least the following –
 - a) the worker's name and position;
 - b) in the case of a task-rated worker, the number of tasks completed by the worker;
 - c) in the case of a time-rated worker, the time worked by the worker;
 - d) payments made to each worker.
- 13.2. The employer must keep this record for a period of at least three years after the completion of the EPWP.

14. Payment

- 14.1. An employer must pay all wages at least monthly in cash or by cheque or into a bank account.
- 14.2. A task-rated worker will only be paid for tasks that have been completed.
- 14.3. An employer must pay a task-rated worker within five weeks of the work being completed and the work having been approved by the manager or the contractor having submitted an invoice to the employer.
- 14.4. A time-rated worker will be paid at the end of each month.
- 14.5. Payment must be made in cash, by cheque or by direct deposit into a bank account designated by the worker.
- 14.6. Payment in cash or by cheque must take place –
 - a) at the workplace or at a place agreed to by the worker;
 - b) during the worker's working hours or within fifteen minutes of the start or finish of work;
 - c) in a sealed envelope which becomes the property of the worker.
- 14.7. An employer must give a worker the following information in writing –
 - a) the period for which payment is made;
 - 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.
- 14.8. If the worker is paid in cash or by cheque, this information must be recorded on the envelope and the worker must acknowledge receipt of payment by signing for it
- 14.9. If a worker's employment is terminated, the employer must pay all monies owing to that worker within one month of the termination of employment.

15. Deductions

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

16. Health and Safety

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

17. Compensation for Injuries and Diseases

Employer	Employee
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- 17.1. It is the responsibility of the employers (other than a contractor) to arrange for all persons employed on an EPWP to be covered in terms of the Compensation for Occupational Injuries and Diseases Act, 130 of 1993.
- 17.2. A worker must report any work-related injury or occupational disease to their employer or manager.
- 17.3. The employer must report the accident or disease to the Compensation Commissioner.
- 17.4. An employer must pay a worker who is unable to work because of an injury caused by an accident at work 75% of their earnings for up to three months. The employer will be refunded this amount by the Compensation Commissioner. This does NOT apply to injuries caused by accidents outside the workplace such as road accidents or accidents at home.

18. Termination

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

19. Certificate of Service

- 19.1. On termination of employment, a worker is entitled to a certificate stating –
 - a) the worker's full name;
 - b) the name and address of the employer;
 - c) the EPWP on which the worker worked;
 - d) the work performed by the worker;
 - e) any training received by the worker as part of the EPWP;
 - f) the period for which the worker worked on the EPWP;
 - g) any other information agreed on by the employer and worker.Either party can terminate this agreement with four weeks written notice. In the case where an employee is illiterate notice may be given by that employee verbally.

Employer	Employee
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**EPWP DATA COLLECTION TOOL TEMPLATE
(PRO FORMAS OF MICROSOFT EXCEL SPREADSHEETS)**

EPWP REGISTRATION FORM		
Field requested	Description if needed	Please complete the sections in white
Project Details		
Profile ID	<i>Generated by the system</i>	
Project Name	<i>The name of the project</i>	
Project Reference Number	<i>Contract number</i>	
Project description	<i>Full description of what is happening in the project (as per the appointment letter) and the community benefiting from the project</i>	
Duration		
Project Start Date	<i>Planned Start date of the particular contract</i>	
Project End Date	<i>Planned End date of the particular contract</i>	
Estimated Budget	<i>Overall Contract budget (excluding professional fees) for Current Financial Year</i>	
Project Location		
Province	<i>In which province is the project implemented?</i>	KZN
District Municipality	<i>Under which District Municipality does this project falls?</i>	
Local Municipality	<i>Under which Local Municipality does this project falls?</i>	
Latitude (in decimal format)	<i>Is generated by the system</i>	
Longitude (in decimal format)	<i>Is generated by the system</i>	
Project Location per site		
Locality name	<i>Where exactly is the project implemented? (Ward name)</i>	
Subplace	<i>Town / Village</i>	
Ward	<i>The project site is located in which ward?</i>	
Government facility	<i>Landmark near the project (Post office/school/clinic/library)</i>	
Spatial Data Type	<i>Geopoint (structure)/ Line (road)/ Polygon(area)</i>	
Site physical address	<i>Physical address of the site office</i>	
Public Body Details		
Public body sphere	<i>In which sphere is the project implemented? (National, Provincial or Municipal)</i>	Provincial
Reporting public body that is the project owner (and will report on the project)	<i>Which Institution or Department that owns / approved this project (Education, Health, City of Tshwane Metro etc.)</i>	KZN Department of Transport
Department in the Public body that is responsible for the project	<i>Which department /unit is responsible for this project? (e.g. Roads & storm water, Education, Community safety etc.)</i>	KZN Department of Transport
Implementing public body type	<i>In which sphere is this project implemented? (Metro,Distr,Mun, National or Provincial Dept.)</i>	Provincial
Public body that will implement the project	<i>Which institution that implements the project?</i>	KZN Department of Transport
Project Implementation		
Is this the project on the municipal IDP	<i>Yes / No</i>	N/A
IDP reference number allocated to the project	<i>The number reflected in your Municipal IDP document</i>	N/A
EPWP Details		
EPWP Sector	<i>The project is implemented in which sector? (Infrastructure, Environment & culture, Non-state or Social)</i>	Infrastructure
EPWP Programme	<i>The project is implemented under which programme?</i>	

EPWP Sub Programme	<i>The project is implemented under which sub-programme?</i>	
EPWP BUSINESS FORM		
Field requested	<i>Description if needed</i>	Please complete the sections in white
Project Details		
Profile ID	<i>Generated by the system</i>	
Project Name	<i>The name of the project</i>	
Project Reference Number	<i>Contract number</i>	
Project description	<i>Full description of what is happening in the project (as per the appointment letter) and the community benefiting from the project</i>	
Duration		
Project Start Date		
Project End Date		
Estimated Budget	<i>Project Budget</i>	
Project Location		
Province		KZN
District Municipality	<i>Under which District Municipality does this projects falls</i>	
Local Municipality	<i>Under which Local Municipality does this projects falls</i>	
Latitude (in decimal format)	<i>GPS coordinates</i>	
Longitude (in decimal format)		
Public Body Details		
Public body sphere	<i>Such as Municipal or Provincial</i>	Provincial
Reporting public body that is the project owner (and will report on the project)	<i>Which Department approved the project in (education, Health etc.)</i>	KZN Department of Transport
Department / Unit in the Public body that is responsible for the project	<i>Which Department budgeted for the project e.g. Education, Health Directorate</i>	KZN Department of Transport
Implementing public body type	<i>Example(Local Municipality, Distr. Mun or Provincial Dept.</i>	Provincial
Public body that will implement the project	<i>Infrastructure, Environment or Social</i>	KZN Department of Transport
Is this project on the Municipal IDP	<i>Municipal projects</i>	N/A
IDP reference number allocated to the project		N/A

EPWP Details		
EPWP Sector	<i>The project is implemented in which sector? (Infrastructure, Environment & culture, Non-state or Social)</i>	Infrastructure
EPWP programme	<i>The project is implemented under which programme?</i>	
EPWP Sub Programme	<i>The project is implemented under which sub-programme?</i>	
Budget Amount-(Allocations for the project duration)		
Funding Body	<i>Which Dept. is funding the project</i>	KZN Department of Transport
Funding Year	<i>Financial year/s for the project</i>	
Total Budget Amount	<i>(Exclude Professional Fees)</i>	
Incentive Grant(e.g. landcare / EPWP grant)	<i>Grant funding received</i>	
Total wages paid for the duration of the projects	<i>What amount will be spent on wages during the duration of the project</i>	
Wage Rate	<i>Daily Wage rate to be paid during productive work</i>	
Stipend Rate	<i>Daily wage rate to be paid during training</i>	
UIF	<i>The amount being paid to UIF (if applicable)</i>	
COIDA	<i>The amount being paid to COIDA(if applicable)</i>	
Training	<i>What amount will be spent on training</i>	
Administration	<i>The Administration costs</i>	
Equipment and materials	<i>Budget for Materials and Equipment</i>	
Other	<i>If other where chosen describe the other Such as Professional fees)</i>	
Describe other		
Project Outputs and Training		
Planned Primary Output	<i>eg walkways, gabions, kerb * channel, km of road constructed</i>	
Description of Planned Primary Output	<i>Describe the project output (end product and not the milestone) (e.g. kms of tar road constructed) Start with the unit of measure such as number of, kms, ha, sqms etc</i>	
Unit of measure of primary output	<i>Eg. m, m², m³, km, no, ha etc</i>	
Planned primary output quantity	<i>Specify the quantity of output planned</i>	
Number of persons to be trained	<i>How many persons are targeted for on job training</i>	

Contact person		
Title	<i>Person responsible for the Project in the Public Body (Project Manager)</i>	
Initials		
First Name		
Surname		
Email		
Tel (Office)		
Fax Number		
Cell Number		
Physical Address 1		
Physical Address 2		
Physical Address 3		
Physical Address 4		
Postal Address 1		
Postal Address 2		
Postal Address 3		
Postal Address 4		
Position of person		

EPWP Monthly Progress Form		
Field requested	Description if needed	Please complete the sections in white
Project Details		
Profile ID	<i>full description of what is happening in the project (as per the appointment letter) and the community benefiting from the project</i>	
Project Name	<i>The name of the project</i>	
Project Reference Number	<i>Contract number</i>	
Project description	<i>Full description of what is happening in the project (as per the appointment letter) and the community benefiting from the project</i>	
Month		
Reporting Month		April
Budget Expenditure		
Cumulative Expenditure Amount	<i>What is the Overall amount spend on this project?</i>	
Current Expenditure Amount	<i>What is the amount spend including all grants for this month?</i>	
Wages	<i>How much paid on wages for this month only?</i>	
UIF	<i>How much paid on UIF for this month only?</i>	
COIDA	<i>How much paid on COIDA for this month only?</i>	
Stipends for training	<i>Amount paid to participants whilst on training (this month only)</i>	
Amount spent on service providers for training	<i>How much paid to service providers for training for this month only?</i>	
Training	<i>Total Cost of training for this month? (number captured on ERS)</i>	
Administration	<i>How much paid on administration for this month only?</i>	
Equipment and materials	<i>How much paid on equipment and materials for this month only?</i>	
Other	<i>How much paid on other?</i>	
Describe other	<i>Be specific e.g. Consulting fees, Transport etc.</i>	
Project output description	<i>Describe the project output (end product and not the milestone) (e.g. kms of tar road constructed) Start with the unit of measure such as number of, kms, ha, sqms etc</i>	
Unit of measure of primary output	<i>Eg. m, m², m³, km, no, ha etc</i>	
Cumulative primary output achieved	<i>Since the onset of the project</i>	
Quantity Achieved	<i>enter numeric output for this month only</i>	
Percentage achieved	<i>How much work done / achieved in percentages?</i>	
EPWP Branding		
Branding compliant	<i>Yes / No</i>	
Date that the branding was provided	<i>When was the project branded?</i>	
Has a photo of project branding been provided?	<i>Yes / No</i>	
First name of Official Who Branded Project	<i>Official Name</i>	
Surname of Official Who Branded Project	<i>Official Surname</i>	
Phone number of official who erected branding for the project	<i>Official contact number</i>	
Give the public body reference and name, and organisational details of the person that provided branding.	<i>Public body details (reference & name)</i>	



EXPANDED PUBLIC WORKS PROGRAMME

The Attendance Register for on-site Workers

Reporting month: _____

Mobile No: _____

Project Name: _____

Contract no: _____

Surname: _____

First Name: _____

IDENTITY NUMBER:

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

Day	Date	Time In	Signature	Time Out	Signature	Report On Any Formal Training Provided In The Reporting Month
WEEK 1						
MONDAY						
TUESDAY						
WEDNESDAY						
THURSDAY						
FRIDAY						
WEEK 2						
MONDAY						
TUESDAY						
WEDNESDAY						
THURSDAY						
FRIDAY						
WEEK 3						
MONDAY						
TUESDAY						
WEDNESDAY						
THURSDAY						
FRIDAY						
WEEK 4						
MONDAY						
TUESDAY						
WEDNESDAY						
THURSDAY						
FRIDAY						
WEEK 5						
MONDAY						
TUESDAY						
WEDNESDAY						
THURSDAY						
FRIDAY						

Total Days worked		
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PART C4: SITE INFORMATION

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C4.4 CONDITIONS ON SITE: MATERIALS INFORMATION	C207

C4.1 LOCALITY PLAN

These culverts and bridges are located in Wartburg, Impendle Ward 1, New Hanover Ward 1 and Umshwathi Ward 9 respectively, under the Umsunduzi District Municipality (DC22).

1. Structure ID: 1160

Location: Provincial Route P25-2 (km 1.88), Wartburg, KwaZulu-Natal

2. Structure No.: Bridge 207 - Nzinga River Bridge

Location: P27-2 Provincial Route km 50.20 Impendle Local Municipality Ward 1

Coordinates: 29°29'27.32"S 29°42'47.91"E

Structure Type: Three-span concrete bridge over Nzinga River

Dimensions: 30.3m length × 4.5m width (spans: 8.4m + 8.7m + 8.4m)

3. Structure No.: STC 2347 - Greenhill River Bridge

Location: Near New Hanover uMshwathi Local Municipality Ward 1

Coordinates: 29°19'28.88"S 30°30'41.57"E

4. Structure No.: Bridge 1053 - Mersey Rail G/S

Location: P6-1 (R33 Route) km 9.90 uMshwathi Local Municipality Ward 9

Coordinates: 29°23'5.64"S 30°28'41.52"E

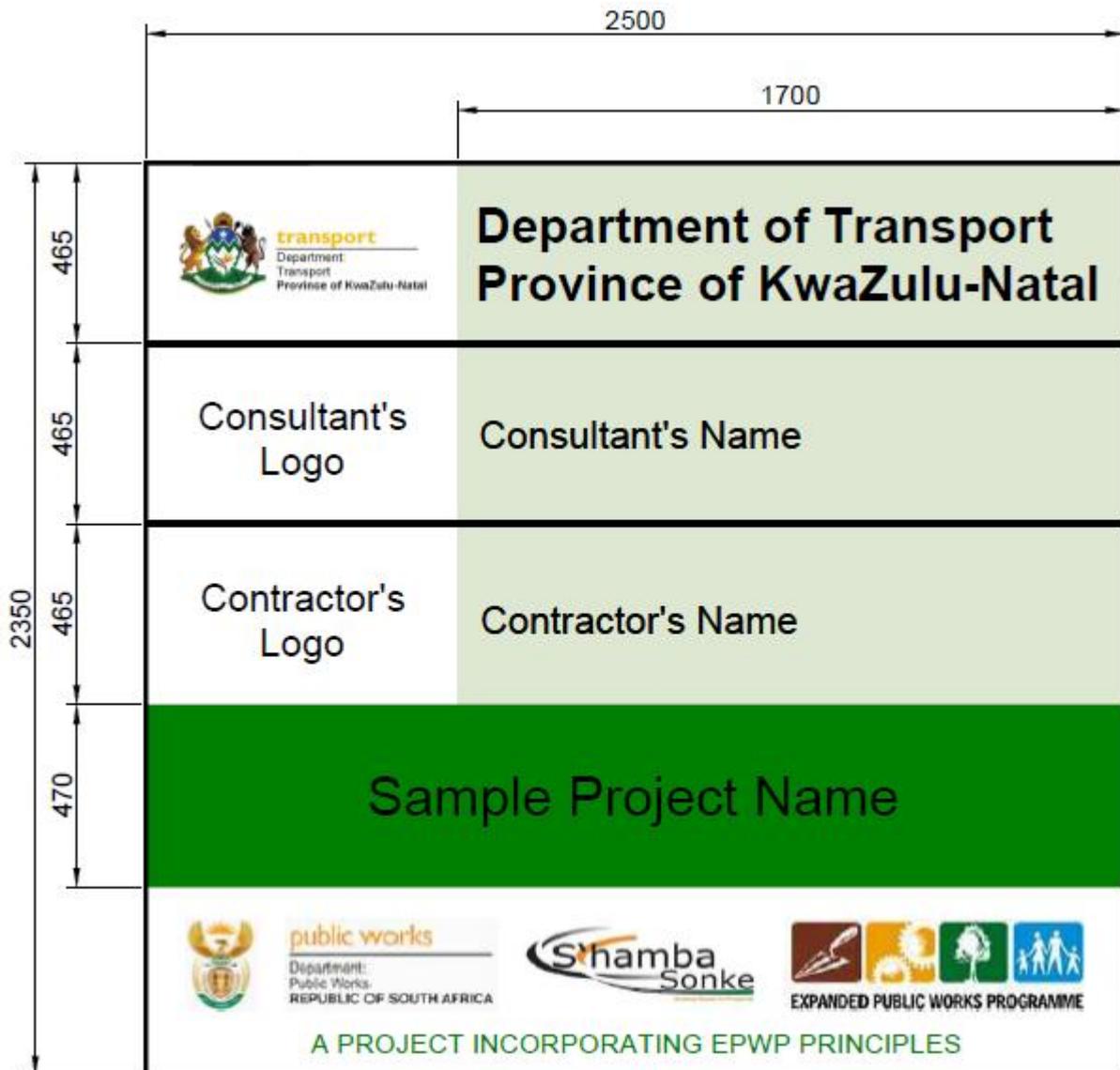
Structure Type: Single-span rail-over-road grade separation bridge

Dimensions: 27.3m length × 5.8m width × 4.8m clearance height

C4.2 EXAMPLE OF CONTRACT SIGNBOARD DETAILS

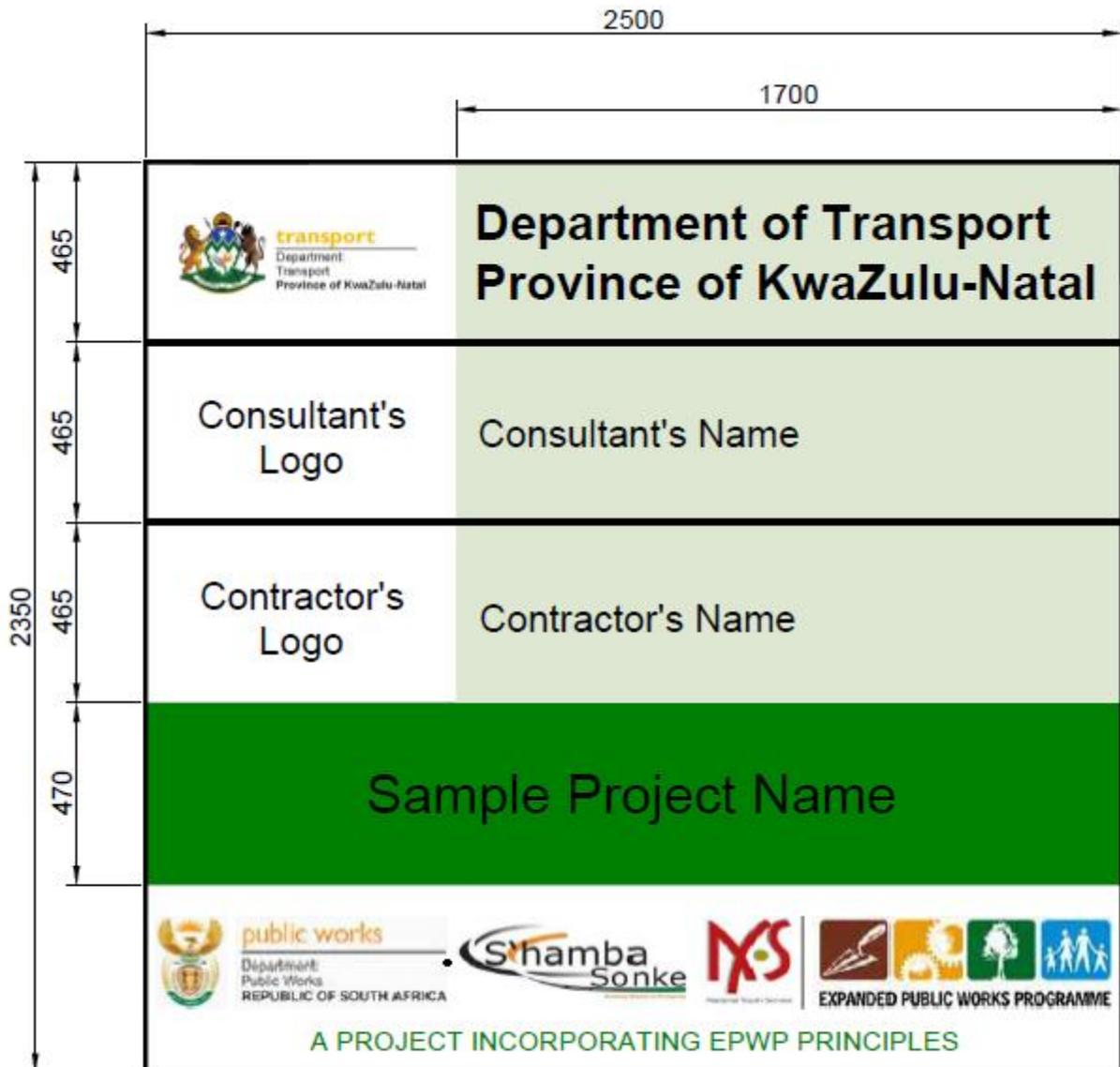
C4.2.1 CONTRACT SIGNBOARD FOR USE WHEN THE NYS PROGRAMME IS NOT REQUIRED:

Note: The “S’hamba Sonke” logo, as indicated below, shall appear on the signboard for Provincial Road Maintenance Grant (PRMG) contracts only. In all other cases it shall be omitted.



C4.2.2 CONTRACT SIGNBOARD FOR USE WHEN THE NYS PROGRAMME IS REQUIRED:

Note: The “S’hamba Sonke” logo, as indicated below, shall appear on the signboard for Provincial Road Maintenance Grant (PRMG) contracts only. In all other cases it shall be omitted.



C4.3 EXISTING SERVICES REPORT

1. Location of services

The known services on the site include:

-

The following services are scheduled for relocation under this contract:

-

It is also expected that unknown buried domestic services crossings requiring relocation or protection may be encountered along the route as the work proceeds. The Contractor shall therefore make every effort to establish the location of any such unknown services in a particular area prior to excavations commencing in that area. Such efforts shall include the Contractor conducting a thorough visual surface inspection for services in the area, and also diligently enquiring of local landowners as to whether there are any known services which have not been shown on the drawings but which may be affected by the construction activities in that area, and any such services shall be brought to the attention of the Employer's Agent immediately. Exploratory hand excavation trenching work shall be carried out where necessary to establish the exact position of buried services.

The Contractor shall take note of the requirements of clause A2.1 of the COTO 2020 DS standard specifications with regard to services.

2. Liaison with service owners

Immediately after the site has been handed over to the Contractor and prior to the commencement of any construction work on the site, the Contractor shall arrange a meeting with the relevant authorities to establish the exact location of the various services affected (if any), to plan the necessary services relocations (if required) and to obtain contact details for the service owners' technical and emergency staff.

Where services relocations are required, the Contractor shall arrange regular planning meetings with the service owners until such time as the services have been relocated and commissioned and the existing services uplifted and removed.

3. Protection of existing services

Prior to the commencement of any construction work on the site, the Contractor shall establish markers at 50 m centres (or closer where necessary), clearly delineating the routes traversed by the services within the road reserve as confirmed by the service owners.

Excavation operations shall commence only after the existing services within or in the near vicinity of the excavations have been suitably protected against damage.

The Contractor shall take particular care when carrying out blasting, pneumatic or mechanical breaking, and general excavation operations in the vicinity of the services, and subcontractors, foremen and plant operators shall be fully briefed on precautionary measures to be taken before excavation commences in these areas.

4. Relocation of services

Should any services need to be relocated, the Contractor shall be required to assist the service owner with programming, organising and carrying out the relocation work, in order to minimise any delays in the construction.

5. Payment for the services relocation work

A provisional sum has been provided under section C2.1 of the bill of quantities to cover the costs of any protection, relocation, realignment, removal or replacement of services that may arise.

C4.4 CONDITIONS ON SITE: MATERIALS INFORMATION

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C4.4.1 DISCLAIMER	C209
C4.4.2 GENERAL DESCRIPTION OF STRUCTURES.....	C209

C4.4.1 DISCLAIMER

The information in this document records the results of investigations done and various tests carried out on materials encountered in the existing road. The results are given in good faith and there is no warranty that the results are entirely representative of all the materials that may be encountered, the intention being to give an indication of the materials likely to be encountered.

No responsibility for any consequence arising from variation between the actual material properties and those indicated in this document will be accepted.

The specification and contract drawings shall always overrule this part of the contract documents.

C4.4.2 GENERAL DESCRIPTION OF STRUCTURES

This contract involves the structural rehabilitation of five distinct and geographically separate structures within the uMgungundlovu District. The general descriptions are as follows:

1. STC 2673: Located on the P1-5 provincial route near Ashburton, this is a single-cell reinforced concrete box culvert with an approximate length of 10 metres. The structure has internal dimensions of 1.9 metres wide by 2.0 metres deep and features a top slab made of steel I-beams. It is in poor overall condition, with a severely displaced wingwall, a broken downstream apron slab, and obstructions blocking the inlet.
2. Bridge 1009: Located at km 6.2 on the P1-6 provincial route, this is a single-span road-over-rail bridge with an overall length of 10.9 metres. The structure, which carries the road over a railway line, has a concrete deck supported by steel girders and mass concrete abutments. It is in a poor condition, exhibiting potential shear cracks in the deck, significant vertical cracks in the abutment wing walls, and damaged, missing steel parapets that pose a critical safety hazard.
3. Bridge STC 2347 (Greenhill River Bridge): Located near New Hanover on route P550/D550, this is a two-span bridge with a superstructure of steel beams and a concrete deck crossing the Greenhill River. The bridge has an approximate overall length of 12.5 metres and a width of 8.0 metres. It is in a fair condition, with significant damage to the central pier, failed embankment protection works, and a complete lack of safety barriers.
4. Bridge 1053 (Mersey Rail G/S): This is a single-span concrete rail-over-road bridge that carries a railway line over the P6-1 (R33 Route) at km 9.90. It has an overall length of approximately 27.3 metres and a vertical clearance of about 4.8 metres over the road. The bridge is in a fair condition, showing signs of active structural distress, including a large spall on the deck soffit with exposed, corroding reinforcement.
5. STC 1704: Located on Route P1-5 near Ashburton, this is a single-cell concrete box culvert with an overall length of 16.4 metres. The structure has internal dimensions of 3.0 metres wide by 2.5 metres deep. Its condition is poor, primarily due to the inlet headwall having completely broken off and collapsed into the waterway, which presents a hydraulic and safety risk.