



KWAZULU-NATAL PROVINCE

TRANSPORT
REPUBLIC OF SOUTH AFRICA

CONTRACT NO. DEV00731/00000/00/HOD/INF/22/T: THE COMPLETION OF THE UMDLOTI RIVER BRIDGE NO. 3601 AND APPROACH ROADS ON MAIN ROAD P713 IN THE DURBAN REGION

CIDB GRADE 8CE or higher

Name of Tenderer:

**This tender closes at 11:00 on Friday 10 June 2022 at the offices of the
Department of Transport located at 172 Burger Street, Pietermaritzburg, 3201**

LATE SUBMISSIONS WILL NOT BE CONSIDERED

Issued by:

The Department of Transport
172 Burger Street
PIETERMARITZBURG
3201

Contact Name: Mr. S. Mbhele
Telephone: (033) 355 8600

Prepared by:

BVi Consulting Engineers (Pty) Ltd
2nd Floor Pharos House
70 Buckingham Terrace
WESTVILLE
3630

Contact Name: Mr. D. Govender
Telephone: (031) 266 8382



PROVINCE OF KWAZULU-NATAL
DEPARTMENT OF TRANSPORT

CONTRACT NO. DEV00731/00000/00/HOD/INF/22/T: THE COMPLETION OF THE UMDLOTI RIVER
BRIDGE NO. 3601 AND APPROACH ROADS ON MAIN ROAD P713 IN THE DURBAN REGION.

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C4.6 Any other relevant technical reports	Green

DOCUMENT CHECKLIST

This document checklist is provided to assist the Tenderer.

	ITEMS	CHECKED
1	Returnable Schedules in Section T2.2	<input type="checkbox"/>
2	Correct Tender Offer carried forward to C1.1 Form of Offer and Acceptance and the Form of Offer duly completed and signed.....	<input type="checkbox"/>
3	Bill of Quantities:	
	i) Completed in legible INK only.....	<input type="checkbox"/>
	ii) Corrections crossed out and initialled	<input type="checkbox"/>
4	Contract specific data provided by the Contractor	<input type="checkbox"/>

PART T1: TENDERING PROCEDURES

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PLEASE NOTE:

Any appeals regarding the award of this bid should be lodged within 5 working days from the date of the publication of bid results in the Government Tender Bulletin which is published every week on Friday and may be downloaded from the website www.kzntransport.gov.za, and www.etenders.gov.za

The publication is also published in the following platforms, www.cidb.org.za/.

The address provided for the lodging of appeals is:

The Chairperson
Bid Appeals Tribunal
Private Bag X9082
Pietermaritzburg
3200

FAX NO.: 033 897 4501

T1.1 TENDER NOTICE AND INVITATION TO TENDER

CONTRACT NO. DEV00852/00000/00/HOD/INF/22/T: THE COMPLETION OF THE UMDLOTI RIVER BRIDGE NO. 3601 AND APPROACH ROADS ON MAIN ROAD P713 IN THE DURBAN REGION.

The Province of KwaZulu-Natal, Department of Transport, invites tenderers from established Contractors who have experience in bridge and roadworks construction for the completion of a partially constructed uMdloti River Bridge No. 3601 and approach roads on Main Road P713 in Ndwedwe. This project is in the province of KwaZulu-Natal in the district municipality of iLembe and local municipality of Ndwedwe. The duration of the project is **12 months**.

Only tenderers that satisfy the eligibility criteria stipulated in clause C.2.1 of the Tender Data are eligible to have their tenders considered.

Tenders must have a minimum CIDB contractor grading designation of **8CE or higher**.

Only tenderers who comply with the functionality criteria for experience of key persons, company past performance in similar Complex and Specialised projects, and proposed approach and methodology, as stated in the Tender Data, are eligible to be considered for further evaluation.

Tenderers shall be required to demonstrate that they will have in their employ during the contract period the necessary personnel satisfying the requirements of the Scope of Work for labor-enhanced competencies for management and supervisory personnel.

Free download of tender documents will be available on the www.kzntransport.gov.za and www.etenders.gov.za website and must be downloaded.

Queries relating to this tender may be addressed to:

Bidding procedure enquiries:	Technical enquiries:
Mrs Londiwe Mshengu Telephone: 033 355 8600 E-mail: Londiwe.Mshengu@Kzntransport.gov.za	Mr Patson Tumba Telephone: 031 266 8382 E-mail: patson@bvikn.co.za

A compulsory Clarification Meeting with representatives of the Employer will be held at Umdloti River Bridge on Main road P713. (Coordinates: Latitude Latitude 29°35'32.20"S Longitude 30°58'53.04"E) at **13h00**

The clarification meeting venue can be accessed by travelling North along the N2 Freeway from Durban, then take the uMhlanga Exit No. 182. Travel towards Phoenix/Verulam on the M41 Highway for approximately 3.0km and continue onto R102 for approximately 6.0km. Turn right off the R102 and onto the M27 at the traffic lights and immediately left into Ireland Street. Travel along Ireland Street for approximately 300m and turn left at the traffic lights onto Todd Street. Travel along Todd Street which becomes Oakford Road (P98) for approximately 9.2km and turn right onto Main Road P713 at Osindisweni Hospital. Travel along Main Road P713 for approximately 1.8km towards the Umdloti River and the venue will be on the left-hand side.

The closing time for receipt of tenders is **11h00 on Friday 10 June 2022** at 172 Burger Street, Pietermaritzburg, 3201

Telegraphic, telephonic, telex, facsimile, electronic, e-mail and late tenders will not be accepted.

Requirements for sealing, addressing, delivery, opening and assessment of tenders are stated in the Tender Data.

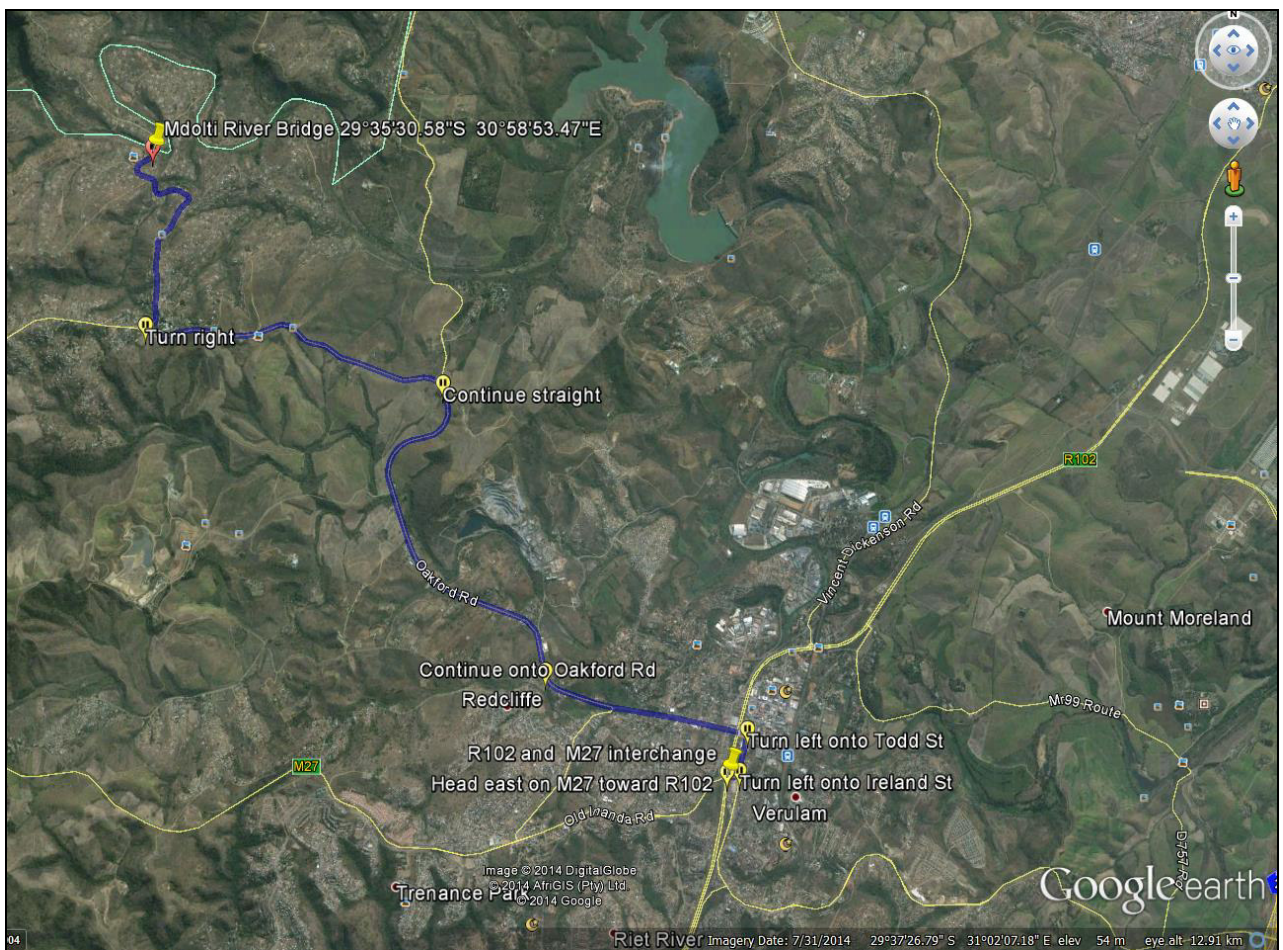
CLARIFICATION MEETING

Date: Friday 03 June 2022

A compulsory Clarification Meeting with representatives of the Employer will be held at Umdloti River Bridge on Main road P713.

Coordinates: Latitude 29°35'32.20"S Longitude 30°58'53.04"E - at 13h00

The clarification meeting venue can be accessed by travelling North along the N2 Freeway from Durban, then take the uMhlanga Exit No. 182. Travel towards Phoenix/Verulam on the M41 Highway for approximately 3.0km and continue onto R102 for approximately 6.0km. Turn right off the R102 and onto the M27 at the traffic lights and immediately left into Ireland Street. Travel along Ireland Street for approximately 300m and turn left at the traffic lights onto Todd Street. Travel along Todd Street which becomes Oakford Road (P98) for approximately 9.2km and turn right onto Main Road P713 at Osindisweni Hospital. Travel along Main Road P713 for approximately 1.8km towards the Umdloti River and the venue will be on the left-hand side.



T1.2 TENDER DATA

The conditions of tender are the standard conditions of tender contained in Annex C of the Construction Industry Development Board Standard for Uniformity in Engineering and Construction Works Contracts, published in Government Gazette No. 42622 dated 8 August 2019.

The standard conditions of tender make several references to the tender data for details that apply specifically to this tender. The tender data shall have precedence in the interpretation of any ambiguity or inconsistency between the tender data and the standard conditions of tender.

Each item of data given below is cross-referenced to the clause in the standard conditions of tender to which it mainly applies.

Clause Number	Data
C.1.2	<p>The Tender Documents consist of the following:</p> <p>(a) This Project Document, which contains the following:</p> <p>PART T1: TENDERING PROCEDURES T1.1 Tender Notice and Invitation to Tender T1.2 Tender Data</p> <p>PART T2: RETURNABLE DOCUMENTS T2.1 List of Returnable Documents T2.2 Returnable Schedules</p> <p>PART C1: AGREEMENTS AND CONTRACT DATA C1.1 Form of Offer and Acceptance C1.2 Contract Data C1.3 Performance Guarantee C1.4 Agreement in terms of Section 37(2) of the Occupational Health and Safety Act No. 85 of 1993 C1.5 Retention Money Guarantee C1.6 Transfer of Rights</p> <p>PART C2: PRICING DATA C2.1 Pricing Assumptions C2.2 Bill of Quantities</p> <p>PART C3: SCOPE OF WORK C3.1 Standard Specifications C3.2 Project Specifications C3.3 Particular Specifications</p> <p>PART C4: SITE INFORMATION C4.1 Locality Plan C4.2 Example of Contract Signboard Details C4.3 Existing Services Report C4.4 Conditions on Site: Materials Information C4.5 Traffic Information C4.6 Any other relevant technical reports</p> <p>(b) Drawings (issued separately by the Employer).</p> <p>(c) 'General Conditions of Contract for Construction Works, Third Edition (2015)' issued by the South African Institution of Civil Engineering (abbreviated title 'General Conditions of Contract 2015' – 'GCC 2015'). This document is obtainable separately and Tenderers shall obtain their own copy.</p>

Clause Number	Data
	<p>(d) ‘Standard Specifications for Road and Bridge Works for South African Road Authorities (Draft Standard) (October 2020). This document is obtainable separately and Tenderers shall obtain their own copy.</p> <p>(e) ‘Occupational Health and Safety Act No. 85 of 1993’, ‘Occupational Health and Safety Amendment Act No. 181 of 1993’, and the ‘Construction Regulations, 2014’ (Government Notice No. R. 489 published in Government Gazette No. 40883 of 2 June 2017,). These documents are obtainable separately and Tenderers shall obtain their own copies.</p> <p>(f) ‘Construction Industry Development Board Act No. 38 of 2000’ as amended and the ‘Regulations in terms of the Construction Industry Development Board Act No. 38 of 2000’ (Government Notice No. R. 692 published in Government Gazette No. 26427 of 9 June 2004, as amended).</p> <p>In addition, Tenderers are advised, in their own interest, to obtain their own copies of the relevant Acts, Regulations and Standards referred to in this document as they are essential for the Tenderer to become acquainted with the basics of construction management, the implementation of construction procurement policies, and participation of local labour.</p>
C.1.4	<p>The Employer’s Agent is:</p> <p>Name of the firm: BVi Consulting Engineers (Pty) Ltd Contact person: Mr. D. Govender Telephone: (031) 266 8382 Fax: (031) 267 0728 E-mail: deong@bvikn.co.za</p>
C.2.1	<p>Only those tenderers who satisfy the following criteria are eligible to submit tenders.</p> <p>(a) CIDB registration</p> <p>Only those tenderers who are registered with the CIDB, at close of tender, in a contractor grading designation equal to or higher than 8, for a CE class of construction work, are eligible to have their tenders evaluated.</p> <p>Only contractors whose CIDB status is “Active” at the time of evaluation will be considered for further evaluation. Contractors whose status is “Suspended” or “Expired” will not be considered for evaluation and will be disqualified from the bidding process.</p> <p>Joint ventures are eligible to submit tenders provided that:</p> <p>(i) every member of the joint venture is registered with the CIDB; (ii) the lead partner has a contractor grading designation in the 8CE class of construction work; not lower than one level below the required grading designation in the class of construction work under consideration and possesses the required recognition status; and (iii) the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than 8 for a CE class of construction work.</p> <p>(b) Central Supplier Database</p> <p>Tenderers, or in the event of a joint venture, each member of the joint venture, must be registered on the Central Supplier Database at the closing date for tender submissions. Tenders received from such tenderers who do not comply with this requirement, will be considered non-responsive.</p> <p>Prospective suppliers should self-register on the CSD website www.csd.gov.za.</p>

Clause Number	Data
C.2.7	<p>The arrangements and venue for the compulsory Clarification Meeting are:</p> <p>Venue: A compulsory Clarification Meeting with representatives of the Employer will be held at Umdloti River Bridge on Main road P713. Coordinates: Latitude 29°35'32.20"S Longitude 30°58'53.04"E</p> <p>Date: Friday 03 June 2022 at 13h00</p> <p>Contact person: Mr. P. Tumba Telephone: (031) 266 8382 Fax: (031) 267 0728 Email: patson@bvikn.co.za</p>
C.2.10	<p>All Tenderers that are registered for Value Added Tax (VAT) with the South African Revenue Service (SARS) must include VAT in their tender offer.</p>
C.2.11	<p>The tenderer shall not retype the tender document.</p> <p><u>Any tender submitted using a document that has been retyped shall be considered non-responsive and rejected in terms of clause C.3.8 of the Conditions of Tender.</u></p>
C.2.12	<p>The requirements are as described in clause A2.1.4.2'ALTERNATIVE DESIGNS' of the 'COTO Standard Specifications for Road and Bridge Works for South African Road Authorities (Draft Standard) (October 2020 edition)'.</p>
C.2.13	<p>C.2.13.3 Tender offers shall be submitted as an original only. Under no circumstances whatsoever may the tender forms be retyped or redrafted. Photocopies of the original tender documentation may be used, but an original signature must appear on such photocopies.</p> <p>C.2.13.5 The Employer's address for delivery of tender offers and identification details to be shown on each tender offer package are:</p> <p>Location of Tender Box: Outside the Foyer, KZN Department of Transport Physical Address: 172 Burger Street, Pietermaritzburg Identification Details: Contract No. DEV00731/00000/00/HOD/INF/22/T</p> <p>C.2.13.6 A two-envelope system <u>will NOT</u> be followed.</p>
C.2.15	<p>The closing time for submission of Tender Offers is: 11h00 on Friday 10 June 2022</p> <p>Telegraphic, telephonic, telex, facsimile, electronic, e-mail and late tenders will not be accepted.</p>
C.2.16	<p>The tender offer validity period is twenty-four (24) weeks, calculated from the date of bid closure.</p>
C.2.18	<p>The tenderer must submit to the Employer the names of all management and supervisory staff that will be employed to supervise the labour-enhanced portion of the works together with satisfactory evidence that such staff members satisfy the eligibility requirement (refer to Returnable Schedule H).</p>
C.2.19	<p>Access shall be provided for inspections and testing by personnel acting on behalf of the Employer.</p>

Clause Number	Data								
C.2.23	The certificates as required in the Returnable Schedules and Forms must be provided with the tender for each party to a consortium / joint venture.								
C.3.4	<p>The time and location for opening of the tender submissions are: Time: 11h00 Date: Friday 10 June 2022</p> <p>Location / Venue: Acquisition Section, 'B' Block Boardroom, 172 Burger Street, Pietermaritzburg, 3201</p>								
C.3.5	A two-envelope system will NOT be followed.								
C.3.8	<p>A material deviation or qualification is one which, in the employer's opinion, would:</p> <ul style="list-style-type: none"> a) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the scope of work, b) significantly change the employer's or the tenderer's risks and responsibilities under the contract, or c) affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified. 								
C3.11.1	<p>The evaluation of tender offers will be based on administrative compliance, functionality and price.</p> <p>(a) <u>Functionality (Returnable Schedule M – Technical Proposal)</u></p> <p>The scope of work for this contract is classified in the following table.</p> <table border="1"> <thead> <tr> <th><i>Please mark appropriate:</i></th> <th>YES / NO</th> </tr> </thead> <tbody> <tr> <td>Simple/straightforward/routine work - where the tasks or activities are of a straightforward nature in terms of which inputs are relatively well known and outputs can be readily defined.</td> <td style="text-align: center;">NO</td> </tr> <tr> <td>Complex work - characterised by requirements for higher levels of skills, greater resources or not well-defined inputs and outputs.</td> <td style="text-align: center;">YES</td> </tr> <tr> <td>Specialist work - requiring considerable innovation, creativity, and expertise or skill (or both) or work that has a high downstream impact.</td> <td style="text-align: center;">YES</td> </tr> </tbody> </table> <p>The functionality criteria and weighting for each of the sub-criteria on which the Technical Proposal submitted with Returnable Schedule M will be evaluated, is indicated in the following table.</p>	<i>Please mark appropriate:</i>	YES / NO	Simple/straightforward/routine work - where the tasks or activities are of a straightforward nature in terms of which inputs are relatively well known and outputs can be readily defined.	NO	Complex work - characterised by requirements for higher levels of skills, greater resources or not well-defined inputs and outputs.	YES	Specialist work - requiring considerable innovation, creativity, and expertise or skill (or both) or work that has a high downstream impact.	YES
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Clause Number	Data																		
	<u>This table is applicable to Complex and Specialist work.</u>																		
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Clause Number	Data	
	<p>Tenderers Relevant Experience:</p> <p>(Construction) Previous Similar Projects <i>The evaluation will consider the nature of the reference projects, scope of services provided, and Employer/Client completion certificate.</i></p> <p>(Appointment letters and Final Approval Certificates to be provided with contact details of references.</p> <p>(Appointment letters and Final Approval Certificates for projects completed older than 15 years will not be considered as proof of experience)</p>	<p>List number of completed Structures projects</p> <p>CONSTRUCTION EXPERIENCE (weight = 40):</p> <p>Appointment Letters and Final Approval Certificates for 5 projects and above = 5 Appointment Letters and Final Approval Certificates for 4 projects = 4 Appointment Letters and Final Approval Certificates for 3 projects = 3 Appointment Letters and Final Approval Certificates for 2 projects = 2 Appointment Letters and Final Approval Certificates for 1 project = 1 Appointment Letters and Final Approval Certificates for 0 projects = 0</p> <p>Score = 40(point/5)</p>
	<p>TOTAL</p>	<p>Maximum score = 100</p> <p>Individual Score = weight(points/5)</p> <p>Maximum score = sum of all individual scores</p>
<p>NB: Tenderers scoring 60% and above of the functionality score will qualify for further evaluation AND it is mandatory that at least 10% of this score must be from the Tenderers Relevant Experience.</p>		
<p>Note: All personnel to be in employ of the bidding enterprise or letter of intent for personnel outside the employ of the bidding enterprise to be included with CV. Bidding with multiple enterprises will not be allowed. The Department will disregard all experience of duplicated personnel. The Department reserve the right to assess the functionality ongoing to ensure compliance. The Department must be apprised immediately if there is any change to the personnel identified in the tender document. Failure to comply with this requirement shall lead to contract termination. Any replacement must have equal or higher experience.</p> <p>(b) <u>Price</u></p> <p>The evaluation of tender offers will be based on administrative compliance, functionality and price.</p> <p><u>Total Score for Price</u> The points scored for a Tenderer in respect of Price will be considered. Only the tender with the highest number of points may be selected, except in those instances permissible by legislation, practice notes or relevant policies.</p>		

Clause Number	Data
C.3.13	<p>(e) The legal requirements for acceptance of the tender offer are:</p> <ul style="list-style-type: none"> (i) Tender Defaulters Register - the Tenderer or any of its principals is <u>not</u> listed on the register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector. (ii) Abuse of the SCM System - the Tenderer has <u>not</u> abused the Employer's Supply Chain Management System and has <u>not</u> been given a written notice to the effect that he has failed to perform on any previous contract. (iii) Declaration - the Tenderer has indicated and declared whether a spouse, child or parent of the Tenderer is in the service of the State. (iv) Fraud and Corruption - the Employer is satisfied that the Tenderer or any of his principals have <u>not influenced</u> the tender offer and acceptance by the following criteria: <ul style="list-style-type: none"> • having offered, promised or given a bribe or other gift or remuneration to any person in connection with the obtaining of this Contract; • having acted in a fraudulent or corrupt manner in obtaining this Contract; • having approached an officer or employee of the Employer or the Employer's Agent with the object of influencing the award of a Contract in the Tenderer's favour; • having entered into any agreement or arrangement, whether legally binding or not, with any other person, firm or company to refrain from Tendering for this Contract or as to the amount of the Tender to be submitted by either party; or • having disclosed to any other person, firm or company other than the Employer, the exact or approximate amount of his proposed Tender. <p>The Employer may, in addition to using any other legal remedies, repudiate the Tender offer and acceptance and declare the Contract invalid should it have been concluded already.</p>
C.3.17	The number of paper copies of the signed contract to be provided by the Employer is one (1) .

PART T2: RETURNABLE DOCUMENTS

T2.1 LIST OF RETURNABLE DOCUMENTS

The following schedules and forms are contained in this document and are to be properly completed as required:

- (a) Returnable Schedules in T2.2.
- (b) C1.1 Form of Offer and Acceptance, C1.1.1: Offer, on page C3.
- (c) Contract Specific Data Provided by the Contractor in C1.2.3.
- (d) Pricing Data in C2.2: Bill of Quantities.

T2.2 RETURNABLE SCHEDULES

A	PROOF OF ATTENDANCE AT COMPULSORY BRIEFING.....	T15
B	RECORD OF ADDENDA TO TENDER DOCUMENTS.....	T16
C	COMPULSORY ENTERPRISE QUESTIONNAIRE.....	T17
D	STANDARD BIDDING DOCUMENTS	T18
	SBD 1: INVITATION TO BID.....	T18
	SBD 4: DECLARATION OF INTEREST	T20
	SBD 5: THE NATIONAL INDUSTRIAL PARTICIPATION PROGRAMME (<i>where applicable</i>)	T22
E	CERTIFICATE OF AUTHORITY FOR SIGNATORY.....	T24
F	DESIGN AND CONSTRUCTION EXPERIENCE	T26
G	KEY PERSONNEL.....	T27
H	CONSTRUCTION EQUIPMENT	T30
I	PARTICIPATION IN JOB CREATION USING LOCAL LABOUR	T31
J	BIDDERS HEALTH AND SAFETY DECLARATION.....	T33
K	DEVIATIONS AND QUALIFICATIONS.....	T35
L	SCHEDULE OF ALTERNATIVE TENDERS.....	T36
M	TECHNICAL PROPOSAL	T37

NOTE: The Tenderer is required to complete each schedule and form listed above to the best of his ability as the evaluation of tenders and the eventual contract will be based on the information provided by the Tenderer. Failure of a Tenderer to complete the schedules and forms to the satisfaction of the Employer may lead to rejection on the grounds that the tender is non-responsive.

A. COMPULSORY BRIEFING SESSION

This is to certify that (*Tenderer*)

of (*address*)

.....

was represented by the person(s) named below at the compulsory clarification meeting held for all Tenderers **at the uMdloti Bridge site on Main Road P713 (refer to the Clarification Meeting Venue Plan in Section T1.1) on Friday 03 June 2022, starting at 13h00.**

I / We acknowledge that the purpose of the meeting was to acquaint myself / ourselves with the site of the works and / or matters incidental to doing the work specified in the tender documents in order for me / us to take account of everything necessary when compiling our rates and prices included in the tender.

Particulars of person attending the meeting:

Name: Signature:

Capacity:

Attendance of the above person at the meeting is confirmed by the Employer's Agent, namely:

Name: Signature:

Capacity: Date and Time:

Departmental Stamp

Any tender submitted that does not bear the signature of the Employer's Agent on this page shall be considered non-responsive in terms of subclause C.3.8 of the Conditions of Tender and shall be rejected.

B. RECORD OF ADDENDA TO TENDER DOCUMENTS

The undersigned confirm that the following communications received from the Employer or his representative before the date of submission of this tender offer, amending the tender documents, have been considered in this tender offer. ***(Addenda can only be issued following approval from the Employer. The Employer’s representative is not allowed to issue addenda to bidders without prior approval in terms of the SCM Delegations).***

ADDENDUM NO.	DATE

SIGNATURE:

DATE:

(Of person authorised to sign on behalf of the Tenderer)

Failure to complete, sign and date this form or failure to acknowledge receipt of each Addendum issued shall result in the tender being considered non-responsive and rejected in terms of clause C.3.8 of the Conditions of Tender.

C. COMPULSORY ENTERPRISE QUESTIONNAIRE

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

Section 1: Name of enterprise:

Section 2: VAT registration number, if any:

Section 3: CIDB registration number, if any:

Section 4: CSD number:

Section 5: Particulars of sole proprietors and partners in partnerships:

Name*	Identity number*	Personal income tax number*

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

Section 6: Particulars of companies and close corporations

Company registration number:

Close corporation number:

Tax reference number:

Section 7: SBD4 issued by National Treasury must be completed for each tender and be attached as a tender requirement.

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

- i) authorizes the employer to verify the tenderers tax clearance status from the South African Revenue Services that it is in order;
- ii) confirms that the neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;
- iii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;
- iv) confirms that I / we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest; and
- iv) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Signed		Date	
Name		Position	
Enterprise name			

Failure to complete, sign and date this form shall result in the tender being considered non-responsive and rejected in terms of clause C.3.8 of the Conditions of Tender.

D. STANDARD BIDDING DOCUMENTS

**SECTION A
INVITATION TO BID**

SBD1

YOU ARE HEREBY INVITED TO TENDER FOR REQUIREMENTS OF THE KWAZULU-NATAL DEPARTMENT OF TRANSPORT					
BID NUMBER:	DEV00731/00000/00/HOD/INF/22/T		CLOSING DATE: 10 June 2022	CLOSING TIME:	11h00
DESCRIPTION	THE COMPLETION OF THE UMDLOTI RIVER BRIDGE NO. 3601 AND APPROACH ROADS ON MAIN ROAD 713 (P713) IN THE DURBAN REGION.				
TENDER RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT (STREET ADDRESS)					
Main Entrance Foyer 172 Burger Street Pietermaritzburg 3201			Monday to Friday: 08:00 until 16:00 Under no circumstances must suppliers submit their Tender offers/ responses to the official whose name appears on the enquiries.		
BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO			TECHNICAL ENQUIRIES MAY BE DIRECTED TO:		
CONTACT PERSON	Londiwe Mshengu		CONTACT PERSON	Patson Tumba	
TELEPHONE NUMBER	033 355 8600		TELEPHONE NUMBER	031 266 8382	
FACSIMILE NUMBER			FACSIMILE NUMBER	031 267 0728	
E-MAIL ADDRESS	Londiwe.Mshengu@kzntransport.gov.za		E-MAIL ADDRESS	Patsont@bvikn.co.za	
SUPPLIER INFORMATION					
NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
SUPPLIER COMPLIANCE STATUS	TAX COMPLIANCE SYSTEM PIN:		OR	CENTRAL SUPPLIER DATABASE NO:	MAAA
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE	TICK APPLICABLE BOX] <input type="checkbox"/> Yes <input type="checkbox"/> No		B-BBEE STATUS LEVEL SWORN AFFIDAVIT	[TICK APPLICABLE BOX] <input type="checkbox"/> Yes <input type="checkbox"/> No	
[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EME & QSE) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE] – N/A					
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES ENCLOSE PROOF]		ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES, ANSWER THE QUESTIONNAIRE BELOW]	
QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS					
IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?			<input type="checkbox"/> YES	<input type="checkbox"/> NO	
DOES THE ENTITY HAVE A BRANCH IN THE RSA?			<input type="checkbox"/> YES	<input type="checkbox"/> NO	
DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?			<input type="checkbox"/> YES	<input type="checkbox"/> NO	
DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?			<input type="checkbox"/> YES	<input type="checkbox"/> NO	
IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?			<input type="checkbox"/> YES	<input type="checkbox"/> NO	
IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 BELOW.					

**PART B
TERMS AND CONDITIONS FOR BIDDING**

1. BID SUBMISSION:
1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
1.2. ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED– (NOT TO BE RE-TYPED) OR IN THE MANNER PRESCRIBED IN THE BID DOCUMENT.
1.3. THIS BID IS SUBJECT TO THE General Conditions of Contract (GCC 2015) 3 rd Edition AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
1.4. IF THE BID WAS INVITED THROUGH A CLOSE QUOTATION PROCESS; WHERE SUPPLIERS WERE SOURCED FROM CSD USING THE COMMODITY PROCESS; SUPPLIERS WHO WERE NOT INVITED WILL NOT BE CONSIDERED.
1.5. USE OF OMISSION IN THE DOCUMENT IS PROHIBITED.
1.6. FAILING TO COMPLY WITH THE ABOVE REQUIREMENTS WILL RESULT IN THE BID BEING NON-RESPONSIVE.
1.7. THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM.
2. TAX COMPLIANCE REQUIREMENTS
2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
2.2 BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VERIFY THE TAXPAYER’S PROFILE AND TAX STATUS.
2.3 APPLICATION FOR TAX COMPLIANCE STATUS (TCS) PIN MAY BE MADE VIA E-FILING THROUGH THE SARS WEBSITE WWW.SARS.GOV.ZA.
2.4 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
2.5 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED; EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
2.6 WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
2.7 NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE, COMPANIES WITH DIRECTORS WHO ARE PERSONS IN THE SERVICE OF THE STATE, OR CLOSE CORPORATIONS WITH MEMBERS PERSONS IN THE SERVICE OF THE STATE.”
3. COMPLIANCE AND RETURNABLES: THE FOLLOWING RETURNABLE DOCUMENTS MUST RETURNED WITH THE TENDER DOCUMENT
3.1 SCM APPENDIX 1 INVITATION TO TENDER (SBD1 PART A)
3.2 SCM APPENDIX 2 – TERMS AND CONDITIONS FOR BIDDING (SBD1 PART B)
3.3 SCM APPENDIX 3 – OFFICIAL BRIEFING SESSION/SITE INSPECTION CERTIFICATE
3.4 SCM APPENDIX 4 - PRICE INFORMATION PAGE (MUST BE SIGNED OR THE BID IS INVALID)
3.5 SBD 4 - DECLARATION OF INTEREST FORM

NB: FAILURE TO PROVIDE / OR COMPLY WITH ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.

SIGNATURE OF BIDDER:

CAPACITY UNDER WHICH THIS BID IS SIGNED:
(Proof of authority must be submitted e.g. company resolution)

DATE:

**SBD 4
BIDDER'S DISCLOSURE**

1. PURPOSE OF THE FORM

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

2. Bidder's declaration

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest¹ in the enterprise, employed by the state? **YES/NO**

2.1.1 If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

Full Name	Identity Number	Name of institution	State

2.2 Do you, or any person connected with the bidder, have a relationship with any person who is employed by the procuring institution? **YES/NO**

2.2.1 If so, furnish particulars:
.....
.....

2.3 Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract? **YES/NO**

2.3.1 If so, furnish particulars:
.....
.....

¹ the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

3 DECLARATION

I, the undersigned, (name)..... in submitting the accompanying bid, do hereby make the following statements that I certify to be true and complete in every respect:

- 3.1 I have read and I understand the contents of this disclosure;
- 3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;
- 3.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium² will not be construed as collusive bidding.
- 3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 3.4 The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- 3.5 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.
- 3.6 I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

..... Signature Date
..... Position Name of bidder

Every question must be answered individually on this form, whether a relationship is present or not: Failure to do so will invalidate your tender/bid.

² Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

This document must be signed and submitted together with your bid.

THE NATIONAL INDUSTRIAL PARTICIPATION PROGRAMME

INTRODUCTION

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

1 PILLARS OF THE PROGRAMME

- 1.1 The NIP obligation is benchmarked on the imported content of the contract. Any contract having an imported content equal to or exceeding US\$ 10 million or other currency equivalent to US\$ 10 million will have a NIP obligation. This threshold of US\$ 10 million can be reached as follows:
- (a) Any single contract with imported content exceeding US\$10 million.
or
 - (b) Multiple contracts for the same goods, works or services each with imported content exceeding US\$3 million awarded to one seller over a 2-year period which in total exceeds US\$10 million.
or
 - (c) A contract with a renewable option clause, where should the option be exercised the total value of the imported content will exceed US\$10 million.
or
 - (d) Multiple suppliers of the same goods work or services under the same contract, where the value of the imported content of each allocation is equal to or exceeds US\$ 3 million worth of goods, works or services to the same government institution, which in total over a two (2) year period exceeds US\$10 million.
- 1.2 The NIP obligation applicable to suppliers in respect of sub-paragraphs 1.1 (a) to 1.1 (c) above will amount to 30 % of the imported content whilst suppliers in respect of paragraph 1.1 (d) shall incur 30 % of the total NIP obligation on a *pro-rata* basis.
- 1.3 To satisfy the NIP obligation, the DTI would negotiate and conclude agreements such as investments, joint ventures, sub-contracting, licensee production, export promotion, sourcing arrangements and research and development (R&D) with partners or suppliers.
- 1.4 A period of seven years has been identified as the time frame within which to discharge the obligation.

2 REQUIREMENTS OF THE DEPARTMENT OF TRADE AND INDUSTRY

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

3 BID SUBMISSION AND CONTRACT REPORTING REQUIREMENTS OF BIDDERS AND SUCCESSFUL BIDDERS (CONTRACTORS)

3.1 Bidders are required to sign and submit this Standard Bidding Document (SBD 5) together with the bid on the closing date and time.

3.2 In order to accommodate multiple contracts for the same goods, works or services; renewable contracts and multiple suppliers for the same goods, works or services under the same contract as indicated in sub-paragraphs 1.1 (b) to 1.1 (d) above and to enable the DTI in determining the NIP obligation, successful bidders (contractors) are required, immediately after being officially notified about any successful bid with a value in excess of R10 million (ten million Rands), to contact and furnish the DTI with the following information:

- Bid / contract number.
- Description of the goods works or services.
- Date on which the contract was accepted.
- Name, address and contact details of the government institution.
- Value of the contract.
- Imported content of the contract, if possible.

3.3 The information required in paragraph 3.2 above must be sent to the Department of Trade and Industry, Private Bag X 84, Pretoria, 0001 for the attention of Mr Elias Malapane within five (5) working days after award of the contract. Mr Malapane may be contacted on telephone (012) 394 1401, facsimile (012) 394 2401 or e-mail at Elias@thedti.gov.za for further details about the programme.

4 PROCESS TO SATISFY THE NIP OBLIGATION

4.1 Once the successful bidder (contractor) has made contact with and furnished the DTI with the information required, the following steps will be followed:

- a. the contractor and the DTI will determine the NIP obligation;
- b. the contractor and the DTI will sign the NIP obligation agreement;
- c. the contractor will submit a performance guarantee to the DTI;
- d. the contractor will submit a business concept for consideration and approval by the DTI;
- e. upon approval of the business concept by the DTI, the contractor will submit detailed business plans outlining the business concepts;
- f. the contractor will implement the business plans; and
- g. the contractor will submit bi-annual progress reports on approved plans to the DTI.

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

Bid number	Closing date:
Name of bidder.....	
Postal address	
.....	
Signature.....	Name (in print).....
Date.....	

E. CERTIFICATE OF AUTHORITY FOR SIGNATORY

The Tenderer must indicate the enterprise status by ticking the appropriate box hereunder.

(I) SOLE PROPRIETOR	(II) CLOSE CORPORATION	(III) PARTNERSHIP	(IV) COMPANY	(V) JOINT VENTURE / CONSORTIUM	
				Incorporated	
				Unincorporated	

Note:

The following document must be attached to this form according to the status of the enterprise, in the form of a resolution authorising the signatory to sign all documents in connection with this bid and any contract resulting therefrom on behalf of the enterprise, and **such resolution shall include a specimen signature of the signatory.**

Cooperative: 'Resolution of the Members'
 Close Corporation: 'Resolution of the Members'
 Company: 'Resolution of the Board' signed by the chairperson
 Joint Venture / Consortium: 'Resolution/agreement passed/reached' signed by the authorised representatives of the enterprises

Failure to complete, sign and date this form or failure to provide the certificate(s) in the form of a resolution as described above shall result in the tender being considered non-responsive and rejected in terms of clause C.3.8 of the Conditions of Tender.

MEMBERS RESOLUTION

Close Corporation / Company / Partnership / Trust /Sole proprietor or sole trader Name:

_____ Registration
Number: _____ RESOLUTION OF THE
DIRECTORS OF THE COMPANY etc RESOLVED that

_____, in his/her capacity as _____,
is authorised to make applications on behalf of
the Close Corporation / Company / Partnership / Trust /Sole proprietor or sole trader for: any documentation
relating to the business (which is not necessarily a change of ownership). The nominated person will also
have access to webpage for the business.

Signature(s) for Close Corporation / Company / Partnership / Trust/ Sole proprietor or sole trader.
(sole member still must sign this resolution)

Signature of members:

Name	Signature
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____
6. _____	_____

Failure to complete, sign and date the relevant certificate(s) set out hereafter and failure to provide the certificate(s) in the form of a resolution as described above shall result in the tender being considered non-responsive and rejected in terms of clause C.3.8 of the Conditions of Tender.

F. DESIGN AND CONSTRUCTION EXPERIENCE

The following is a statement of work of similar nature recently successfully executed by myself / ourselves:

EMPLOYER: CONTACT PERSON AND TELEPHONE NUMBER	EMPLOYER'S AGENT: CONTACT PERSON AND TELEPHONE NUMBER	NATURE OF WORK	VALUE OF WORK (inclusive of VAT)	DATE COMPLETED OR EXPECTED TO BE COMPLETED

Attach additional pages if more space is required

SIGNATURE:

DATE:

(of person authorised to sign on behalf of the Tenderer)

G. KEY PERSONNEL

G1. KEY PERSONNEL - MANAGEMENT

The Tenderer must insert in the spaces provided below a list of the key personnel to be employed in the management of the construction of the Works, together with a resume of their experience with particular reference to the construction of similar Works.

The Tenderer shall attach the curriculum vitae of the listed key management personnel to the page included below for this purpose.

DESIGNATION	NAME	PROJECT TYPE	VALUE OF WORK	YEAR COMPLETED
CONTRACTS MANAGER				
CONSTRUCTION MANAGER				
FOREMAN/ SUPERVISOR				

Attach additional pages if more space is required

SIGNATURE:
(of person authorised to sign on behalf of the Tenderer)

DATE:

G2. KEY PERSONNEL – LABOUR ENHANCED ACTIVITIES

Bidders shall employ in labour-enhanced works only those supervisory and management staff that have completed the required Skills Programme in terms of Appendix C of the “Guidelines for the implementation of labour-enhanced infrastructure projects under the Expanded Public Works Programme (EPWP) Third Edition 2015”:

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

Tenderers’ attention is drawn to the required minimum supervisor to worker ratio for this project stated in clause F2.3 of Part F of the Particular Specifications.

The Tenderer must insert in the spaces provided below the relevant details of the personnel to be employed in the construction of the Works possessing the required qualifications in the supervision or management of LIC projects. A copy of the relevant qualification certificate for each such person shall be attached to the next page below.

DESIGNATION	NAME	NAME OF TRAINING INSTITUTION	QUALIFICATION OBTAINED IN THE SUPERVISION OR MANAGEMENT OF LIC PROJECTS	YEAR QUALIFICATION OBTAINED

Attach additional pages if more space is required

SIGNATURE:

DATE:

(of person authorised to sign on behalf of the Tenderer)

CURRICULUM VITAE OF KEY PERSONNEL - MANAGEMENT

Refer to G1.

Curriculum Vitae of key management personnel to be attached to this page.

and

QUALIFICATIONS OF KEY PERSONNEL – LABOUR ENHANCED ACTIVITIES

Refer to G2.

Relevant qualification certificates to be attached to this page for each person possessing the required qualifications in the supervision or management of LIC projects.

H. CONSTRUCTION EQUIPMENT

The following are lists of major construction equipment that I / we presently own or will acquire for this contract if my / our tender is accepted.

(a) Details of major construction equipment owned by me / us:

DESCRIPTION (<i>type, size and capacity</i>)	QUANTITY	YEAR OF MANUFACTURE

Attach additional pages if more space is required

(b) Details of major construction equipment that will be acquired:

DESCRIPTION (<i>type, size and capacity</i>)	QUANTITY	HOW ACQUIRED	
		HIRE / BUY	SOURCE

Attach additional pages if more space is required

SIGNATURE:

DATE:

(of person authorised to sign on behalf of the Tenderer)

I. PARTICIPATION IN JOB CREATION USING LOCAL LABOUR

The Tenderer 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). Proof of citizenship or work visa may be audited during the contract period.

The creation of one job shall mean the employment, for any period of time, of one such unskilled or semi-skilled labourer from the local community.

The Tenderer shall note the requirements for Job Creation Reporting for EPWP as set out in Part F: Expanded Public Works Programme (EPWP) of the project specifications.

The number of jobs to be created using such local labour is inclusive of the local labour employed to execute various portions of the Works by both the main Contractor and any subcontractors..

The number of jobs to be created using such local labour shall include for a minimum percentage allocation to the following individual targeted groups:

- 60% Women;
- 55% Youth; and
- 2% Disabled.

The minimum required content of such local labour for this project shall be calculated as follows:

$$\begin{aligned} & \text{Minimum required content of such local labour (\%)} \\ = & \frac{(100 \times \text{amount spent on wages for such local labour (excluding VAT)})}{(\text{Subtotal 1* (excluding contingencies, contract price adjustment and VAT)})} \end{aligned}$$

**Subtotal 1 is obtained from the Tender Summary under C2.2 Bill of Quantities (Activity Schedule)*

The minimum required content of such local labour for this project shall be 7.7% of the construction value.

For purposes of completing the table on the next page containing the Tenderer's declaration with respect to participation in job creation using local labour, the value of Subtotal 1* (excluding contingencies, contract price adjustment and VAT) which is obtained from the Tender Summary under C2.2 Bill of Quantities, shall be used.

TENDERER'S DECLARATION WITH RESPECT TO PARTICIPATION IN JOB CREATION USING LOCAL LABOUR:

The Tenderer shall complete the table below reflecting the anticipated local labour force to be employed on this contract, including such local labour employed by subcontractors.

I/We hereby tender to participate in job creation through the employment of local labour by creating the following number of jobs using unskilled or semi-skilled labourers, 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), including for a minimum allocation of 60% Women, 55% Youth and 2% Disabled:

Local labour comprising unskilled or semi-skilled labourers recruited from the local community	Anticipated number of jobs to be created	Total number of person-days anticipated	Wage rate per person-day (excluding VAT) (Rand)	Total wage cost (excluding VAT) (Rand)
Contractor's local labour content				
Subcontractors' local labour content				
Total anticipated wage cost of local labour content (excluding VAT)				R
Subtotal 1* (excluding contingencies, contract price adjustment and VAT)				R
Hence anticipated local labour content expressed as a percentage of Subtotal 1* (excluding contingencies, contract price adjustment and VAT))				%
<i>Note: Should this percentage not equal or exceed the specified minimum percentage, the Tender will be considered non-responsive in terms of subclause C.3.8 of the Conditions of Tender and such a tender shall be rejected.</i>				
Specified minimum local labour content				7.7 %

A penalty shall be applied to any shortfall in the local labour content achieved when measured against the specified minimum local labour content, as set out in Part F: Expanded Public Works Programme (EPWP) of the project specifications. The penalty shall not apply to shortfalls in the allocations to the individual target groups (i.e., Women/Youth/Disabled), only to shortfalls in the total local labour content achieved.

The undersigned, who warrants that he/she is duly authorized to do so on behalf of the Tenderer, confirms that he/she understands the conditions for such participation and confirms that the tender satisfies the conditions for participation in job creation through the employment of local labour.

Name:

Duly authorized to sign on behalf of:

SIGNATURE:

DATE:

(Of person authorised to sign on behalf of the Tenderer)

Failure to complete, sign and date this form shall result in the tender being considered non-responsive and rejected in terms of clause C.3.8 of the Conditions of Tender.

J. BIDDERS HEALTH AND SAFETY DECLARATION

In terms of Regulation 5(1)(h) of the OHS Act 1993 Construction Regulations 2014 (referred to as 'the Regulations' hereafter), a Contractor may only be appointed to perform construction work if the Employer is satisfied that the Contractor has the necessary competencies and resources to carry out the work safely in accordance with the Occupational Health and Safety Act No 85 of 1993, as amended and the OHS Act 1993 Construction Regulations 2014.

To that effect a person duly authorised by the Tenderer must complete and sign the declaration hereafter in detail.

Declaration by Tenderer

1. I, the undersigned, hereby declare and confirm that I am fully conversant with the Occupational Health and Safety Act No. 85 of 1993 (as amended by the Occupational Health and Safety Amendment Act No. 181 of 1993), and the OHS Act 1993 Construction Regulations 2014.
2. I hereby declare that my company has the competence and the necessary resources to safely carry out the construction work under this contract in compliance with the Construction Regulations and the Employer's Health and Safety Specification.
3. I propose to achieve compliance with the Regulations by one of the following:
 - (a) From my own competent resources as detailed in 4(a) hereafter: ***Yes / No**
 - (b) From my own resources or still to be appointed, and trained until competency is achieved, as detailed in 4(b) hereafter: ***Yes / No**
 - (c) From outside sources by appointment of competent specialist subcontractors as detailed in 4(c) hereafter: ***Yes / No**

(* = delete whatever is not applicable)

4. Details of resources I propose:

Note: Competent resources shall include safety personnel such as the construction manager, construction health and safety officer and construction supervisor as defined in Regulation 8, and competent persons as defined in the OHS Act 1993 Construction Regulations 2014, as applicable to this contract.

- (a) Details of the competent and qualified key persons from my company's own resources, who will form part of the contract team:

NAME OF COMPETENT PERSONS	POSITION TO BE FILLED BY COMPETENT PERSONS

- (b) Details of training of persons from my company's own resources (or to be hired) who still have to be trained to achieve the necessary competency:
- (i) By whom will training be provided?
 - (ii) When will training be undertaken?
 - (iii) List the positions to be filled by persons to be trained or hired:
- (c) Details of competent resources to be appointed as subcontractors if competent persons cannot be supplied from own company:

Name of proposed subcontractor:

Qualifications or details of competency of the subcontractor:

.....
.....

5. I hereby undertake, if my tender is accepted, to provide, before commencement of the works under the contract, a suitable, sufficiently documented and coherent site-specific Health and Safety Plan in accordance with Regulation 7(1)(a) of the Construction Regulations, which plan shall be subject to approval by the Employer.
6. I confirm that copies of my company's approved Health and Safety Plan, the Employer's Health and Safety Specification as well as the OHSA 1993 Construction Regulations 2014 will be provided on site and will at all times be available for inspection by the Contractor's personnel, the Employer's personnel, the Employer's Agent, Construction Health and Safety Agent, visitors, and officials and inspectors of the Department of Labour.
7. I hereby confirm that adequate provision has been made in my tendered rates and prices in the schedule of quantities to cover the cost of all resources, actions, training and all health and safety measures envisaged in the OHSA 1993 Construction Regulations 2014, and that I will be liable for any penalties that may be applied in terms of the said Regulations (Regulation 33) as a result of contravening or failing to comply with the provisions of the Act and the Regulations.
8. I agree that my failure to complete and execute this declaration to the satisfaction of the Employer will mean that I am unable to comply with the requirements of the OHSA 1993 Construction Regulations 2014, and accept that my tender will be prejudiced and may be rejected at the discretion of the Employer.

SIGNATURE:

DATE:

(of person authorised to sign on behalf of the Tenderer)

K. DEVIATIONS AND QUALIFICATIONS

Should the Tenderer wish to make any deviation from or any qualification to the Special Conditions of Contract, Specifications, Bill of Quantities, or Drawings, or should he wish to qualify the tender in any way, he shall indicate the proposals clearly hereunder or alternatively on photocopies of the original tender documentation which shall be attached to this page.

Please note: The extent of deviations from the tender documents issued by the Employer prior to the tender closing date is limited to those permissible in terms of the Conditions of Tender. Please also refer to Returnable Schedule N.

SECTION	PAGE	DEVIATION OR QUALIFICATION, INCLUDING REFERENCE CLAUSE OR ITEM NUMBER

Attach additional pages if more space is required

SIGNATURE:

DATE:

(of person authorised to sign on behalf of the Tenderer)

L. SCHEDULE OF ALTERNATIVE TENDERS

The attention of tenderers is specifically drawn to clause C.2.12 Alternative tender offers of Annex C Standard Conditions of Tender and to clause C.2.12 of section T1.2 TENDER DATA in this project document.

An alternative tender offer or design shall be considered only if the main tender offer has also been submitted in accordance with the requirements of clauses C.2.12.1 and C.2.12.2 of Annex C and such main tender offer is the winning tender as stated in clause C.2.12.3 of Annex C.

Such alternative offers shall be described, measured and priced in sufficient detail to enable the Employer to evaluate the alternative. The Tenderer shall set out the proposal clearly hereunder or alternatively on photocopies of the original tender documentation which shall be attached to this page.

SECTION	PAGE	ALTERNATIVE OFFER, INCLUDING REFERENCE CLAUSE OR ITEM NUMBER

SIGNATURE:

DATE:

(of person authorised to sign on behalf of the Tenderer)

M. TECHNICAL PROPOSAL

The tenderer is required to submit a technical proposal which covers the following criteria.

M1. Experience of key personnel

The experience of assigned staff member in relation to the scope of work will be evaluated from three different points of view:

- 1) General experience (total duration of professional activity), level of education and training and positions held of each discipline specific team leader.
- 2) The education, training, skills and experience of the Assigned Staff in the specific sector, field, subject, etc which is directly linked to the scope of work.
- 3) The key staff members' / experts' knowledge of issues which the tenderer considers pertinent to the project e.g. local conditions, affected communities, legislation, techniques etc.

A CV of the Lead project manager/Engineer, contract manager, construction manager design civil engineers/specialists and foreman of not more than 3 pages each should be attached to this schedule:

Each CV should be structured under the following headings:

- 1 Personal particulars
 - name
 - date and place of birth
 - place (s) of tertiary education and dates associated therewith
 - professional awards
- 2 Qualifications (degrees, diplomas, grades of membership of professional societies and professional registrations)
- 3 Skills
- 4 Name of current employer and position in enterprise
- 5 Overview of post graduate / diploma experience (year, organization and position)
- 6 Outline of recent assignments / experience that has a bearing on the scope of work

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Signed

Date

Name

Position

M2. Relevant experience

List number of completed Structures projects.

The evaluation will consider the nature of the reference projects, scope of services provided, and Employer/Client completion certificate.

Appointment letters, Reference Letters including Final Approval Certificates not older than 15 years per project to be provided with contact details of references.

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Signed

Date

Name

Position

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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C1.1.2: ACCEPTANCE	C4	Yellow
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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. DEV00731/00000/00/HOD/INF/22/T: THE COMPLETION OF THE UMDLOTI RIVER BRIDGE NO. 3601 AND APPROACH ROADS ON MAIN ROAD P713 IN THE DURBAN 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]

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:

This form is to be completed by the Employer and the successful tenderer only, upon acceptance of the successful tenderer's offer

C1.1.3: SCHEDULE OF DEVIATIONS

The extent of deviations from the tender documents issued by the Employer prior to the tender closing date is limited to those permitted in terms of the Tender Data and the Conditions of Tender.

A Tenderer's covering letter shall not be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid, become the subject of agreement reached during the process of offer and acceptance, the outcome of such agreement shall be recorded here.

Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change to the tender documents and which it is agreed by the Parties becomes an obligation of the contract shall also be recorded here.

Any change or addition to the tender documents arising from the above agreement and recorded here shall also be incorporated into the final draft of the Contract.

- 1 Subject:**

Details:

.....

- 2 Subject:**

Details:

.....

- 3 Subject:**

Details:

.....

- 4 Subject:**

Details:

.....

- 5 Subject:**

Details:

.....

By the duly authorised representatives signing this Schedule of Deviations, the Employer and the Tenderer agree to and accept the foregoing Schedule of Deviations as the only deviations from and amendments to

the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, as well as any confirmation, clarification or 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 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 F: 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 G: 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.”

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 12 months from the date of commencement of the Works, including non-working days and special non-working days.</p> <p>Pricing Strategy: The Contract is to be a Re-measurement Contract.</p> <p>Name of Employer: Province of KwaZulu-Natal represented by Head of Department: 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>172 Burger Street Pietermaritzburg 3201</td> <td>Private Bag X9043 Pietermaritzburg 3200</td> </tr> </table> <p>E-mail: Sihle.Mhlongo@kzntransport.gov.za</p> <p>Telephone No: 033 355 0548 Fax No: 033 345 7537</p> <p>Name of Employer's Agent: D. Govender Pr. Tech Eng. – BVi Consulting Engineers (Pty) Ltd.</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>2nd Floor Pharos house 70 Buckingham Terrace Westville 3629</td> <td>P.O. Box 889 Westville 3630</td> </tr> </table> <p>E-mail: deong@bvikn.co.za</p> <p>Telephone No: 031 266 8382 Fax No: 031 267 0728</p>	<u>Physical:</u>	<u>Postal:</u>	172 Burger Street Pietermaritzburg 3201	Private Bag X9043 Pietermaritzburg 3200	<u>Physical:</u>	<u>Postal:</u>	2 nd Floor Pharos house 70 Buckingham Terrace Westville 3629	P.O. Box 889 Westville 3630
<u>Physical:</u>	<u>Postal:</u>								
172 Burger Street Pietermaritzburg 3201	Private Bag X9043 Pietermaritzburg 3200								
<u>Physical:</u>	<u>Postal:</u>								
2 nd Floor Pharos house 70 Buckingham Terrace Westville 3629	P.O. Box 889 Westville 3630								
<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>5.13.1</p> <p>5.14.1</p> <p>SCC 5.14.4</p> <p>5.16.3</p>	<p>(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> <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>The requirements for achieving Practical Completion are as stated in General Conditions of Contract 2015.</p> <p>The Contractor shall submit the following:</p> <p>(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> <p>The latent defects period is 10 years.</p>
<p>6.</p> <p>SCC 6.2.1</p> <p>6.5.1.2.3</p> <p>6.8.2</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.</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:</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, D and F): "Civil engineering material – roads, general (excluding bitumen)"</p>

CLAUSE	CONTRACT SPECIFIC DATA PROVIDED BY THE EMPLOYER
6.8.3	<p>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 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>
6.10.1.5	<p>The percentage advance on Plant and materials not yet built into the Permanent Works is 80%.</p>
6.10.3	<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>
8.	RISKS AND RELATED MATTERS
8.6.1.1.2	<p>The value of Plant and materials supplied by the Employer to be included in the insurance sum is <u>nil</u>.</p>
8.6.1.1.3	<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>
8.6.1.2	<p>Special Risks Insurance issued by SASRIA is required.</p>
8.6.1.3	<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>
10.	CLAIMS AND DISPUTES
10.5.2	<p>Disputes shall be referred to ad-hoc adjudication.</p>
10.5.3	<p>The number of Adjudication Board members to be appointed shall be one.</p>
10.8.1	<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> <p style="text-align: center;"><u>Physical:</u> <u>Postal:</u></p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>									
<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;"> <thead> <tr> <th style="text-align: center;">SPECIAL MATERIALS</th> <th style="text-align: center;">UNIT</th> <th style="text-align: center;">RATE OR PRICE FOR THE BASE MONTH</th> </tr> </thead> <tbody> <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> </tbody> </table> <p>Signed on behalf of the Tenderer:</p>	SPECIAL MATERIALS	UNIT	RATE OR PRICE FOR THE BASE MONTH	50/70 penetration grade bitumen	ton	70/100 penetration grade bitumen	ton
SPECIAL MATERIALS	UNIT	RATE OR PRICE FOR THE BASE MONTH								
50/70 penetration grade bitumen	ton								
70/100 penetration grade bitumen	ton								

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. DEV00731/00000/00/HOD/INF/22/T: THE COMPLETION OF THE UMDLOTI RIVER BRIDGE NO. 3601 AND APPROACH ROADS ON MAIN ROAD P713 IN THE DURBAN REGION IN THE DURBAN 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 theday 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. ZNT (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.

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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CONSTRUCTION OF THE MDLOTI RIVER BRIDGE No.3601 AND APPROACH ROADS ON MAIN ROAD P713
BILL OF QUANTITIES
SCHEDULE A: ROADWORKS

SECTION C1.2

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C1.2	GENERAL REQUIREMENTS AND PROVISIONS					
C1.2.1	Environmental Management:					
C1.2.1.1	Monitoring of compliance with and reporting on the EMP	month	12			
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:					
C1.2.3.3	Cleaning out culverts	m ³	25			
C1.2.4	Stakeholder liaison	month	12			
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	12			
C1.2.8	Dayworks:					
C1.2.8.1	Personnel:					
	(a) Unskilled labourer	h	1,800			
	(b) Semi-skilled labourer	h	900			
	(e) Foreman	h	100			
	(f) Skilled Artisan	h	300			
C1.2.8.2	Construction equipment:					
	(a) Motor grader - min 93kW (Cat 120G or similar)	h	80			
	(b) Vibratory roller (min 8 tonnes)	h	80			
	(e) Backhoe loader - min 50kW (Case 580F or similar)	h	160			
	(f) Crawler excavator - min 147kW (Komatsu PC300 or similar approved)	h	100			
	(g) Compressor (up to 10 m ³ / min)	h	160			
	(h) Generators (up to 10kW)	h	160			
C1.2.8.3	Vehicles (specify size):					
	(d) 6 m ³ Tip truck	km	240			
	(e) 10 m ³ Tip truck	km	240			
	(f) Water Tanker (min 7000 litres)	km	160			
	(g) Lowbed Transported to and from site	km	400			
Total Carried Forward To Summary						

PROVINCE OF KWAZULU-NATAL - DEPARTMENT OF TRANSPORT
CONSTRUCTION OF THE MDLOTI RIVER BRIDGE No.3601 AND APPROACH ROADS ON MAIN ROAD P713
BILL OF QUANTITIES
SCHEDULE A: ROADWORKS

SECTION C1.3

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
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	Value-related obligations	Lump sum	1			
C1.3.1.3	Time-related obligations:					
	(a) Time-related obligations	month	12			
C1.3.2	Contract sign boards	m ²	11			
PC1.3.3	Construction of new survey beacons and protection of existing survey beacons:					
C1.3.3.1	Provisional sum for new survey beacons to be constructed or for existing survey beacons to be protected during construction	Prov sum	1	60,000.00	60,000	00
C1.3.3.2	Handling cost and profit in respect of subitem C1.3.3.1	%	60,000.00			
PC1.3.4	Community participation:					
C1.3.4.1	Cost of community participation and PLC support	Prov sum	1	150,000.00	150,000	00
C1.3.4.2	Handling cost and profit in respect of subitem C1.3.4.1	%	150,000.00			
Total Carried Forward To Summary						

PROVINCE OF KWAZULU-NATAL - DEPARTMENT OF TRANSPORT
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BILL OF QUANTITIES
SCHEDULE A: ROADWORKS

SECTION C1.4

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C1.4	FACILITIES FOR THE ENGINEER					
C1.4.1	Site accommodation:					
C1.4.1.1	Offices and conference room	m ²	36			
C1.4.1.6	Car ports	No	1			
C1.4.1.7	Ablution unit (equipped as specified)	No	2			
C1.4.2	Items measured by area:					
C1.4.2.7	Venetian blinds	m ²	4			
C1.4.2.8	Notice boards (1,2 m x 2,0 m)	m ²	2.4			
C1.4.2.9	White boards (0,9 m x 1,2 m)	m ²	1.08			
C1.4.3	Items measured by number:					
C1.4.3.1	Office swivel chair	No	4			
C1.4.3.5	Office desk with 3 drawers (at least one lockable drawer)	No	2			
C1.4.3.11	General purpose steel cabinet with shelves	No	2			
C1.4.3.13	220 / 250 volt power outlet plug point	No	4			
C1.4.3.16	Single 1 500 mm, 22 watt LED tube ceiling light	No	3			
C1.4.3.17	11 watt compact fluorescent bulb ceiling light	No	2			
C1.4.3.18	7 watt LED bulb ceiling light	No	2			
C1.4.3.19	Wash-hand basin	No	1			
C1.4.3.23	Fire extinguisher 9,0 kg, dry powder type	No	2			
C1.4.3.24	Air-conditioning unit with minimum 2,2 kW	No	1			
C1.4.3.28	UPS / Voltage stabiliser	No	1			
C1.4.3.31	Rain gauge	No	1			
C1.4.3.32	Minimum / maximum atmospheric temperature gauge	No	1			
C1.4.3.39	Steel plan cabinets	No	1			
C1.4.3.40	Floodlights (including poles and 500 Watt minimum globes)	No	1			
C1.4.3.41	Refregerators	No	1			
Total Carried Forward To Summary						

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SECTION C1.5

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C1.5	ACCOMMODATION OF TRAFFIC					
C1.5.2	Accommodation of vehicular traffic	month	12			
C1.5.5	Maintenance of temporary deviations:					
C1.5.5.9	Grading of temporary deviations and existing roads used as detours	km	1			
C1.5.7	Temporary traffic control facilities:					
C1.5.7.1	Delineators including mounting bases and ballast (DTE50J):					
	(a) Single sided, reversible left or right (200 mm x 800 mm)	No	50			
	(b) Double sided, reversible left or right (200 mm x 800 mm)	No	50			
C1.5.7.3	Flagmen	man-shift	240			
C1.5.7.5	Provision of illuminated traffic signs:					
	(c) Illuminated road sign – R & TR series (1200 mm dia.)	No	20			
	(d) Illuminated road sign – TW series (1500 mm)	No	10			
	(g) Road signs STW-, DTG-TGS- and TG series (excluding delineators and barricades)	m ²	25			
	(h) Moveable barricade / road sign combination	No	6			
C1.5.7.8	Traffic control stations	month	12			
PC1.5.13	The provision and maintenance of safety equipment for use by the Engineers representative and staff					
PC1.5.13.1	Rotating amber flashing lights magnetically attached to vehicles	No	2			
PC1.5.13.2	High visibility reflective safety vests	No	4			
Total Carried Forward To Summary						

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SCHEDULE A: ROADWORKS

SECTION C1.6

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C1.6	CLEARING AND GRUBBING					
C1.6.1	Clearing:					
C1.6.1.1	Clearing with machines and some hand labour where necessary	ha	3.5			
C1.6.2	Grubbing:					
C1.6.2.1	Grubbing with machines and some hand labour where necessary	ha	3.5			
C1.6.3	Removal and grubbing of large trees and tree stumps:					
C1.6.3.1	Girth equal to or exceeding 1,0 m up to and including 2,0 m	No	10			
Total Carried Forward To Summary						

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SECTION C2.1

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C2.1	GENERAL REQUIREMENTS AND TRENCHING FOR SERVICES					
C2.1.1	Location, identification, protection and relocation of existing services:					
C2.1.1.1	Contractor's obligations	Lump sum	1			
C2.1.1.2	Permanent services relocation or protection work by others	PC sum	1	300,000.00	300,000	00
C2.1.1.3	Handling costs and profit in respect of item C2.1.1.2 above	%	300,000.00			
Total Carried Forward To Summary						

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SECTION C2.2

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C2.2	DRY SERVICES					
C2.2.1	Supply, lay and prove ducts:					
C2.2.1.1	Ordinary pipe, uPVC non-pressure pipes :					
	(a) 110 mm dia.	m	3,480			
C2.2.6	Duct accessories (markers, marking, draw wires and end caps, etc.):					
C2.2.6.1	Duct markers (blocks)	No	12			
Total Carried Forward To Summary						

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SCHEDULE A: ROADWORKS

SECTION C3.1

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C3.1	DRAINS					
C3.1.1	Excavation for open drains:					
C3.1.1.1	Excavating all material situated within the following depth ranges below the surface level using conventional methods:					
	(a) 0 m to 1,5 m	m ³	1,360			
C3.1.1.2	Extra over sub-item C3.1.1.1 for excavation in hard and boulder material irrespective of depth	m ³	50			
C3.1.6	Construction of banks and dykes:					
C3.1.6.1	Banks and dykes using conventional methods	m ³	100			
Total Carried Forward To Summary						

PROVINCE OF KWAZULU-NATAL - DEPARTMENT OF TRANSPORT
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BILL OF QUANTITIES
SCHEDULE A: ROADWORKS

SECTION C3.2

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C3.2	CULVERTS					
C3.2.1	Excavation for culvert structures:					
C3.2.1.1	Excavating in all material situated within the following depth ranges below the surface level:					
	(a) 0 m to 1,5 m	m ³	750			
	(b) Exceeding 1,5 m and up to 3,0 m	m ³	150			
C3.2.1.4	Extra over sub-item C3.2.1.1 for excavation in hard or boulder material, irrespective of depth	m ³	25			
C3.2.2	Backfilling:					
C3.2.2.1	Using the excavated material	m ³	80			
C3.2.2.2	Using imported selected material:					
	(a) From commercial sources (G7 material)	m ³	350			
C3.2.3	Concrete pipe culverts:					
C3.2.3.2	On Class B bedding (type and diameter indicated)					
	(i) Type SC100D - load pipes, Ogee joints:					
	(1) 600 mm dia.	m	200			
	(2) 900 mm dia.	m	10			
C3.2.15	Manholes and catch pits, with prefabricated elements:					
C3.2.15.1	Prefabricated floors (installed at a standard depth of 1,0 m):					
	(a) As per standard detail SD0405/A	No	4			
C3.2.15.2	Prefabricated roofs:					
	(a) as per standard detail SD0505/A	No	4			
C3.2.15.3	Prefabricated walls:					
	(a) As per standard detail SD0403/A	m	16			
C3.2.15.4	Extra over item C3.2.15.1 and C3.2.7.2 for variations in the depths of all types of concrete manholes with prefabricated, or in-situ concrete or brickwork wall combinations deeper than 1,0 m designated for tendering purposes	m	3			
PC3.2.28	Headwalls:					
PC3.2.28.1	Headwalls (as per standard detail SD0406) for the following pipe sizes:					
	(a) 600mm dia.	No	8			
	(b) 900mm dia.	No	2			
Total Carried Forward To Summary						

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SECTION C3.3

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C3.3	CONCRETE KERBING AND CHANNELING, ASPHALT BERMS, CHUTES, DOWNPIPES, CONCRETE, STONE PITCHED AND GABION LININGS FOR OPEN DRAINS					
C3.3.1	Concrete kerbing:					
C3.3.2	Concrete kerbing-channeling combination:					
C3.3.2.1	Prefabricated kerbing-channeling (30MPa):					
	(a) Fig 6 kerb channel (500 mm kerb and channel combination) refer to standard detail SD 0701/A	m	1,220			
C3.3.8	Linings for open drains:					
C3.3.8.1	Cast-in-situ concrete lining (30MPa)	m ³	210			
C3.3.8.2	Class U2 surface finish to cast-in-situ concrete	m ²	2,100			
C3.3.9	Formwork to cast-in-situ concrete lining for open drains (Class F2 surface finish):					
C3.3.9.1	To sides with formwork on the internal face only	m ²	420			
C3.3.9.3	To ends of slabs	m ²	210			
C3.3.10	Sealed joints in concrete and stone pitched linings of open drains	m	525			
C3.3.12	Steel reinforcement:					
C3.3.12.3	Welded steel fabric (Ref: 417)	kg	4,050			
Total Carried Forward To Summary						

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SECTION C4.2

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C4.2	CUT MATERIALS					
C4.2.9	Excavate material to spoil in sites designated by the Contractor, material obtained from:					
C4.2.9.1	Soft excavation, overburden and unsuitable material	m ³	500			
C4.2.12	Finishing the side slopes:					
C4.2.12.1	Cuttings:					
	(a) In soft material	m ²	50			
Total Carried Forward To Summary						

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SECTION C4.4

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C4.4	COMMERCIAL MATERIALS					
C4.4.2	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers:					
C4.4.2.1	Pavement layer material:					
	(c) Type G4B material	m ³	681			
	(d) Type G6 material	m ³	1,100			
	(e) Type G7 material	m ³	2,000			
C4.4.2.5	Fill material in the earthworks:					
	(a) Normal or coarse fill (G7)	m ³	12,000			
C4.4.4	Cementitious stabilising agents:					
C4.4.4.1	Cement	t	48.9			
C4.4.5	Bituminous stabilising agents:					
C4.4.5.1	Penetration grade bitumen (70/100)	t	37.6			
C4.4.5.2	Emulsion stable grade (30% diluted bitumen emulsion)	t	5,500			
C4.4.6	Fillers for bituminous stabilisation:					
C4.4.6.1	Cement	t	15.7			
C4.4.6.2	Lime	t	15.7			
C4.4.7	Sampling and material testing by a commercial laboratory for the stabilisation designs:					
C4.4.7.1	Cost of sampling and material testing	prov sum	1	50,000.00	50,000	00
C4.4.7.2	Handling cost and profit in respect of item C4.4.7.1	%	50,000.00			
Total Carried Forward To Summary						

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SECTION C5.1

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C5.1	ROADBED					
C5.1.1	Roadbed construction and compaction:					
C5.1.1.1	Compaction of in-situ material to 93% of MDD	m ³	2,200			
Total Carried Forward To Summary						

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SECTION C5.2

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C5.2	FILL					
C5.2.2	Fill construction:					
C5.2.2.1	Normal fill material in compacted layer thicknesses of 200 mm and less:					
	(a) Compacted to 93% of MDD (G7)	m ³	12,000			
C5.2.11	Finishing-off fill slopes, medians and interchange areas:					
C5.2.11.1	Fill slopes	m ²	5,250			
Total Carried Forward To Summary						

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SECTION C5.3

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C5.3	ROAD PAVEMENT LAYERS					
C5.3.2	Construction of pavement layers:					
C5.3.2.1	Construction of layers using conventional construction methods:					
	(a) Lower selected subgrade layer (150 mm)(G7) compacted to 93 % of MDD	m ³	1,000			
	(c) Upper selected subgrade layer (150 mm)(G7) compacted to 95 % of MDD	m ³	1,000			
	(l) Upper subbase gravel layer (chemically stabilised)(G6)(150 mm) compacted to 95 % of MDD	m ³	1,000			
	(n) Gravel base layer (bitumen stabilised) (125 mm)(G4B) compacted to 100% of MDD	m ³	800			
	(cc) Lower subbase gravel layer (unstabilised)(150 mm thick)(G6)(sidewalk) compacted to 95% of MDD	m ³	250			
Total Carried Forward To Summary						

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SECTION C5.4

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C5.4	STABILISATION					
C5.4.2	Chemical stabilisation:					
C5.4.2.1	Chemical stabilisation (150 mm thick) of pavement layers (subbase)	m ³	1,000			
C5.4.5	Cementitious stabilisation agents for pavement layers:					
C5.4.5.1	Addition of cementitious stabilisation agents for pavement layers:					
	(a) Cement (subbase)	t	60.0			
C5.4.7	Bituminous stabilisation of pavement layers:					
C5.4.7.1	Bituminous stabilisation (125 mm) of pavement layers (base)	m ³	800			
C5.4.8	Bituminous stabilisation agent:					
C5.4.8.3	Foamed bitumen	t	50.0			
C5.4.9	Filler for bituminous stabilisation:					
C5.4.9.1	Filler for bituminous stabilisation					
	(a) Cement	t	20.0			
	(b) Lime	t	20.0			
C5.4.10	Provision and application of water for curing	kℓ	200			
C5.4.15/C5.5.21.3	Application of a diluted emulsion spray	ℓ	5,500			
Total Carried Forward To Summary						

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SECTION C6.2

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C6.2	SEGMENTAL BLOCK PAVING LAYERS					
C6.2.1	Segmental block paving:					
C6.2.1.1	Concrete Pavement (100mm thick sidewalk) excluding texturing and curing	m ²	1,655			
C6.2.3	Texturing and curing the concrete pavement:					
C6.2.3.1	Curing	m ²	1,655			
C6.2.3.2	Texturing (Wood float finish)	m ²	1,655			
C6.2.4	Joints:					
C6.2.4.1	Expansion Joints complete using softboard and silicone sealant placed every 12m	m	138			
C6.2.5	Steel reinforcement in concrete pavementl:					
C6.2.5.1	Welded steel fabric (Ref Mesh 193)	kg	3,200			
C6.2.6/C8.1.1.3	Inverted bitumen emulsion on sidewalks	litre	1,160			
C6.2.6/C9.1.3.3	Stable -grade 30% net bitumen emulsion applied to sidewalk on bridge deck	litre	500			
C6.2.7	Vertical formwork to provide:					
C6.2.7.1	Class F1 finish to concealed surfaced (sidewalk)	m ²	262			
Total Carried Forward To Summary						

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SECTION C9.1

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C9.1	ASPHALT LAYERS					
C9.1.1	Asphalt mix designs:					
C9.1.1.2	Sand skeletal mixes:					
	(a) Continuously graded surfacing (Sa-H10 (A-E2)(level 1B)	Lump sum	1			
	(b) Continuously graded (Sa-H10)(70/100)(level 1B)	Lump sum	1			
C9.1.3	Application of bond coat:					
C9.1.3.1	Stable – grade 30 % net bitumen emulsion as specified. Applied with a calibrated distributor					
	(a) 0,55 ℓ/m ³ on base layer	ℓ	2,891			
	(b) 0,6 ℓ/m ³ on bridge deck	ℓ	500			
C9.1.5	Asphalt surfacing:					
C9.1.5.1	New construction:					
	(e) Sand skeletal mix – continuously graded 40 mm thick (A-E2)	m ²	5,000			
C9.1.7	Placing and compacting asphalt in restricted areas:					
C9.1.7.1	Extra over payment items C9.1.4.1 and C9.1.5.1 (40 mm surfacing using A-E2, maximum particle size of 10 mm placed by paver)	m ²	1,656			
C9.1.8	Surfacing of bridge decks:					
C9.1.8.1	Levelling course: Continuously graded (continuously graded sand skeletal using 70/100 binder, maximum particle size of 10 mm)	t	55			
C9.1.8.2	Surfacing (continuously graded sand skeletal using A-E2 binder, maximum particle size of 10 mm)	t	110			
C9.1.10	Variation rates:					
C9.1.10.2	Aggregate	t	10			
C9.1.13	Coring of asphalt layers:					
C9.1.13.1	100 mm diameter	No	20			
Total Carried Forward To Summary						

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SECTION C11.1

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C11.1	PITCHING, STONEMASONRY, CAST IN SITU CONCRETE FOR PROTECTION AGAINST EROSION					
C11.1.2	Stone pitching:					
C11.1.2.2	Grouted stone pitching with mortar	m ²	250			
C11.1.6	Concrete edge beams (30MPa/20 concrete)	m ³	10			
Total Carried Forward To Summary						

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SECTION C11.2

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C11.2	NON-STRUCTURAL GABIONS					
C11.2.1	Foundation trench excavation:					
C11.2.1.1	Excavating all material situated within the following depth ranges below the surface level: (a) 0 m to 1,5 m	m ³	150			
C11.2.2	Surface preparation for bedding the gabion boxes and mattresses	m ²	200			
C11.2.3	Gabion boxes and mattresses (120 mm x 100 mm x 2,7 mm diam. mesh):					
C11.2.3.1	Galvanized gabion boxes (1 m wide by 3 m long)	m ³	100			
C11.2.3.3	Galvanized gabion mattresses (100 mm x 80 mm x 2,2 mm dia. mesh) 1,0 m diaphragm spacing, 6,0 m long by 2,0 m wide by 0,3 m deep	m ³	50			
C11.2.4	Geotextile (Bidim U 34 or similar)	m ²	375			
Total Carried Forward To Summary						

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SECTION C11.4

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C11.4	ROAD RESTRAINT SYSTEMS					
C11.4.1	Erecting of guardrails at 3,81 m spacing:					
C11.4.1.1	Complete galvanized system compliant to SANS 1350: (a) On timber posts (SD1101 and SD1102)	m	500			
C11.4.1.2	Terminal sections for 3,81 guardrails comprising of:					
	(a) End wings to SANS 1350	No	4			
	(c) Bridge adapters to SANS 1350	No	4			
C11.4.5	Additional guardrail posts for 3,81 m systems:					
C11.4.5.1	Timber	No	10			
C11.4.6	Reflective plates:					
C11.4.6.1	Steel plates	No	100			
Total Carried Forward To Summary						

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SECTION C11.6

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C11.6	ROAD SIGNS					
C11.6.1	Road signboards with painted or coloured semi-matt background. Symbols, lettering and borders in semi-matt black or in Class I retro-reflective material, where the sign board is constructed from:					
C11.6.1.3	Prepainted galvanized steel plate (chromadek 1,4 mm thick or approved equivalent): (b) Area exceeding 0,5 m ² but not 2,0 m ²	m ²	20			
C11.6.1.4	Prepainted galvanized steel profiles (200 mm high panels): (a) Area 0 to 0,5 m ² chromadek or approved (b) Area exceeding 0,5 m ² but not 2,0 m ² equivalent	m ² m ²	5 10			
C11.6.2	Extra over on item C11.6.1 for using:					
C11.6.2.1	Background of retro-reflective material: (a) Class I	m ²	35			
C11.6.2.2	Lettering, symbols, numbers, arrows, emblems and borders of retro-reflective material: (a) Class III	m ²	15			
C11.6.3	Road sign supports (overhead road sign structures excluded):					
C11.6.3.2	Timber (25 mm - 150 mm dia. cresoted gumpoles)	m	50			
C11.6.5	Excavation and backfilling for road sign supports (not applicable to kilometre posts):					
C11.6.5.1	Excavating soft material and backfilling	m ³	10			
C11.6.8	Danger plates at culverts / structures:					
C11.6.8.2	Size 200 x 800 mm (W401 or W402)	No	4			
Total Carried Forward To Summary						

PROVINCE OF KWAZULU-NATAL - DEPARTMENT OF TRANSPORT
CONSTRUCTION OF THE MDLOTI RIVER BRIDGE No.3601 AND APPROACH ROADS ON MAIN ROAD P713
BILL OF QUANTITIES
SCHEDULE A: ROADWORKS

SECTION C11.7

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C11.7	ROAD MARKINGS AND ROAD STUDS					
C11.7.2	Retro-reflective road marking:					
C11.7.2.1	White lines broken or unbroken (100 mm wide)	km	1.4			
C11.7.2.2	Yellow lines broken or unbroken (100 mm wide)	km	1.4			
C11.7.7	Road studs:					
C11.7.7.1	Permanent road studs compliant to SANS 1442 (RSA1)	No	420			
C11.7.8	Setting out and premarking the lines (excluding traffic island markings, lettering and symbols)	km	2.8			
Total Carried Forward To Summary						

PROVINCE OF KWAZULU-NATAL - DEPARTMENT OF TRANSPORT
CONSTRUCTION OF THE MDLOTI RIVER BRIDGE No.3601 AND APPROACH ROADS ON MAIN ROAD P713
BILL OF QUANTITIES
SCHEDULE A: ROADWORKS

SECTION C11.8

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C11.8	LANDSCAPING AND PLANTING PLANTS					
C11.8.1	Trimming:					
C11.8.1.2	Hand trimming	m ²	5,300			
C11.8.2	Sodding by using the following types of seeds:					
	(a) Nursery sods	m ²	1,300			
C11.8.3	Preparing the areas for grassing:					
C11.8.3.3	Topsoiling within the road reserve where the following materials are used:					
	(a) Topsoil obtained from within the road reserve or borrow areas	m ³	1,060			
C11.8.3.5	Providing and applying chemical fertilisers and / or soil-improvement material:					
	(b) Superphosphate	t	45			
	(d) 2:3:2 (22)+Zn	t	45			
C11.8.4	Grassing:					
C11.8.4.3	Hydroseeding:					
	(a) Providing an approved seed mixture for hydroseeding	kg	20			
	(b) Providing an approved mulch	kg	225			
	(c) Hydroseeding	ha	0.4			
Total Carried Forward To Summary						

PROVINCE OF KWAZULU-NATAL - DEPARTMENT OF TRANSPORT
CONSTRUCTION OF THE MDLOTI RIVER BRIDGE No.3601 AND APPROACH ROADS ON MAIN ROAD P713
 BILL OF QUANTITIES
 SCHEDULE A: ROADWORKS

SECTION C11.9

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C11.9	FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS					
C11.9.1	Finishing the road and road reserve:					
C11.9.1.2	Single carriageway road	km	0.7			
Total Carried Forward To Summary						

PROVINCE OF KWAZULU-NATAL - DEPARTMENT OF TRANSPORT
CONSTRUCTION OF THE MDLOTI RIVER BRIDGE No.3601 AND APPROACH ROADS ON MAIN ROAD P713
BILL OF QUANTITIES
SCHEDULE A: ROADWORKS

SECTION C20.1

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C20.1	TESTING MATERIALS AND JUDGEMENT OF WORKMANSHIP					
C20.1.2	Special tests requested by the Engineer:					
C20.1.2.2	Employer's contribution to other special tests:					
	(a) Cost of testing	Prov sum	1	150,000.00	150,000	00
	(b) Handling costs and profit in respect of item C20.1.2.2(a)	%	150,000.00			
Total Carried Forward To Summary						

PROVINCE OF KWAZULU-NATAL - DEPARTMENT OF TRANSPORT
CONSTRUCTION OF THE MDLOTI RIVER BRIDGE No.3601 AND APPROACH ROADS ON MAIN ROAD P713
BILL OF QUANTITIES
SCHEDULE B: STRUCTURES

SECTION C13.1

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C13.1	FOUNDATIONS					
C13.1.2	Additional foundation investigations:					
C13.1.2.1	Provisional sum allowed for additional foundation investigations	prov sum	1	50,000.00	50,000	00
C13.1.2.2	Handling costs and profit in respect of item C13.1.2.1	%	50,000.00			
C13.1.3	Excavation:					
C13.1.3.1	Excavating soft material situated within the following successive depth ranges:					
	(a) 0 m up to 1,5 m	m ³	320			
	(b) > 1,5 m and < 3,0 m	m ³	31			
	(c) > 3,0m and < 4,5m	m ³	280			
C13.1.3.2	Extra over subitem C13.1.3.1 for excavation in hard material irrespective of depth	m ³	83			
C13.1.3.3	Extra over subitem C13.1.3.1 for additional excavation required by the Engineer after excavation is complete	m ³	22			
C13.1.3.4	Extra over subitem C13.1.3.1 for excavation by hand	m ³	22			
C13.1.6	Access and drainage:					
C13.1.6.1	Access	Lump sum	1.0			
C13.1.6.2	Drainage:	Lump sum	1.0			
C13.1.7	Backfill to excavations utilising:					
C13.1.7.1	Material from excavation	m ³	660			
C13.1.7.2	Imported material	m ³	1,100			
C13.1.7.3	Soil cement	m ³	22			
C13.1.9	Fill within a restricted area (extra over item C5.2.2)	m ³	1,590			
C13.1.12	Overbreak in excavation in hard material	m ²	22			
C13.1.14	Foundation fill consisting of:					
C13.1.14.4	Mass concrete (Class C12/15-20-XC4)	m ³	154			
C13.1.14.5	Concrete blinding (75 mm Class C12/15-20-XC4)	m ³	12			
C13.1.16	Establishment on site for drilling of holes and grouting of rock fissures:					
	(a) Percussion drilling through rock layers	Lump sum	1			
	(b) Core drilling through concrete	Lump sum	1			
C13.1.17	Moving to and setting up equipment at each hole to be drilled for grouting:					
Total Carried Forward						

PROVINCE OF KWAZULU-NATAL - DEPARTMENT OF TRANSPORT
CONSTRUCTION OF THE MDLOTI RIVER BRIDGE No.3601 AND APPROACH ROADS ON MAIN ROAD P713
BILL OF QUANTITIES
SCHEDULE B: STRUCTURES

SECTION C13.1

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
Brought Forward						
	(a) Percussion drill	No	48			
	(b) Core drill	No	48			
C13.1.20	Dowel bars:					
C13.1.20.1	Drilling and preparation of holes:					
	(a) 60 mm diameter percussion drilling through rock layers, 2.5 m drilling length	m	120			
	(b) 80 mm diameter core drilling through concrete, 1 m drilling length	m	38			
C13.1.20.2	Supply and installation of dowel bars (type, diameter, length, corrosion protection, together with type of grout, indicated)					
	(a) Dowel bars, Y32, 3.0 m long, galvanized cementitious non-shrink grout	kg	900			
Total Carried Forward To Summary						

PROVINCE OF KWAZULU-NATAL - DEPARTMENT OF TRANSPORT
CONSTRUCTION OF THE MDLOTI RIVER BRIDGE No.3601 AND APPROACH ROADS ON MAIN ROAD P713
BILL OF QUANTITIES
SCHEDULE B: STRUCTURES

SECTION C13.2

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C13.2	FALSEWORK, FORMWORK AND CONCRETE FINISH					
C13.2.2	Vertical formwork to provide:					
	(a) Class F1 finish to concealed surfaces of:					
	(i) Foundations	m ²	83			
	(ii) Abutment walls	m ²	446			
	(iii) Approach slabs	m ²	19			
	(iv) Deck edge	m ²	55			
	(b) Class F3 finish to exposed surfaces of:					
	(i) Abutment walls	m ²	446			
	(ii) Piers	m ²	401			
	(iii) Diaphragms	m ²	136			
	(iv) Coping for handrails	m ²	231			
C13.2.3	Horizontal formwork to provide:					
	(a) Class F3 finish to exposed surfaces of:					
	(i) Deck cantilever	m ²	264			
	(ii) Diaphragm beams	m ²	69			
C13.2.4	Inclined formwork to provide:					
	(a) Class F1 finish to concealed surfaces of:					
	(i) Abutment walls	m ²	50			
	(b) Class F3 finish to exposed surfaces of:					
	(i) Piers	m ²	116			
C13.2.5	Permanent formwork:					
C13.2.5.2	80 mm thick precast concrete	m ²	413			
C13.2.6	Formwork to form open joints:					
	(a) 50 mm between expansion joints between deck and abutments	m ²	102			
C13.2.10	Provision of designs and drawings of falsework and formwork by an ECSA registered Professional Engineer or Technologist:					
	(a) Abutments and wing walls	Lump sum	1			
	(b) Piers	Lump sum	1			
Total Carried Forward To Summary						

PROVINCE OF KWAZULU-NATAL - DEPARTMENT OF TRANSPORT
CONSTRUCTION OF THE MDLOTI RIVER BRIDGE No.3601 AND APPROACH ROADS ON MAIN ROAD P713
BILL OF QUANTITIES
SCHEDULE B: STRUCTURES

SECTION C13.3

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C13.3	STEEL REINFORCEMENT					
C13.3.1	Reinforcement for:					
C13.3.1.1	Foundations:					
	(a) Mild-steel bars	t	1			
	(b) High-yield-stress-steel bars	t	32			
C13.3.1.2	Abutments:					
	(a) Mild-steel bars	t	5			
	(b) High-yield-stress-steel bars	t	98			
C13.3.1.4	Deck:					
	(a) Mild-steel bars	t	1			
	(b) High-yield-stress-steel bars	t	60			
C13.3.1.5	Parapets:					
	(b) High-yield-stress-steel bars	t	15			
C13.3.4	Extra-over item C13.3.1 (a), (b), etc. for galvanising of reinforcement	t	20			
PC13.3.5	Dowel bars:					
PC13.3.5.1	Drilling and preparation of holes:					
	(d) 30 mm dia core drilling through concrete for Y25 dowels	m	220			
PC13.3.5.2	Supply and installation of dowel bars:					
	(d) Y25 bars, 1.25 m deep, 2.5 m long, galvanised epoxy grouted	kg	1,500			
Total Carried Forward To Summary						

PROVINCE OF KWAZULU-NATAL - DEPARTMENT OF TRANSPORT
CONSTRUCTION OF THE MDLOTI RIVER BRIDGE No.3601 AND APPROACH ROADS ON MAIN ROAD P713
BILL OF QUANTITIES
SCHEDULE B: STRUCTURES

SECTION C13.4

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C13.4	CONCRETE					
C13.4.1	Cast-in-situ concrete:					
C13.4.1.1	Strength concrete (Class D):					
	(a) Foundations (Class D24/30-20)	m ³	176			
	(b) Abutments (Class D24/30-20)	m ³	275			
	(c) Piers (Class D24/30-20)	m ³	229			
	(d) Approach slabs (Class D24/30-20)	m ³	26			
	(e) Deck slab (D32/40-20)	m ³	363			
	(f) Diaphragm beams (D32/40-20)	m ³	103			
	(g) Sidewalks and coping beam (D32/40-20)	m ³	60			
C13.4.9	Manufacturing precast concrete members:					
	(a) T-beams (Drawing Nr. 3601/11)	No	24			
C13.4.11	Transporting and erecting precast concrete members					
	(a) T-beams, approximately 47 tons	No	24			
C13.4.13	Complete demolition and disposal of existing structural concrete elements or parts of existing structures:					
C13.4.13.1	Plain concrete	m ³	33			
C13.4.13.2	Reinforced concrete	m ³	160			
Total Carried Forward To Summary						

PROVINCE OF KWAZULU-NATAL - DEPARTMENT OF TRANSPORT
CONSTRUCTION OF THE MDLOTI RIVER BRIDGE No.3601 AND APPROACH ROADS ON MAIN ROAD P713
 BILL OF QUANTITIES
 SCHEDULE B: STRUCTURES

SECTION C13.6

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C13.6	BEARINGS					
C13.6.1	Bearings:					
C13.6.1.1	Bearings (Reinforced Elastomeric Bearing Pads - 500 x 400 mm)	No	48			
C13.6.1.2	Provision of Engineering drawings of proprietary bearings and certification after installation, by an ECSA Registered Professional Engineer or Technologist	Lump sum	1			
Total Carried Forward To Summary						

PROVINCE OF KWAZULU-NATAL - DEPARTMENT OF TRANSPORT
CONSTRUCTION OF THE MDLOTI RIVER BRIDGE No.3601 AND APPROACH ROADS ON MAIN ROAD P713
BILL OF QUANTITIES
SCHEDULE B: STRUCTURES

SECTION C13.7

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C13.7	JOINTS					
C13.7.2	Filled joints:					
C13.7.2.1	Wings walls - 10 mm	m ²	20			
C13.7.4	Sealing joints with:					
C13.7.4.1	Sealant					
	(a) Wing walls - Silicone sealant to filled joints - 10 mm with backing chord	m	82			
	(b) F-shaped parapets - Silicone sealant - 10 mm with backing chord	m	80			
PC13.7.5	Supply and installation of Agrément South Africa certified proprietary expansion joints:					
PC13.7.5.1	Claw and other modular joints in nosings:					
	(a) Armoured nosing type expansion joint - Movement rang: +12 mm/-27 mm	m	31			
PC13.7.5.3	Provision of Engineering Drawings of proprietary joints and certification after installation by an ECSA registered professional Engineer of technologist	Lump sum	1			
C13.7.6	Joint terminations in:					
C13.7.6.1	Barriers and Parapets (Armoured nosing type expansion joint)	No	4			
C13.7.7	Cover plates (non-metallic) in barriers, parapets and sidewalks where specified on the drawings in:					
C13.7.7.1	Barriers and Parapets (Armoured nosing type expansion joint)	No	8			
C13.7.8	Additional water tests for joints ordered by the Engineer	No	4			
Total Carried Forward To Summary						

PROVINCE OF KWAZULU-NATAL - DEPARTMENT OF TRANSPORT
CONSTRUCTION OF THE MDLOTI RIVER BRIDGE No.3601 AND APPROACH ROADS ON MAIN ROAD P713
BILL OF QUANTITIES
SCHEDULE B: STRUCTURES

SECTION C13.8

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C13.8	ANCILLARY STRUCTURAL ELEMENTS					
C13.8.1	Concrete barriers and parapets (Drawing Nr. 3601/13):					
C13.8.1.2	Parapets	m	220			
C13.8.2	End blocks (5 m long)	No	4			
C13.8.4	Concrete pedestrian railings	m	308			
C13.8.6	Service ducts in structures:					
C13.8.6.1	uPVC (110 mm diameter)	m	726			
C13.8.6.2	Joint in ducts at bridge deck expansion joints	No	12			
C13.8.7	Numbers for structures: (Drawing Nr.3601/14):					
C13.8.7.1	Number plates	No	2			
C13.8.7.3	Numbers formed in concrete	No	2			
C13.8.10	Drainage pipes and weep holes:					
C13.8.10.1	Drainage pipes:					
	(a) 110 mm diameter uPVC	m	33			
C13.8.10.2	Weep holes:					
	(a) 75 mm diameter uPVC	m	44			
C13.8.12	Synthetic-fibre filter fabric (A4 grade)	m ²	516			
C13.8.16	Perforated drainage pipes:					
C13.8.16.1	65 mm diameter wrapped in Grade B geofabric	m	80			
Total Carried Forward To Summary						

PROVINCE OF KWAZULU-NATAL - DEPARTMENT OF TRANSPORT
CONSTRUCTION OF THE MDLOTI RIVER BRIDGE No.3601 AND APPROACH ROADS ON MAIN ROAD P713
BILL OF QUANTITIES
SCHEDULE B: STRUCTURES

SECTION C14.2

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C14.2	CORROSION SURVEY METHODS AND TESTING OF NEAR SURFACE CONCRETE PROPERTIES					
C14.2.2	Concrete cover survey:					
C14.2.2.1	To existing bridge elements	m ²	1,100			
C14.2.4	Carbonation depth testing:					
C14.2.4.1	To existing bridge elements by core sampling	No	15			
C14.2.5	Chloride profile testing:					
C14.2.5.1	To existing bridge elements by core sampling	No	15			
C14.2.3	Concrete compressive strength:					
C14.2.3.1	Using extracted core samples (existing bridge elements, 150 mm diameter cores, 150 mm length)	No	15			
Total Carried Forward To Summary						

PROVINCE OF KWAZULU-NATAL - DEPARTMENT OF TRANSPORT
CONSTRUCTION OF THE MDLOTI RIVER BRIDGE No.3601 AND APPROACH ROADS ON MAIN ROAD P713
BILL OF QUANTITIES
SCHEDULE B: STRUCTURES

SECTION C14.3

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
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:					
	(a) Abutments	m ³	11			
	(b) Piers	m ³	28			
	(c) Wing walls	m ³	30			
Total Carried Forward To Summary						

PROVINCE OF KWAZULU-NATAL - DEPARTMENT OF TRANSPORT
CONSTRUCTION OF THE MDLOTI RIVER BRIDGE No.3601 AND APPROACH ROADS ON MAIN ROAD P713
BILL OF QUANTITIES
SCHEDULE B: STRUCTURES

SECTION C14.4

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C14.4	SURFACE AND STRUCTURAL REPAIR OF CONCRETE MEMBERS					
C14.4.1	Cementitious mortar or concrete (C32/40-10) to damaged areas of abutments and piers	ℓ	55			
C14.4.3	Proprietary cementitious repair system (see drawing nr. 3601/8) in positions as indicated in accordance with Table A14.4.5-1:					
C14.4.3.1	Class R4 – Spalled areas in:					
	(a) Foundations	ℓ	55			
	(b) Abutments	ℓ	165			
	(c) Piers	ℓ	200			
C14.4.3.2	Class R3 – Honeybomed areas in:					
	(a) Foundations	ℓ	55			
	(b) Abutments	ℓ	165			
	(c) Piers	ℓ	200			
C14.4.4	Curing of repair surfaces:					
C14.4.4.1	By coating the surface with resin based curing compound to horizontal surfaces	m ²	120			
C14.4.5	Sounding survey (prior to repair of the surface)	m ²	120			
Total Carried Forward To Summary						

PROVINCE OF KWAZULU-NATAL - DEPARTMENT OF TRANSPORT
CONSTRUCTION OF THE MDLOTI RIVER BRIDGE No.3601 AND APPROACH ROADS ON MAIN ROAD P713
BILL OF QUANTITIES
SCHEDULE B: STRUCTURES

SECTION C14.5

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C14.5	ANCHORING OF REINFORCEMENT, GROUTING AND CRACK INJECTION					
C14.5.4	Establishment on site for crack injection	Lump sum	1			
C14.5.5	Surface preparation and surface sealing for crack injection to existing bridge elements	m	60			
C14.5.6	Crack injection adhesive to existing bridge elements	ℓ	120			
C14.5.7	Crack filling:					
C14.5.7.1	Repair system to existing bridge elements	m	50			
Total Carried Forward To Summary						

PROVINCE OF KWAZULU-NATAL - DEPARTMENT OF TRANSPORT
CONSTRUCTION OF THE MDLOTI RIVER BRIDGE No.3601 AND APPROACH ROADS ON MAIN ROAD P713
BILL OF QUANTITIES
SCHEDULE B: STRUCTURES

SECTION C14.7

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C14.7	PROTECTIVE COATINGS AND TREATMENTS FOR CONCRETE					
C14.7.1	Cleaning and preparation of concrete surface by high pressure water jetting to remove loose debris and contaminants	m ²	1,100			
C14.7.2	Application of protective coatings and treatments (a) Plastic-elastic barrier coating to bridge substructure elements, using repair method 1 or similar approved, colour matched to concrete	m ²	2,200			
Total Carried Forward To Summary						

PROVINCE OF KWAZULU-NATAL - DEPARTMENT OF TRANSPORT
CONSTRUCTION OF THE MDLOTI RIVER BRIDGE No.3601 AND APPROACH ROADS ON MAIN ROAD P713
 BILL OF QUANTITIES
 SCHEDULE B: STRUCTURES

SECTION C14.11

Item	Description	Unit	Quantity	Rate	Amount	
					R	c
C14.11	REPAIR OF STEEL ELEMENTS					
PC14.11.3	Propriety repair compound, anti-corrosion coating to reinforcement steel	ℓ	150			
Total Carried Forward To Summary						

PROVINCE OF KWAZULU-NATAL - DEPARTMENT OF TRANSPORT

THE COMPLETION OF THE MDLOTI RIVER BRIDGE No.3601 AND APPROACH ROADS ON MAIN ROAD P713 IN THE DURBAN REGION.

SCHEDULE F: EXPANDED PUBLIC WORKS PROGRAMME (EPWP)

PART F: EXPANDED PUBLIC WORKS PROGRAMME (EPWP)

ITEM	DESCRIPTION	UNIT	LIC	QTY	RATE	AMOUNT	
						R	c
	SCHEDULE F: EXPANDED PUBLIC WORKS PROGRAMME (EPWP)						
F6.01	Provision of the training venue facility, including the cost of transporting the learners to and from this facility	Lump sum		1			
F6.02	Training of learners employed by the contractor or by the Targeted Enterprise subcontractors:						
	(a) Generic Skills:						
	(i) Training Costs	Prov sum		1	100,000.00	100,000	00
	(ii) Handling costs and profit in respect of subsubitem F6.02(a)(i) above	%		100,000			
	(b) Entrepreneurial Skills:						
	(i) Training Costs	Prov sum		1	85,000.00	85,000	00
	(ii) Handling costs and profit in respect of subsubitem F6.02(b)(i) above	%		85,000			
	(c) Construction Skills:						
	(i) Training Costs	Prov sum		1	100,000.00	100,000	00
	(ii) Handling costs and profit in respect of subsubitem F6.02(c)(i) above	%		100,000			
	(d) Transportation and accommodation costs of selected learners only, while receiving off-site training:						
	(i) Transportation and accommodation costs	Prov sum		1	15,000.00	15,000	00
	(ii) Handling costs and profit in respect of subsubitem F6.02(d)(i) above	%		15,000			
F6.03	Payments associated with the NYS programme:						
	(a) Employment of NYS workers	Prov sum		1	350,000.00	350,000	00
Total Carried Forward							

PROVINCE OF KWAZULU-NATAL - DEPARTMENT OF TRANSPORT
THE COMPLETION OF THE MDLOTI RIVER BRIDGE No.3601 AND APPROACH ROADS ON MAIN ROAD
P713 IN THE DURBAN REGION.
SCHEDULE F: EXPANDED PUBLIC WORKS PROGRAMME (EPWP)

PART F: EXPANDED PUBLIC WORKS PROGRAMME (EPWP)

ITEM	DESCRIPTION	UNIT	LIC	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
	(b) Provision of tools and apparel for the NYS workers	Prov sum		1	200,000.00	200,000	00
	(c) Handling costs and profit in respect of subitems F6.03(a) and (b) above	%		550,000			
	(d) Training of NYS workers:						
	(i) Provision of training for the NYS workers	Prov sum		1	85,000.00	85,000	00
	(ii) Handling costs and profit in respect of subitem F6.03(d)(i) above	%		85,000			
	(e) Liaison with the Employer's project manager and the training service provider:						
	(i) Liaison conducted by the Construction Manager	h		360			
	(ii) Liaison conducted by the senior site foreman	h		360			
Total Carried Forward To Summary							

**PROVINCE OF KWAZULU-NATAL
DEPARTMENT OF TRANSPORT**

**CONTRACT No. DEV00731/00000/00/HOD/INF/22/T
for
THE COMPLETION OF UMDLOTI RIVER BRIDGE No. 3601 AND APPROACH ROADS ON MAIN ROAD
P713.**

SCHEDULE A: ROADWORKS

SUMMARY OF SECTIONS

CHAPTER	DESCRIPTION	FROM PAGE	AMOUNT
C1.2	GENERAL REQUIREMENTS AND PROVISIONS		R
C1.3	CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS		R
C1.4	FACILITIES FOR THE ENGINEER		R
C1.5	ACCOMMODATION OF TRAFFIC		R
C1.6	CLEARING AND GRUBBING		R
C1.7	LOADING AND HAULING		R
C2.1	GENERAL REQUIREMENTS AND TRENCHING FOR SERVICES		R
C3.1	DRAINS		R
C3.2	CULVERTS		R
C3.3	CONCRETE KERBING AND CHANNELING, ASPHALT BERMS, CHUTES, DOWNPIPES, AS WELL AS CONCRETE, STONE PITCHED AND GABION LININGS FOR OPEN DRAINS		R
C4.1	BORROW MATERIALS		R
C4.2	CUT MATERIALS		R
C4.3	EXISTING ROAD MATERIALS		R
C4.4	COMMERCIAL MATERIALS		R
C5.1	ROADBED		R
C5.2	FILL		R
C5.3	ROAD PAVEMENT LAYERS		R
C5.4	STABILISATION		R
C8.1	PRIME COAT		R
C9.1	ASPHALT LAYERS		R
C11.1	PITCHING, STONEMWORK, CAST IN SITU CONCRETE FOR PROTECTION AGAINST EROSION		R
C11.2	NON-STRUCTURAL GABIONS		R
C11.3	GUIDE BLOCKS AND KILOMETER MARKERS		R
C11.4	ROAD RESTRAINT SYSTEMS		R
C11.6	ROAD SIGNS		R
C11.7	ROAD MARKINGS AND ROAD STUDS		R
C11.8	LANDSCAPING AND PLANTING PLANTS		R
C11.9	FINISHING THE ROAD AND ROADE RESERVE AND TREATING OLD ROADS		R
	TOTAL CARRIED FORWARD TO TENDER SUMMARY		R

**PROVINCE OF KWAZULU-NATAL
DEPARTMENT OF TRANSPORT**

**CONTRACT No. DEV00731/00000/00/HOD/INF/22/T
for**

**THE COMPLETION OF UMDLOTI RIVER BRIDGE No. 3601 AND APPROACH ROADS ON MAIN ROAD
P713.**

SCHEDULE B: STRUCTURES

SUMMARY OF SECTIONS

CHAPTER	DESCRIPTION	FROM PAGE	AMOUNT
C13.1	FOUNDATIONS		R
C13.2	FALSEWORK, FORMWORK AND CONCRETE FINISH		R
C13.3	STEEL REINFORCEMENT		R
C13.4	CONCRETE		R
C13.6	BEARINGS		R
C13.7	JOINTS		R
C13.8	ANCILLARY STRUCTURAL ELEMENTS		R
C14.2	CORROSION SURVEY METHODS AND TESTING OF NEAR SURFACE CONCRETE PROPERTIES		R
C14.3	DEMOLITION AND REMOVAL OF STRUCTURAL CONCRETE AND STEEL WORK		R
C14.4	SURFACE AND STRUCTURAL REPAIR OF CONCRETE MEMBERS		R
C14.5	ANCHORING OF REINFORCEMENT, GROUTING AND CRACK INJECTION		R
C14.7	PROTECTIVE COATINGS AND TREATMENTS FOR CONCRETE		R
C14.11	REPAIR OF STEEL ELEMENTS		R
	TOTAL CARRIED FORWARD TO TENDER SUMMARY		R

**PROVINCE OF KWAZULU-NATAL
DEPARTMENT OF TRANSPORT**

**CONTRACT No. DEV00731/00000/00/HOD/INF/22/T
for**

**THE COMPLETION OF UMDLOTI RIVER BRIDGE No. 3601 AND APPROACH ROADS ON MAIN ROAD
P713 IN THE DURBAN REGION.**

SCHEDULE F: EXPANDED PUBLIC WORKS PROGRAMME

SUMMARY OF SECTIONS

SECTION	DESCRIPTION	AMOUNT
PART F	EXPANDED PUBLIC WORKS PROGRAMME	R
	TOTAL CARRIED FORWARD TO TENDER SUMMARY	R

**PROVINCE OF KWAZULU-NATAL
DEPARTMENT OF TRANSPORT
CONTRACT No. DEV00731/00000/00/HOD/INF/22/T
for
THE COMPLETION OF UMDLOTI RIVER BRIDGE No. 3601 AND APPROACH ROADS ON MAIN ROAD
P713 IN THE DURBAN REGION.**

TENDER SUMMARY

DESCRIPTION	AMOUNT
Totals of Bill of Quantities brought forward:	
Schedule A: Roadworks (b/f from page C70)	R
Schedule B: Structures (b/f from page C71)	R
Schedule F: Expanded Public Works Programme (b/f from page C72)	R
SUBTOTAL 1	R
<u>Add:</u> Contingencies (10% of SUBTOTAL 1)	R
SUBTOTAL 2	R
<u>Add:</u> Contract Price Adjustment (8% of SUBTOTAL 2)	R
SUBTOTAL 3	R
<u>Add:</u> VAT (15% of SUBTOTAL 3)	R
TOTAL CARRIED FORWARD TO FORM OF OFFER C1.1.1	R

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

The project entails the construction of a partially completed four span concrete bridge and approach roads. The proposed bridge has 4No. 25m spans. The approach road/s consist of a two-lane surfaced (blacktop) road and concrete surfaced sidewalks.

The new bridge will provide a safer access for vehicles and pedestrians during high flow occurrences of the uMdloti River. The bridge will also provide a reliable link between the Osindisweni Hospital and the community of Ndwedwe to the North of the Mdloti river. During the construction stage jobs will be created for the Qadi local village community.

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 activities to the maximum extent feasible, in accordance with the Expanded Public Works Programme (EPWP) Guidelines.

The Contractor shall be required to attend meetings of the local Project Liaison Committee (PLC) from time to time. The requirements of the Expanded Public Works Programme (EPWP) are contained in Part F 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

The general location of the project is as shown on the Locality Plan in Section C4.1 of this document.

1.3 Overview of the Works

Currently there are two partially completed piers and one abutment. The project comprises of completing the 100-metre-long concrete bridge across the Mdloti River and constructing approach roads. Minor demolitions are required to be done to the existing concrete abutment. The bridge will alleviate the current unsafe conditions which occur at high flow periods and provide a safe passage to pupils attending Ogunjini School as well as providing all-weather access to the Osindisweni hospital and to the Ndwedwe community.

The project entails the completion of Umdloti River Bridge No. 3601, over the Umdloti River.

Bridge 3601 (km 2528.028) is a four span simply supported structure constructed with precast post-tensioned beams. Each span is 25m long and the angle of skew of the beams changes with the curved horizontal alignment (Radius = 170m) and a constant vertical alignment of 0.603% fall. The new bridge width is a total of 12.25m wide which includes a 1.2m sidewalk on both sides, the clear road width over the bridge is 8.5m. The foundation type of the abutments and piers are spread footings, founding into bedrock.

The southern abutment as well as pier foundations have been completed. The northern abutment has been excavated to rock level, but no construction has started on this element. The southern abutment wing walls have been constructed to their final level. Approximately 4m of the southern abutment wall has been built. The completed walls on the southern abutment are of very poor quality and do not look to be of correct dimensions or layout. These elements must be demolished and reconstructed to the correct sizes. The foundations are adequate and can be left in place. The three pier walls are all complete to the same level, roughly 5m above the ground. The widened pier heads and seating are still to be constructed on all three piers. The pier foundations have been filled in with the southern foundation still exposed and the northern abutment excavation, water logged.

Further works to the foundations include new rock anchors to be constructed through the completed footings as per the geotechnical report. Details of the rock anchors are shown on the general arrangement and foundation drawings.

Rehabilitation of structures

Where the existing bridge elements show signs of spalling, honeycombing, minor cracking, coating delamination and damage, repairs must be completed to engineer's specification.

1.4 Extent of the Works

The Contractor shall carry out all work required waterlogged ruction of Mdloti River Bridge and approach road/s including:

- (a) Establishment on site
- (b) Clearing and Grubbing.
- (c) Minor demolitions to existing abutment.
- (d) Proving, exposing, protection and relocation of existing services.
- (e) Provision of access to site and through the site during the contract period.
- (f) Provision of drainage to dewater the foundation excavations for the bridge.
- (g) Design, construction and removal on completion of all the temporary works required to access and support the excavations, substructures and superstructure of the bridge.
- (h) Excavation for foundations.
- (i) Construction of reinforced concrete bases abutments and deck.
- (j) Construction of approach slabs.
- (k) Earthworks for the approach roads and access roads.
- (l) Layerworks for the approach roads and access roads.
- (m) Asphalt surfacing of the approach roads.
- (n) Construction of road drainage measures.
- (o) Construction of gravel surfaced access roads to service existing properties
- (p) Construction of concrete surfaced sidewalks on both sides of the roads including kerbing and channelling.
- (q) Installation of road furniture.
- (r) Demolition of the existing low-level reinforced concrete structure.
- (s) Continuous quality control over materials and works, and compliance with the Particular Specifications with regard to the Environmental Management Plan (EMP) and Occupational Health and Safety (OHS), during all the above construction activities.
- (t) Finishing off and de-establishment after all construction activities.
- (u) 12 months defects 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.

No approximate quantities of each type of work to be carried out in accordance with the contract documents are listed in the Schedule of Quantities on the following tables.

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.

The project entails the construction of a four span concrete bridge and the road approaches.

The proposed bridge has 4No. 25m spans and consists of a two-lane asphalt surfaced road with concrete surfaced sidewalks.

The approach roads will be built to an asphalt surface standard for approx. 300m on either side of the bridge and will comprise of 2 x 3,25m wide lanes with 1m wide shoulders on each side. Concrete surfaced sidewalks comprising of a 1,5m wide concrete sidewalk with a Fig. 6 barrier kerb and channel will also be constructed on each side of the road.

1.5.1 Access to the Site

The site can be accessed by travelling North along N2 highway from Durban, take the uMhlanga Exit 182 and travel towards Phoenix / Verulam on the M41 and R102 for approx. 10kms. Turn right off the R102 onto the M27 at the traffic lights and immediately left into Ireland Street. Travel Ireland Street for approx. 300m and turn left at the traffic lights into Todd Street. Travel Todd Street which becomes Oakford Road (P98) for approx. 9,2kms and turn right onto Main Road P713 at Osindisweni Hospital. Travel Main Road P713 for approximately 1,8kms to the site. (GPS co-ordinates 29° 35' 30.58" S and 30° 58' 53.47" E).

1.5.2 Demolition work

The Contractor shall be required to carry out minor demolitions to the existing abutment that was constructed by the previous contractor and also the demolition of the existing low-level reinforced concrete structure and to spoil the material off-site in a commercial spoil site.

The existing intake works for the Ogunjini Waterworks are situated 10m downstream of the existing structure and care must be exercised in employing demolition methods which do not impact on the intake works and /or the flow of water into the intake works

1.5.3 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 A4.2.7.1 (f) of the COTO Standard Specifications.

1.5.4 Quantities

The approximate leading quantities for the permanent Works to be constructed are as follows:

Description	Source	Approximate quantity
Earthworks	Commercial Source	15 500m ³
Selected layers – G9 and G7	Commercial Source	2 000m ³
Stabilised subbase layer – C4 (G6)	Commercial Source	1 000m ³
Base layer – BSM1	Commercial Source	900m ³
Surfacing – Continuously Graded Asphalt	Commercial Source	5 500m ² 165tonnes
Concrete (30MPa and 40MPa)	Commercial Source	1 590m ³
Reinforcing Steel	Commercial Source	232tonnes

1.5.5 Material investigations

Materials information included in the geotechnical report shall be made available on request at the site inspection meeting.

1.5.6 Material sources, spoil and stockpile areas

Where possible, the contractor shall source material from within 20km of the site utilizing local suppliers. The material which may be sourced locally:

- Cement;
- River sand (Coarse Grade Nom. 4.75mm); and
- 19mm sized crushed stone aggregates.

G2, G4 (for BSM1 base layer), G5 and a portion of G7 material shall be obtained from commercial sources.

G9 will be available from the existing road prism. Spoil areas and areas for the temporary stockpiling of construction materials shall be determined and agreed on site in conjunction with the Engineer. 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.

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

Main Road P713 is a lightly trafficked road. The Contractor shall be required to accommodate traffic on the existing roadway during construction. Where the new road alignment overlaps the existing road, deviations will be constructed to accommodate traffic as measured under Chapter 1, Section 1.5: Accommodation of Traffic.

The deviations shall be constructed to the standards and at locations as approved by the Engineer. The Contractor shall be required to accommodate traffic on the existing roadway on the existing detours.

All accommodation of traffic and safety measures shall be in accordance with South African Road Traffic Signs Manual (SARTSM- latest edition).

1.5.8 Accommodation of other contractors

Other contractors working on the site shall include:

All contractors involved in construction within the current contract i.e. All sub-contractors and emerging contractors.

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

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

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

The following major services are expected to be encountered during the construction of the Works:

1.5.9.1 Eskom – Overhead power lines are located adjacent to and crossing main Road P713. These will be relocated to outside the proposed road reserve.

1.5.9.2 Umgeni Watermains – small diameter watermains are located parallel to and crossing Main Road P713. These will be relocated to outside the proposed road reserve.

1.5.9.3 Housing – it is required that a partially built house have to be demolished. The cost of this is to be included under Chapter 1, Section 1.6: Clearing and Grubbing.

It is also 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 carpools 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 by the Employer's Agent prior to commencement of construction.

1.5.11 Climate

The road is located in a high summer rainfall region with a 30 year mean annual precipitation of 960 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

A Project Liaison Committee (PLC) has been established and is a vital means of communication between all parties involved with the project. The PLC comprises of representatives of the Employer, the Employer's Agent and formal structures within the community.

The Contractor shall make use of these communication channels, and shall appoint from amongst his site personnel a responsible person to participate in the affairs of the PLC, and this representative will be also required to attend the monthly PLC meetings.

It is mandatory that the Contractor shall interact with the community via proactive project liaison 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.

Local labour is to be used and the employment of such labour is to be done in conjunction with the PLC. The PLC has formed a Labour Committee who shall assist the Contractor with the recruitment of local labourers to ensure an equal distribution of people employed between the various Amakosi in the area. The main contractor shall ensure that uniform policies, procedures and benefits are afforded to all local labour employed in fulfilment of this contract.

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 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;
- 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;
- Bedding, selected fill, backfilling and compaction of all trenches for prefabricated culverts irrespective of depth, but assisted by mechanical compaction equipment in order to achieve the specified densities;
- Transportation and spoiling of all trench materials, where the disposal site is located within 20 metres of the source;
- Installation of prefabricated kerbs;
- Construction of all brickwork required for drainage structures and manholes;
- Erection of falsework and formwork;
- Fixing of reinforcement;
- Spreading of offloaded earthworks materials to the extent scheduled;
- Spreading of offloaded layerworks materials to the extent scheduled;
- Spreading of stabilising agent;
- Maintenance patching of surfacing;
- Slurry seal surfacing;
- Excavation for and construction of stone pitching, and subsequent backfilling;
- Excavation for and construction of gabion boxes and mattresses, and subsequent backfilling;
- 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 Project Liaison Committee (PLC) associated with the project.

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.

PRELIMINARY CONSTRUCTION PROGRAMME

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: Dayworks
- Part E: OHSA 1993 Health and Safety Specification
- Part F: 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.

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.

COTO CHAPTER 1: GENERAL

SECTION 1.1: GENERAL PREAMBLE

PART C: MEASUREMENT AND PAYMENT

C1.1.3 PAYMENT

C1.1.3.1 Payment for materials on the Site

Add the following new clause:

“All rates tendered are to be exclusive of VAT.”

C1.1.3.2 Procurement, furnishing and placing material

a) Procuring and furnishing ... (material)

Add the following new clause:

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

C1.1.3.5 Payment for materials on the Site

In the last sentence of the 1st paragraph, delete the following:

“, or, in the case of crushed stone which has not been purchased but has been produced on the site, at 80% of a fair evaluation of such crushed material”.

Add the following new subclauses:

"C1.1.3.9 Reduced payments for substandard work

Where provision for reduced payments for sub-standard work is made in the Contract Documentation, acceptance of reduce payment for substandard work may be accepted by the Engineer subject to prior approval by the Employer.

C1.1.3.10 Procurement of sub-services and omitted rates (Second tier procurement)

Second tier procurement include the procurement of any work where either the particulars of the work is not scheduled and priced, or where the process of procurement of the sub-service provider is specified elsewhere in the contract specification. It include the procurement of work where rates have been omitted or where allowance for the work is made under a Provisional sum or Prime sum item or where allowance for the work is made under a Provisional sum or Prime sum item but the particulars of the work is not scheduled, or where work is instructed under clause 13[Variations and Adjustments] or where work is to be performed by Targeted Enterprises.

The following procurement methods is to be followed as appropriate:

- a) **Where the particulars of the work is not scheduled but existing rates for similar work exist in the contract and the work can therefore be executed by the contractor or his sub-contractor at the existing contract rates.**

No separate procurement process is required. The work is to be quantified and scheduled utilising existing rates and approved through the Works Authorisation process.

- b) **Where the payment calculation is based on a formula specified in the contract document, or**

where the payment rate is pre-determined or fixed by the client.

No separate procurement process is required. The work is to be quantified and approved through the Works Authorisation process.

- c) **Where the supplier is not selected by the contractor and actual cost is reimbursable and no procurement process is possible.**

No separate procurement process is required. The work is invoiced by supplier on completion and approved through the Works Authorisation process at the end of the contract.

- d) **Where there are omitted items as part of the existing scheduled scope of work and no existing rates for similar work exist in the contract, or where there are no existing rates for the materials to be supplied and suitable rates for material to be determined.**

A proposal for a new rate shall be submitted by the contractor and evaluated by the engineer, by comparing with either adjusted relevant rates in the contract, or by comparing with similar rates on similar contracts, or by comparing three informal quotes to substantiate the rate. The new agreed rate is approved through the Works Authorisation process.

- e) **Where the work is unforeseen, urgent and the relevant procurement method as indicated above will result in a delay to the contract and payment for a claim for extension of time and/or cost, or where the above procurement methods are not applicable or cannot fully be complied with.**

The Employer will determine the most appropriate procurement process to be followed and approved through the Works Authorisation process.

1.1.3.11 Work in confined areas

Except where provided for in the specification and the Schedule of Quantities, no extra payment shall be made nor shall any claim for additional payment be considered for construction in confined areas. The omission of standard pay items from the Schedule of Quantities shall be taken to be deliberate and any additional costs incurred shall be included in the bulk rate."

SECTION 1.2 GENERAL REQUIREMENTS AND PROVISIONS

PART A: SPECIFICATIONS

A1.2.3 GENERAL

A1.2.3.3 Environmental management

In addition to aspects of the design which are intended to avoid or reduce environmental impact, and in addition to normal good construction practice expected of the Contractor, the following requirements shall also be observed:

- (a) Clearing shall be limited to the road prism and, where applicable, to detours, which shall be sited in consultation with the Engineer and the local communities.
- (b) No littering by construction workers shall be allowed. A refuse control system shall be established for the collection and removal of refuse to the satisfaction of the Engineer.
- (c) Adequate provision shall be made for temporary toilet requirements in construction areas. Use of the veld for this purpose shall not be allowed under any circumstances.
- (d) Streams, rivers and dams shall be protected from direct or indirect spillage of pollutants, such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils, aggregate tailings, wash water, organic materials and bituminous products. In the event of spillage, prompt action shall be taken to clear the affected area. Emergency measures in the event of spillage shall be set out and the responsible person shall be made aware of the required action. The construction of temporary and / or permanent dams shall be done with the necessary approvals from the Department of Water Affairs and Forestry and the Department of Environmental Affairs and Tourism.
- (e) Bituminous and / or other hazardous products shall not be spoiled on site and shall only be disposed of at licensed authorised disposal facilities.
- (f) Provision shall be made to prevent excessive erosion and siltation throughout the Contract and in particular on adjacent land. Should excessive erosion and / or siltation take place outside the road reserve as a direct result of the Contractor's construction activities, the Contractor shall be responsible for making good the erosion / siltation to the satisfaction of the landowner and the Engineer.
- (g) Invader species of plants shall be controlled.
- (h) Dust and noise pollution shall be restricted to acceptable levels.

No separate payment shall be made for observing these requirements as such payment shall be deemed to be included in the amount tendered for item C1.3.1.3(a) (The Contractor's general obligations: Time-related Obligations). Any avoidable non-compliance with these requirements shall be considered sufficient grounds for withholding payment of part or all of the amounts to be paid for the above item in order to pay for the repairs to any damages.

A1.2.3.5 Handing-over of the Site of the Works

Add the following paragraph:

"The handing-over of the road reserve for this project shall be subject to the following restrictions:

- (a) Only that portion of the road reserve for 600m on either side of the centreline of the Mdloti River shall be handed over to the Contractor. The Contractor shall be responsible for the maintenance along this portion of the road until completion of the contract.
- (b) The contractor shall be required to accommodate public traffic as well as other Contractors working on various projects in the area related to construction of Main Road P713.
- (c) The Contractor shall also be required to accommodate service owners and other Contractors working on the services relocation and maintenance in the execution of their duties.”

A1.2.3.21 Water

Add the following new paragraph:

“The Contractor shall arrange for chemical tests to be carried out to confirm the suitability of his proposed water sources for use as drinking water and for use in the concrete construction. The Contractor shall ensure that these tests also include testing for salinity and sugar content levels.”

Add the following new subclause:

"A1.2.3.24 Reference Manuals, other specifications and test methods

In various chapters of this Standard Specification, reference is made to Manuals, other specifications and test methods. If not otherwise indicated in the Contract Documentation, the latest published Manual, other specification and test methods at time of close of tender will apply. Any changes to be implemented on a project as a result of revisions to manuals, other specifications and test methods, will be handled in terms of the Conditions of Contract.

Certain TRH and TMH documents are published as Manuals/TRH or Manuals/TMH publications. Where reference is made to the TRH or TMH document, it shall be read as referring to the latest version of the Manual/TRH publication or Manual/TMH publication, respectively.”

A1.2.4 DESIGN BY CONTRACTOR / PERFORMANCE BASED SYSTEMS

The provision for contract price adjustment in the original Tender Summary must not under any circumstances be altered in an alternative offer.

A1.2.7 EXECUTION OF THE WORKS

A1.2.7.1 Programme of work

a) General

Add the following new paragraphs:

“The contractor shall note that the examination of a road with a view to rehabilitation is normally undertaken a considerable period of time before the commencement of the contract, and that conditions may subsequently change. The engineer will make further examinations during the period of contract, and, depending on the results of such examinations, the quantities of any items of work may be drastically increased or decreased.

The contractor shall base his initial programme for road rehabilitation on the scope of the work as described in the project specifications on the quantities contained in the Pricing Schedule (Part C2).”

A1.2.7.1 Setting out of the Works and the protection of beacons

Add the following new paragraphs:

“The contractor shall comply with all legal provisions in regards to surveying and setting out work.

It may become necessary to construct, level and coordinate new survey beacons during the course of the contract and to protect existing survey beacons. A provisional sum is included in the Schedule of Quantities to cover the cost of such work.”

A1.2.7 EXECUTION OF THE WORKS

Add the following after the title:

“The Contractor shall implement a quality assurance system in accordance with ISO 9002 and appoint a quality manager who shall ensure that members of the Contractor’s staff comply with the requirements of the quality system. The quality system and the methods used to implement it shall be described in a quality plan produced by the Contractor.

The quality manager shall be resident on site full time. No construction activities shall take place on site before the Engineer approves the quality plan”.

SECTION 1.2 GENERAL REQUIREMENTS AND PROVISIONS

PART A: SPECIFICATION

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. Materials

Materials for use in works carried out under daywork shall be purchased by the Contractor who shall also arrange for delivery to site, and shall be responsible for any other requirements associated with specific materials. A Provisional Sum has been allowed in C1.2.8 of the Bill of Quantities for daywork materials. The Contractor shall enter a tendered percentage in the Bill of Quantities to cover his handling costs and profit, as per other provisional and prime cost sums in this Contract.

Materials shall be paid for using the method described in C2.1, 'Pricing Assumptions'. No contract price adjustment will be applicable to materials.

The Contractor shall submit proof of ownership for any materials used in daywork with his daywork claim to the Employer's Agent. Further, if specific materials are required for daywork, quotations will be called for as per Clause 6.5.2 of the General Conditions of Contract 2015.

e. 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.

f. 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.

g. 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.

PSA1.2.3.18 Stakeholder liaison

Add the following to Clause A1.2.3.18:

a. Project Liaison Committee

The process of implementing infrastructure projects will be undertaken by means of structured engagement between those responsible for the delivery of the project and the community.

A Project Liaison Committee (PLC) is a vital means of communication between the parties involved with the project. A PLC may be formed if the project is such that a specific community can be identified.

The PLC comprises representatives of the employer, the engineer and formal structures within the community. The contractor shall make use of these communication channels, and shall appoint from amongst his site personnel a responsible person to participate in the affairs of the PLC, and this representative shall also attend the monthly PLC meetings when so requested.

The PLC shall meet at least once every month until such time as it is of the opinion that it could fulfil its tasks by meeting less frequently.

The PLC deals with local labour on the project, and is tasked with:

- assisting with community liaison and the resolution of community disputes;
- devising fair and transparent procedures that will assist the contractor in the engagement of labour;
- advising on and monitoring labour issues; and
- assisting in the resolution of labour disputes.

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

A new pay item is included in Chapter 1.2 of the schedule of quantities relating to the payment of the PLC on a provisional sum basis. Payment under this item shall be made only for the period for which the duties of the PLC are required, and not necessarily for the full duration of the contract.

b. Community Liaison Officer (CLO)

The contractor, after consultation with the Project Liaison Committee (PLC), shall appoint a competent local person as a Community Liaison Officer (CLO). The contractor shall appoint the CLO as part of his site personnel, and shall direct all his liaison efforts with the local community through the appointed CLO.

The period of employment and the remuneration of the CLO shall be determined jointly by the contractor, the engineer and the employer.

The CLO shall:

- i. represent the community and assist the contractor, the engineer and the employer with communication between them and the community;
- ii. work an 8-hour day with a total of 40 hours worked per week, and shall be present on site each day except when performing off-site community liaison activities;
- iii. communicate daily with the contractor on labour related issues such as numbers and skill;
- iv. assist in the identification and screening of local labourers from the community in accordance with the contractor's requirements;
- v. inform local labour of their conditions of employment, including their period of employment;
- vi. attend disciplinary proceedings involving local labour, and ensure that hearings are fair and reasonable;
- vii. attend all meetings at which the community and/or local labour are present or are required to be represented;
- viii. attend monthly site meetings to report on community and local labour matters;
- ix. keep a daily written record of interviews and community liaison;
- x. submit monthly returns regarding community liaison; and
- xi. carry out all such other duties as agreed upon between all parties concerned.

A new pay item is included in Chapter 1.2 of the schedule of quantities relating to the payment of the CLO on a provisional sum basis. Payment under this item shall be made only for the period for which the duties of the CLO are required, and not necessarily for the full duration of the contract.

Add the following new Clause A1.2.3.24:

PSA1.2.3.24 Compliance with the Road Traffic Act

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

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

The Contractor shall provide, erect and maintain sufficient road signs, barricades, fencing and guarding as may be necessary or required by the Employer’s Agent or by any act, regulation or statutory authority in order to minimise the danger and inconvenience caused to vehicle and pedestrian traffic. The Contractor by accepting this contract shall be deemed to have indemnified the Employer and the Employer’s Agent against any claims, damages and / or costs that may arise in this regard.

Add the following new payment item.

PSC1.2 MEASUREMENT AND PAYMENT

Item	Unit
PSC1.2.10 Community Participation	
(a) Cost for community Participation (PLC and CLO).....	Prime Cost Sum
(b) Handling costs and profit in respect of sub-item PSC1.2.10(a) above	percentage (%)

Expenditure under this item shall be made in accordance with clause 6.6 of the General Conditions of Contract 2015.

The tendered percentage is a percentage of the amount of expenditure approved by the Employer’s Agent under sub-item PSC1.2.10(a), and shall include full compensation for the handling costs of the Contractor and the profit in connection with the provision of a Community Liaison Officer.”

SECTION 1.3: CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS

PART A: SPECIFICATIONS

A1.3.2 DEFINITIONS

Under the heading "General Obligations", add the following:

“
“

- Comply with the requirements and conditions of the Environmental Management Plan.

“

PART C: MEASUREMENT AND PAYMENT

Item

Unit

C1.3.1 The Contractor's general obligations

Under the heading "Item C1.3.1.3", add the following:

"The amount payable to the Contractor for Time-Related Obligations arising from extensions of time granted by the Employer, where the Contractor is fairly entitled to such compensation in terms of Clause 5.12 of the General Conditions of Contract 2010, shall be calculated as follows:

- The Contractor shall apply for the extension of time in terms of the number of working days delay incurred.
- The number of working days extension of time finally granted shall then be added to the contract by the Employer, commencing on the first working day after the day of the original 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.
- 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:

No. of months extension of time granted

$$= \left[\frac{\text{No. of } \underline{\text{calendar}} \text{ days extension of time granted}}{365} \right] \times 12$$

- 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 obligations under item C1.3.1.3 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 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."

Add the following items:

"PSC1.3.3 Construction of new survey beacons and protection of existing survey beacons

- (a) Provisional sum for new survey beacons to be constructed or for existing survey beacons to be protected during construction Prov Sum
- (b) Handling cost and Profit in respect of subitem PSC1.3.3(a).....%

The tendered percentage is a percentage of the amount of expenditure approved by the Engineer under subitem C1.3.3.1, and shall include full compensation for the handling costs of the Contractor and the profit in connection with the construction of new survey beacons or the protection of existing survey beacons.

SECTION 1.4: FACILITIES FOR THE ENGINEER

PART A: SPECIFICATIONS

A1.4.3 GENERAL

Add the following after the last sentence of the 7th paragraph:

“This timeframe shall be confirmed by the Engineer following the appointment of the Contractor”

b) Offices

Add the following items:

- Steel plan cabinets shall be able to accommodate 30No. A0 drawings hanging vertically from approved holders.
- An electric refrigerator of at least 200ℓ capacity.
- Provision of floodlights complete with 500W minimum globes and poles which are to be controlled by a photocell for security purposes at the offices of the supervisory staff.
- A notice board (1.2 m x 2.0 m).
- A white board (0.9 m x 1.2 m).
- A rain gauge.
- A maximum and minimum thermometer.

A1.4.7 EXECUTION OF THE WORKS

A1.4.7.1 Offices and laboratories

a) General

Add the following new paragraphs:

“It is a requirement of the contract that the offices for the Engineer’s supervisory staff shall be supplied with approved burglar proofing, the cost of which shall be taken as included in the relevant tendered rates for the provision of the specified building.

In addition, the offices and any living accommodation are to be separated by at least 200m.”

A1.4.7.3 Services

b) Water, electricity and gas

Add the following:

“The supply of electricity and water to the offices and laboratories of the Engineer’s supervisory staff shall be maintained 24 hours per day.

The power supply shall be regulated by a suitable voltage regulator in order to maintain a constant current and voltage level at all times to prevent damage to the office and laboratory equipment and related machinery during power surges.

Payment for the voltage regulator shall be deemed to be included in the rates tendered for the supply of power.

In the event of damage to the office and laboratory equipment and related machinery because of a faulty voltage regulator, the Contractor shall be liable for payment of all repair or replacement costs of such damaged items.”

PART C: MEASUREMENT AND PAYMENT

Item **Unit**

C1.4.3 **Items measured by number**

Add the following pay subitems:

“PSC1.4.3.39 Steel plan cabinetsNumber

PSC1.4.3.40 Floodlights (including poles and 500-Watt minimum globes).....Number

PSC1.4.3.41 Refrigerators.....Number

The tendered rate for subitem C1.4.3.40 shall include for the operation of the lights from sunset to sunrise for the full duration of the contract.

CHAPTER 1.5 ACCOMMODATION OF TRAFFIC

PART A: SPECIFICATIONS

A1.5.1 SCOPE

Add the following new paragraphs:

“Throughout the course of the contract the Contractor shall ensure that the works do not prevent service owners or the Employer’s other Contractors or Subcontractors from gaining access through the site.

The Contractor shall be required to accommodate traffic in the vicinity of the points at which he accesses the site from the existing road network. All movements of the Contractor’s plant to and from the existing access road at these intersections shall be strictly controlled by means of appropriate signage, delineators, stop / go facilities and flagmen.”

The scope of this section shall also include the preparation and submission to the Engineer for approval of traffic management plans. The traffic management plans shall demonstrate how the Contractor intends accommodating and controlling traffic through the site.

The plans must incorporate all the requirements of the specifications in respect of the accommodation of traffic, including the traffic control devices and the personnel involved.

A Traffic Safety Officer shall be specifically named in the Plan together with 24 hour contact details. Copies of the plans shall be made available to the Engineer, the Employer and the Local Authority.

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

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

A1.5.3 GENERAL

A1.5.3.2 General requirements

Add the following new paragraphs:

“If, after any temporary deviation has been constructed, any changes are considered necessary or desirable, the proposal shall be submitted to the Engineer for his approval.

Details of the pavement layers for the temporary deviations are shown on the drawings.”

Add the following new subclauses:

"A1.5.3.15 Public traffic

The Contractor must plan and conduct his activities so as to bring about the least possible disruption to the traffic on the existing roads. In all dealings with the public the Contractor shall bear in mind the public's right to enjoy the use of the road, and the Employer's desire to interfere as little as possible with this right. At all points of contact with the public, the Contractor shall deal with deliberate courtesy and understanding in any discussions or disputes.

A1.5.3.16 Failure to comply with provisions.

Failure or refusal on the part of the Contractor to take the necessary steps to ensure the safety and convenience of the travelling public, accommodation of traffic, plant and personnel in accordance with these specifications or as required by statutory authorities or ordered by the Engineer, shall be sufficient cause for suspension of all work under this Contract without any additional compensation to the Contractor until the required accommodation of traffic has been completed to the satisfaction of the Engineer.

A1.5.3.17 Access to Work Area

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

A1.5.3.18 Extension of Time for Completion

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

A1.5.6 CONSTRUCTION EQUIPMENT

A1.5.6.1 Traffic control facilities

c) Temporary signs

Add the following new paragraphs:

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

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

Add the following new subclauses:

g) Warning Devices

"All construction vehicles and plant used on the works shall be equipped with 200mm diameter rotating amber flashing lights and with "Construction Vehicle" warning signs. All vehicles and plant shall obtain a clearance permit from the Engineer before being allowed onto the site.

Rotating lights shall have an amber lens of minimum height of 200mm and shall be mounted to ensure clear visibility from all directions. The lights on construction vehicles shall be switched on as the vehicles decelerate to enter a construction area, while construction vehicles are operating within the accommodation of traffic area, and as the vehicles accelerate to the general speed when entering the road from a construction area. Lights on plant shall operate continuously while the plant is working alongside sections of road open to public traffic.

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

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

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

(g) Other Signs and Facilities

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

(h) High Visibility Safety Vests

The Contractor shall ensure that all his own personnel, excluding those who are permanently office bound, all other construction workers on the site, staff of the Engineer and visitors are equipped with high visibility reflective safety vests. High visibility reflective safety vests shall be worn at all times when working on or near to the travelled way. High visibility reflective safety vests shall be kept in good condition and any such safety vests that are, in the opinion of the Engineer, ineffective shall be replaced immediately by the Contractor."

A1.5.7.6 Maintenance of existing roads used as detours

Add the following:

"Where applicable, all references to gravel roads and/or diversions shall also include gravel shoulders used as diversions."

A1.5.7.11 Temporary traffic control facilities

i) Traffic control measures

Add the following new paragraph:

"The reduction of the road width to a single lane carrying one-way traffic and controlled by "Stop / Go" boards shall be allowed only during daylight hours in clear weather conditions when work is actively taking place on the road, and such reduction of the road width shall always be accompanied by sufficient on-going watering to keep the dust down at all times on any trafficked gravel surfaces in order to maintain good visibility along the deviation. At least two lanes carrying two-way traffic shall be provided at all other times."

PART C: MEASUREMENT AND PAYMENT

Add the following new payment item.

PSC1.5 MEASUREMENT AND PAYMENT

Item **Unit**

Add the following pay subitems:

"PSC1.5.13 Provision of safety equipment for use by the Resident Engineer:

PSC1.5.13.1 Rotating amber flashing lights magnetically attached to vehicles.....Number
PSC1.5.13.2 High visibility reflective safety vests.....Number

The unit of measurement for subitem C1.5.13.1 shall be the number of rotating amber flashing lights provided. The unit of measurement for subitem C1.5.13.2 shall be the number of high visibility safety vests provided.

The tendered rates shall include full compensation for the supply and maintenance of the magnetically attachable rotating amber flashing lights and high visibility safety vests for use by the Resident Engineer and his staff for the duration of the contract."

SECTION 1.6: CLEARING AND GRUBBING

PART C: MEASUREMENT AND PAYMENT

Item	Unit
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C1.6.1 CLEARING

Add the following to the end of the first paragraph:

“The tendered rate shall also include full compensation for removal of existing fences, any prism pipe culvert inlet and outlet structures and kilometre marker posts as instructed by the Engineer.

Only Clearing necessarily required for road works and structural works within the work area shall be measured for payment. Payment for Clearing for the construction of campsites shall be regarded as being included in the rates tendered or Item C1.3.1 Contractor’s General Obligations and shall not be measured separately.

Within the road reserves clearing will only be measured and paid for where required for road works. The area of the existing road will not be measured for Clearing.

Any topsoil removed in this process must be stockpiled in heaps not exceeding 1 m height for later use during rehabilitation and landscaping.”

C1.6.2 GRUBBING

Add the following to the end of the first paragraph:

Only Grubbing necessarily required for road works and structural works within the work area shall be measured for payment. Payment for Grubbing for the construction of campsites shall be regarded as being included in the rates tendered or Item C1.3.1 Contractor’s General Obligations and shall not be measured separately.

Within the road reserves Grubbing will only be measured and paid for where required for road works. The area of the existing road will not be measured for Grubbing.

Any topsoil removed in this process must be stockpiled in heaps not exceeding 1 m height for later use during rehabilitation and landscaping.”

SECTION 1.7: LOADING AND HAULING

PART A: SPECIFICATIONS

A1.7.1 SCOPE

No overhaul shall be payable on this contract with payment for materials obtained from commercial sources and the rates tendered for such materials being fully inclusive of all haul required.

COTO CHAPTER 3: DRAINAGE

SECTION 3.2: CULVERTS

PART A: SPECIFICATION

A3.2.7 EXECUTION OF THE WORKS

A3.2.7.1 Construction methods

Add the following:

“Generally, prefabricated stormwater drainage pipes will be installed using the ‘trench method”.

A3.2.7.6 Construction requirements

a) General requirements

Add the following:

Pipe culverts have been designed to the positions, lengths and elevations shown on the drawings.

However, site conditions may dictate that changes are necessary.

Any such changes will be agreed with the Engineer and recorded in writing.

A3.2.7.10 Backfilling of culverts

Add the following to the fourth paragraph:

Where backfilling is done in the upper layers of the road formation, the quality and strength of the backfill material shall at least match that of the surrounding layers.

PART C: MEASUREMENT AND PAYMENT

Item	Unit
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PSC3.2.28 Headwalls

Add the following payment item:

PSC3.2.28.1	600mm dia.....	Number
PSC3.2.28.2	900mm dia.....	Number

The tendered rate shall also include full compensation for the construction of the headwalls complete as per Standard Detail SD0406 including all labour, materials and equipment required to complete the Works.

SECTION 3.3: CONCRETE KERBING AND CHANNELING, ASPHALT BERMS, CHUTES, DOWNPIPES, AS WELL AS CONCRETE, STONE PITCHED AND GABION LININGS FOR OPEN DRAINS

PART A: SPECIFICATION

A3.3.7 EXECUTION OF THE WORKS

Add the following subclauses:

p) Shrinkage joints for cast in-situ concrete work

Unless shown otherwise on the drawings, cast in situ channels shall be provided with shrinkage joints spaced a maximum of 2m apart.

Shrinkage joints shall be constructed so that shrinkage cracks are generated at the joints. Sections of channel which have cracked between shrinkage joints shall be removed and replaced by the Contractor at his own cost.

q) Formwork and finish

All visible edges of cast in-situ channels shall be rounded with a rounding tool.

COTO CHAPTER 4: EARTHWORKS AND PAVEMENT LAYERS: MATERIALS

SECTION 4.2: CUT MATERIALS

PART A: SPECIFICATION

A4.2.7 EXECUTION OF THE WORKS

A4.2.7.2 Stockpiles

Replace the contents of this subclause with the following:

"The Contractor shall plan his activities in such a manner so that materials excavated from cuttings and brought from commercial sources can be directly transported to and placed at the designated points.

The temporary stockpiling of material will not be paid for separately unless instructed by the Engineer, and full compensation will be deemed to have been included in the rates tendered for the various payment items for work for which the stockpiled material is to be used."

SECTION 4.4: COMMERCIAL MATERIALS

PART A: SPECIFICATION

A4.4.5 MATERIALS

A4.4.5.1 Earthworks and pavement layer materials

Add the following after the third paragraph:

"The Contractor shall plan his activities in such a manner so that materials excavated from brought from commercial sources can be directly transported to and placed at the designated points.

The temporary stockpiling of material will not be paid for separately unless instructed by the Engineer, and full compensation will be deemed to have been included in the rates tendered for the various payment items for work for which the stockpiled material is to be used."

COTO CHAPTER 5: EARTHWORKS AND PAVEMENT LAYERS: CONSTRUCTION

SECTION 5.2: FILL

PART A: SPECIFICATION

A5.2.5 MATERIALS

A5.2.5.1 Material specification

Add the following subclauses:

Material for fills will consist of material from commercial sources

SECTION 5.3: ROAD PAVEMENT LAYERS

PART A: SPECIFICATION

A5.3.5 MATERIALS

A5.3.5.1 Material information

The pavement specification for the road shall consist of the following:

Pavement Layer	Description	Thickness
Base	Bitumen stabilised base (BSM1)	125mm
Subbase	C4 Subbase	150mm
Upper Selected	G7 Upper selected layer	150mm
Lower Selected	G8 Lower selected layer	150mm
Subgrade	G10 Roadbed preparation	230mm

A5.3.3.4 Compaction of pavement layer material

The compaction and material requirements of the pavement layers shall be:

Base material – 100% of MDD (at least G4A quality)
Subbase material – 96% of MDD (at least G6 quality)
Upper Selected layer – 95% of MDD (G7)
Lower Selected layer – 93% of MDD (G8)
Subgrade – 90% of MDD

A5.3.8 WORKMANSHIP

A5.3.8.5 Surface regularity

Add the following to the 1st paragraph:

“The surface regularity shall be assessed on the final prepared layer after all excess fines have been swept off the surface.”

c) By using a profiler

In the paragraph following Table A3.5.8--6, delete the following: " for payment items *** _____", and replace with the following: "for payment items as specified in the Contract Documentation".

CHAPTER 5 EARTHWORKS AND PAVEMENT LAYERS: CONSTRUCTION

SECTION 5.3 ROAD PAVEMENT LAYERS

PART C: MEASUREMENT AND PAYMENT

Add the following new payment item.

PSC5.3 MEASUREMENT AND PAYMENT

Item		Unit
PSC5.3.2	Construction of pavement layers	
PSC5.3.2.1	Construction of layers using conventional construction methods: (dd) G4A crushed rock base bitumen stabilised to BSM1 mixed in plant and placed by a mechanical paver compacted to 102%o of MDD (125mm thick).	m ³

The tendered rate shall include full compensation for procuring, spreading the material, breaking down, placing and compacting the material to the specified density, including transporting the material and its removal, disposal and transporting for a distance of 1km and up to 5% of volume of oversize material and the protection and maintenance of the layer and the conducting of tests, all as specified. All haulage shall be measured as free haul, and the rates tendered for such materials shall be fully inclusive of all haul required. The tendered rate shall also include for the removal of all material in the windrow after the compaction of the layer has been completed.

CHAPTER 5 EARTHWORKS AND PAVEMENT LAYERS: CONSTRUCTION

SECTION 5.4 STABILIZATION

PART C: MEASUREMENT AND PAYMENT

Add the following new payment item.

PSC5.4 MEASUREMENT AND PAYMENT

Item		Unit
-------------	--	-------------

PSC5.4.18 Stabilization

PSC5.4.18	Extra over item C4.7.1 for foam stabilisation, stockpiling and protection of the foamed BSM1 material in a controlled and centralised area.	m ³
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The unit of measurement shall be the cubic metre of BSM1 compliant material, using G4A crushed rock material, foamed in a mixing plant. The purpose of this item is to make provision for any cost associated with the operation of a mixing plant to ensure uniform quality of foamed bitumen stabilised material.

The tendered rate shall include all plant, material and labour costs associated with the operation and protection of the temporary mixing plant. The tendered rate shall further include for the stockpiling and protection of the foamed BSM1 material in a controlled and centralized area.

Item		Unit
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PSC5.4.19 Stabilization

PSC5.4.19	Establishment and de-establishment of the BSM mixing plant	No.
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The unit of measurement shall be the number of times the suitable cold mixing plant and required personnel is established and de-established from site on written instruction from the Engineer. Payment will not be made for the replacement of defective plant.

COTO CHAPTER 13: STRUCTURES

SECTION 13.1: FOUNDATIONS

PART A: SPECIFICATIONS

A13.1.7 EXECUTION OF THE WORKS

A13.1.7.1 Work access and drainage

c) Drainage

Add the following:

“Where dewatering and keeping dry of excavations has not been billed separately as per item C13.1.6 “Access and Drainage”, it shall be deemed to be included in the rates tendered and paid for excavation and backfill.”

A13.1.7.2 Excavation

c) Excavation

Add the following paragraph:

“The design for shoring, signing of the drawings and inspection prior to construction of the permanent works of excavations to ensure it is safe shall be undertaken by the contractor’s competent person, who shall be a professional engineer with the relevant experience. The contractor shall ensure that all temporary works undertaken shall comply with the relevant sections of the Occupational Health and Safety Act and the Construction Regulations”.

A13.1.7.3 Founding

Add the following clause at the end of the last paragraph:

“Where foundation slabs or pile caps are cast directly against the face of the excavations, the volume of concrete measured for payment shall be the total volume of concrete placed or the volume based on the plan dimensions detailed on the drawings plus a 100mm allowance for overbreak on each applicable side whichever is the lesser. No formwork to the footing shall be measured when the concrete is cast against the face of the excavations”.

A13.1.7.6 Foundation fill

Add the following after the 7th paragraph:

Payment shall be made for the quantity of concrete calculated as the product of the specified thickness of blinding layer and the actual area of blinding placed subject to a maximum distance of 500mm beyond the edge of the foundation.”

SECTION 13.2: FALSEWORK, FORMWORK AND CONCRETE FINISH

PART A: SPECIFICATIONS

A13.2.2 DEFINITIONS

A13.2.2.1 Formwork to exposed surfaces

Delete the entire section.

A13.2.4 DESIGN CONTRACTOR / PERFORMANCE BASED SYSTEM

A13.2.4.2 Falsework

Add the following:

“The completion of Bridge 3601 includes the construction of four simply supported spans with a precast beam and slab bridge form on solid type piers approximately 8 m in height. It is the responsibility of the Contractor to design the formwork and falsework required to suit his chosen construction method taking into account the partially built substructure. The Contractor shall submit to the Engineer a full set of drawings and, if required, a set of design calculations at least 28 days before the precast beams are scheduled to be placed and the deck slab is cast or before any major structural items are scheduled for construction. The period of 28 days is for one iteration of review. The contractor shall allow time for more iterations based on the falsework design. The design calculations, signed construction drawings and inspection of the falsework and formwork prior to construction of the permanent works shall be undertaken by the Contractor’s competent person, who shall be a professional engineer with a minimum of 10 years applicable experience. The drawings shall conform to South African Industry standards and include all relevant details required for manufacture. The design of falsework and formwork shall take the following into account:

- I. Structural capacity of the falsework and formwork to withstand all the forces due to the Contractor’s chosen method of construction including, but not limited to, dead loads, superimposed dead loads, live loads, wind and flood action loads and earthquake loads as applicable.
- II. The falsework for supporting the in-situ concrete deck shall be designed so that the completed deck complies with the tolerances stated. The Contractor’s chosen method of construction shall be taken into account and allowance shall be made for theoretical displacements.

Fabrication of steel falsework shall only be performed by a reputable manufacturer complying with the relevant ISO specifications.

For the purposes of this contract, the falsework will include all the support work to the formwork that does not play a part in the actual containing of fresh concrete. If the Contractor chooses a construction method that will induce significant construction stresses to the precast beams, this will be seen as an alternative design and it will be treated as such under this contract.

SECTION 13.3: STEEL REINFORCEMENT

PART A: SPECIFICATIONS

A13.3.7 EXECUTION OF WORKS

A13.3.7.3 Placing and fixing

Add the following:

Prior to fixing the steel, samples of the proposed cover and spacer blocks shall be submitted to the engineer along with a written statement for in situ manufacture, if applicable, for approval.

Overlap of steel reinforcement bars shall be such that the cover to the lapped bars remains constant at the specified cover.”

A13.3.7.4 Cover and supports

Add the following to the end of the fifth paragraph:

“Concrete cover and spacer blocks shall be made using the same cement and aggregate type as the main concrete with the same water/ cement ratio so that differences in shrinkage, thermal movements and strain are minimized. Cover blocks shall be water cured by submersion for a minimum of 7 days and thereafter kept submerged in water until immediately before fixing onto reinforcing steel. Where concrete cover blocks, subsequent to fixing, have

visually dried out they shall be remoistened by an appropriate method so that they are damp before the placing of concrete. Only semi-spherical concrete cover blocks shall be used. Where fixing wire is inserted into cover blocks, it shall be galvanized. Cover and spacer blocks manufactured from other materials e.g. plastic or wood, shall not be permitted. All cover blocks regardless of the type of material manufactured from, shall not be visible on exposed concrete surfaces.”

PART C: MEASUREMENT AND PAYMENT

Add the following pay-items:

“Item

Unit

PC13.3.5 Dowel bars:

PSC13.3.5.1 Drilling and preparation of holes

(a) 30mm dia core drilling through concrete for Y25 dowels.....meter (m)

PSC13.3.5.2 Supply and installation of dowel bars

(b) Y25, 1.25 m deep, 2.5 m long, epoxy grouted.....kilogram (kg)

The unit of measurement for drilling and preparation of holes in concrete shall be the metre of holes drilled while unit of measurement for dowel bars shall be kilogram of bars provided and secured in position.

The tendered rate shall include full compensation for drilling holes, preparing holes for grouting i.e. saturating and cleaning, supplying all the material and positioning and grouting the dowel bars as specified.

SECTION 13.4: CONCRETE

PART A: SPECIFICATIONS

A13.4.5 MATERIALS

A13.4.5.1 Cementitious binder

a) Cement

Add the following paragraphs:

“The type of cement to be used in any concrete element shall take into account the environmental conditions and durability requirements at the location of the site of the works, and shall be as approved by the engineer.

With the exception of the standard SANS approved cement blends supplied by the primary cement producers, the blending of CEM1 and extenders shall not be permitted unless specifically approved by the engineer on the basis of an acceptable quality assurance procedure.

A13.4.5.2 Aggregates

b) Additional project requirements

Add the following sub-sub-clause:

“(vi) The maximum chloride ion content of fine aggregate shall be 0,03% by mass of aggregate as specified by SANS 1083:2002. Where concrete is situated in a chloride environment the value shall be reduced from 0,03% to 0,01%.”

A13.4.5.3 Water

Add the following:

“Water for concrete other than prestressed concrete, shall not contain chlorides, calculated as sodium chloride, in excess of three thousand parts per million (3000ppm) nor sulphates, calculated as sodium sulphate, in excess of two thousand parts per million (2000ppm).

Water for curing concrete shall not contain impurities in sufficient amount to cause discolouration of the concrete or produce etching of the surface.

No sea-water or water containing salts shall be used.

No water shall be added on site to ready mix concrete prior to placing to improve workability. All concrete delivered to site shall be checked for workability using the slump cone test and slump measured outside of the limit set from the design mix shall be rejected.”

A13.4.5.4 Admixtures

Add the following sub-sub-clauses:

“(v) Admixtures, which have a retarding effect on the rate of hydration of the cement, may not be used when the concrete temperature is below 20°C.

(vi) A retarding admixture shall be used if the temperatures of concrete mixes using cements of strength class 42.5 or higher is between 20 to 30°C or where the ambient temperature is between 20 to 30°C.”

Add the following:

“Note: Only admixtures of the type that do not increase the water content of the mix will be considered by the Engineer. In addition, no admixtures shall be added on site to ready mix concrete prior to placing to improve workability.”

A13.4.7 EXECUTION OF THE WORKS

A13.4.7.11 Protection of Concrete from Adverse Environmental Conditions

Add the following sub-clause:

“i) Temperature and hydration of concrete

Ready mix concrete: In the case of ready mix concrete the temperature limits at point of delivery shall be as specified in SANS 878 2004 unless the engineer has specified other limits due to specific design requirements. If slump loss occurs at concrete temperatures of over 30°C and more than two hours after mixing, the concrete shall be rejected. Also if after addition of allowed water the concrete begins to stiffen again such as to place in doubt that full compaction and finishing can be achieved, the concrete shall be rejected.

Care must also be taken not to cast concrete onto hot steel shutters as this might induce cracking.

The rate of hydration of the cement in the concrete shall be such that the concrete can be placed and properly compacted within 2 hours after the addition of water to the mix ingredients. The initial set of the concrete shall not be unduly delayed due to inappropriateness of admixtures or cement type, which could promote bleeding.”

A13.4.7.12 Placing and compaction

b) Placing

Add the following:

Casting of the in situ parapets or placing of precast parapets shall only commence after removal of the deck staging, and in addition, in the case of prestressed decks, the stressing must be complete. Where specified on the drawings the top of the parapets after placing shall follow the pre-camber levels specified on the drawings to allow for future creep effects. This is of particular importance on the edges of very long skew decks and prestressed simply supported decks. The levels of the top rail of each panel of the balustrades/parapets shall be confirmed in writing by the design engineer”

g) Construction Joints

(i) General

Add the following:

“No construction joints other than those indicated on the drawings will be permitted without the written approval of the engineer. In all cases the proposed method of forming the joint shall be discussed and agreed with the engineer.”

h) Curing and surface protection

Add the following to the end of (vi):

“Where a curing compound is used, it shall consist of an approved water based low viscosity clear wax emulsion applied in accordance with the manufacturer’s instructions.”

Add the following paragraphs to the end of this sub-clause:

“Where curing by retention of formwork is used as the only method of curing the concrete, it must be left in place for the minimum period specified in Clause A13.2.7.3 but in no instance shall it be less than 7 days.

The materials used for formwork shall take into account properties such as thermal insulation and moisture absorption when assessing the suitability of the material, to the approval of the engineer.

If impermeable curing membranes are to be used as a curing method, they shall be installed at the same time as formwork is removed and no portion of a concrete surface may be left unprotected for a period in excess of 2 hours. If the surface is an unformed finish e.g. top of deck slab, then the surface must be protected immediately by appropriate methods approved by the engineer after it is finished, without damage to that surface, since it is vulnerable to plastic shrinkage cracking due to high rates of evaporation while the concrete is still in a plastic state. Plastic shrinkage and settlement shall not be permitted on any of the structural elements since it compromises the durability of the concrete. In order to prevent early settlement and shrinkage of the concrete, the concrete placed shall be re-vibrated after initial compaction while the concrete is still in a plastic state. Any remedial measures shall be as approved in writing by the engineer. On bridge decks, the top surface shall be cured using the method described under (iv) of this clause i.e. “Constantly spraying the entire area of exposed surfaces with water”.

k) Precast Concrete

Add the following at the end of (i):

“Precast concrete units shall comply with the requirements of the latest SANS 986:2006 specification.

Prior to the manufacture of any units the manufacturer shall submit his Quality Plan to be approved by the engineer. The quality plan must incorporate all requirements and frequency for durability index testing i.e. Sorptivity, Oxygen Permeability, Chloride Conductivity (if

required) and Cover Testing. As part of the Quality Plan submitted for approval, copies of calibration certificates of both gauges used for proof loads and cover meters used at the factory shall be supplied to the engineer. The originals of these certificates shall at all stages also be available for inspection at the factory premises. The manufacturer shall check each precast unit for cover compliance, and random checking of units shall not be permitted. The engineer's representative may visit the factory at any stage to ascertain adherence to the quality plan including test results from the durability index testing as well as to check covers before delivery to site. Any substandard cover shall result in the applicable structural element or part thereof being rejected. Should the manufacturer not be adhering to their Quality Plan the engineer may exercise the right to reject the use of products from the manufacturer concerned. The Employer shall also be informed in all such cases.

For durability requirements due to the reduced cover provided for precast culverts, all such durability testing shall be done in accordance with clause A13.4.7.10(e). "

SECTION 13.5: PRESTRESSING

PART A: SPECIFICATIONS

A13.5.4 DESIGN BY THE CONTRACTOR / PERFORMANCE BASED SYSTEM

A13.5.4.3 Technical Data

h) Bursting reinforcement

Replace the paragraph with the following:

"The contractor shall design the bursting reinforcement for his proposed prestressing system and submit drawings to the engineer for approval in accordance with clause A13.5.4.5. The price for the steel and fixing shall be included in the rate tendered for stressing."

SECTION 13.7: JOINTS

PART A: SPECIFICATIONS

A13.7.5 MATERIALS

A13.7.5.1 Joints in structures

a) General

Add the following after the last paragraph:

"It is a firm requirement that all contracts have full Agrément certification for bridge deck joints, with the target date for new applications for Agrément assessment one year from receipt and acceptance by Agrément South Africa of each application. Proof of original acceptance of application by Agrément is required in such a case.

- (1) current Agrément assessments: 1 September 2010.
- (2) new applications for Agrément assessment one year from receipt and acceptance by Agrément South Africa of each application. Proof of original acceptance of application by Agrément is required in such a case."

A13.7.7 EXECUTION OF THE WORKS

A13.7.7.4 Proprietary expansion joints

c) Installing the expansion joints

Add the following after paragraph 2:

Joint sealant - 5 years

Add the following at the end of paragraph 4:

New applications for Agrément assessment take up to one year from receipt to acceptance by Agrément South Africa.”

PART C: MEASUREMENT AND PAYMENT

Item

Unit

PSC13.7.5 Supply and installation of Agrément South Africa certified proprietary expansion joints

Add the following at the end of paragraph 4:

Testing should follow the installation of the various sections of joints to take advantage of the existing traffic accommodation and each test shall cover the length of each joint installed (generally half width of bridge)”.

SECTION 14.11: REPAIR OF STEEL ELEMENTS

PART C MEASUREMENT AND PAYMENT

Add the following pay-items:

“Item	Unit
PSC14.11.3 Proprietary repair compound, anti-corrosion coating to reinforcement:.....	litre (ℓ)

The unit of measurement shall be the litre of proprietary to be used for the repair of specified reinforcement defects. For payment purposes, the surface area shall be measured once only irrespective of the number of layers of protective coatings and/or applications of surface treatment is required to achieve the specified application rate.

The tendered rate shall include full compensation for all surface preparations, labour, materials, equipment, additional safety measures, storage, mixing and applications of the protective coatings and treatments, cleaning and disposal of unused or rejected material and all incidentals necessary to execute the work (including wastage) as specified, all to the satisfaction of the engineer.”

COTO CHAPTER 20: QUALITY ASSURANCE

SECTION 20.1: TESTING MATERIALS AND JUDGEMENT OF WORKMANSHIP

PART A: SPECIFICATION

A20.1.2 DEFINITIONS

Independent site laboratory

In the definition of "Independent site laboratory", add the following:

"Independent Site laboratory in COTO is equivalent to the combined laboratory in the Employer documentation"

A20.1.4 PUBLISHED TEST METHODS

A20.1.4.7 Testing of bituminous binders

*Replace: "SABITA PG1 –Series on modified binders " with:
"SABITA TG1 –Series on modified binders ".*

A20.1.7 ACCEPTANCE CONTROL BY STATISTICAL JUDGEMENT PRINCIPLES

A20.1.7.2 Taking samples

b) Stratified random sampling

Add the following new paragraph:

"Where the SARDS Laboratory module is used, the sampling locations must be as per the software. The Engineer may specify additional sampling locations."

c) Minimum samples per lot

Add the following new paragraph:

"Where the SARDS Laboratory module is used, the number of samples per lot must be as per the software, as a minimum. The Engineer may specify additional numbers of samples. The Number of samples must be sufficient to meet the requirements of TMH5."

PART C: MEASUREMENT AND PAYMENT

C20.1.5 Financial contribution for an independent laboratory

Replace reference to: "Independent laboratory" with: "Independent site laboratory".

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	C124
PART D: DAYWORK.....	C130
PART E: OHSA 1993 HEALTH AND SAFETY SPECIFICATION	C133
PART F: EXPANDED PUBLIC WORKS PROGRAMME.....	C144

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 B13.02 of the Bill of Quantities for the contractor's general obligations, risks and liabilities in accordance with the environmental management specification.

3.3 PARTICULAR SPECIFICATIONS

PART D: DAYWORK

PART D: DAYWORK

D1. SCOPE

This part deals with the provision for daywork in the Bill of Quantities. Rates for daywork shall be entered in the Bill of Quantities in accordance with the following specifications.

D2. 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.

D3. 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.

D4. MATERIALS

Materials for use in works carried out under daywork shall be purchased by the Contractor who shall also arrange for delivery to site, and shall be responsible for any other requirements associated with specific materials. A Provisional Sum has been allowed in Section D of the Bill of Quantities for daywork materials. The Contractor shall enter a tendered percentage in the Bill of Quantities to cover his handling costs and profit, as per other provisional and prime cost sums in this Contract.

Materials shall be paid for using the method described in C2.1, 'Pricing Assumptions'. No contract price adjustment will be applicable to materials.

The Contractor shall submit proof of ownership for any materials used in daywork with his daywork claim to the Employer's Agent. Further, if specific materials are required for daywork, quotations will be called for as per Clause 6.5.2 of the General Conditions of Contract 2015.

D5. CONSTRUCTION EQUIPMENT

Where daywork is ordered, the tendered rates for construction equipment in Section D 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.

D6. 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.

D7. 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.

C3.3 PARTICULAR SPECIFICATIONS

PART E: OHS 1993 HEALTH AND SAFETY SPECIFICATION

PART E: OHS 1993 HEALTH AND SAFETY SPECIFICATION

E1. 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 OHS 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 OHS 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.

E2. DEFINITIONS

For the purpose of this contract the following shall apply:

E2.1 "**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.

E2.2 "**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 OHS 1993, be the mandatory, without derogating from his status as an employer in his own right.

E2.3 "**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.

E2.4 "**Employer's Agent**" where used in this specification, means the Employer's Agent as defined in the General Conditions of Contract 2015.

E3. EMPLOYER'S BASELINE RISK ASSESSMENT

E3.1 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.

E3.2 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).

RISK ASSESSMENT (Baseline and Full RA)													
PROJECT NAME : THE COMPLETION OF UMDLOTI RIVER BRIDGE NO. 3601 AND APPROACH ROADS ON MAIN ROAD 71		PROJECT NUMBER: ZNB00852/00000/00/HOD/INF/21/T		REGULATION		SMP Required		Rating		Who / What could be affected?		Safe Working Procedure	
Seq No	Tasks	Hazards identified with each task	Risks identified with each task	Consequence (Severity)				Risk Score	Probability	Exposure (Frequency)	Occupational Health and Safety Act and Regulations 85 of 1993	All stakeholders	Public management plan
				A	B	C	D						
1	Interface with Natural Environment , People and Equipment	Construction related activities and conditions;	Injury/Death	7	3	2	42	POSSIBLE RISK	Occupational Health and Safety Act and Regulations 85 of 1993	All stakeholders	Public management plan		
		Water exposure	Property/Environmental Damage	7	2	3	42					Rescue Procedure	
2	Site establishment	Moving vehicles	Injury/death	0	0	0	0	RISK	Occupational Health and Safety Act and Regulations 85 of 1993	Contracts Manager	Site procedure/ inductions plan		
		Offloading of equipment, material/machinery	Property Damage	7	3	2	42	Stacking and storing procedure					
3	Clearing and Dewatering of area	Moving machinery	Injury/death	8	3	3	72	SUBSTANTIAL RISK	Occupational Health and Safety Act and Regulations 85 of 1993	Supervisors	Waste Management Plan and Procedure/ EMP		
		Failure of Equipment	Property Damage	5	2	3	30	POSSIBLE RISK					
4	Excavation work and shoring	Stability of soil/Cave in	Ergulment	9	3	3	81	SUBSTANTIAL RISK	Driven Machinery Reg	Employees	Stacking and storing procedure		
		Backfilling of water	Possible drowning	9	3	2	54	POSSIBLE RISK					
5	Concrete Work/Blinding	Environmental Impact	Damage	5	3	2	30	POSSIBLE RISK	Occupational Health and Safety Act and Regulations 85 of 1993	Contractors	Machining procedure		
		Exposure to natural Elements	Dehydration/Heat stress	7	3	3	63	POSSIBLE RISK					
6	Formwork and casting	Wall collapse/Cave in	Ergulment	7	3	2	42	POSSIBLE RISK	Occupational Health and Safety Act and Regulations 85 of 1993	Professional person	Rescue Procedure		
		Moving Equipment	Defective Equipment	6	2	1	12	RISK					
6	Formwork and casting	Moving Equipment	Injury/death	9	3	3	81	SUBSTANTIAL RISK	Occupational Health and Safety Act and Regulations 85 of 1993	Environment	EMP Procedure		
		Equipment Failure	Property Damage	5	2	2	20	RISK					
6	Formwork and casting	Spillage/Splashes	Skin contact dermatitis	5	2	1	10	RISK	Occupational Health and Safety Act and Regulations 85 of 1993	Company Property	Engineering details		
		Moving machine	Injury/death	12	5	2	120	SUBSTANTIAL RISK					
6	Formwork and casting	Failure of support/formwork	Injury/death	10	4	2	80	SUBSTANTIAL RISK	Occupational Health and Safety Act and Regulations 85 of 1993	Client Property	Plant Safe working procedure		
		Stability of soil	Cave in/collapse	8	2	3	48	POSSIBLE RISK					

7	Lifting and Installation of Concrete sections	Loading/off loading of concrete sections	Injury/death	9	3	3	81	SUBSTANTIAL RISK	Occupational Health and Safety Act and Regulations 85 of 1993	lifting study and safe lifting plan and procedure																																																																																																			
											Occupational Health and Safety Act and Regulations 85 of 1993																																																																																																		
	Securing of concrete sections	Falling of load		9	3	3	81	SUBSTANTIAL RISK		lifting study and safe lifting plan and procedure																																																																																																			
	Lifting/Manual handling	Property Damage		6	3	3	54	POSSIBLE RISK		Manual handling procedure																																																																																																			
8	Hot Works Activities(Cutting & Grinding of Rebar/Reinforcement)	Poor spark containment	Fire	8	2	2	32	RISK	Occupational Health and Safety Act and Regulations 85 of 1993	Power tool procedure and training																																																																																																			
		Hot surface	Burns	7	2	1	14	RISK																																																																																																					
		Sharp edges	Injury	8	3	2	48	RISK		First aid procedure																																																																																																			
9	Steel fixing	Sharp edges	Injury	7	4	2	56	POSSIBLE RISK	Occupational Health and Safety Act and Regulations 85 of 1993	Steel fixing procedure																																																																																																			
		Congestion	Slips, Trips /fall	5	4	2	40	POSSIBLE RISK		Working at heights procedure																																																																																																			
							0	RISK																																																																																																					
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E3.3 Guidelines for construction and maintenance projects under Covid-19 Lockdown

The Employer has prepared guidelines which set out the key principles and minimum requirements that define responsible, healthy and safe operations for road construction operations under COVID-19 Lockdown conditions, for the Contractor to comply with. In addition, the Contractor shall comply with any new COVID-19 Regulations issued by Government.

The guidelines have been included as Annexure A at the end of this Project Document.

E4. 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.

E5. 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.

E6. 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.

E7. APPOINTMENT OF EMPLOYEES AND SUBCONTRACTORS

E7.1 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.

E7.2 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).

E7.3 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.

E8. APPOINTMENT OF SAFETY PERSONNEL

E8.1 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.

E8.2 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.

E8.3 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.

E8.4 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.

E8.5 Health and safety committee

In terms of Section 19 of the Act (OHS Act 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.

E8.6 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.

E9. 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.

E10. CONTRACTOR'S RESPONSIBILITIES

For this contract the Contractor will be the mandatary of the Employer (Client), as defined in the Act (OHS Act 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 (OHS Act 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.

E11. 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 B13.03 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 B13.03 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 B13.03 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 B13.03 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 F: EXPANDED PUBLIC WORKS PROGRAMME

PART F: EXPANDED PUBLIC WORKS PROGRAMME

F1. SCOPE

This part provides the specifications with regard to the following:

- (a) The Expanded Public Works Programme (EPWP); and
- (b) The National Youth Service (NYS) programme, which is a government programme implemented by the National Department of Public Works forming part of the Expanded Public Works Programme (EPWP).

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 and NYS programmes.

F2. EXPANDED PUBLIC WORKS PROGRAMME (EPWP)

F2.1 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-Intensive 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/>).

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-Intensive 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 F4 of this Part F.

F2.2 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/>).

F2.3 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 = 1:15

F2.4 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 F 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.

F2.5 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.

F2.6 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 F4 below.

F2.7 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.

F2.8 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 E: 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), green 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.

F2.9 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.

F2.10 Payment matters relating to the EPWP work

F2.10.1 General

No separate pay items shall be provided in terms of Part F 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 administering 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.

F2.10.2 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.

F2.11 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:

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

where:

- E is the specified minimum percentage for local labour content
- E_o 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.

F3. NATIONAL YOUTH SERVICE (NYS)

The Employer requires the implementation of National Youth Service (NYS) programmes on this project.

F3.1 The National Youth Service (NYS) programme

The National Youth Service (NYS) programme aims to train young people and provide them with practical work experience. The young people will be allocated tasks by the Contractor that will assist the Contractor with the execution of the contract.

F3.2 Applicable labour laws

The work to be undertaken on this contract by unskilled or semi-skilled workers under the National Youth Service (NYS) programme shall be implemented in accordance with the same Code of Good Practice and Ministerial Determination as described in clause F2.2 above for work to be undertaken under the Expanded Public Works Programme (EPWP).

F3.3 Employer's project manager

The Contractor shall be required to liaise closely with the Employer's project manager who is responsible for the recruitment and training of the NYS workers.

F3.4 Persons to be employed under the NYS programme

For purposes of this contract, the Contractor shall be required to employ 10 youths aged between 18 and 35 for a period of 6 months each under the NYS programme.

The Employer's project manager shall provide the Contractor with a list of the 10 youths to be employed and the training that each of these 10 youths have received to date, and only these 10 youths shall be employed by the Contractor under the NYS programme.

F3.5 Contract of employment with persons employed under the NYS programme

The Contractor shall enter into a formal contract of employment with each youth employed under the NYS programme, using the pro forma contract of employment attached at the end of this Part F of section 3.3 Particular Specifications.

F3.6 Employment of NYS workers

The Contractor will be contractually obliged to:

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

During the period when they are engaged in formal classroom training (other than in-service training), the youths employed under the NYS programme shall be paid the minimum wage rate as set by the Department of Labour on an annual basis in the Ministerial Determination for the Expanded Public Works Programme, and should there be an upward adjustment in the rate the Contractor will be compensated accordingly. During the period when they are engaged in productive work activities required for elements of the Works, they shall be paid in terms of the wage rates stated in clause F2.5 above.

F3.7 Training of youth workers

All NYS workers will be placed on an extensive training programme that will include:

- (a) an induction into NYS and EPWP;
- (b) life skills training;
- (c) technical training focusing on a vocational skill to be used on the project (e.g. painting or carpentry); and
- (d) entrepreneurship and business skills training.

All training will be arranged by the Employer's project manager, with whom the Contractor will be required to work closely to schedule the training sessions so that the timing of the training is aligned with the Contractor's work schedule and his demand for workers with specific skills. The Employer's project manager will make full details of the training programme available to the Contractor.

A compulsory 10-day life skills training must be provided before commencement of classroom training on NYS. This type of training must be provided by a NYDA accredited service provider as per the National Youth Service Framework from the National Department of Public Works.

The Contractor shall maintain comprehensive records of the training received by each NYS worker throughout the course of the contract, and shall submit to the Employer at each monthly site meeting a summary of the accumulated training received by each NYS worker.

The training of the NYS workers shall take place using the same training facility provided for the training of all other EPWP participants (refer to clause F5 below).

F3.8 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) 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;
- (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 trades in which the participants are involved, in addition to the branded overalls stipulated for NYS 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 in their respective trades;
- (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.

F3.9 Apparel and tools for NYS workers

The content of clause F2.8 above with regard to apparel and tools for EPWP workers shall apply equally to NYS workers, except that:

- (a) apparel and tools to be issued to NYS workers shall be determined in conjunction with the Employer's project manager;
- (b) the required branding of apparel to be issued to NYS workers shall be determined in conjunction with the Employer's project manager, and shall also include the NYS logo;
- (c) additional PPE may be required depending on the NYS worker's specific trade;
- (d) certain specified apparel and tools issued to the NYS workers will become the property of the NYS workers after the completion of their cycle of work on the project, in order to enable them to continue to practise their trade on future projects. Such apparel and tools shall be specified and authorised by the Employer's Agent; and
- (e) separate payment items have been provided in Part F of the bill of quantities to cover all costs associated with the provision of the necessary tools and apparel, including safety apparel, for the NYS workers, and the facilities for the safe storage thereof, all as authorised by the Employer's Agent.

F3.10 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.

F3.11 Payment matters relating to the NYS work

No direct 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 administering 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.

F4. 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 F4.1 below for reporting purposes.

In addition, the Contractor's payment certificates shall be accompanied by the information specified in clause F4.2 below.

F4.1 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 F of the Particular Specifications).

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

F4.1.1 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.

F4.1.2 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 F of section 3.3.
- (b) Summary of monthly attendance.

F4.1.3 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.

F4.1.4 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.

F4.2 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.

F5. PROVISION OF STRUCTURED TRAINING

F5.1 Scope of structured training

In order to avoid duplication of training facilities, the training described in Part G: Small Contractor Development (in those instances where Part G is included in the contract), shall be provided utilising the training facility measured and paid for in accordance with the requirements of this Part F: Expanded Public Works Programme (EPWP).

The Employer's objectives include the training of local labour and Targeted Enterprises within a structured programme, in order to equip them with skills that will assist them in gaining future employment, and to facilitate targeted EPWP participants in gaining competencies and unit standard credits towards future full learnership qualifications.

Such training shall contain both theoretical and practical components and shall be conducted in accordance with the various laws and regulations contained in the South African Qualifications Authority (SAQA) statutes.

The following aspects of the structured training to be provided are noted:

- (a) The Employer has no service agreement or memorandum of understanding with any Education and Training Quality Assurance (ETQA) body, and therefore does not function as the employer as defined under any three-party learnership agreement between the learner, the training provider and the employer.
- (b) The structured training programmes implemented on this contract, although comprising several unit standards, are unlikely to total to sufficient credits for a full learnership qualification. Nevertheless, the competencies and credits achieved should contribute to a full learnership through the later acquisition by the learner of the remaining unit standards required for the full learnership.

The Contractor shall be required to provide a training facility on the Site, or in close proximity thereto, and to provide over the duration of the contract the following structured training for EPWP participants:

- (a) Generic skills training;
- (b) Entrepreneurial skills training;
- (c) Construction skills training; and
- (d) In-service training.

Generic skills training and in-service training shall be provided to all EPWP participants.

Entrepreneurial and construction skills training shall be provided to targeted EPWP participants only.

F5.2 Training provider and trainers

The Contractor shall be required to procure the services of a training provider accredited by the Construction Education and Training Authority (CETA).

The training provider shall have in its employ trainers who are registered as assessors with the Construction Education and Training Authority (CETA), and who shall deliver the training.

Proof of the accreditation of the service provider and the registration of the trainers by the CETA shall be submitted to the Employer's Agent. Such accreditation and registration shall be current and valid, and the proof submitted shall include the NQF levels and unit standards for which each trainer is accredited.

F5.3 Skills analysis and selection of targeted EPWP participants

Studying for any learnership requires minimum literacy and numeracy competencies as defined by SAQA. The actual literacy and numeracy levels of the persons employed on the Site shall provide a basis to guide the Contractor and the training provider on how to conduct the selection process.

The Contractor shall therefore conduct a skills analysis of the local labour and Targeted Enterprises employed, in order to determine the formal education qualifications of each employee.

The Contractor, in conjunction with the training provider, shall then identify those persons that display the potential to benefit from such structured entrepreneurial and construction skills training as may be provided for in the contract, and shall make recommendations in this regard to the Employer's Agent.

The final candidates selected for such training shall be decided between the Contractor and the Employer's Agent (or by the Project Management Team (PMT) in the case of training for Targeted Enterprises in terms of Part G: Small Contractor Development, where applicable).

F5.4 Structured training programmes

The Contractor, supported by the training provider, shall plan then implement structured training programmes for generic, entrepreneurial and construction skills training.

Training courses shall commence within five months of the Contractor taking possession of the Site, and shall be completed before the Due Completion Date.

All training shall take place within normal working hours, or as otherwise agreed with the learners.

The training provider shall design, compile and deliver the structured training programmes, based on the information obtained from the skills analysis.

F5.4.1 Generic skills training

The structured training programmes designed by the training provider for the generic skills training shall comprise relevant general courses such as basic hygiene and HIV/AIDS awareness, first aid, road safety, managing personal finance, and other courses that would be useful to workers in the road construction industry or as life skills generally.

F5.4.2 Entrepreneurial skills training

The structured training programmes designed by the training provider for the entrepreneurial skills training shall comprise unit standards that contribute towards one or more of the following full learnership qualifications, as appropriate taking into consideration the skills analysis information for the selected candidates (details of the learnership qualifications and the applicable unit standards may be found on the website www.saqa.org.za):

ENTREPRENEURIAL SKILLS TRAINING				
Qualification title	SAQA qualification ID	NQF level	Minimum credits	Purpose of qualification
National Certificate: Supervision of Construction Processes	49053	Level 4	176	Learners found competent against this qualification will be able to execute the supervision of construction processes, with specialisation in a specific context

F5.4.3 Construction skills training

The structured training programmes designed by the training provider for the construction skills training shall comprise unit standards that contribute towards one or more of the following full learnership qualifications, as appropriate taking into consideration the skills analysis information for the selected candidates (details of the learnership qualifications and the applicable unit standards may be found on the website www.saga.org.za):

CONSTRUCTION SKILLS TRAINING				
Qualification title	SAQA qualification ID	NQF level	Minimum credits	Purpose of qualification
National Certificate: Supervision of Construction Processes	49053	Level 4	176	Learners found competent against this qualification will be able to execute the supervision of construction processes, with specialisation in a specific context
National Certificate: Construction: Roadworks	24173	Level 3	155	This qualification is for persons who work or intend to work within a construction context on a site, and who seek recognition for essential skills in construction operations in roadworks.
National Certificate: Construction: Roadworks	24133	Level 2	120	This qualification is for persons who work or intend to work within a construction context on a site, and who seek recognition for essential skills in construction operations in roadworks.
National Certificate: Occupational Health, Safety and Environment	74269	Level 2	120	This qualification is to equip learners working in any type of workplace with a broad understanding and knowledge of Occupational Health, Safety and Environmental (HSE) concepts and practices with sufficient detail to enable them to function in a safe and healthy way and to deal with health and safety problems and issues.

F5.4.4 Training programme

The Contractor's proposed training programmes shall be subject to the approval of the Employer's Agent, and the Contractor shall, if so instructed by the Employer's Agent or the PMT, alter or amend the programmes and the course content to meet any additional needs identified.

The Contractor shall be responsible for everything necessary for the delivery of the training programmes, including:

- (a) the provision of the trainers;
- (b) the provision of a suitable secure venue, complete with adequate furniture, lighting, air conditioning, power and ablution facilities;
- (c) the provision of all necessary stationery, consumables and study materials;
- (d) the transportation of the learners to and from the training facility;
- (e) the payment of wages to all learners during the classroom training at a rate equal to the minimum wage rate as set on an annual basis in the Ministerial Determination for the Expanded Public Works Programme;
- (f) the provision of any relevant Personal Protective Equipment (PPE) required for the training; and
- (g) additional supervision of the learners during the practical learning stage of the training carried out by constructing relevant elements of the Works (wages for the learners during this stage of the training will be paid through the rates tendered for the relevant scheduled work items for those elements).

At the successful completion of each course, the Contractor's training provider shall, as proof of attendance and completion, issue each learner with a certificate indicating the course content.

The training provider shall also ensure that each unit standard contributing towards a full learnership qualification and successfully completed by the learner is entered onto the national database.

The Contractor shall keep comprehensive records of the training given to each learner and the certificates issued, and shall provide copies of such records to the Employer's Agent when required.

The Contractor shall also complete and submit to the Employer's Agent each month, in a format acceptable to the Employer (using the EPWP Data Collection Tool template), a return detailing the training provided, both for the month and cumulatively for the contract.

F5.5 In-service training

The Contractor shall, from the commencement of the contract, implement an in-service training programme in which the various skills required for the execution and completion of the Works are imparted to the EPWP participants engaged thereon.

Throughout the duration of the contract, the EPWP participants shall be trained progressively through the various stages of each particular type of work in which they are engaged, and their work shall be supervised and monitored and their methods corrected where necessary.

The in-service training programme shall be submitted with the initial Works programme. The Contractor shall record the progress in relation to this programme on a monthly basis, and this progress report shall be incorporated in the monthly site meeting minutes and the payment certificate.

The Contractor shall provide sufficient skilled and competent trainers to train all EPWP participants engaged on the contract in the various skills required to enable them to carry out the required construction activities.

The in-service training of EPWP participants shall take place before commencement of the relevant construction activity, and the Contractor shall take into account in his programme the lead time required for such training. All in-service training shall be deemed to be an element of the relevant construction activity.

All formal in-service training shall be documented in terms of the EPWP Data Collection Tool template, and shall be accompanied by an attendance register of the EPWP participants on the applicable days.

All EPWP participants shall be remunerated at their agreed wage rate in respect of the time spent undergoing in-service training. The cost of the Contractor's in-service training obligations shall be deemed to be covered by the sums and rates tendered for items B13.01(a), (b) and (c) in the bill of quantities.

On termination of their employment, the Contractor shall provide each EPWP participant engaged on the contract with a certificate of service on which the following information shall be recorded:

- (i) name of the Contractor;
- (ii) name of the project / contract;
- (iii) name of the employee;
- (iv) nature of the work satisfactorily executed by the EPWP participant and the time spent thereon;
- (v) nature and extent of training provided to the EPWP participant; and
- (vi) dates of service.

F5.6 Training venue facility

The training venue facility to be provided by the Contractor shall be constructed, furnished and fully serviced for the duration of the contract in accordance with Chapter 1.4 of the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020.

In order to minimise the cost of transporting the learners for training, the facility shall be located in secure premises on the Site, or in close proximity thereto.

This facility shall be used to deliver all training, irrespective of whether it is delivered in terms of Part E or Part F of the Particular Specifications.

The facility shall accommodate a class of up to 20 learners and shall comprise the following:

- (a) Lecture room (interior area) = 48 m²
- (b) Ablutions (male) = 6 m²
- (c) Ablutions (female) = 6 m²
- (d) Chairs for learners (individual chairs, with backs) = 25 off
- (e) Desk area for 25 learners (500 mm width) = 12,5 m²
- (f) Chairs for trainers and management (individual chairs, with backs) = 5 off
- (g) Table area for trainers and management = 3 m²
- (h) 220/250 volt power points = 6 off
- (i) Double 80 watt fluorescent light fittings complete with ballast and tubes = 6 off
- (j) Single incandescent light fittings complete with 100 watt globes = 4 off
- (k) Wash hand basins complete with taps and drains = 4 off
- (l) Fire extinguishers, 9,0 kg, all-purpose dry powder type, complete, mounted on wall with brackets = 2 off
- (m) Air conditioning units with 2,2 kW minimum capacity, mounted and with own power connection = 4 off
- (n) Voltage stabilizers = 2 off
- (o) Floodlights complete with poles and 500 watt minimum globes and controlled by photocells = 2 off
- (p) White boards (3 m x 1,5 m) = 1 off
- (q) Venetian blinds = 12 m²

F6. MEASUREMENT AND PAYMENT

Item	Unit
F6.01 Provision of the training venue facility, including the cost of transporting the learners to and from this facility.....	lump sum (Sum)

The tendered lump sum for subitem F6.01 shall include full compensation for the provision of the training venue facility complete and serviced as specified, including for the provision of power, water, sewerage and cleaning services for the duration of the contract, for lighting, power points and voltage stabilizers, for air

conditioning, blinds, fire extinguishers, floodlights, furniture and whiteboards, for the provision of security at the facility, for all other costs necessary to maintain the facility for the duration of the contract, and for the removal of the facility on completion of the contract.

The tendered lump sum shall also include full compensation for transporting the learners on each day of training from their place of work to this training venue facility, and back again after the training for the day has been delivered by the accredited trainers.

Payment of the lump sum shall be made in three instalments as follows:

The first instalment, 50% of the lump sum, shall be paid after the Contractor has met all his obligations regarding the provision of the training venue facility, complete and serviced as specified, and the facility has been successfully commissioned for use.

The second instalment, 35% of the lump sum, shall be paid when 75% of the training courses proposed in accordance with the Contractor's approved structured training programme have been delivered to the learners by the accredited trainers.

The third and final instalment, 15% of the lump sum, shall be paid when all training has been concluded and the facility has been dismantled and removed from the site.

Item	Unit
F6.02 Training of learners employed by the contractor or by the Targeted Enterprise subcontractors:	
(a) Generic skills:	
(i) Training costs	provisional sum (Prov sum)
(ii) Handling costs and profit in respect of subitem F6.02(a)(i)	percentage (%)
(b) Entrepreneurial skills:	
(i) Training costs	provisional sum (Prov sum)
(ii) Handling costs and profit in respect of subitem F6.02(b)(i)	percentage (%)
(c) Construction skills:	
(i) Training costs	provisional sum (Prov sum)
(ii) Handling costs and profit in respect of subitem F6.02(c)(i)	percentage (%)
(d) Transportation and accommodation costs of selected learners only, while receiving off-site training:	
(i) Transportation and accommodation costs	provisional sum (Prov sum)
(ii) Handling costs and profit in respect of subitem F6.02(d)(i)	percentage (%)

Expenditure under subitems F6.02(a)(i), (b)(i), (c)(i) and (d)(i) shall be in accordance with clause 6.6 of the General Conditions of Contract 2015.

The provisional sum for each of subitems F6.02(a)(i), (b)(i) and (c)(i) is provided to cover the total costs of the required training in generic, entrepreneurial and construction skills respectively, including for the procurement of the services of the accredited trainers and their delivery of the training courses to the learners, the provision of all training materials including all stationery and study materials, the wages of the learners for the duration of the courses including the associated COIDA and UIF payments, and the provision of any tools and PPE that may be required during those courses incorporating practical training

modules. The payment of wages to learners in terms of subitems F6.02(a)(i), (b)(i) and (c)(i) will only be made to those learners who attend and successfully complete each course of the approved training programme. Payment shall not be made to learners who, once selected, do not attend or only partially complete structured training courses.

The tendered percentage for each of subitems F6.02(a)(ii), (b)(ii) and (c)(ii) is the percentage of the amount actually spent under each of subitems F6.02(a)(i), (b)(i) and (c)(i) respectively, and shall include full compensation for the handling costs of the Contractor and the profit in connection with the provision of the training in generic, entrepreneurial and construction skills respectively, including for the costs of record keeping and reporting with respect to the training received by each learner.

The provisional sum for subitem F6.02(d)(i) is provided to cover all costs related to the transportation and accommodation costs of selected learners only, while receiving off-site training, where such learners have been specifically selected to receive such off-site training and where such training cannot be delivered using the training venue facility provided by the Contractor in terms of subitem F6.01.

The tendered percentage for subitem F6.02(d)(ii) is the percentage of the amount actually spent under subitem F6.02(d)(i), and shall include full compensation for the handling costs of the Contractor and the profit in connection with the transportation and accommodation costs of selected learners only, while receiving off-site training.

Item	Unit
F6.03	Payments associated with the NYS programme:
(a) Employment of NYS workers	provisional sum (Prov sum)
(b) Provision of tools and apparel for the NYS workers	provisional sum (Prov sum)
(c) Handling costs and profit in respect of subitems F6.03(a) and (b)	percentage (%)
(d) Training of NYS workers:	
(i) Provision of training for NYS workers	provisional sum (Prov sum)
(ii) Handling costs and profit in respect of subitem F6.03(d)(i)	percentage (%)
(e) Liaison with the Employer's project manager and the training service provider:	
(i) Liaison conducted by the Construction Manager.....	hour (h)
(ii) Liaison conducted by the senior site foreman.....	hour (h)

The provisional sums provided under subitems F6.03(a) and (b) shall be expended in accordance with clause 6.6 of the General Conditions of Contract 2015.

The provisional sum under subitem F6.03(a) shall be used to cover the cost of employment payments made by the Contractor to the NYS workers, including the associated COIDA and UIF payments, all as authorised by the Employer's Agent.

The provisional sum under subitem F6.03(b) shall be used to cover all costs associated with the provision of the necessary tools and apparel, including safety apparel, for the NYS workers, and the facilities for the safe storage thereof, all as authorised by the Employer's Agent.

The tendered percentage under subitem F6.03(c) is a percentage of the total amount of expenditure approved by the Employer's Agent under the provisional sum subitems F6.03(a) and (b), and shall include full compensation for attendance by the Contractor, for the handling costs of the Contractor, and for the profit in connection with payments made by the Contractor with respect to the NYS programme implementation.

The provisional sum provided under subitem F6.03(d)(i) shall be expended in accordance with clause 6.6 of the General Conditions of Contract 2015.

The provisional sum under subitem F6.03(d)(i) shall be used to cover all costs associated with the provision of training for the NYS workers, including the cost of procuring the services of the accredited trainers and their delivery of the training courses to the NYS workers, and the provision of all training materials including all stationery and study materials.

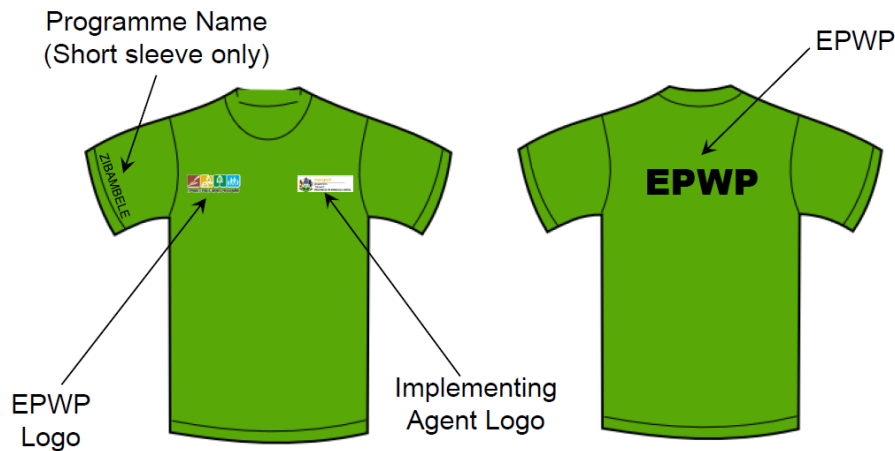
The tendered percentage under subitem F6.03(d)(ii) is a percentage of the total amount of expenditure approved by the Employer's Agent under the provisional sum subitem F6.03(d)(i), and shall include full compensation for attendance by the Contractor, for the handling costs of the Contractor, and for the profit in connection with payments made by the Contractor with respect to the provision of training for the NYS workers, including for the costs of record keeping and reporting with respect to the training received by each NYS worker.

The unit of measurement for subitems F6.03(e)(i) and (ii) shall be the hour. The tendered rates shall include full compensation for all costs related to the Construction Manager and the senior site foreman respectively for time spent at formal liaison meetings authorised and convened by the Employer's Agent for the specific purpose of liaising with the Employer's project manager and / or the training service provider. The payment shall be made only for the time spent in the formal meeting itself. No payment shall be made for time spent during any other on-site liaison, telephonic liaison, e-mail or written correspondence liaison between these parties, or for liaison conducted with the Employer's project manager and / or the training service provider by any other member of the Contractor's site staff or head office personnel, the cost of all of which shall be deemed to be included in the Contractor's time-related obligations under subitem C.1.3.

Expanded Public Works Programme: PPE BRANDING For EPWP Projects




T-Shirt/Overall/Safety Vest Branding




Logo Options

Implementing Agent Examples


National Projects



Provincial Department Projects



Municipal Projects



PLEASE VERIFY WHICH LOGO NEEDS TO 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.



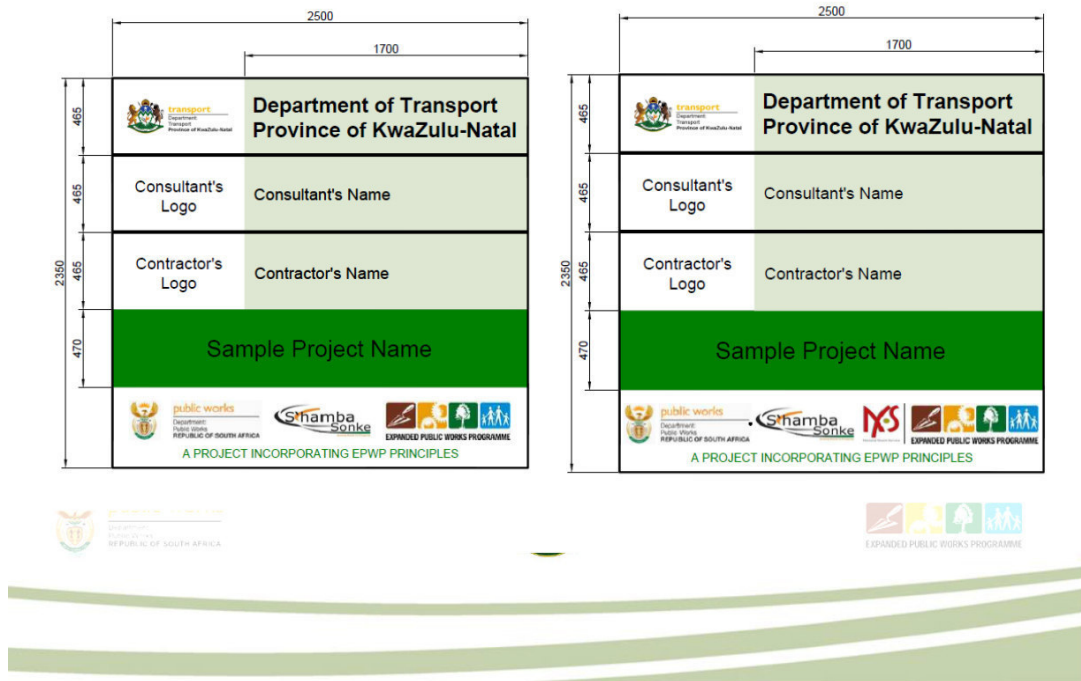
Printing on PPE

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. 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	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		
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	Person responsible for the Project in the Public Body (Project Manager)	
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		

ON	Participant's personal details										Grants	Experience/Literacy		Location Details		Nation-ality	Household Details			Quality Check								
	First Name as per ID document	Initials	Surname	ID number	Disability (Y/N)	Education Level	Start Date	End Date	Language ID	Address		Cell Number	Government Grant (Y/N) and Type	Other Language 1	Other Language 2		District Municipality	Local Municipality	Nationality (RSA/ Non-RSA)	Number of people in Household	Number of Dependents in Household	Number of Children attending school	Picture Clear	Text clear	Certification within 3 months of employment	Clear certification Stamp	Commissioner details clear	
				</																								

EPWP Monthly Progress Form		
Field requested	Description if needed	Please complete the sections in white
Project Details		
Profile ID	<i>full descripton 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 descripton 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	Yes / No	
Date that the branding was provided	<i>When was the project branded?</i>	
Has a photo of project branding been provided?	Yes / No	
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>	



The Attendance Register for on-site Workers

Reporting month: _____
 Project Name: _____
 Surname: _____
 First Name: _____

Mobile No: _____
 Contract no: _____

IDENTITY NUMBER:

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

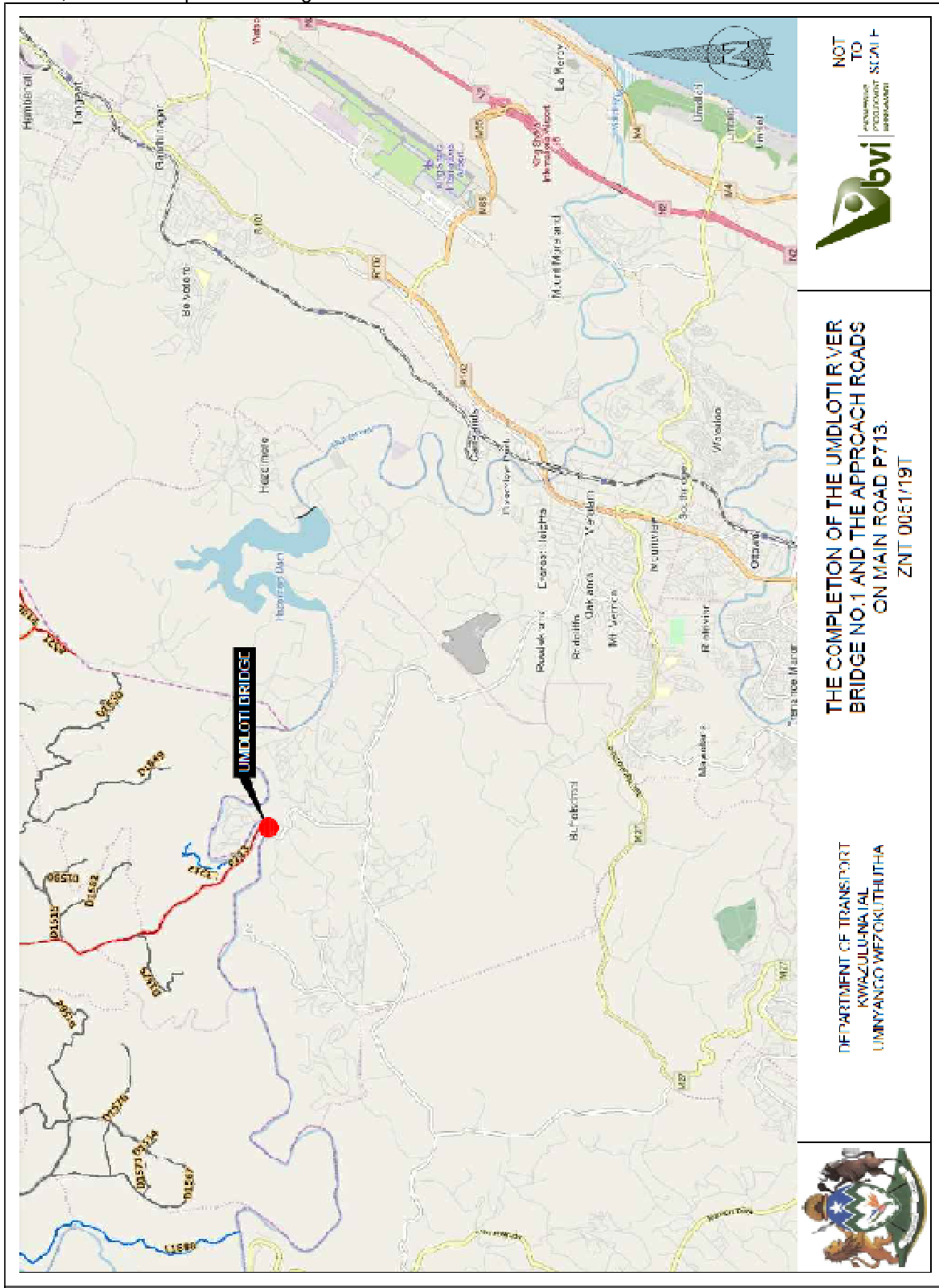
Day	Date	Time In	Signature	Time Out	Signature	Report On Any Formal Training Provided In The Reporting Month
WEEK 1						
MONDAY						
TUESDAY						
WEDNESDAY						
THURSDAY						
FRIDAY						
WEEK 2						
MONDAY						
TUESDAY						
WEDNESDAY						
THURSDAY						
FRIDAY						
WEEK 3						
MONDAY					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

PART C4: SITE INFORMATION

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C4.3 EXISTING SERVICES REPORT	C183
C4.4 CONDITIONS ON SITE: MATERIALS INFORMATION	C185

C4.1 LOCALITY PLAN

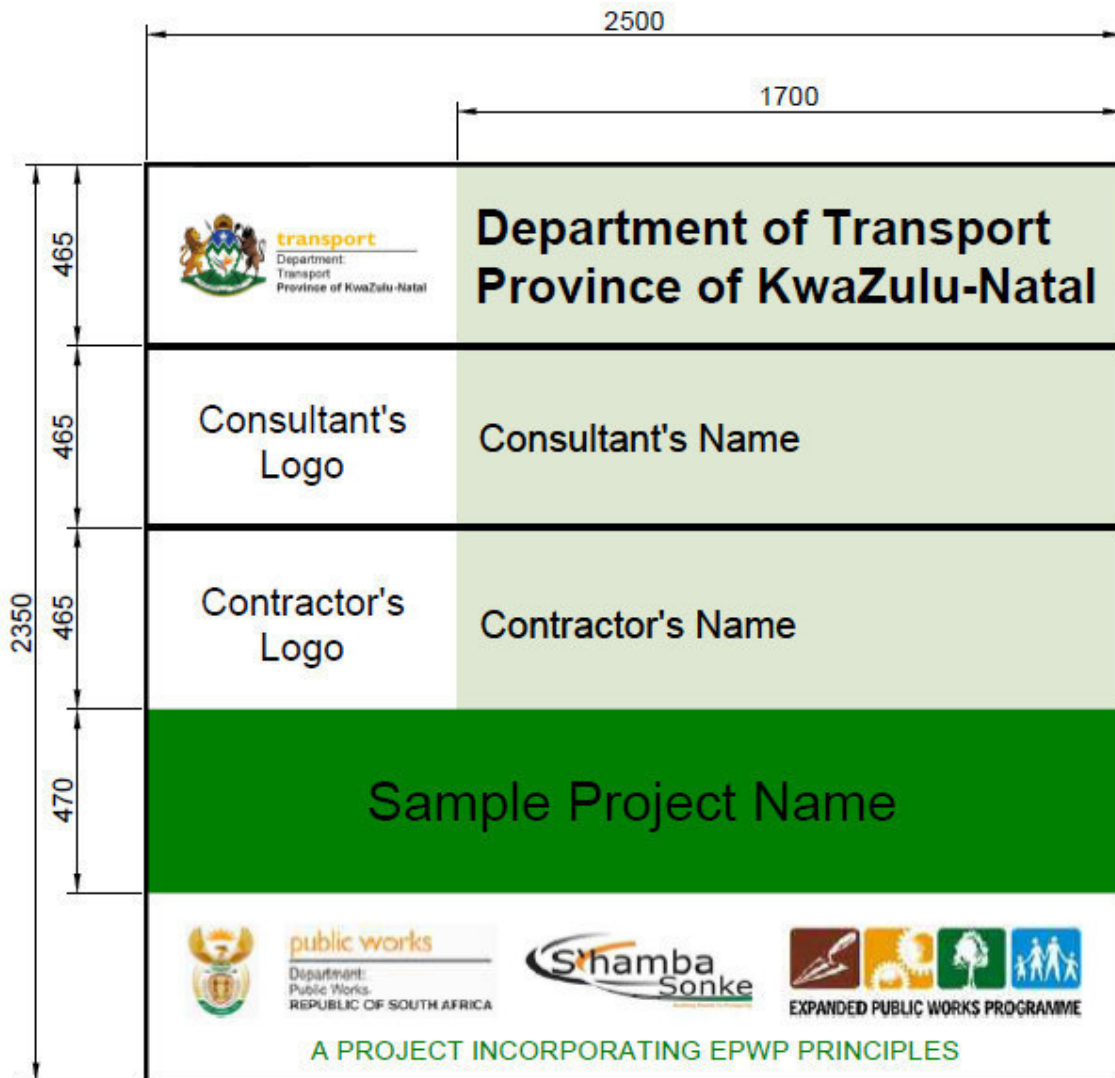
From Durban (Gateway) continue onto N2 North, pass Ballito, and take Exit 222 off-ramp Tinley Manor Beach, turn left and proceed straight until Main Road 104.



C4.2 EXAMPLE OF CONTRACT SIGNBOARD DETAILS

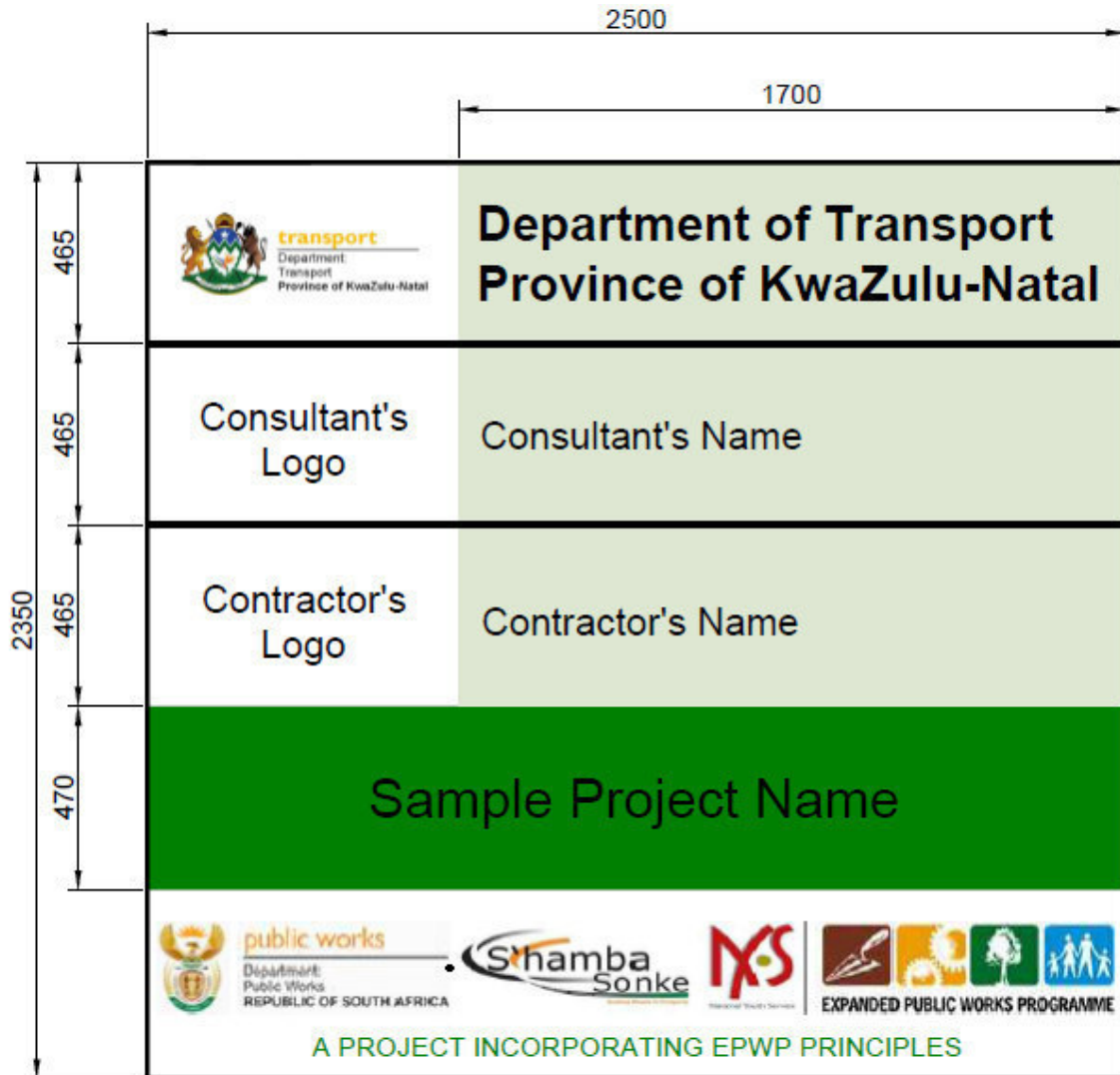
C4.2.1 CONTRACT SIGNBOARD FOR USE WHEN THE NYS PROGRAMME IS NOT REQUIRED:

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 existing services on the site include:

- i. Eskom (Overhead Powerlines)
- ii. Telkom (Overhead Telephone lines)
- iii. Umgeni Water (Water Pipelines)
- iv. eThekweni Municipality (Water Pipelines)

The following services are scheduled for relocation under this contract:

- i. Eskom (Overhead Powerlines) - probable
- ii. Umgeni Water (Water Pipelines) - probable
- iii. eThekweni Municipality (Water Pipelines) - possible

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 Engineer 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 Chapter 2 of the 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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C4.4.4 MATERIALS FOR CONSTRUCTION	C187

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 ROAD

STRUCTURAL WORKS

(a) Bridge

The project entails the completion of Umdloti River Bridge No. 3601, over the Umdloti River.

Bridge 3601 (km 2528.028) is a four span simply supported structure constructed with precast post-tensioned beams. Each span is 25m long and the angle of skew of the beams changes with the curved horizontal alignment (Radius = 170m) and a constant vertical alignment of 0.603% fall. The new bridge width is a total of 12.25m wide which includes a 1.2m sidewalk on both sides, the clear road width over the bridge is 8.5m. The foundation type of the abutments and piers are spread footings, founding into bedrock.

The southern abutment as well as pier foundations have been completed. The northern abutment has been excavated to rock level but no construction has started on this element. The southern abutment wing walls have been constructed to their final level. Approximately 4m of the southern abutment wall has been built. The completed walls on the southern abutment are of very poor quality and do not look to be of correct dimensions or layout. These elements must be demolished and reconstructed to the correct sizes. The foundations are adequate and can be left in place. The three pier walls are all complete to the same level, roughly 5m above the ground. The widened pier heads and seating are still to be constructed on all three piers. The pier foundations have been filled in with the southern foundation still exposed and the northern abutment excavation, water logged.

Further works to the foundations include new rock anchors to be constructed through the completed footings as per the geotechnical report. Details of the rock anchors are shown on the general arrangement and foundation drawings.

(b) Rehabilitation of structures

Where the existing bridge elements show signs of spalling, honeycombing, minor cracking, coating delamination and damage, repairs must be completed to the engineer's specification.

Main Road P713 crosses The Mdloti River at km 2.300 where a new two lane reinforced concrete bridge with sidewalks will be constructed. The approach roads on each side of the bridge will be constructed on a new alignment for approximately 200m each side and will be tied into the existing road.

C4.4.3 BORROW PIT INVESTIGATION

There are no legally registered borrow pits in the vicinity of the bridge site. Therefore, no tests where conducted.

C4.4.4 MATERIAL FOR CONSTRUCTION

Fill material

The earthworks fill (Overburden) material required for the construction of fills on either side of the bridge abutments shall be obtained from commercial sources. The nearest commercial source is the Flanders quarry or Afrimat Quarry at Verulam.

C4.4.4.2 Lower and Upper Selected Layers and Subbase Layers

The G8, G7 and G6 material required for the construction of the layerworks shall be obtained from commercial sources. The nearest commercial source is the Afrimat Quarry at Verulam.

C4.4.4.3 Crushed Stone Base

The G4A crushed stone material required for the construction of the BSM1 base shall be obtained from commercial sources. The nearest commercial source is the Afrimat Quarry at Verulam.

Results of tests done by site laboratories on material supplied from these sources is attached.

Concrete and Surface Seal Aggregate, Gabion Stone and Stone for Erosion Protection Works

Crushed stone shall be obtained from commercial sources.

The nearest commercial source is the Afrimat Quarry at Verulam.

Results of tests done by site laboratories on material supplied from these sources is attached.

C4.4.4.5 Natural Sand

No specific source of sand has been was identified.

The Contractor will have to make his own arrangements for the procurement of suitable sand for concrete, drainage and other construction purposes from commercial sources.

C4.4.4.6 Water

No specific source of water for construction purposes is identified.

The Contractor will have to make his own arrangements in this regard. Water may be available from local rivers and streams but the Contractor will have to make suitable arrangements for access as required as well as for the necessary testing to prove its suitability.

**ANNEXURE A: GUIDELINES FOR CONSTRUCTION
AND MAINTENANCE PROJECTS DURING COVID-19 LOCKDOWN**



transport

Department:

Transport

Province of KwaZulu-Natal

PROJECT SITE OCCUPATIONAL HEALTH AND SAFETY

GUIDELINES FOR CONSTRUCTION AND MAINTENANCE PROJECTS DURING COVID-19 LOCKDOWN

Revision 1/1 July 2020

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1 INTRODUCTION

Coronavirus Disease 2019 (COVID-19) is a respiratory disease caused by the SARS-CoV-2 virus. In order to reduce the impact of COVID-19 on businesses, workers, customers and the public, the KwaZulu-Natal Department of Transport (KZNDOT), within the parameters of the COVID-19 regulatory framework, want to ensure that all those businesses, workers, customers and public it's interacting with are in compliance to the requirements as stipulated to ensure a safe work-environment for all.

On 23 April 2020, President Cyril Ramaphosa addressed the nation and announced that the country would resume economic activity in a phased approach from 1 May 2020. The lockdown levels depicted by Figure 1 below, will be lifted in phases, level 5 the highest and level 1 being the lowest as depicted below:

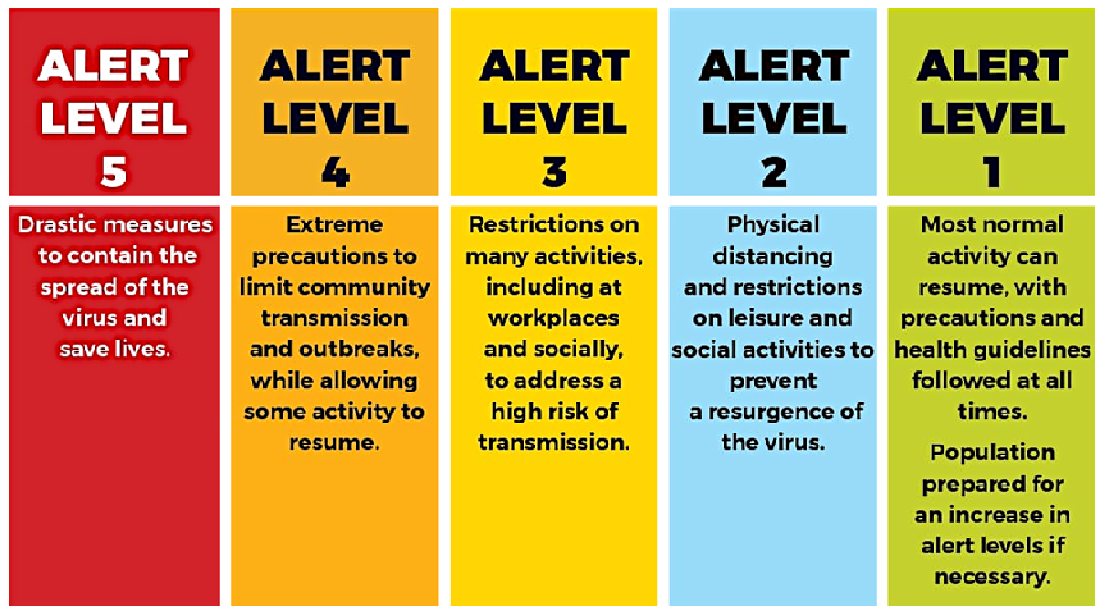


Figure 1: COVID-19 Alert Levels

1.1 BACKGROUND

Occupational Health and Safety are a fundamental segment of the construction industry. Safety must be embedded in all processes, implementing a top down approach, enabling the adoption of a safe and healthy working culture by all. Individual businesses or workplaces must have COVID-19 risk assessments and prevention and mitigation plans in place, and must conduct worker education on COVID-19 and protection measures:

- Identification and protection of vulnerable employees
- Safe transport of employees
- Screening of employees on entering the workplace
- Prevention of viral spread in the workplace
- Hand sanitisers and face masks
- Cleaning of surfaces and shared equipment
- Good ventilation
- Shift arrangements and canteen controls
- Managing sick employees

In addition to the above, monitoring systems must be in place to ensure compliance with safety protocols and to identify infections among employees.

1.2 PURPOSE

This document sets out the key principles and minimum requirements of the KZNDOT that define responsible, healthy and safe operations for road construction related operations working under COVID-19 Lockdown. The present state of the lockdown is geared toward the revival of economic activities and to allow employees involved in permitted services to resume work under certain conditions. This COVID-19 guidance has been developed on the basis of traditional infection prevention and occupational hygiene practices.

1.3 OBJECTIVES

The aims of this document are to:

- Keep workers and the wider public healthy and safe by preventing the spread of COVID-19.
- Apply relevant guidance from the Department of Health, Department of Employment and Labour and other Government Authorities to the construction environment.
- Encourage a safe and respectful work environment and good communication between all stakeholders.
- Sit alongside existing health and safety controls to ensure workers are safe on site.

Contractors and their employees should use this guidance to help identify risk levels on construction sites and to identify any appropriate control measures to be implemented. Additional guidance may be needed as the conditions of the COVID-19 outbreak change and as new information about the virus, its transmission and impact become available. It focuses on, as well as considerations for, the need for contractors to implement engineering, administrative and work practice controls and personal protective equipment (PPE).

2 RISK ASSESSMENT

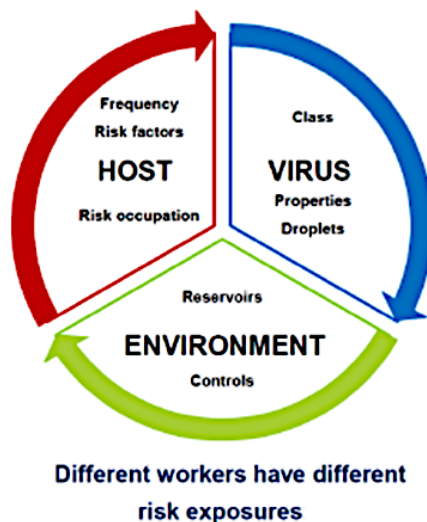


Figure 2: Risk Exposures

The legislation governing workplaces in relation to COVID –19 is the Occupational Health and Safety Act, Act 85 of 1993, as amended, and with the Hazardous Biological Agents Regulations and the Construction Regulation 2014. Section 8(1) of the Occupational Health and Safety Act, Act 85 of 1993, as amended, requires the employer to provide and maintain a working environment that is, to the extent possible reasonably practicable, as amended. Specifically, Section 8(2)(b) requires steps that may be reasonably practicable to eliminate or mitigate any hazard or potential hazard prior to the use of personal protective equipment (PPE).

2.1 BACK TO BASICS

Risk Assessment should be done to determine the **RISK** of **EXPOSURE** and to communicate this to the **WORKERS**.

2.2 IMPLEMENTATION OF CONTROL MEASURES

Before the implementation of control measures, current risk assessments need to be reviewed and updated, taking into account the new hazards posed by exposure to COVID-19 in the workplace. This is in accordance with Section 8 (2) (d) of the OHS Act.

With COVID-19, it may not be possible to eliminate the hazard, the most effective protection measures are engineering controls, administrative controls, safe work practices (a type of administrative control), and Personal Protection Equipment.

Measures for protecting workers from exposure to, and infection with, SARS-CoV-2, the virus that causes Coronavirus Disease 2019 (COVID-19), depend on the type of work being performed and exposure risk, including potential for interaction with people with suspected or confirmed COVID-19 and contamination of the work environment.

Contractors should adapt infection control strategies based on a thorough hazard assessment, using appropriate combinations of engineering and administrative controls, safe work practices, and personal protective equipment (PPE) to prevent worker exposures.

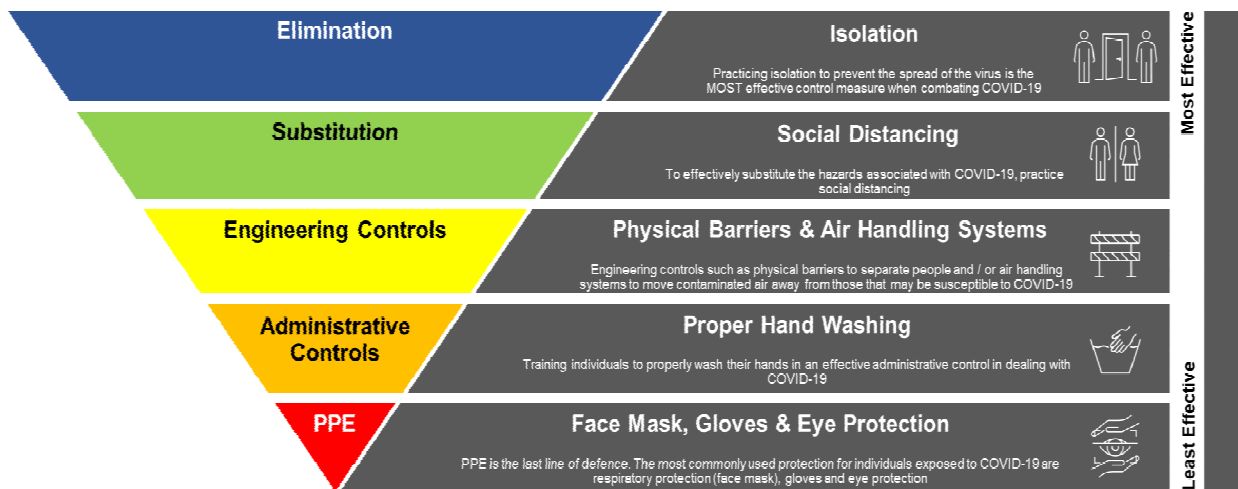


Figure 3: Infection Control Strategies

In preventing occupational exposure to COVID-19 also require Contractors to train workers on elements of infection prevention, including PPE. This would assist Contractors to identify:

- Exposure Levels
- “High Contact” Activities, and
- Vulnerable Workers and Special Measures

Contractors are expected to undertake and champion the principles of constantly focussing on eliminating or reducing the risk of COVID-19 transmission to an acceptable level, engaging meaningfully with their workforce, and making worker health a key priority. A Baseline Risk Assessment is included under Appendix D: COVID-19 Baseline Risk Assessment.

3 SITE OPERATING PROCEDURES

KZNDOT Construction sites operating during the Covid-19 pandemic need to ensure that they protect their workforce and minimise the risk of infection spread. In line with government guidelines on social distancing, this guideline is intended to implement effective steps at all KZNDOT construction sites of any size. These are extraordinary situations, and the KZNDOT intends to abide to the latest COVID-19 advice from national government.

3.1 SELF-ISOLATION

Anyone who meets one of the following criteria should not come to site:

- Has a high temperature or a new persistent cough;
- Is a vulnerable person (by virtue of their age, underlying health condition, clinical condition or pregnancy); or
- Is living with someone in self-isolation or with a vulnerable person.

3.2 IF SOMEONE FALLS ILL

If a worker develops a high temperature or a persistent cough while at work, they should:

- Return home immediately;
- Avoid touching anything; and
- Cough or sneeze into a tissue and put it in a bin, or if they do not have tissues, cough and sneeze into the crook or into the bent elbow.

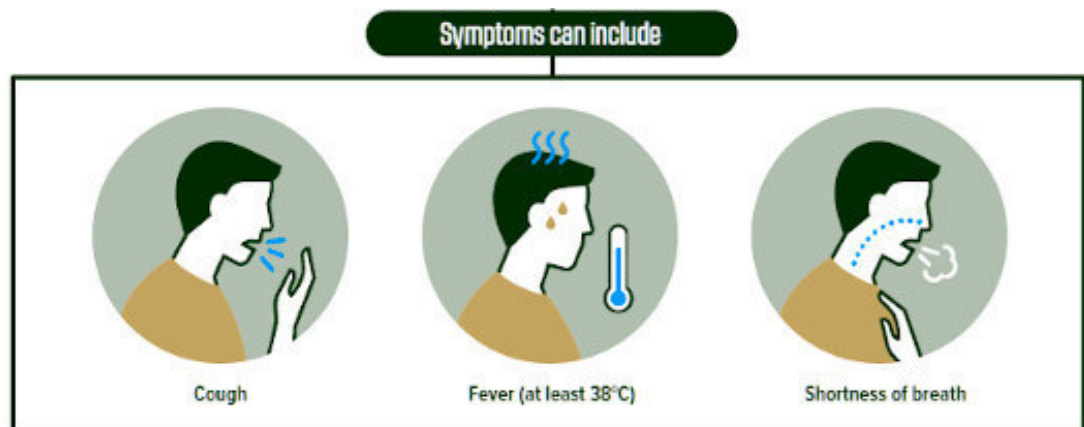


Figure 4: Symptoms of COVID-19

They must self-isolate and not return to work until their period of self-isolation has been completed and his or her negative status has been confirmed.

3.3 TRAVEL TO SITE

Wherever possible workers should travel to site alone using their own transport, and construction sites need to consider:

- Parking arrangements for additional cars, taxis, buses, etc;
- Other means of transport to avoid public transport e.g. cycling;
- They must ensure disinfecting the alternative transport before and after use; and Public Transport Regulations in respect of COVID-19 are adhered to;

- Providing hand cleaning facilities at entrances and exits. This should be soap, water and paper towels (and not fabric towels) wherever possible or hand sanitiser if water is not available; and
- How someone detected vulnerable after screening, taken ill and would get transported home.

3.4 SITE ACCESS POINTS

- Stop all non-essential visitors
- People, be it workers or visitors, without relevant face masks should not be allowed to enter construction sites; and workers should wear face masks at all times.
- Introduce staggered start and finish times to reduce congestion and contact at all times
- Monitor site access points to enable social distancing – you may need to change the number of access points, either increase to reduce congestion or decrease to enable monitoring
- Remove or disable entry systems that require skin contact e.g. fingerprint scanners
- Require all workers to wash or clean their hands before entering or leaving the site or as frequent as possible
- Allow plenty of space (two metres) between people waiting to enter site
- Regularly clean common contact surfaces in Site Office, Access Control and delivery areas e.g. scanners, turnstiles, screens, telephone handsets, desks, particularly during peak flow times
- Reduce the number of people in attendance at site inductions and consider holding them outdoors wherever possible
- Drivers should remain in their vehicles if the load will allow it and must wash or clean their hands before unloading goods and materials.

3.5 HAND WASHING

- Provide additional hand washing facilities to the usual welfare facilities on a large spread out site or significant numbers of personnel on site
- Ensure soap, fresh water and paper towels is always readily available and kept topped up
- Provide hand sanitiser where hand washing facilities are unavailable
- Regularly clean the hand washing facilities and check soap and sanitiser levels
- Provide suitable and enough rubbish bins for hand paper towels with regular removal and disposal.
- Sites will need extra supplies of soap, hand sanitiser and paper towels and these should be securely stored.

3.6 TOILET FACILITIES

- Restrict the number of people using toilet facilities at any one time e.g. use a welfare attendant
- Wash hands before and after using the facilities
- Enhance the cleaning regimes for toilet facilities particularly door handles, locks and the toilet flush handles or buttons
- Portable toilets should be avoided wherever possible, but where in use these should be cleaned and emptied more frequently
- Provide suitable and sufficient rubbish bins for hand towels with regular removal and disposal.

3.7 CANTEENS AND EATING ARRANGEMENTS

Whilst there is a requirement for construction sites to provide a means of heating food and making hot drinks, these are exceptional circumstances and where it is not possible to introduce a means of keeping equipment clean between use, kettles, microwaves etc. must be removed from use.

The workforce should also be required to stay on site once they have entered it and not use local shops.

- Dedicated eating areas should be identified on site to reduce food waste and contamination
- Break times should always be staggered to reduce congestion and contact
- Hand cleaning facilities or hand sanitiser should be available at the entrance of any room where people eat and should be used by workers when entering and leaving the area
- The workforce should be asked to bring pre-prepared meals and refillable drinking bottles from home
- Workers should sit 2 metres apart from each other whilst eating and avoid all contact
- Where catering is provided on site, it should provide pre-prepared and wrapped food only
- Crockery, eating utensils, cups etc. should not be used
- Drinking water should be provided with enhanced cleaning measures of the tap mechanism introduced
- Tables should be cleaned between each use
- All rubbish should be put straight in the bin and not left for someone else to clear up
- All areas used for eating must be thoroughly cleaned at the end of each break and shift, including chairs, door handles, vending machines and payment devices.

3.8 CHANGING FACILITIES, SHOWERS AND DRYING ROOMS

- Always introduce staggered start and finish times to reduce congestion and contact
- Introduce enhanced cleaning of all facilities throughout the day and at the end of each day
- Consider increasing the number or size of facilities available on site if possible
- Based on the size of each facility, determine how many people can use it at any one time to maintain a distance of 1 ½ metres
- Provide suitable and enough rubbish bins in these areas with regular removal and disposal.

3.9 AVOIDING CLOSE WORKING

There will be situations where it is not possible or safe for workers to distance themselves from each other by 1.5 metres.

3.10 GENERAL PRINCIPLES

- Non-essential physical work that requires close contact between workers should not be carried out
- Work requiring skin to skin contact should not be carried out
- Plan all other work to minimise contact between workers
- Re-usable PPE should be thoroughly cleaned after use and not shared between workers
- Single use PPE should be disposed of so that it cannot be reused
- Stairs should be used in preference to lifts or hoists
- Where lifts or hoists must be used:
 - Always lower their capacity to reduce congestion and contact
 - Regularly clean touchpoints, doors, buttons etc.
- Increase ventilation in enclosed spaces
- Regularly clean the inside of vehicle cabs and between use by different operators.

3.11 SITE MEETINGS

- Only absolutely necessary meeting participants should attend
- Attendees should be two metres apart from each other
- Rooms should be well ventilated / windows opened to allow fresh air circulation
- Consider holding meetings in open areas where possible.

3.12 SITE MEETINGS

Enhanced cleaning procedures should be in place across the site, particularly in communal areas and at touch points including:

- Taps and washing facilities
- Toilet flush and seats
- Door handles and push plates
- Handrails on staircases and corridors
- Lift and hoist controls
- Machinery and equipment controls
- Food preparation and eating surfaces
- Telephone equipment
- Keyboards, photocopiers and other office equipment

Rubbish collection and storage points should be increased and emptied regularly throughout and at the end of each day.

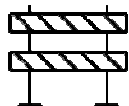
4 CONSTRUCTION PROTOCOLS

The core principle behind this “Construction Protocols” is to protect the health and safety of all workers required to perform duties during the COVID-19 crisis, including related health and safety impacts on operations related to operating under a COVID-19 environment, as well as protecting the wider KwaZulu-Natal population from transmission and spread of the virus.



Before
arriving on
Site

- Each Contractor must have a plan detailing the steps they will take to mitigate risks, including those presented by COVID-19. The details of the plan must be communicated to workers before they start work.
- Before any activity is recommenced the Contractor must ensure that all hazards have been reviewed and appropriately controlled before work activity is commenced after lockdown.
- Where possible, conduct a remote induction before arrival on site, this can be done via video conferencing or by phone.
- If an in-person induction is required, the **Physical Distancing and Hygiene Protocol** must be followed.
- All workers shall undergo a screening process to ensure they are fit for duty by confirming their health status.
- Contractors must understand how workers will travel to and from site and will communicate the **Site Transportation Protocol** to all.
- Ensure all workers understand when additional PPE may be required due to COVID-19 and that workers have access to the correct PPE as per the Department of Employment and Labour guidelines. When required to use face masks or gloves please follow these processes.



Site Entry

- Only relevant personnel to the workplace are to access the site.
- All office employees supporting a project will work remotely, where possible.
- A daily register of workers entering and leaving site must be completed along with a health declaration. Use your existing sign in register or the example Sign-in register.
- Signage reminding workers of the COVID-19 **Physical Distancing and Hygiene Protocol** will be posted at the site entrance and in common areas where appropriate.



Site Operations

- All work is to be undertaken in such a way as to reduce any possible contact between workers and to promote physical distancing wherever possible, as per the **Physical Distancing and Hygiene Protocol**.
- All visitors to the site, such as necessary delivery workers, will be restricted to one person wherever possible. These workers must follow the **Site Transportation Protocol**.
- All offices and jobsites must implement cleaning measures as per the **Cleaning Protocol**.
- All tools, equipment, plant and vehicles must be used in alignment with the **Cleaning Protocol**.
- Toolbox talks should be held with physical distancing in place as per the **Physical Distancing and Hygiene Protocol**.
- Additional sanitary measures are to be implemented on site to prevent the spread of COVID-19 e.g. hand washing stations, provision of additional hand sanitizer, provision of disinfectant wiping products, as per the **Physical Distancing and Hygiene Protocol**.
- Smokers must follow the **Physical Distancing and Hygiene Protocol**.
- A COVID-19 Response plan must be available and accessible on site.



Leaving Site

- Workers must use the sign-in register to sign out.
- When returning home, workers will need to follow the necessary hygiene measures.
- Each site must be cleaned and sanitised at the end of the working day or end of each shift, as per the **Cleaning Protocol**.
- All waste and disposable PPE must be removed from site and securely disposed of as per the **Cleaning Protocol**.
- Workers must follow the **Site Transportation Protocol**.

4.1 PHYSICAL DISTANCING AND HYGIENE PROTOCOL

Physical distancing, also known as “social distancing”, is about keeping a safe distance from others. For physical distancing, at least one and ½ metre’s separation is required at work, and two metres in uncontrolled environments, like in public. This aligns with World Health Organisation advice. We expect one and ½ metre’s separation between people at work as the minimum and greater separation where it is reasonably practicable to do so. This is important to help protect us from COVID-19, which spreads via droplets from coughing and sneezing.

General Working Arrangements

- Keep team sizes as small as possible.
- Keep a record of who is in each team every day as it is required to assist contact tracing.
- Site teams are encouraged to put forward split/alternating shifts to avoid extensive intermingling to reduce potential of exposure.
- Work site is always to be segregated into zones (or by other methods) as much as possible to keep different teams/trades physically separated.
- Where possible, a one-way system in high-traffic areas, such as lifts, stairwells and scaffolds (Where Applicable).
- Where practical, all office employees supporting a project, work remotely.
- When using a vehicle, the **Cleaning Protocol** needs to be followed.
- When using a vehicle, limit this to one/two person per vehicle if possible.













External Interfaces	<ul style="list-style-type: none">• One member of the crew nominated to receive supplies etc.• Keep the engagement with the other person as brief as possible and maintain a two-metre physical distance.• Ask for paperwork to be emailed rather than handed over as much as possible.• If unavoidable, then either wear gloves when handling the item or wash hands before and after handling said items.
Site Entry	<ul style="list-style-type: none">• Limit visitors to site wherever possible.• Introduce staggered start and finish times where possible to reduce congestion and contact.• Monitor site access points to enable physical distancing – you may need to change the number of access points, increase to reduce congestion or decrease to enable monitoring.• Where entry systems that require skin contact, the Cleaning Guide must be followed.• Require all workers to wash or clean their hands before entering and leaving the site.• Allow plenty of space 1½ metres between people waiting to enter site.• Regularly clean common contact surfaces in reception, office, access control and delivery areas e.g. scanners, turnstiles, screens, telephone handsets, desks, particularly during peak flow times.• Where possible, conduct a remote induction before arrival on site,• this can be done via video conferencing or by phone. If an in-person induction is required, reduce the number of people and hold them outdoors wherever possible.• Delivery drivers should remain in their vehicles if the load will allow it and must wash or clean their hands before unloading goods and materials.• Any sign in registers should be recorded by one person where possible – do not pass material around the group and minimise contact with any screens.
Site Meetings	<ul style="list-style-type: none">• Only absolutely necessary meeting participants should attend.• Attendees should be two metres apart from each other• Rooms should be well ventilated / windows opened to allow fresh air circulation.• Hold meetings in open areas where possible.• Meetings are to be held through teleconferencing or videoconferencing where possible.
Avoiding Close Working	<ul style="list-style-type: none">• Risk assessments and method statements must be updated to include COVID-19 control measures.• At least 1½ metre's separation is required at work. KZNDOT expect 1½ metre separation between people at work as the minimum and greater separation where it is reasonably practicable to do so.• If it is not possible or safe for workers to distance themselves by one metre for a work activity, the works should not be carried out.• Re-usable PPE should be thoroughly cleaned after use and not shared between workers.• Single use PPE should be disposed of so that it cannot be reused.• Stairs should be used in preference to lifts or hoists.• Where lifts or hoists must be used:• Lower their capacity to reduce congestion.• Regularly clean touchpoints, doors, buttons etc.• Increase ventilation in enclosed spaces

Toilet Facilities	<ul style="list-style-type: none">• Physical distancing rules apply to the use of shared facilities, including toilets.• Wash hands before and after using the facilities.• Enhance the cleaning regimes for toilet facilities particularly door handles, locks, toilet flush and sanitary bins.• Provide suitable and sufficient rubbish bins for hand towels with regular removal and disposal.
Eating Measures	<ul style="list-style-type: none">• If you need to leave site for any reason, follow site entry procedures on return.• Dedicated eating areas should be identified on site to reduce food waste and contamination.• Break times should be staggered to reduce congestion and contact at all times.• Hand cleaning facilities or hand sanitiser should be available at the entrance of any room where people eat and should be used by workers when entering and leaving the area.• The workforce should be asked to bring pre-prepared meals and refillable drinking bottles from home.• Workers should sit 2 metres apart from each other whilst eating and avoid all contact.• Where catering is provided on site, it should provide pre-prepared and wrapped food only.• Shared crockery, eating utensils, cups etc. should not be used.• Tables should be cleaned between each use.• All rubbish should be put straight in the bin and not left for someone else to clear up.• All areas used for eating must be thoroughly cleaned at the end of each break and shift, including chairs, door handles.• Limit access and use of water fountains.• Consider numbers on site for site facilities as physical distancing may require additional space/facilities.
Changing Facilities, Showers and Drying Rooms	<ul style="list-style-type: none">• Introduce staggered start and finish times to reduce congestion and contact at all times.• Introduce enhanced cleaning of all facilities throughout the day and at the end of each day.• Consider increasing the number or size of facilities available on site if possible.• Based on the size of each facility, determine how many people can use it at any one time to maintain a distance of one metre.• Provide suitable and sufficient rubbish bins in these areas with regular removal and disposal.
General Hygiene	<ul style="list-style-type: none">• Each worker must sanitise their hands with hand sanitiser or soap and running water before entry onto site, use warm water if available.• Set up a specific place near the entry of the site for handwashing and/ or sanitising.• Any personal items brought to site by workers must be segregated (kept separate from other workers items).• Individual PPE for workers must be kept separate from other workers PPE and cleaned correctly as per the Cleaning Protocol.• All eating and drinking utensils to be cleaned by the user. Have paper towels accessible to dry.
Smoking	<ul style="list-style-type: none">• Smokers/vapers must use designated area or do so off-site and butts are to be placed in the designated receptacle. Hands must be washed before and after smoking.• Stand so that smoke or vapor produced is not going into another person's breathing zone.

- | | |
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| Hand Washing | <ul style="list-style-type: none"> • Provide additional hand washing facilities to the usual welfare facilities on large, spread out sites or significant numbers of personnel on site. • Ensure soap and fresh water is readily available and kept topped up at all times. • Provide hand sanitiser where hand washing facilities are unavailable. • Regularly clean the hand washing facilities and check soap and sanitiser levels. • Sites will need extra supplies of soap, hand sanitiser and paper towels and these should be securely stored. |
|--------------|--|

4.2 SITE TRANSPORTATION PROTOCOL

Employers are required to have an understanding of how workers will travel to and from site.

Workers travel to site		Workers are to travel to the site one person per vehicle where possible.
		Log is to be kept recording who has arrived on site, how they travelled and who they travelled with for contact tracing purposes.
		Workers must travel home in the same vehicle as they arrived in.
		Handwashing protocols to be observed before entering site.
Any travel managed by the employer should ensure that adequate steps can be achieved for this transport which includes:		Allowing for spaces between passengers.
		Hygienic washing of hands before and after the journey.
		Follow Vehicle Cleaning Procedures as per the Cleaning Protocols.
		Restricting equipment and baggage to trailers and or separate parts of the vehicle.
Deliveries to site		Deliveries to site should be delivered by one person only where possible.
		Handwashing protocols to be observed once arrived at site.
		Sign-in register must be completed for persons delivering goods to site.
		1,5 m physical distancing rules to be applied at all times.

4.3 CLEANING PROTOCOL

Construction Sites operating under Coronavirus COVID-19 Lockdown need to ensure they are protecting their workforce and minimising the risk of spread of infection.

Key Cleaning Tips

All construction sites (offices and jobsites included) should implement additional cleaning measures of common areas to help minimise the spread of COVID-19. Consider your work environment and what is frequently used and touched by workers, customers and others. The virus can be spread from person to person or by touching unclean equipment or surfaces. To stop the spread, focus efforts on cleaning areas where the virus is more likely to spread, such as the kitchen and toilet.

- Schedule regular cleaning.
- Use a suitable cleaning product.
- Use disposable cloths, if available.
- Always wear disposable gloves when cleaning. When finished, place used gloves in a rubbish bin.
- Wear disposable gloves while handling soiled items.
- Wash hands immediately after removing gloves or after handling these items.

Physical distancing should also be practiced when cleaning offices and jobsites. Refer to the **Physical Distancing and Hygiene Protocol** for more information.

Disinfecting Cleaning Aids

Cleaning aids, such as cloths or mops, must be germ-free or they'll spread germs to other surfaces. To help prevent the spread of germs:

- Use disposable cloths or paper towels when possible.
- Reusable cloths should be disinfected or washed after each use.
- Wash brushes in a dishwasher regularly or clean with detergent and warm water after each use.
- Use two buckets for mopping - one for detergent and the other for rinsing.
- Mops and buckets should be cleaned and dried after each use.

Site Cleaning

Before leaving the jobsite at the end of the working day or end of each shift, wipe down any tables/surfaces with soapy water or cleaning agents where possible. All workers must be checked out of site and record kept daily.

Common touch points may include:

- All waste and disposable PPE must be securely disposed of.
- All door handles, railings and personal workstation areas are wiped down with a disinfectant, such as disinfectant wipes. Individuals are responsible for cleaning their workstation area with disinfectant wipes.
- Clean all 'high-touch' surfaces such as desks, counters, tabletops, doorknobs, bathroom fixtures, toilets, light switches, phones, and keyboards every day with antiseptic wipes or disinfectant, including bleach solutions.

Cleaning Bathrooms, Toilets and Showers	<p>Clean toilets with a separate set of cleaning equipment (disposable cleaning cloths, mops, etc).</p> <p>Clean sinks frequently if they're used regularly. If your jobsite has a shower:</p> <ul style="list-style-type: none">• Clean shower trays frequently, if used regularly.• If a shower has not been used for a while, let it run with hot water before using it.• Keep tiles and grout in good condition.• Clean shower curtains frequently. Common toilet touch points may include:• Keep the U-bend and toilet bowl clean by flushing after each use.• Limescale should be regularly removed using a descaling product.• Keep the toilet seat, handle and rim clean by using a disinfectant.
Cleaning Tools and Equipment	<ul style="list-style-type: none">• Clean tools and equipment before and after each day's work with a disinfectant, concentrating on points of contact such as handles.• Wash your hands after handling tools and equipment to prevent the spread of germs.• If possible, don't share tools on-site. If sharing cannot be prevented, take precautions and follow the hand washing guide before and after each use.
Cleaning Vehicles	<ul style="list-style-type: none">• Have dedicated drivers when using vehicles to avoid the spread of germs.• Don't share vehicles if possible, if you need to use a shared vehicle then wipe down the common touched areas of the vehicle after each use (steering wheel, handbrake, gear stick, dashboard, handles, etc) and wash hands before and after using the vehicle.• Wipe down the inside and common touched areas of the vehicle before and after each day.• Have one person per vehicle where possible. If you are required to have more than one person then keep as much distance between people as possible, open the windows to keep air circulating and passengers to face towards the window to reduce the spread of germs.• If you need to have multiple people in a vehicle, then where possible, split teams into groups and stay in those groups when you travel together.
Cleaning PPE	<ul style="list-style-type: none">• Work clothes to be placed in washing machines and clean reusable PPE.• Read and follow directions on the labels of laundry or clothing and detergent. In general, wash and dry laundry and clothing with the warmest temperatures recommended on the label.• When handling soiled laundry wash your hands afterwards. All clothes and towels should be washed with a laundry product to prevent germs from spreading.• Don't leave laundry in the washing machine – any remaining germs can multiply rapidly.
Specialist Clean	<ul style="list-style-type: none">• If a worker is unwell and removed from site, a specialist clean will be completed in the area/ areas identified where the worker was working and has accessed. These areas are to be isolated until a specialist clean has taken place.• All equipment and vehicles used must be cleaned down and disinfected, concentrating on points of contact such as handles, steering wheels etc.

4.4 SCREENING AND MONITORING PROTOCOL

Construction Sites operating under Coronavirus COVID-19 Lockdown need to ensure they are protecting their workforce and minimising the risk of spread of infection. Screening is a method to assess the possibility of employees and visitors who may have symptoms or have been infected with COVID-19. Rigid screening of employees must take place every day before they enter the workplace. This will be the most effective way to control the spread of the virus within the workplace.

Employees should be screened for COVID-19 related symptoms and report such symptoms to a designated person and / or occupational health practitioner prior to entry into the workplace or work area in order for a decision to be made as to the staff member's continued attendance at work.

During Screening	<ul style="list-style-type: none">• At the start of a workday/shift and prior to ending the workday/shift, designated persons and / or occupational health practitioner must check with employees whether they have experienced sudden onset of any of the following symptoms: cough, shortness of breath or fever/chills (or $\geq 38^{\circ}\text{C}$ measured temperature if this is available at the worksite), in the past 24 hours as outlined in Daily Symptom Monitoring Tool.• If an employee reports any of the above-mentioned symptoms, they should immediately be provided with a FFP1 surgical mask and referred to the designated staff at the workplace so that arrangements can be made for COVID-19 testing at the closest testing centre.• If employee report any additional symptoms as outlined in the symptom monitoring sheet, s/he should be provided with a surgical mask and referred to the occupational health clinic, family practitioner or primary care clinic for further clinical evaluation and requirement for COVID-19 testing if indicated.• On receiving their results, the employee and/or health professional supporting the employee should notify their workplace so that the employee is managed accordingly. The workplace should proactively take steps to obtain this information to avoid any delays in reporting.
After isolation or quarantine period	<ul style="list-style-type: none">• Undergo medical evaluation to confirm that they are fit to work• Wearing of surgical masks at all times while at work for a period of 21 days from the initial test• Implement social distancing measures as appropriate (in the case of health workers avoiding contact with severely immunocompromised patients)• Adherence to hand hygiene, respiratory hygiene, and cough etiquette• Continued self-monitoring for symptoms, and seek medical re-evaluation if respiratory symptoms recur or worsen

"Appendix C: COVID-19 Daily Symptom Monitoring Tool" is a monitoring Tool to track construction workers on a daily basis for two weeks.

ACRONYMS

PPE	Personal Protective Equipment
WHO	World Health Organization
NICD	National Institute of Communicable Diseases
RR	Residual Risk
OHSA	Occupational Health and Safety Act, 1993 (Act No. 85 of 1993)

KEY TERMS & DEFINITIONS

Contractor	Is defined as a person or company that arranges to supply materials or workers for building or for moving goods.
Extremely Vulnerable Persons	Defined as someone who is solid organ transplant recipients; people with specific cancers: people with cancer who are undergoing active chemotherapy or radical radiotherapy for lung cancer; people with cancers of the blood or bone marrow such as leukaemia, lymphoma or myeloma who are at any stage of treatment; people having immunotherapy or other continuing antibody treatments for cancer; people having other targeted cancer treatments which can affect the immune system, such as protein kinase inhibitors or PARP inhibitors; people who have had bone marrow or stem cell transplants in the last 6 months, or who are still taking immunosuppressive drugs; People with severe respiratory conditions including all cystic fibrosis, severe asthma and severe COPD; People with rare diseases and inborn errors of metabolism that significantly increase the risk of infections (such as SCID, homozygous sickle cell); People on immunosuppression therapies sufficient to significantly increase risk of infection; Women who are pregnant with significant heart disease, congenital or acquired.)
Physical Distancing	Physical distancing, also known as “social distancing”, is about keeping a safe distance from others.
Safe Work Practices	Safe work practices are types of administrative controls that include procedures for safe and proper work used to reduce the duration, frequency, or intensity of exposure to a hazard.
Screening	Screening is a way for health workers to find out if you may have COVID-19 or not. The health worker will ask you questions and scan your forehead to take your temperature.
Workplace	Workplace means any premises or place where a person performs work.

APPENDIX A: SAFE PRACTICES ON SITE

Using Face Masks on Site



Wash Hands First

Always make sure you wash your hands thoroughly before and after touching a mask.



Masks

There are many kinds of masks, depending on the task.



The Right Side

There is a metal clip at the top of the mask.



Placement

Place the metal clip across the top of your nose.



Attach the Mask

Attach the mask by pulling the elastic bands over your ears.



Stretch Down

Stretch the mask down, so that it covers your chin.



Adjust

Bend the metal clip around your nose so that it sits securely.



Taking off the Mask

Pull the elastic bands away from your ears.



Disposal

Always place the used mask in a closed rubbish bin for secure disposal.

Using Face Masks on Site



Any time you are completing a manual task

Use your usual work safety gloves



If you are cleaning any surfaces

Use disposable gloves for this and throw them in the bin when you finish cleaning



Avoid touching your face while wearing gloves



Remove your gloves and then wash your hands prior to eating, drinking or smoking/vaping



Practice good hand hygiene and good cough and sneeze etiquette while wearing gloves

APPENDIX B: SUSPECTED OR CONFIRMED CASE OF COVID-19

If the suspected or confirmed case of COVID-19 is at work



Isolate

Isolate the person from others and provide a disposable surgical mask, if available, for the person to wear.



Inform

Call (Insert No). Follow the advice of health officials.



Transport

Ensure the person has transport to their home or to a medical facility



Clean

Clean the area where the person was working and all places they have been. This may mean evacuating those areas. Use PPE when cleaning. Identify who at the workplace had close contact with the infected person in the 24 hours before that infected person started showing symptoms. Send those people home to isolate. Allow employees to raise concerns.



Identify



Clean

Clean the area where the person was working and all places they have been. This may mean evacuating those areas. Use PPE when cleaning. Review risk management controls relating to COVID-19 and review whether work may need to change. Keep employees up to date on what is happening.



Review

If the suspected or confirmed case of COVID-19 is not at work when diagnosed



Inform

Call (Insert No). Follow the advice of health officials.



Identify

Identify who at the workplace had close contact with the infected person in the 24 hours before that infected person started showing symptoms. Send those people home to isolate. Allow employees to raise concerns.



Clean

Clean the area where the person was working and all places they have been. This may mean evacuating those areas. Use PPE when cleaning.



Review

Review risk management controls relating to COVID-19 and review whether work may need to change. Keep employees up to date on what is happening.

APPENDIX C: COVID-19 DAILY SYMPTOM MONITORING TOOL



COVID-19 DAILY SYMPTOM MONITORING TOOL

Details of Worker		Details of Person completing this form		Date completing form
Identifier	Date of contact	DD/MM/YYYY	Name	DD/MM/YYYY
Surname	Name	Place last contact	Role	
Date of birth	Age (Y)	Sex	Facility name	
Healthcare worker	If yes, facility name		Telephone number	
Contact number(s)	Email			
Physical address				
House number	Street			
District	Province			
Details of confirmed COVID-19 case (Complete only if Applicable)				
Contact type ¹	Relationship	Name	Surname	Date of Birth
				DD/MM/YYYY

Instructions for completion: Mark "Y" if symptom present and "N" if not. If any symptoms are present collect, contact (Insert No) immediately and make immediate arrangements for the collection of a combined nasopharyngeal and oropharyngeal swab. Refer to COVID-19 Quick Guide on the NICD website for additional details. Days post exposure to case.

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Date (DD/MM)														
Measured body temp	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
Chills	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
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Sore throat	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
Shortness of breath	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
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Diarrhoea ³	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N

¹ Close contact: A person having had face-to-face contact (≤2 metres) or was in a closed environment with a COVID-19 case; this includes, amongst others, all persons living in the same household as a COVID-19 case and, people working closely in the same environment as a case. A healthcare worker or other person providing direct care for a COVID-19 case, while not wearing recommended personal protective equipment or PPE (e.g., gowns, gloves, NIOSH-certified disposable N95 respirator, eye protection). A contact in an aircraft sitting within two seats (in any direction) of the COVID-19 case, travel companions or persons providing care, and crew members serving in the section of the aircraft where the index case was seated. Casual contact: Anyone not meeting the definition for a close contact but with possible exposure. ² Close from: Spouse, Aunt, Child, Class mate, Colleague, Cousin, Father, Friend, Grandfather, Grandmother, Healthcare worker taking care of, Mother, Nephew, Niece, Other relative, Uncle. ³ Diarrhoea defined as three or more loose stools in a 24-hour period.

APPENDIX D: COVID-19 BASELINE RISK ASSESSMENT

Hazard	L	S	Risk	Control Measures	Likelihood				
					Very Unlikely	Unlikely	Possible	Likely	Very Likely
					1	2	3	4	5
<p>Exposure from others due to:</p> <ol style="list-style-type: none"> Living with someone with a confirmed case of COVID-19. Have come into close contact (within 2 metres for 15 minutes or more) with a confirmed case of COVID-19. Being advised by a public health authority that contact with a diagnosed case has occurred. 					<p>Severity</p> <p>Negligible</p> <p>Minor</p> <p>Moderate</p> <p>Major</p> <p>Extreme</p>				
					1				
					2				
					3				
					4				
5									
					L	S	RR	Persons at Risk	
								Individual Workers	

Hazard	L	S	Risk	Control Measures	Likelihood					
					Very Unlikely	Unlikely	Possible	Likely	Very Likely	
					1	2	3	4	5	
Suspected case whilst working on site				<p>If a worker develops a high temperature or a persistent cough while at work, they should:</p> <ol style="list-style-type: none"> 1. Return home immediately 2. Avoid touching anything 3. Cough or sneeze into a tissue and put it in a bin, or if they do not have tissues, cough and sneeze into the crook of their elbow. 4. They must then follow the guidance on self-isolation and not return to work until their period of self-isolation has been completed. 						
General travel including foreign travel				<ol style="list-style-type: none"> 1. Do not travel unless you cannot work from home or deemed a key worker – implement teleconferencing for meetings 2. Where an individual has recently visited these countries, they should self / home isolate themselves until further notice from the government (lockdown measures continue to apply) 3. Please continue to follow any further national government advice provided 4. Where an occupational health (OH) service provider has been appointed, please seek additional advice or concerns through this service 5. All persons to limit their use of public transport. Where travel is essential, please use private single occupancy where possible 						Individual workers
Access / egress to site				<p>Where possible, please consider and implement the following practices:</p> <ol style="list-style-type: none"> 1. Stop all non-essential visitors 2. Introduce staggered start and finish times to reduce congestion and contact at all times 3. Monitor site access points to enable social distancing – you may need to change the number of access points, either increase to reduce congestion or decrease to enable monitoring 4. Remove or disable entry systems that require skin contact e.g. fingerprint scanners 5. Require all workers to wash or clean their hands before entering or leaving the site 						Individual workers

Hazard	L	S	Risk	Control Measures	Likelihood																																								
					Very Unlikely	Unlikely	Possible	Likely	Very Likely																																				
					1	2	3	4	5																																				
					<table border="1"> <thead> <tr> <th>Severity</th> <th>Negligible</th> <th>Minor</th> <th>Moderate</th> <th>Major</th> <th>Extreme</th> </tr> </thead> <tbody> <tr> <td></td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td></td> <td>2</td> <td>4</td> <td>6</td> <td>8</td> <td>10</td> </tr> <tr> <td></td> <td>3</td> <td>6</td> <td>9</td> <td>12</td> <td>15</td> </tr> <tr> <td></td> <td>4</td> <td>8</td> <td>12</td> <td>16</td> <td>20</td> </tr> <tr> <td></td> <td>5</td> <td>10</td> <td>15</td> <td>20</td> <td>25</td> </tr> </tbody> </table>					Severity	Negligible	Minor	Moderate	Major	Extreme		1	2	3	4	5		2	4	6	8	10		3	6	9	12	15		4	8	12	16	20		5	10	15	20	25
Severity	Negligible	Minor	Moderate	Major	Extreme																																								
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					L	S	RR	Persons at Risk																																					
				<p>6. Allow plenty of space (two metres) between people waiting to enter site</p> <p>7. Regularly clean common contact surfaces in reception, office, access control and delivery areas e.g. scanners, turnstiles, screens, telephone handsets, desks, particularly during peak flow times</p> <p>8. Reduce the number of people in attendance at site inductions and consider holding them outdoors wherever possible</p> <p>9. Drivers should remain in their vehicles if the load will allow it and must wash or clean their hands before unloading goods and materials.</p>																																									
Incliment weather – cold temperature allows disease to survive				<p>1. All persons to dress appropriately for the weather</p> <p>2. Welfare facilities provided to shelter from the elements</p> <p>3. Maintain good hygiene measures at all times</p> <p>4. Appropriate respiratory protective equipment (RPE) masks to be considered as last resort however face fit test (FFT) must be completed to ensure mask effectiveness. It is advised to speak to your H&S competent person on these matters and supplies should be reserved for medical staff as it has been documented that supplies have been difficult to procure</p>					Individual workers																																				
Poor hygiene				<p>1. Wash your hands thoroughly and regularly. Use soap and water for at least 20 seconds. Use alcohol-based hand sanitiser if soap and water is not available and hand washing technique to be adopted as directed</p> <p>2. Avoid touching your face/eyes/nose/mouth with unwashed hands and cover your cough or sneeze with a tissue then throw it in the bin.</p> <p>3. Provide additional hand washing facilities to the usual welfare facilities if a large spread out site or significant numbers of personnel on site</p> <p>4. Regularly clean the hand washing facilities and check soap and sanitiser levels</p> <p>5. Provide suitable and sufficient rubbish bins for hand towels with regular removal and disposal.</p> <p>6. Sites will need extra supplies of soap, hand sanitiser and paper towels and these should be securely stored.</p>					Individual workers																																				

Hazard	L	S	Risk	Control Measures	Likelihood				
					Very Unlikely	Unlikely	Possible	Likely	Very Likely
					1	2	3	4	5
Use of Changing facilities, showers and drying rooms	L	S	Risk	Control Measures	Severity				
					Negligible	2	3	4	5
					Minor	4	6	8	10
					Moderate	6	9	12	15
					Major	8	12	16	20
Extreme	10	15	20	25					
	L	S	RR	Persons at Risk					
				Individual workers					