



SOUTH AFRICAN NATIONAL PARKS

CONSTRUCTION OF 6 STAFF HOUSES AT RHODESDRIFT STAFF VILLAGE IN MAPUNGUBWE NATIONAL PARK AND WORLD HERITAGE SITE

CONTRACT NO: SP-MG-0093

TENDER DOCUMENT

November 2023

ISSUED BY:

Mr Garret Kobe

Manager: SCM – Infrastructure & Special Projects

SOUTH AFRICAN NATIONAL PARKS

P.O. BOX 787

PRETORIA

0001

NAME OF TENDERER:

Contractor

Witness for
Contractor

Employer

Witness for
Employer

The Tenderer is required to check the numbers of pages and should any be found to be missing or duplicated, or should any of the typing be distinct, or any doubt or obscurity arise as to the meaning of any description or particular of any item, or if the Tender Document contains any obvious errors, then the Tenderer must immediately inform the Quantity Surveying Service Provider and have them rectified or explained in writing as the case may be. No liability whatsoever will be admitted by reason of the Tenderer having failure to comply with the foregoing instructions.

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Contractor

Witness for
Contractor

Employer

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1: The Tender

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Part T1: Tendering procedures

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CONSTRUCTION OF 6 STAFF HOUSES AT RHODESDRIFT STAFF VILLAGE IN MAPUNGUBWE NATIONAL PARK AND WORLD HERITAGE SITE

CONTRACT NO: SP-MG-0093

T1.1: Tender Notice and Invitation to Tender (SBD1)

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF SOUTH AFRICAN NATIONAL PARKS					
BID NUMBER:	SP-MG-0093	CLOSING DATE:	24 November 2023	CLOSING TIME:	11:00
DESCRIPTION	CONSTRUCTION OF 6 STAFF HOUSES AT RHODESDRIFT STAFF VILLAGE IN MAPUNGUBWE NATIONAL PARK AND WORLD HERITAGE SITE				
BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT					
<p>Location of tender box: Main Entrance Gate, SANParks Groenkloof</p> <p>Physical address: 643 Leyds Street, Muckleneuk, Pretoria, 0002 (Tender Box is open 24 hours and 7 days a week.)</p> <p>Identification details: Contract: SP-MG-0093 - CONSTRUCTION OF 6 STAFF HOUSES AT RHODESDRIFT STAFF VILLAGE IN MAPUNGUBWE NATIONAL PARK AND WORLD HERITAGE SITE</p>					
<p>South African National Parks invites tenders for the CONSTRUCTION OF 6 STAFF HOUSES AT RHODESDRIFT STAFF VILLAGE IN MAPUNGUBWE NATIONAL PARK AND WORLD HERITAGE SITE.</p> <p>a) It is estimated that tenderers must have a CIDB contractor grading 4 GBPE or 5 GB or higher.</p> <p>b) Joint ventures are eligible to submit tenders provided that:</p> <ul style="list-style-type: none"> i) every member of the joint venture is registered with the CIDB ii) the lead partner has a contractor grading designation in the 5 GB class of the construction work <ul style="list-style-type: none"> • The combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered of 5 GB class of construction work or a value determined in accordance with the Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations. iii) submit a JV B-BBEE certificate issued by a SANS accredited service provider. <p>d) Only tenderers who comply with the following are eligible to submit tenders:</p> <ul style="list-style-type: none"> • Have the required and valid CIDB grading stated. • Achieved the minimum score for Functionality • Tenderer is not listed in the Register of Tender Defaulters and prohibited from doing business with the public sector. • The tenderer has not abused the Employer's supply chain management system • The tenderer has not failed to perform on any previous contract with the employer. <p>The physical address for collection of tender documents is:</p> <p>R572 (Musina Road)</p> <p>Mapungubwe Interpretive Centre</p> <p>Mapungubwe National Park</p> <p>Limpopo Province</p> <p>Tender documents will <u>ONLY</u> be available at the compulsory clarification meeting.</p> <p>A non-refundable tender deposit of R 300-00 payable in cash is required on collection of the tender documents. <u>There will be no EFT facilities available – Cash Only</u></p>					

 Contractor

 Witness for
Contractor

 Employer

 Witness for
Employer

Queries relating to the issue of these documents may be addressed to:

All Queries

Mr Garret Kobe

Tel No: (012) 426 5132 / 076 481 8604

Email: garret.kobe@sanparks.org

A compulsory clarification meeting with representatives of the Employer will take place at the **Mapungubwe Interpretive Centre** in the **Mapungubwe National Park** on **10 November 2023 starting at 11:00 hrs.** The Tenderer shall inspect and examine the Site and its surroundings and shall satisfy himself before submitting his tender as to the form and nature of the Site, the quantities and nature of the work and materials necessary for the completion of the Works and the means of access of the Site, the accommodation he may require and in general shall himself obtain all necessary information as to risk, contingencies and other circumstances which may influence or affect his tender. The tenderer must be represented at the site inspection by a person who is suitably qualified and experienced to comprehend the implications of the work involved. Attendance of the site inspection is compulsory, and a tender will be disqualified if the site inspection is not attended by a representative of the tenderer.

The closing time for receipt of tenders is 24 November 2023 @ 11:00 hrs. Telephonic, e-mail and late tenders will not be accepted.

Tenders may only be submitted on the tender documentation that is issued.

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

BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:		TECHNICAL ENQUIRIES MAY BE DIRECTED TO:	
CONTACT PERSON	Garret Kobe (SCM)	CONTACT PERSON	Sivuyile Mzileni
TELEPHONE NUMBER	012-426 5132 / 076 481 8604	TELEPHONE NUMBER	081 040 3798
FACSIMILE NUMBER	N/A	FACSIMILE NUMBER	N/A
E-MAIL ADDRESS	Garret.kobe@sanparks.org	E-MAIL ADDRESS	Sivuyile.mzileni@sanparks.org
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

Contractor

Witness for
Contractor

Employer

Witness for
Employer

ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS/SERVICES OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES ENCLOSE PROOF]	ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS/SERVICES OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES, ANSWER THE QUESTIONNAIRE BELOW]
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QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS

IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)? ☐ YES ☐ NO
 DOES THE ENTITY HAVE A BRANCH IN THE RSA? ☐ YES ☐ NO
 DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA? ☐ YES ☐ NO
 DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA? ☐ YES ☐ NO
 IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION? ☐ YES ☐ 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.

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:

PROTECTION OF PERSONAL INFORMATION ACT, 4 of 2013 (POPIA)

SANParks adheres to the Protection of Personal Information Act, 4 of 2013 (POPIA) requirements regarding personal information which came into effect 1 July 2021.

As SANParks, we are committed to protecting your privacy and ensuring that personal information collected is used properly, lawfully and transparently.

 Contractor

 Witness for Contractor

 Employer

 Witness for Employer

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T1.2 Tender Data

The conditions of tender are the Standard Conditions of Tender as contained in **Annex C of the CIDB Standard for Uniformity in Construction Procurement**. (see www.cidb.org.za) which are reproduced without amendment or alteration for the convenience of tenderers as an Annex to the Tender Data.)

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

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

Clause number	Tender Data
C 1.1	The Employer is the South African National Parks.
C 1.2	<p>The tender documents issued by the employer comprises:</p> <p>THE TENDER</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>THE CONTRACT</p> <p>Part C1: Agreements and Contract data C1.1 - Form of offer and acceptance C1.2 - Contract data C1.3 - Performance Bond</p> <p>Part C2: Pricing data C2.1 - Pricing assumptions C2.2 - Bill of Quantities</p> <p>Part C3: Scope of work C3 - Scope of work</p> <p>Part C4: Site information C4 - Site information</p> <p>Part C5 : Drawings C5 - Drawings, schedules and specifications</p>
C 1.4	Should it be necessary for a bidder to obtain clarity on any matter arising from or referred to in this tender document, please refer queries, in writing, to the contact person listed below. Under no

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Clause number	Tender Data
	<p>circumstances may any other employee within the SANParks be approached for any information. Any such action may result to disqualification of a response submitted in competition to the tender process. Enquiries should reference specific page and or paragraph numbers, where appropriate.</p> <p>All questions/enquiries must be forwarded in writing not later than 17 November 2023 at 12:00.</p> <p>Questions/enquiries received after 12:00 on 17 November 2023 will not be considered.</p> <p>Name: Garret Kobe</p> <p>Capacity: Manager SCM : Infrastructure and Special Projects</p> <p>Address: PO Box 787, PRETORIA, 0001</p> <p>Tel: 012 426 5132</p> <p>E-mail: Garret.kobe@sanparks.org</p> <p>The language for communications is English</p>
C 2.1	<p>Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor designation grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25 (7A) of the Construction Industry Development Regulations, for a 5 GB or higher class construction work, are eligible to have their tenders evaluated.</p> <p>The following tenderers who are registered with the CIDB, or are capable of being so registered prior to the evaluation of submission, are eligible to have their tenders evaluated:</p> <p>Joint Venture are eligible to submit tenders provided that:</p> <ol style="list-style-type: none"> every member of the joint venture is registered with the CIDB; the lead partner has a contractor grading designation in the 5 GB class of construction work; or not lower than one level below the required grading designation in the class of construction works under consideration and possess the required recognition status. the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a 5 GB class of construction work or a value determined in accordance with Regulation 25 (1B) of 25(7A) of the Construction Industry Development Regulations.
C 2.7	<p>The arrangements details for the compulsory clarification meeting are stated under Part T1.1: Tender Notice and Invitation to Tender.</p> <p>Tenderers must complete and sign the attendance register at the clarification meeting in the name of the tendering entity.</p>
C 2.12	No alternative tender offers will be considered
C 2.13.2	Electronic tender offers will not be accepted.
C 2.13.3	Parts of each tender offer communicated on paper shall be submitted as an original, plus 0 (nil) copies.
C 2.13.7	<p>The employer's details and address for delivery of tender offers and identification details that are to be shown on each tender offer package are:</p> <p>Location of tender box: Tender Box, Main Gate, SANParks Head Office, Groenkloof, Pretoria</p> <p>Physical address: 643 Leyds Street, Muckleneuk, Pretoria, 0002</p> <p>Identification details: CONTRACT NO: SP-MG-0093 - CONSTRUCTION OF 6 STAFF HOUSES AT RHODESDRIFT STAFF VILLAGE IN MAPUNGUBWE NATIONAL PARK AND WORLD HERITAGE SITE.</p>
C 2.15.1	The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender.
C 2.16	The tender offer validity period is 12 weeks.
C 2.19	Access shall be provided for inspections, tests and analysis as may be required by the Employer.

Contractor

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Clause number	Tender Data				
C 2.23	<p>The tenderer is required to submit with his tender:</p> <ol style="list-style-type: none"> 1) A valid Tax Status Compliance verification pin as issued by the South African Revenue Services; 2) Proof of active Contractor Registration issued by the Construction Industry Development Board - Compulsory 3) An original and valid B-BBEE Status Level verification Certificate issued by a SANAS accredited service provider or certified copy thereof or certified sworn affidavit (DTIC / CIPC issued certificate or sworn affidavit) 4) Proof of registration of Closed Corporation or Company or other legal entities applicable to tender - Certified copy 5) Letter of good standing from the Compensation Commissioner – Compulsory 6) Letter of intent for a Construction Guarantee – Compulsory 7) National Treasury Central Supplier Database (CSD) Registration Report - Compulsory 8) All other certificates as listed in the List of Returnable Documents. Copy of Joint Venture Agreement if applicable. 9) Form C1.1 – Form of Offer and Acceptance 10) Form T2.1 A - Certificate of Authority for Signature. 11) For Joint Ventures a JV Agreement shall be provided (if applicable) and a SANAS B-BBEE certificate in the name of the JV. 12) Form T2.1: B - Certificate of attendance at site inspection. 13) Form T2.1 F - Record of addenda to tender documents 				
C 3.4.1	<p>The time and location for opening of the tender offers are:</p> <table border="1"> <tr> <td>Date and Time:</td><td>24 November 2023 at 11:00</td></tr> <tr> <td>Place:</td><td>SANParks Head Office, Groenkloof, Pretoria 0002</td></tr> </table>	Date and Time:	24 November 2023 at 11:00	Place:	SANParks Head Office, Groenkloof, Pretoria 0002
Date and Time:	24 November 2023 at 11:00				
Place:	SANParks Head Office, Groenkloof, Pretoria 0002				
C 3.11	<p>Evaluation of tender offers</p> <p>The procedure for the evaluation of responsive tenders is Price and Preference.</p> <p>The following price and preference point system is applicable to this tender:</p> <p>The 80/20 system for requirements with a Rand not exceeding R 50 000 000 (all applicable taxes included)</p> <p>Points for this bid shall be awarded as follows:</p> <p>(a) Price; and</p> <p>(b) Specific Goals</p> <p>The maximum points for this bid are allocated as follows:</p> <table> <tr> <td>Price</td><td>80</td></tr> <tr> <td>Specific Goals: Preference Points</td><td>20</td></tr> </table> <p>Total Points for Price and Specific Goals must not exceed 100</p> <ul style="list-style-type: none"> The employer reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim regarding preferences, in any manner required by the employer. <p>Scoring financial offers: The 80/20 preference points system for acquisition of services, works or good</p> <p>The following formula will be used to calculate the points for price in respect of tenders with a Rand value below R 50,000,000 (all applicable taxes included) and a maximum of 80 points is allocated to price:</p> $P_s = 80 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right)$	Price	80	Specific Goals: Preference Points	20
Price	80				
Specific Goals: Preference Points	20				

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Clause number	Tender Data																											
	<p>Where</p> <p><i>Ps</i> = Points scored for comparative price of bid under consideration</p> <p><i>Pt</i> = Comparative price of bid under consideration</p> <p><i>Pmin</i> = Comparative price of lowest acceptable bid</p> <p>Scoring preferences</p> <p>Points will be awarded to a tender for attaining the B-BBEE Procurement Recognition status level in accordance with the table below: Specific Goals: Preference Points. A maximum of 20 points is allocated to preference.</p> <table><tr><th>The specific goals allocated points in terms of this tender</th><th>Number of points allocated (80/20 system)</th><th>Number of points claimed (80/20 system) (To be completed by the tenderer)</th></tr><tr><td>1) Enterprises with B-BBEE Procurement Recognition</td><td></td><td></td></tr><tr><td>Enterprises with B-BBEE Procurement Recognition Level 1</td><td>16</td><td></td></tr><tr><td>Enterprises with B-BBEE Procurement Recognition Level 2</td><td>12</td><td></td></tr><tr><td>Enterprises with B-BBEE Procurement Recognition Level 3</td><td>8</td><td></td></tr><tr><td>Enterprises with B-BBEE Procurement Recognition Level 4</td><td>4</td><td></td></tr><tr><td>2) Exempted Micro Enterprises</td><td></td><td></td></tr><tr><td>Exempted Micro Enterprises (annual turnover less than R10 million)</td><td>4</td><td></td></tr><tr><td>Total Points</td><td>20</td><td></td></tr></table> <p>NB: Bidders with B-BBEE Level 5-8 and is who are not EMEs can still tender but will not claim points for specific goals.</p>	The specific goals allocated points in terms of this tender	Number of points allocated (80/20 system)	Number of points claimed (80/20 system) (To be completed by the tenderer)	1) Enterprises with B-BBEE Procurement Recognition			Enterprises with B-BBEE Procurement Recognition Level 1	16		Enterprises with B-BBEE Procurement Recognition Level 2	12		Enterprises with B-BBEE Procurement Recognition Level 3	8		Enterprises with B-BBEE Procurement Recognition Level 4	4		2) Exempted Micro Enterprises			Exempted Micro Enterprises (annual turnover less than R10 million)	4		Total Points	20	
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Exempted Micro Enterprises (annual turnover less than R10 million)	4																											
Total Points	20																											
C 3.13	<p>Tender offers will only be accepted with the following additional requirements:</p> <p>a) the tenderer or any of its directors is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector;</p> <p>c) the tenderer has not:</p> <p>i) abused the employer's supply chain management system;</p> <p>or</p> <p>ii) failed to perform on any previous contract and has been given a written notice to this effect;</p> <p>e) has completed the Compulsory Enterprise Questionnaire, SBD1, 4, 6.1, and the there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process.</p> <p>f) Has submitted the documentation listed in C.2.23</p>																											
C 3.17	<p>The number of paper copies of the signed contract to be provided by the Employer is one.</p>																											

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Functionality Criteria

As part of the eligibility criteria, tenderers shall further be required to satisfy the following functionality (pre-qualification) criteria and be required to demonstrate their ability to undertake the work and to provide proof of experience, expertise, personnel, plant and equipment to undertake work of this nature.

Tenderers are required to score a minimum of 17 points out of a possible 24 points in order to be responsive: Tender Data, of the proposed functionality criteria and point system for evaluation.

The following pre-qualification / eligibility criteria apply:

- (a) General Building Construction Experience (Maximum 12 points)
- (b) Technical Expertise (Maximum 12 points)

a) General Building Construction, Renovation and or Alteration Experience (Maximum 12 Points)

Tenderers who fail to meet the minimum threshold shall be declared non-responsive and subsequently rejected.

Tenderers are required to demonstrate their ability to undertake the work and provide proof of experience in **General Building Projects (GB)**, specifically new building works. Tenderers are required to score a minimum of 7 points out of a possible 12 points in order to qualify for the tender.

Tenderers who fail to meet the minimum threshold shall be declared non-responsive and subsequently rejected. The onus rests with the tenderer to supply sufficient information to allow for the proper scoring, evaluation and award of points.

Where insufficient information is provided, zero points will be awarded for such particular criterion. The quality criteria and maximum score in respect of each of the criteria as follows:

Quality criteria	Sub-criteria	Maximum number of points
Contracts of value between R 1 million and R 4.5 million, inclusive of VAT	1 point per contract	4
Contracts of value exceeding R 4.5 million	2 points per contract	8
Maximum possible score for quality		12

Tenderer to submit list of past and current projects for functionality information – information must clearly state project information, contractor to submit “Letter of Intent” for current projects, and “Completion Certificates” for completed projects. Project details shall include telephone contact details of either the client or the engineer for the project.

b) Technical Expertise (Maximum 12 Points)

Points will be awarded for Technical Expertise applicable to the key personnel and individual construction staff members within the three categories listed below and who must be available for the execution and completion of the work.

Quality criteria	Sub-criteria	Maximum number of points
Contracts Manager who has a minimum of 6 years general building construction experience.	4 points	4
Site Agent who has a minimum of 5 years general building construction experience	4 points	4
Site Foreman who has a minimum of 4 years general building construction experience	4 points	4
Maximum possible score for quality		12

Curriculum Vitae's (CV's) of the Contracts Manager, Site Agent and Site Foreman that will be employed on this contract must be submitted with the tender document. The various individuals must be in the permanent or fixed term employ of the tenderer to be awarded points.

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Should the key personnel not be available at the time of appointment for any reasonable reason, the Contractor will submit to the Client and Engineer, his proposed change in key personnel which will have to be approved. The Client and Engineer may on their discretion reject personnel proposed by the Contractor at such time.

TENDERER TO SUBMIT LIST OF PAST AND CURRENT PROJECTS FOR FUNCTIONALITY INFORMATION – INFORMATION MUST CLEARLY STATE PROJECT INFORMATION, CONTRACTOR TO SUBMIT “**LETTER OF INTENT**” FOR CURRENT PROJECTS, AND “**COMPLETION CERTIFICATES**” FOR COMPLETED PROJECTS. PROJECT DETAILS SHALL INCLUDE TELEPHONE CONTACT DETAILS OF EITHER THE CLIENT OR THE ENGINEER FOR THE PROJECT.

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Annexure C

Standard Conditions of Tender

(As per Construction Industry Development Board, Government Gazette No 42622, 8 August 2019)

C.1 General

C.1.1 Actions

C.1.1.1 The employer and each tenderer submitting a tender offer shall comply with these conditions of tender. In their dealings with each other, they shall discharge their duties and obligations as set out in C.2 and C.3, timeously and with integrity, and behave equitably, honestly and transparently, comply with all legal obligations and not engage in anticompetitive practices.

C.1.1.2 The employer and the tenderer and all their agents and employees involved in the tender process shall avoid conflicts of interest and where a conflict of interest is perceived or known, declare any such conflict of interest, indicating the nature of such conflict. Tenderers shall declare any potential conflict of interest in their tender submissions. Employees, agents and advisors of the employer shall declare any conflict of interest to whoever is responsible for overseeing the procurement process at the start of any deliberations relating to the procurement process or as soon as they become aware of such conflict and abstain from any decisions where such conflict exists or recuse themselves from the procurement process, as appropriate.

Note: 1) A conflict of interest may arise due to a conflict of roles which might provide an incentive for improper acts in some circumstances. A conflict of interest can create an appearance of impropriety that can undermine confidence in the ability of that person to act properly in his or her position even if no improper acts result.

2) Conflicts of interest in respect of those engaged in the procurement process include direct, indirect or family interests in the tender or outcome of the procurement process and any personal bias, inclination, obligation, allegiance or loyalty which would in any way affect any decisions taken.

C.1.1.3 The employer shall not seek and a tenderer shall not submit a tender without having a firm intention and the capacity to proceed with the contract.

C.1.2 Tender Documents

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

C.1.3 Interpretation

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

C.1.3.2 These conditions of tender, the tender data and tender schedules which are required for tender evaluation purposes, shall form part of any contract arising from the invitation to tender.

C.1.3.3 For the purposes of these conditions of tender, the following definitions apply:

- a) conflict of interest means any situation in which:
 - i) someone in a position of trust has competing professional or personal interests which make it difficult to fulfil his or her duties impartially;
 - ii) an individual or tenderer is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or
 - iii) incompatibility or contradictory interests exist between an employee and the tenderer who employs that employee.
- b) comparative offer means the price after the factors of a non-firm price and all unconditional discounts it can be utilised to have been taken into consideration;
- c) corrupt practice means the offering, giving, receiving or soliciting of anything of value to influence the action of the employer or his staff or agents in the tender process;

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- d) fraudulent practice means the misrepresentation of the facts in order to influence the tender process or the award of a contract arising from a tender offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels;

C.1.4 Communication and employer's agent

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

C.1.5 Cancellation and Re-Invitation of Tenders

C.1.5.1 An employer may, prior to the award of the tender, cancel a tender if-

- a) due to changed circumstances, there is no longer a need for the engineering and construction works specified in the invitation;
- b) funds are no longer available to cover the total envisaged expenditure; or
- c) no acceptable tenders are received.
- d) there is a material irregularity in the tender process.

C.1.5.2 The decision to cancel a tender invitation must be published in the same manner in which the original tender invitation was advertised

C.1.5.3 An employer may only with the prior approval of the relevant treasury cancel a tender invitation for the second time.

C.1.6 Procurement procedures

C.1.6.1 General

Unless otherwise stated in the tender data, a contract will, subject to C.3.13, be concluded with the tenderer who in terms of C.3.11 is the highest ranked or the tenderer scoring the highest number of tender evaluation points, as relevant, based on the tender submissions that are received at the closing time for tenders.

C.1.6.2 Competitive negotiation procedure

C.1.6.2.1 Where the tender data require that the competitive negotiation procedure is to be followed, tenderers shall submit tender offers in response to the proposed contract in the first round of submissions. Notwithstanding the requirements of C.3.4, the employer shall announce only the names of the tenderers who make a submission. The requirements of C.8 relating to the material deviations or qualifications which affect the competitive position of tenderers shall not apply.

C.1.6.2.2 All responsive tenderers or at least a minimum of not less than three responsive tenderers that are highest ranked in terms of the evaluation criteria stated in the tender data shall be invited to enter into competitive negotiations based on the principle of equal treatment, keeping confidential the proposed solutions and associated information.

Notwithstanding the provisions of C.2.17, the employer may request that tenders be clarified, specified and fine-tuned in order to improve a tenderer's competitive position provided that such clarification, specification, fine-tuning or additional information does not alter any fundamental aspects of the offers or impose substantial new requirements which restrict or distort competition or have a discriminatory effect.

C.1.6.2.3 At the conclusion of each round of negotiations, tenderers shall be invited by the employer to revise their tender offer based on the same evaluation criteria, with or without adjusted weightings. Tenderers shall be advised when they are to submit their best and final offer.

C.1.6.2.4 The contract shall be awarded in accordance with the provisions of C.3.11 and C.3.13 after tenderers have been requested to submit their best and final offer.

C.1.6.3 Proposal procedure using the two stage-system

C.1.6.3.1 Option 1

Tenderers shall in the first stage submit technical proposals and, if required, cost parameters around which a contract may be negotiated. The employer shall evaluate each responsive submission in terms of the method of evaluation stated in the tender data, and in the second stage negotiate a contract with the tenderer scoring the highest number of evaluation points and award the contract in terms of these conditions of tender.

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C.1.6.3.2 Option 2

C.1.6.3.2.1 Tenderers shall submit in the first stage only technical proposals. The employer shall invite all responsive tenderers to submit tender offers in the second stage, following the issuing of procurement documents.

C.1.6.3.2.2 The employer shall evaluate tenders received during the second stage in terms of the method of evaluation stated in the tender data, and award the contract in terms of these conditions of tender.

C.2 Tenderer's obligations**C.2.1 Eligibility**

C.2.1.1 Submit a tender offer only if the tenderer satisfies the criteria stated in the tender data and the tenderer, or any of his principals, is not under any restriction to do business with employer.

C.2.1.2 Notify the employer of any proposed material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used by the employer as the basis in a prior process to invite the tenderer to submit a tender offer and obtain the employer's written approval to do so prior to the closing time for tenders.

C.2.2 Cost of tendering

C.2.2.1 Accept that, unless otherwise stated in the tender data, the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer complies with requirements.

C.2.2.2 The cost of the tender documents charged by the employer shall be limited to the actual cost incurred by the employer for printing the documents. Employers must attempt to make available the tender documents on its website so as not to incur any costs pertaining to the printing of the tender documents.

C.2.3 Check documents

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

C.2.4 Confidentiality and copyright of documents

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

C.2.5 Reference documents

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

C.2.6 Acknowledge addenda

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

C.2.7 Clarification meeting

Attend, where required, a clarification meeting at which tenderers may familiarize themselves with aspects of the proposed work, services or supply and raise questions. Details of the meeting(s) are stated in the tender data.

C.2.8 Seek clarification

Request clarification of the tender documents, if necessary, by notifying the employer at least five (5) working days before the closing time stated in the tender data.

C.2.9 Insurance

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

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C.2.10 Pricing the tender offer

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

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

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

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

C.2.11 Alterations to documents

Do not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations.

C.2.12 Alternative tender offers

C.2.12.1 Unless otherwise stated in the tender data, submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted as well as a schedule that compares the requirements of the tender documents with the alternative requirements that are proposed.

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

C.2.12.3 An alternative tender offer must only be considered if the main tender offer is the winning tender.

C.2.13 Submitting a tender offer

C.2.13.1 Submit one tender offer only, either as a single tendering entity or as a member in a joint venture to provide the whole of the works identified in the contract data and described in the scope of works, unless stated otherwise in the tender data.

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

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

C.2.13.4 Sign the original and all copies of the tender offer where required in terms of the tender data. The employer will hold all authorised signatories liable on behalf of the tenderer. Signatories for tenderers proposing to contract as joint ventures shall state which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the tender offer.

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

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

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

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

C.2.13.9 Accept that tender offers submitted by facsimile or e-mail will be rejected by the employer, unless stated otherwise in the tender data.

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

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

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C.2.15 Closing time

C.2.15.1 Ensure that the employer receives the tender offer at the address specified in the tender data not later than the closing time stated in the tender data. Accept that proof of posting shall not be accepted as proof of delivery.

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

C.2.16 Tender offer validity

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

C.2.16.2 If requested by the employer, consider extending the validity period stated in the tender data for an agreed additional period with or without any conditions attached to such extension.

C.2.16.3 Accept that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer's agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted. If the validity period stated in C.2.16 lapses before the employer evaluating tender, the contractor reserves the right to review the price based on Consumer Price Index (CPI).

C.2.16.4 Where a tender submission is to be substituted, a tenderer must submit a substitute tender in accordance with the requirements of C.2.13 with the packages clearly marked as "SUBSTITUTE".

C.2.17 Clarification of tender offer after submission

Provide clarification of a tender offer in response to a request to do so from the employer during the evaluation of tender offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the competitive position of tenderers or substance of the tender offer is sought, offered, or permitted.

C.2.18 Provide other material

C.2.18.1 Provide, on request by the employer, any other material that has a bearing on the tender offer, the tenderer's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment.

Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive.

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

2.19 Inspections, tests and analysis

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

C.2.20 Submit securities, bonds and policies

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

C.2.21 Check final draft

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

C.2.22 Return of other tender documents

If so instructed by the employer, return all retained tender documents within twenty-eight (28) days after the expiry of the validity period stated in the tender data.

C.2.23 Certificates

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

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C.3 The employer's undertakings

C.3.1 Respond to requests from the tenderer

C.3.1.1 Unless otherwise stated in the tender Data, respond to a request for clarification received up to five (5) working days before the tender closing time stated in the Tender Data and notify all tenderers who collected tender documents.

C.3.1.2 Consider any request to make a material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used to prequalify a tenderer to submit a tender offer in terms of a previous procurement process and deny any such request if as a consequence:

- a) an individual firm, or a joint venture as a whole, or any individual member of the joint venture fails to meet any of the collective or individual qualifying requirements;
- b) the new partners to a joint venture were not prequalified in the first instance, either as individual firms or as another joint venture; or
- c) in the opinion of the Employer, acceptance of the material change would compromise the outcome of the prequalification process.

C.3.2 Issue Addenda

If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date that tender documents are available until three (3) working days before the tender closing time stated in the Tender Data. If, as a result a tenderer applies for an extension to the closing time stated in the Tender Data, the Employer may grant such extension and, shall then notify all tenderers who collected tender documents.

C.3.3 Return late tender offers

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

C.3.4 Opening of tender submissions

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

C.3.4.2 Announce at the meeting held immediately after the opening of tender submissions, at a venue indicated in the tender data, the name of each tenderer whose tender offer is opened and, where applicable, the total of his prices, number of points claimed for its BBBEE status level and time for completion for the main tender offer only.

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

C.3.5 Two-envelope system

C.3.5.1 Where stated in the tender data that a two-envelope system is to be followed, open only the technical proposal of valid tenders in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data and announce the name of each tenderer whose technical proposal is opened.

C.3.5.2 Evaluate functionality of the technical proposals offered by tenderers, then advise tenderers who remain in contention for the award of the contract of the time and place when the financial proposals will be opened. Open only the financial proposals of tenderers, who score in the functionality evaluation more than the minimum number of points for functionality stated in the tender data, and announce the score obtained for the technical proposals and the total price and any points claimed on BBBEE status level. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for functionality.

C.3.6 Non-disclosure

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

C.3.7 Grounds for rejection and disqualification

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

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C.3.8 Test for responsiveness

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

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

C.3.8.2 A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:

- a) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work,
- b) 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.

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

C.3.9 Arithmetical errors, omissions and discrepancies

C.3.9.1 Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount in words shall govern.

C.3.9.2 Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with C.3.11 for:

- a) the gross misplacement of the decimal point in any unit rate;
- b) omissions made in completing the pricing schedule or bills of quantities; or
- c) arithmetic errors in:
 - i) line item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or
 - ii) the summation of the prices.

C.3.9.3 Notify the tenderer of all errors or omissions that are identified in the tender offer and either confirm the tender offer as tendered or accept the corrected total of prices.

C.3.9.4 Where the tenderer elects to confirm the tender offer as tendered, correct the errors as follows:

- a) If bills of quantities or pricing schedules apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line item total shall govern and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as quoted shall govern, and the unit rate shall be corrected.
- b) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern and the tenderer will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.

C.3.10 Clarification of a tender offer

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

C.3.11 Evaluation of tender offers

The Standard Conditions of Tender standardize the procurement processes, methods and procedures from the time that tenders are invited to the time that a contract is awarded. They are generic in nature and are made project specific through choices that are made in developing the Tender Data associated with a specific project.

Conditions of tender are by definition the document that establishes a tenderer's obligations in submitting a tender and the employer's undertakings in soliciting and evaluating tender offers. Such conditions establish the rules from the time a tender is

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advertised to the time that a contract is awarded and require employers to conduct the process of offer and acceptance in terms of a set of standard procedures.

The CIDB Standard Conditions of Tender are based on a procurement system that satisfies the following system requirements:	
Requirement	Qualitative interpretation of goal
Fair	The process of offer and acceptance is conducted impartially without bias, providing simultaneous and timely access to participating parties to the same information.
Equitable	Terms and conditions for performing the work do not unfairly prejudice the interests of the parties.
Transparent	The only grounds for not awarding a contract to a tenderer who satisfies all requirements are restrictions from doing business with the employer, lack of capability or capacity, legal impediments and conflicts of interest.
Competitive	The system provides for appropriate levels of competition to ensure cost effective and best value outcomes.
Cost effective	The processes, procedures and methods are standardized with sufficient flexibility to attain best value outcomes in respect of quality, timing and price, and least resources to effectively manage and control procurement processes.

The activities associated with evaluating tender offers are as follows:

- a) Open and record tender offers received
- b) Determine whether or not tender offers are complete
- c) Determine whether or not tender offers are responsive
- d) Evaluate tender offers
- e) Determine if there are any grounds for disqualification
- f) Determine acceptability of preferred tenderer
- g) Prepare a tender evaluation report
- h) Confirm the recommendation contained in the tender evaluation report

C.3.11.1 General

The employer must appoint an evaluation panel of not less than three persons conversant with the proposed scope of works to evaluate each responsive tender offer using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the tender data.

C.3.12 Insurance provided by the employer

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

C.3.13 Acceptance of tender offer

Accept the tender offer; if in the opinion of the employer, it does not present any risk and only if the tenderer:

- a. is not under restrictions, or has principals who are under restrictions,
- b) preventing participating in the employer's procurement;
- c) can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract;
- d) has the legal capacity to enter into the contract;
- e) is not; insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act No. 2008, bankrupt or being wound up, has his/her affairs administered by a court or a judicial officer, has suspended his/her business activities or is subject to legal proceedings in respect of any of the foregoing;
- f) complies with the legal requirements, if any, stated in the tender data; and
- g) is able, in the opinion of the employer, to perform the contract free of conflicts of interest.

C.3.14 Prepare contract documents

C.3.14.1 If necessary, revise documents that shall form part of the contract and that were issued by the employer as part of the tender documents to take account of:

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

C.3.15 Complete adjudicator's contract

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

C.3.16 Registration of the award

An employer must, within twenty-one (21) working days from the date on which a contractor's offer to perform a construction works contract is accepted in writing by the employer, register and publish the award on the CIDB Register of Projects.

C.3.17 Provide copies of the contracts

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

C.3.18 Provide written reasons for actions taken

Provide upon request written reasons to tenderers for any action that is taken in applying these conditions of tender but withhold information which is not in the public interest to be divulged, which is considered to prejudice the legitimate commercial interests of tenderers or might prejudice fair competition between tenderers.

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Part T2: Returnable Schedules

e-Tenders for viewing purposes only

Contractor

Witness for
Contractor

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Employer

Witness for
Employer

**CONSTRUCTION OF 6 STAFF HOUSES AT RHODESDRIFT STAFF VILLAGE IN MAPUNGUBWE
NATIONAL PARK AND WORLD HERITAGE SITE.**

CONTRACT NO: SP-MG-0093

T2.1: List of Returnable Documents

The complete tender document as received from the employer, together with all additional documentation as requested, must be submitted. No documentation must be removed from the tender document.

The tenderer must complete the following returnable documents:

1 Returnable Schedules required only for tender evaluation purposes

Resolution of board of directors / members / partners

Resolution of Board of Directors / Members / Sole Proprietor/ Partners of Partnership (if applicable)

Special Resolution of Joint Venture Partners

Compulsory Enterprise Questionnaire

Record of Addenda to Tender Documents

Proposed Amendments and Qualifications

Capacity of Tenderer

Site inspection certificate

Health and Safety Specifications Acknowledgement

2 Other documents required only for tender evaluation purposes

A valid Tax Compliance Status pin as issued by the South African Revenue Services

Proof of active Contractor Registration issued by the Construction Industry Development Board - Compulsory

An original and valid B-BBEE Status Level verification Certificate, SANAS approved or certified copy thereof or DTIC / CIPC certificate or sworn affidavit

Proof of registration of Closed Corporation/Company or other legal entities applicable to tender - Certified copy

Letter of good standing from the Compensation Commissioner – Compulsory

Letter of intent for a Construction Guarantee – Compulsory

National Treasury Central Supplier Database (CSD) Registration Report – Compulsory

3 Returnable Schedules that will be incorporated into the contract

4 Other documents that will be incorporated into the contract

Clarification Meeting Information

Local Content Declaration

Health and Safety Specifications for **CONTRACT NO: SP-MG-0093. CONSTRUCTION OF 6 STAFF HOUSES AT RHODESDRIFT STAFF VILLAGE IN MAPUNGUBWE NATIONAL PARK AND WORLD HERITAGE SITE.**

Code of conduct for implementing a project for SANParks

Environmental Management Plan for General Construction Activities

5 C1.1 Offer and Acceptance (the offer portion of C1.1)

6 C1.2 Contract Data (Part 2)

7 C2.2 Bills of Quantities (As per tender document, completed in black ink)

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T2.2 Returnable Schedules

This returnable schedule needs to be completed if the tenderer is a company or other legal person.

Resolution of Board of Directors / Members / Partners

RESOLUTION of a meeting of the Board of *Directors / Members / Partners of:

(legally correct full name and registration number, if applicable, of the Enterprise)

Held at _____ (place)

On _____ (date)

RESOLVED that:

1. The Enterprise submits a Tender to the South African National Parks in respect of the following project:

(project description as per Tender Document)

Tender Number: _____ (Tender Number as per Tender Document)

2. *Mr/Mrs/Ms: _____

in *his/her Capacity as : _____ (Position in the Enterprise)

and who will sign as follows : _____

be, and is hereby, authorised to sign the Tender, and any and all other documents and/or correspondence in connection with and relating to the Tender, as well as to sign any Contract, and any and all documentation, resulting from the award of the Tender to the Enterprise mentioned above.

	Name	Capacity	Signature
1			
2			
3			
4			
5			
6			

Note:

- * Delete which is not applicable
- NB.** This resolution must be signed by all the Directors / Members / Partners of the Tendering Enterprise
- Should the number of Directors / Members/Partners exceed the space available above, additional names and signatures must be supplied on a separate page

ENTERPRISE STAMP

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This returnable schedule needs to be completed if the tenderer is a joint venture. This form must be completed by each partner of the joint venture. The name of the principal partner must be stated under Point 2.

Resolution of Board of Directors / Members / Sole Proprietor/ Partners of Partnership (i.e. of each legal person to comprise the Joint Venture Partnership)

RESOLUTION of a meeting of the Board of *Directors / Members / Sole Proprietor/ Partners of:

(Legally correct full name and registration number, if applicable, of the Enterprise)

Held at _____ (place)

On _____ (date)

RESOLVED that:

3. The Enterprise submits a Tender, in Joint Venture with the following Enterprises:

(List all the legally correct full names and registration numbers, if applicable, of the Enterprises forming the Joint Venture)

to the South African National Parks in respect of the following project:

(Project description as per Tender Document)

Tender Number: _____ (Tender Number as per Tender Document)

4. The Principal Partner of the Joint Venture will be

(Legally correct full name and registration number, if applicable, of the Principal Partner of Joint Venture)

5. *Mr/Mrs/Ms: _____

in *his/her Capacity as: _____ (Position in the Enterprise)

and who will sign as follows: _____

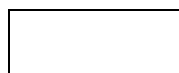
be, and is hereby, authorised to sign a joint venture agreement with the parties listed under item 1 above, and any and all other documents and/or correspondence in connection with and relating to the joint venture, in respect of the project described under item 1 above.

6. The Enterprise accepts joint and several liability with the parties listed under item 1 above for the due fulfilment of the obligations of the joint venture deriving from, and in any way connected with, the Contract to be entered into with the South African National Parks in respect of the project described under item 1 above.
7. The Enterprise chooses as its *domicilium citandi et executandi* for all purposes arising from this joint venture agreement and the Contract with the South African National Parks in respect of the project under item 1 above:

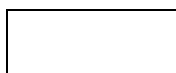
Physical address: _____

_____ (code)

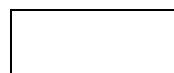
Postal Address: _____



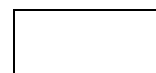
Contractor



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Employer



Witness for
Employer

_____ (code)

Telephone number: _____ (code)

Fax number: _____ (code)

	Name	Capacity	Signature
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Note:

1. * Delete which is not applicable
2. **NB.** This resolution must be signed by all the Directors / Members / Partners of the Tendering Enterprise
3. Should the number of Directors / Members/Partners exceed the space available above, additional names and signatures must be supplied on a separate page

ENTERPRISE STAMP

Contractor

Witness for
Contractor

Employer

Witness for
Employer

This returnable schedule needs to be completed if the tenderer is a joint venture.

Special Resolution of Joint Venture Partners

RESOLUTION of a meeting of the duly authorised representatives of the following legal entities who have entered into a joint venture to jointly tender for the project mentioned below: *(legally correct full names and registration numbers, if applicable, of the Enterprises forming a Joint venture)*

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

Held at _____ *(place)*

On _____ *(date)*

RESOLVED that:

- A. The above-mentioned Enterprises submit a tender in joint venture partnership to the South African National Parks in respect of the following project:

(Project description as per Tender Document)

Tender Number: _____ *(Tender Number as per Tender Document)*

- B. Mr/Mrs/Ms: _____

in *his/her Capacity as: _____ *(Position in the Enterprise)*

and who will sign as follows: _____
be, and is hereby, authorised to sign the Tender, and any and all other documents and/or correspondence in connection with and relating to the Tender, as well as to sign any Contract, and any and all documentation, resulting from the award of the Tender to the Enterprises in joint venture mentioned above.

Contractor

Witness for
Contractor

Employer

Witness for
Employer

- C. The Enterprises constituting the Joint Venture, notwithstanding its composition, shall conduct all business under the name and style of: _____
- D. The Enterprises to the Joint Venture accept joint and several liability for the due fulfilment of the obligations of the Joint Venture deriving from, and in any way connected with, the contract entered into with the South African National Parks in respect of the project described under item A above.
- E. Any of the Enterprises to the Joint Venture intending to terminate the Joint Venture agreement, for whatever reason, shall give the South African National Parks 30 days written notice of such intention. Notwithstanding such decision to terminate, the Enterprises shall remain jointly and severally liable to the South African National Parks for the due fulfilment of the obligations of the Joint Venture as mentioned under item D above.
- F. No Enterprise to the Joint Venture shall, without the prior written consent of the other Enterprises to the Joint Venture and of the South African National Parks, cede any of its rights or assign any of its obligations under the Joint Venture agreement in relation to the contract with the South African National Parks referred to herein.
- G. The Enterprises choose as the *domicilium citandi et executandi* of the Joint Venture for all purposes arising from the Joint Venture agreement and the contract with the South African National Parks in respect of the project under item A above:

Physical address: _____

_____ (code)

Postal Address: _____

_____ (code)

Telephone number: _____ (code)

Fax number: _____ (code)

No	Name	Capacity	Signature
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Contractor

Witness for
Contractor

Employer

Witness for
Employer

No	Name	Capacity	Signature
11			
12			
13			
14			
15			

Note:

1. * Delete which is not applicable
2. **NB.** This resolution must be signed by all the Duly Authorised Representatives of the Legal Entities to the Joint Venture submitting this Tender
3. Should the number of Duly Authorised Representatives of the Legal Entities joining forces in this Tender exceed the space available above, additional names and signatures must be supplied on a separate page
4. Resolutions, duly completed and signed, from the separate Enterprises who participate in this Joint venture must be attached to the Special Resolution

e-Tenders for viewing purposes only

Contractor

Witness for
Contractor

Employer

Witness for
Employer

1. 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

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

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.

Section 8: SBD6 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) Authorises the Employer to obtain a tax clearance certificate from the South African Revenue Services that it is in order.

Contractor

Witness for Contractor

Employer

Witness for Employer

- 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.

Name	Position	Signed

Enterprise name	Date

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Contractor

Witness for
Contractor

Employer

Witness for
Employer

**CONSTRUCTION OF 6 STAFF HOUSES AT RHODESDRIFT STAFF VILLAGE IN MAPUNGUBWE
NATIONAL PARK AND WORLD HERITAGE SITE.**

CONTRACT NO: SP-MG-0093

2. Record of Addenda to tender documents

I / We confirm that the following communications received from the South African National Parks before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer: *(Attach additional pages if more space is required)*

	Date	Title or Details
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		

Name	Position	Signed

Name of Tenderer	Date

Contractor

Witness for
Contractor

Employer

Witness for
Employer

**CONSTRUCTION OF 6 STAFF HOUSES AT RHODESDRIFT STAFF VILLAGE IN MAPUNGUBWE
NATIONAL PARK AND WORLD HERITAGE SITE.**

CONTRACT NO: SP-MG-0093

3. Proposed Amendments and Qualifications

The Tenderer should record any deviations or qualifications he may wish to make to the tender documents in this Returnable Schedule.

Page	Clause or item	Proposal

Name	Position	Signed

Name of Tenderer	Date

Contractor

Witness for
Contractor

Page 34 of 225

Employer

Witness for
Employer

CONSTRUCTION OF 6 STAFF HOUSES AT RHODESDRIFT STAFF VILLAGE IN MAPUNGUBWE NATIONAL PARK AND WORLD HERITAGE SITE.**CONTRACT NO: SP-MG-0093****Capacity of Tenderer**

1. **WORK CAPACITY:** *(The Tenderer is requested to furnish the following full particulars, attach additional pages if more space is required. Failure to furnish the particulars may result in the Tender being disregarded.)*

Skilled artisans employed				Unskilled employees employed			
Categories of artisans	Name/s of employee	Number of employees	Permanent employed (Yes/No)	Categories of employees	Name of Employee/s	Number of employees	Permanent employed (Yes/No)
Carpenter				General worker			
Bricklayer							
Plasterer							
Plumber							
Tiler							
Painter							
Thatcher							
Electrician							
Machinery		Plant		Workshops			

Contractor

**Witness for
Contractor**

Page 35 of 225

Employer

**Witness for
Employer**

2. QUALIFICATIONS AND EXPERIENCE OF PROPOSED SITE SUPERVISION TEAM FOR THE PROJECT

Tenderer to provide name(s), key qualifications and experience of site supervision team that will supervise the project on behalf of the Contractor. Attach additional documents as proof.

Item	Description
Site Agent (Provide copy of CV)	
Name of Person	
No of years' experience	
Field/s of experience	
Permanent employment (Yes/No)	
Site Foreman (Provide copy of CV)	
Name of Person	
No of years' experience	
Field/s of experience	
Permanent employment (Yes/No)	

Contractor

Witness for
Contractor

Employer

Witness for
Employer

3. PARTICULARS OF COMMITMENTS WHICH THE TENDERER HAS PREVIOUSLY COMPLETED AND ARE PRESENTLY ENGAGED WITH:
3.1. Current projects: (Attach additional documents as proof)

Project	Place (town)	Reference / Contact person	Contact Tel. No.	Contract amount	Contract period	Date of commencement	Scheduled date of completion
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							

Contractor

Witness for
Contractor

Page 37 of 225

Employer

Witness for
Employer

3.2. Previous projects: (Attach additional documents as proof)

Project	Place (town)	Reference / Contact person	Contact Tel. No.	Contract amount	Contract period	Date of commencement	Scheduled date of completion	Actual date of completion
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								

Contractor

Witness for
Contractor

Employer

Witness for
Employer

CONSTRUCTION OF 6 STAFF HOUSES AT RHODESDRIFT STAFF VILLAGE IN MAPUNGUBWE NATIONAL PARK AND WORLD HERITAGE SITE.

CONTRACT NO: SP-MG-0093

4. Site Inspection Certificate

This is to certify that I,

Representing
Company

Position

Visited the site on

I have made myself familiar with all local conditions likely to influence the work and the cost thereof. I further certify that I am satisfied with the description of the work and explanations given at the site inspection meeting and that I understand perfectly the work to be done, as specified and implied, in the execution of this contract.

I have attended the Clarification Meeting at **Mapungubwe National Park** and listened to the explanations regarding the works. I declare that read the Clarification Meeting document, signed it and include it herewith.

Name Tenderer's Representative	Position	Signed

Name of Tenderer	Date

Name of Employer's Representative	Signature	Date

Contractor

**Witness for
Contractor**

Employer

**Witness for
Employer**

CONSTRUCTION OF 6 STAFF HOUSES AT RHODESDRIFT STAFF VILLAGE IN MAPUNGUBWE NATIONAL PARK AND WORLD HERITAGE SITE.

CONTRACT NO: SP-MG-0093

5. HEALTH AND SAFETY SPECIFICATION ACKNOWLEDGEMENT RECEIPT

Contractor's Acknowledgement:

I, _____ representing

_____ (Contractors), have satisfied myself with the content of this Health and Safety Specification and Baseline Risk Assessment and have made the relevant provision under my Preliminary & General Section C6 for any and all costs involved to ensure compliance of this Specification and shall we be the successful contractor, we shall ensure that our employees and contractors on site comply with the requirements of these documents, our safety documentation and health and safety legislation

Signature of Contractor

Date

Comments:

Contractor

Witness for
Contractor

Employer

Witness for
Employer



Declaration by bidder

Local content: CONSTRUCTION OF 6 STAFF HOUSES AT RHODESDRIFT STAFF VILLAGE IN MAPUNGUBWE NATIONAL PARK AND WORLD HERITAGE SITE.

Contract no: SP-MG-0093

The contractor must note that the use of materials that are locally produced must be used during construction. The list of materials as specified for this contract is provided and tenderers are requested to complete it in full.

Description of item (s)	Product Description	Percentage threshold for local content required	Bidders' declaration (%) on local content to be used during construction	Comment if lower content is specified
Cement	Pure Portland cement with 95-100% clinker (Cem I)	100 %		
Electrical cable	Low Voltage Cable	90%		
Plastic conveyance pipes	Polyvinyl chloride (PVC) pipes	100%		
Plastic conveyance pipes	High Density Polyethylene (HDPE) pipes	100%		
Steel Products & Components for Construction	Fabricated Structural Steel (latticed steelwork; reinforcement steel; columns; beams; plate girders; rafters; bracing; cladding supports; stair stringers & treads; ladders; steel flooring; floor grating; handrailing and balustrading; scaffolding; ducting; gutters; launders; downpipes and trusses)	100%		
Steel Products & Components for Construction	Joining / Connecting Components (Gusset; cleats; stiffeners; splices; cranks; kinks; doglegs; spacars; tabs; brackets.)	100%		
Steel Products & Components for Construction	Frames (Doors and Windows)	100%		
Steel Products & Components for Construction	Roof and Cladding (Bare steel cladding; galvanised steel cladding; colour coated cladding)	100%		

Contractor

Witness for Contractor

Employer

Witness for Employer

Steel Products & Components for Construction	Fasteners (Bolts; nuts; rivets and nails)	100%		
Steel Products & Components for Construction	Wire Products (All fencing products: All barbed wire and mesh fencing; fabric/mesh reinforcing; gabions; wire; rope/tacks; springs and screws)	100%		
Steel Products & Components for Construction	Ducting and Structural Pipework (Non-conveyance tubing fabricated from steel sheeting and plate with structural supports)	100%		
Steel Products & Components for Construction	Gutters, downpipes & launders (Fabricated materials made from sheeting associated with roof drainage systems.)	100%		
Company name				
Name & surname of the signatory				
Signing Capacity				
Signature				
Date				

Contractor

Witness for Contractor

Employer

Witness for Employer

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 State institution

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**

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.

Contractor

Witness for
Contractor

Employer

Witness for
Employer

2.3.1 If so, furnish particulars:

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

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.

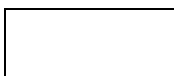
3.5 The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.

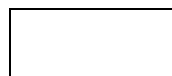
3.6 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.

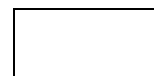
3.7 I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms 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.

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.


Contractor


Witness for
Contractor


Employer


Witness for
Employer

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

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

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

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

1. GENERAL CONDITIONS

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

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

1.2 **To be completed by the organ of state**

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

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

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

1.4 **To be completed by the organ of state:**

The maximum points for this tender are allocated as follows:

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

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

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

Contractor

Witness for
Contractor

Employer

Witness for
Employer

2. DEFINITIONS

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

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

3.1.1 THE 80/20 PREFERENCE POINT SYSTEMS

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

80/20

$$Ps = 80 \left(1 - \frac{Pt - Pmin}{Pmin} \right)$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

- 4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:
- 4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—
 - (a) an invitation for tender for income-generating contracts, that either the 80/20 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or
 - (b) any other invitation for tender, that either the 80/20 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system, then the organ of state must indicate the points allocated for specific goals for both the 80/20 preference point system.

 Contractor

 Witness for
Contractor

 Employer

 Witness for
Employer

Table 1: Specific goals for the tender and points claimed are indicated per the table below.**Note to tenderers: The tenderer must indicate how they claim points for each preference point system.**

The specific goals allocated points in terms of this tender	Number of points allocated (80/20 system)	Number of points claimed (80/20 system) (To be completed by the tenderer)
1) Enterprises with B-BBEE Procurement Recognition		
Enterprises with B-BBEE Procurement Recognition Level 1	16	
Enterprises with B-BBEE Procurement Recognition Level 2	12	
Enterprises with B-BBEE Procurement Recognition Level 3	8	
Enterprises with B-BBEE Procurement Recognition Level 4	4	
2) Exempted Micro Enterprises		
Exempted Micro Enterprises (annual turnover less than R10 million)	4	
Total Specific Goals Points Claimed (To be completed by the tenderer)		

NB: Bidders with B-BBEE Level 5-9 and who are not EMEs can still tender but will not claim points for specific goals.

DECLARATION WITH REGARD TO COMPANY/FIRM

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

4.4. Company registration number:

4.5. TYPE OF COMPANY/ FIRM

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

[TICK APPLICABLE BOX]

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

- i) The information furnished is true and correct;
 ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;

Contractor

Witness for
Contractor

Employer

Witness for
Employer

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

STANDARD BIDDING DOCUMENTS DECLARATION

The following documents are deemed to form and be read and construed as part of this agreement even where integrated in this document:

Declaration of Interest (SBD4)
Preference points claimed (SBD6.1) – Original or certified copy of B-BBEE certificate or Sworn Affidavit

The obligation to complete, duly sign and submit these declarations included in this SBD declaration pack cannot be transferred to an external authorised representative, auditor or any other third party acting on behalf of the legal entity.

I declare that I have had no participation in any collusive practices with any Bidder or any other person regarding this or any other procurement. I certify that the information furnished in these declarations (SBD4, SBD6.1) is correct and I accept that SANParks may reject the Offer or act against me should these declarations prove to be false. I confirm that I am duly authorised to sign this SBD declaration pack nominated in writing by the Chief Executive Officer or Senior Member/Person with management responsibility (Close Corporation, Partnership or Individual).

NAME (PRINT)	
CAPACITY	

Contractor

Witness for
Contractor

Employer

Witness for
Employer

SIGNATURE	
NAME OF FIRM	
DATE	

WITNESSES:	
1	_____
2	_____
Date	_____

e-Tenders for viewing purposes

Contractor

Witness for Contractor

Employer

Witness for Employer

C: The Contract

e-Tenders for viewing purposes only

Contractor

Witness for
Contractor

Employer

Witness for
Employer

Part C1: Agreement and Contract Data

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Contractor

Witness for
Contractor

Employer

Witness for
Employer

CONSTRUCTION OF 6 STAFF HOUSES AT RHODESDRIFT STAFF VILLAGE IN MAPUNGUBWE NATIONAL PARK AND WORLD HERITAGE SITE.

CONTRACT NO: SP-MG-0093

C1.1 FORM OF OFFER AND ACCEPTANCE

OFFER

The employer, identified in the acceptance signature block, has solicited offers to enter into a contract for the procurement of:

CONSTRUCTION OF 6 STAFF HOUSES AT RHODESDRIFT STAFF VILLAGE IN MAPUNGUBWE NATIONAL PARK AND WORLD HERITAGE SITE. CONTRACT NO: SP-MG-0093

The tenderer, identified in the offer signature block, has examined the documents listed in the tender data and addenda thereto as listed in the returnable 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:

.....Rand

(in words);

R (in figures)

This offer may be accepted by the employer by signing the acceptance part of this form of offer and acceptance and returning a copy of this acceptance form 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(s)		Date	
Name(s)			
Capacity			
For the Tenderer			
Name of tenderer (Company)			
Address of tenderer			
Name of witness			
Signature of witness		Date	

Contractor

**Witness for
Contractor**

Employer

**Witness for
Employer**

ACCEPTANCE (NB: TO BE COMPLETED BY SANParks NOT THE TENDERER)

By signing this part of this form of offer and acceptance, the employer identified below accepts the tenderer's offer. In consideration thereof, the employer shall pay the contractor the amount due in accordance with the conditions of contract identified in the contract data. Acceptance of the tenderer's offer shall form an agreement between the employer and the tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract, are contained in:

- Part C1: Agreements and contract data, (which includes this agreement)
- Part C2: Pricing data
- Part C3: Scope of work.
- Part C4: Site information and drawings and documents or parts thereof, which may be incorporated by reference into Parts 1 to 4 above.

Deviations from and amendments to the documents listed in the tender data and any addenda thereto as listed in the tender schedules as well as any changes to the terms of the offer agreed by the tenderer and the employer during this process of offer and acceptance, are contained in the schedule of deviations attached to and forming part of this agreement. No amendments to or deviations from said documents are valid unless contained in this schedule.

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 securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the contract data. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the tenderer receives one fully completed signed acceptance form, including the schedule of deviations (if any). Unless the tenderer (now contractor) within five working days of the date of such receipt notifies the employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the parties.

Signature(s)		Date	
Name(s)			
Capacity			
For the Employer			
Name of Employer	South African National Parks		
Address of tenderer	643 Leyds Street Muckleneuk 0002 P O Box 787 Pretoria 0001		
Name of witness			
Signature of witness		Date	

 Contractor

 Witness for
Contractor

 Employer

 Witness for
Employer

Schedule of Deviations

1	Subject
	Details

2	Subject
	Details

3	Subject
	Details

4	Subject
	Details

5	Subject
	Details

By the duly authorised representatives signing this agreement, the employer and the tenderer agree to and accept the foregoing schedule of deviations as the only deviations from and amendments to the documents listed in the tender data and addenda thereto as listed in the tender schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the tenderer and the employer during this process of offer and acceptance.

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

Contractor

**Witness for
Contractor**

Employer

**Witness for
Employer**

CONSTRUCTION OF 6 STAFF HOUSES AT RHODESDRIFT STAFF VILLAGE IN MAPUNGUBWE NATIONAL PARK AND WORLD HERITAGE SITE.

CONTRACT NO: SP-MG-0093

C1.2 Contract Data

The Conditions of Contract are in terms of the JBCC Principal Building Agreement for Organs of State Contract Data (Edition 6.2 – May 2018) published by the Joint Building Contracts Committee.

The Conditions of Contract are clauses 1 to 30 of the JBCC Principal Building Agreement for Organs of State (Edition 6.2) of May 2018) published by the Joint Building Contracts Committee.

Copies of these conditions of contract may be obtained from the Association of South African Quantity Surveyors (011-3154140), Master Builders Association (011-205-9000; 057-3526269) South African Association of Consulting Engineers (011-4632022) or South African Institute of Architects (051-4474909; 011-4860684; 053-8312003;)

The JBCC Principal Building Agreement makes several references to the Contract Data for specific data, which together with these conditions collectively describe the risks, liabilities and obligations of the contracting parties and the procedures for the administration of the Contract. The Contract Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the JBCC Principal Building Agreement.

Each item of data given below is cross-referenced to the clause in the JBCC Principal Building Agreement to which it mainly applies.

The variations to the JBCC Principal Building Agreement are:

Clause	Variation
1.1	<p>Replace the following definitions in DEFINITIONS AND INTERPRETATIONS with the following wording:</p> <p>AGREEMENT means the agreement arising from the signing of the Form of Offer and Acceptance by the parties, to be read in conjunction with the JBCC PBA.</p> <p>BILLS OF QUANTITIES means the document drawn up in accordance with the Pricing Instructions contained in the Pricing Data.</p> <p>CONSTRUCTION PERIOD means the period commencing on the date that the agreement made in terms of the Offer and Acceptance comes into effect and ending on the date of practical completion.</p> <p>CONTRACT DOCUMENTS means the agreement and all documents referenced therein.</p> <p>CONTRACT DRAWINGS means the drawings listed in the Scope of Work.</p> <p>CONTRACT PARTICIPATION GOALS means the contractors obligation as stipulated in the Contract Data [CD]</p> <p>CONTRACT SUM means the total of prices in the Form of Offer and Acceptance.</p> <p>SCHEDULE means the variables listed in the Contract Data.</p> <p>INTEREST means the interest rate applicable on overdraft facilities as charged by First National Bank to SANParks on the first calendar day of each month shall be used in calculating the interest due for such month.</p>
2.1	<p>Clause 2.1 is amended as follows:-</p> <p><u>The contractor shall comply with the law and employers contract participation goals [CD], obtain permits, licences and approvals required and pay related charges for the execution of the works [17.1.4]. The employer shall comply with the law [CD], obtain permits, planning, building or similar permissions and pay charges for the works other than those which are the responsibility of the contractor [26.4.1].</u></p>
5.2	<p>Clause 5.2 is amended by the addition of the following to the end thereof:-</p> <p>“The parties shall sign the original agreement and shall each be issued with a copy thereof by the employer’s agent. The original signed agreement shall be held by the employer’s agent.”</p>

 Contractor

 Witness for
Contractor

 Employer

 Witness for
Employer

Clause	Variation
6.0	Clause 6.0 is amended by adding Clause 6.7 as follows :-
6.7	<p>6.7 The authority of the principal agent to issue contract instructions or to perform duties as may be required for the relevant aspects of the works is delegated to the other agents as follows:-</p> <p>6.7.1 Architects</p> <p>The Architects is responsible for the architectural design, functional design and quality control. Without derogating from the generality thereof the Architects shall perform the following specific functions and duties:-</p> <p>6.7.1.1 Give opinion on aspects of the works which are not in accordance with the agreement.</p> <p>6.7.1.2 Supply the specified number of drawings.</p> <p>6.7.1.3 Be responsible for the design of the works.</p> <p>6.7.1.4 Be responsible for primary coordination of design elements</p> <p>6.7.1.5 Receive and accept design documentation undertaken by nominated or selected subcontractors.</p> <p>6.7.1.6 Issue contract instructions to the contractor regarding:</p> <p>6.7.1.6.1 Alteration to design, quality or quantity of the works provided that such contract instruction shall not substantially change the scope of the works.</p> <p>6.7.1.6.2 Removal of any materials and goods from the site and the substitution of any other materials and goods.</p> <p>6.7.1.6.3 Removal or re-execution of any work.</p> <p>6.7.1.6.4 Opening up of work for inspection.</p> <p>6.7.1.6.5 Testing of work and materials and goods.</p> <p>6.7.1.6.6 Protection of the works.</p> <p>6.7.1.6.7 Making good physical loss and repairing damage to the works.</p> <p>6.7.1.6.8 The lists for practical completion, works completion, final completion and defects.</p> <p>6.7.1.6.9 Compliance with acts of parliament, regulations and bylaws.</p> <p>6.7.1.7 Witness the handing over to the contractor of pegs, beacons and datum level.</p> <p>6.7.1.8 Define levels and provide the contractor with the necessary information to set out the works.</p> <p>6.7.1.9 Inspect the work from time to time and give the contractor interpretation and guidance on the standard and state of completion required for practical completion.</p> <p>6.7.1.10 Inspect the works for practical completion.</p> <p>6.7.1.11 Issue practical completion list and re-inspect upon request of contractor.</p> <p>6.7.1.12 Issue works completion list.</p> <p>6.7.1.13 Inspect the works for works completion upon request of contractor.</p> <p>6.7.1.14 Inspect the works at the end of the defects liability period.</p> <p>6.7.1.15 Issue a defects list and re-inspect upon request of contractor. Acceptance in principle of design by nominated or selected subcontractors.</p> <p>6.7.2 Quantity Surveying Service Provider (QSSP)</p> <p>The QSSP is responsible for all measurements, valuations, financial assessments and all other Quantity Surveying and cost control functions. Without derogating from the generality thereof, the QSSP shall perform the following specific functions and duties:</p> <p>6.7.2.1 Consult with the contractor in correction of rates for errors and discrepancies.</p> <p>6.7.2.2 Prepare the final account.</p> <p>6.7.2.3 Prepare the monthly recovery statement.</p> <p>6.7.2.4 Complete the contract document and arrange for the signing thereof.</p> <p>6.7.2.5 Hold a signed set of the agreement and all the documents referred therein.</p>

Contractor

Witness for
Contractor

Employer

Witness for
Employer

Clause	Variation
	<p>6.7.2.6 Identify any changes to the Standard JBCC Documentation in the Contract Data and determine any loss and expense caused to the contractor caused by non-disclosure thereof.</p> <p>6.7.2.7 Deal with amounts paid by the contractor to authorities having jurisdiction over the works.</p> <p>6.7.2.8 Measure and value the making good of physical loss or damage.</p> <p>6.7.2.9 Issue contract instructions to the contractor regarding:</p> <p>6.7.2.9.1 Rectification of discrepancies, errors in description or omissions in the agreement and the documents referred to therein.</p> <p>6.7.2.10 Furnishing proof of payment to nominated and selected subcontractors.</p> <p>6.7.2.11 Budgetary Allowances and work executed by the contractor there under.</p> <p>6.7.2.12 Contingency and other monetary provisions included in the Bills Of Quantities.</p> <p>6.7.2.13 Prepare nominated and selected subcontract tender documents.</p> <p>6.7.2.14 Receive proof from the contractor that the contractor's payment obligations have been met in respect of nominated and selected subcontractors.</p> <p>6.7.2.15 Act on employers instructions to pay nominated and selected subcontractors directly.</p> <p>6.7.2.16 Adjustment of the contract value in respect of a revision to the date of practical completion.</p> <p>6.7.2.17 Calculate penalties for non-completion.</p> <p>6.7.2.18 Valuation of payment claims for payment certificates.</p> <p>6.7.2.19 Authorise or otherwise the removal of materials or goods from site by the contractor where these have been paid for.</p> <p>6.7.2.20 Calculate compensatory and penalty Interest due to the parties.</p> <p>6.7.2.21 With each payment certificate issue :-</p> <p>6.7.2.21.1 Details of amounts certified for each nominated or Selected Subcontractor</p> <p>6.7.2.21.2 Notification to each nominated and selected subcontractors showing the formulation of sub-contract amount included in payment certificates.</p> <p>6.7.2.21.3 A statement to the employer and contractor showing the total amount certified and all adjustment amounts.</p> <p>6.7.2.21.4 Determine the value of adjustments to the contract value.</p> <p>6.7.2.21.5 Receive from the contractor details of expense and loss claims and assess such claims.</p> <p>6.7.2.21.6 Issue recovery statement with payment certificate.</p> <p>6.7.2.22 Prepare the final account and submit to contractor.</p> <p>6.7.3 Employer's appointed consulting engineers</p> <p>The appointed consulting engineers is responsible for all aspects of engineering design and quality control. Without derogating from the generality thereof, the engineers will perform the following specific functions and duties in respect of all aspects of the works:-</p> <p>6.7.3.1 Give opinion of aspects of the works which are not in accordance with the agreement.</p> <p>6.7.3.2 Supply the specified number of drawings.</p> <p>6.7.3.3 Issue instructions</p> <p>6.7.3.4 Be responsible for the design of the works.</p> <p>6.7.3.5 Receive and accept design and design documentation undertaken by nominated or selected subcontractors.</p> <p>6.7.3.6 subcontractors.</p> <p>6.7.3.7 Issue contract instruction to the contractor regarding:</p> <p>6.7.3.7.1 Alteration to design, quality or quantity of the works provided that such contract instruction shall not substantially change the scope of the works.</p>

Contractor

Witness for
Contractor

Employer

Witness for
Employer

Clause	Variation
	<p>6.7.3.7.2 Removal of any materials and goods from the site and the substitution of any materials and goods therefore.</p> <p>6.7.3.7.3 Removal or re-execution of any work.</p> <p>6.7.3.7.4 Opening up of work for inspection</p> <p>6.7.3.7.5 Testing of work and materials and goods.</p> <p>6.7.3.7.6 Protection of works.</p> <p>6.7.3.7.7 Making good physical loss and repairing damage to the works.</p> <p>6.7.3.8 Compliance with acts of parliament, regulations and bylaws.</p> <p>6.7.3.9 Define levels and provide the contractor with the necessary information to set out the works.</p> <p>6.7.3.10 Inspect the work from time to time and give the contractor interpretation and guidance on the standard and state of completion required for practical completion.</p> <p>6.7.3.11 Inspect the works for practical completion.</p> <p>6.7.3.12 Inspect the works for works completion upon request of contractor.</p> <p>6.7.3.13 Inspect the works at the end of the defect liability period.</p> <p>6.7.3.14 Acceptance in principle of design by nominated or selected subcontractors."</p>
9.0	<p>Clause 9.0 is amended by adding Clause 9.1.4.</p> <p>"9.1.4 The contractor indemnifies and holds harmless the employer against all liability, losses, claims, damages, penalties, actions, proceedings or judgments (collectively referred to as "Losses") arising from any infringement of letters, patent design, trademark, name, copyright or other protected rights in respect of any machine, plant, work, materials, thing, system or method of using, fixing, working or arrangement used or fixed or supplied by the contractor, but such indemnity shall not cover any use of the equipment or part thereof otherwise than in accordance with the provisions of the specification. All payments and royalties payable in one sum or by instalments or otherwise shall be included by the contractor in the price and shall be paid by him to those to whom they may be due or payable. The contractor shall reimburse the employer for all legal and other costs and expenses, including without limitation attorney's fees on attorney-client scale incurred by the employer in connection with investigation, defending or settling any Losses in connection with pending or threatened litigation in which the employer is a party."</p>
16.0	<p>Clause 16.0 is amended by adding Clause 16.4 and 16.5</p> <p>16.4 The employer reserves the right to pay direct (i.e. not through the contractor) all or any permanent connections to local or other authority services. In the event of the employer paying direct for these charges the contractor will not be entitled to a ten percent (10%) mark-up in terms of Clause 32.4. All such provisional amounts included in the Total of prices in the Form of Offer and Acceptance will be omitted.</p> <p>16.5 The contractor shall not be entitled to any percentage, profit or discount on the value of any work executed by "direct contractors" but shall nevertheless allow these direct contractors and the employer's employees to have access to the works, allocate reasonable space in the building for the storage of their materials, tools and equipment and coordinate via the principal agent the work of such direct contractors as necessary, all to the satisfaction of the principal agent. The contractor shall allow the direct contractors, etc., to use, free of charge, the latrine accommodation and water and power supply on the site and shall not in any way hinder or prevent the execution of their work.</p>
17.0	<p>Clause 17.1.4 is amended as follows:</p> <p>17.1.4 Compliance with the law, regulations, bylaws and contract participation goals as set out by the employer [2.1]</p>
19.0	<p>Clause 19.0 is amended by adding the following clauses:</p> <p>19.8 Acceleration</p> <p>19.8.1 To accelerate the works in order to mitigate the need for a revision to the date of practical completion, where caused by a delay will be adjudicated by the Principle Agent under the provisions of [23.1 to 23.2]</p>

Contractor

Witness for
Contractor

Employer

Witness for
Employer

Clause	Variation
	<p>19.8.2 Upon receipt of such instruction, the contractor shall take all necessary steps to ensure that the works are completed timeously including reprogramming and possibly the provision, by him of additional resources, plant, manpower, etc. and the working overtime or additional overtime beyond that contemplated at the time of tender (at all times adhering to the regulations and requirements of all authorities) and by all other adequate and proper means and methods. The contractor shall prove that such steps are being taken if called upon to do so.</p>
25.10	<p>Replace clause 25.10 with the following:</p> <p>The employer shall pay the contractor the amount certified in an issued payment certificate on the 21st day of the following month of the date of the issue of the payment certificate including default interest and/or compensatory interest Contractor's. Payment shall only be made following receipt by the employer of both the original payment certificate and the contractor's tax invoice.</p>
26.9.4	Delete sub-clause 26.9.4
30	<p>Replace clause 30 with the following:</p> <p>30.0 DISPUTE RESOLUTION</p> <p>Settlement by the parties</p> <p>Should any disagreement arise between the employer (or the principal agent or an agent) and the contractor arising out of or concerning the action or inaction of the employer (or the principal agent or an agent) or the contractor, or any other matter concerning this agreement (including the validity thereof), either party may give notice of disagreement to the other. The parties shall attempt to resolve such disagreement between them and record resolution in writing signed by them.</p> <p>Where the disagreement is not resolved within twenty (20) working days of receipt of the notice of disagreement, the disagreement shall be deemed to be a dispute.</p> <p>The dispute shall be referred to mediation within twenty (20) working days of the expiry period [30.2] by means of a notice of mediation by the party (the referring party) which gave the notice of disagreement.</p> <p>MEDIATION</p> <p>Where a dispute is referred to Mediation:</p> <p>The mediation shall be administered by the Association of Arbitrators Southern Africa ("AoA"). The applicable AoA rules, at the time of declaring the dispute, shall apply to the mediation process.</p> <p>The referring party shall issue notice of mediation and such notice shall clearly define the scope of the dispute to be resolved.</p> <p>Regardless of the outcome of a mediation the parties shall bear their own costs concerning the mediation and equally share the costs of the mediator and related expenses.</p> <p>ADJUDICATION</p> <p>Where a dispute is referred to adjudication:</p> <p>The referring party shall issue notice of adjudication and such notice shall clearly define the scope of the dispute to be resolved by the arbitration and not by adjudication.</p> <p>The arbitrator shall be nominated and appointed by the Association of Arbitrators Southern Africa.</p> <p>The applicable rules, including amendments included herein which shall take precedent, shall be stated [CD] or shall be by agreement between the parties and the adjudicator, failing which the</p>

Contractor

Witness for
Contractor

Employer

Witness for
Employer

Clause	Variation
	rules shall be determined by the adjudicator. Neither party shall be entitled to legal representation, unless otherwise agreed in writing by the parties.
30.4.4	A determination given by the adjudicator shall be immediately binding upon and implemented by the parties notwithstanding that either party may give notice to refer the dispute to arbitration.
30.4.5	Where the adjudicator has given a determination, either party may give notice of dissatisfaction to the other party and to the adjudicator within twenty (20) working days of receipt of the determination, or an extended time period provided in the applicable rules for adjudication, whereafter such dispute shall be referred to arbitration.
30.4.6	Where the adjudicator has not given a determination within the time period allowed or extended time period provided in the applicable rules for adjudication either party may give notice to the other party and to the adjudicator that if such determination is not received within ten (10) working days of receipt of this notice his appointment is thereupon automatically terminated and such dispute shall be referred to further adjudication or arbitration, at the option of the referring party
30.4.7	The adjudicator shall not be eligible for subsequent appointment as the arbitrator.
	ARBITRATION
30.5	Where the dispute is referred to arbitration:
30.5.1	Arbitration shall not be construed as a review or appeal of an adjudicator's determination. Any determination by the adjudicator shall remain in force and continue to be implemented unless and until overturned by the arbitration award.
30.5.2	The resolution of the dispute shall commence now.
30.5.3	The referring party in the adjudication shall be the claimant in the arbitration.
30.5.4	The arbitrator shall be nominated and appointed by the Association of Arbitrators Southern Africa.
30.5.5	The Restricted Representation Arbitration Rules (formerly the Summary Procedure Rules), as incorporated in the Rules for the Conduct of Arbitrators: 2021 Edition (November 2021), shall apply to arbitration proceedings.
30.5.6	The arbitrator shall have the authority to finally determine the dispute including the authority to make, open up and revise and certificates, opinion, decision, determination, requisition or notice relating to the dispute as if no such certificate, opinion, decision, determination, requisition or notice had been issued or given.
30.5.7	The arbitrator's award shall be final and binding on the parties.
	General
30.6	The employer consents to the joining of any subcontractor with the contractor as a party to any proceedings.
30.7	Where the parties fail to specify a body to nominate the adjudicator [1.6.1] or the arbitrator [1.7.4] the referring party shall have the right to choose a local recognised body to suggest one or more persons with appropriate skills to be appointed as an adjudicator or an arbitrator. Such nomination shall be binding on the parties.
30.8	The parties shall continue to perform their obligations in terms of this agreement, notwithstanding any disagreement or dispute that exists between them.
30.9	This clause shall, to the extent necessary to fulfil its purpose, exist independently of this agreement.

Contractor

Witness for
Contractor

Employer

Witness for
Employer

Part 1: Contract Data completed by the Employer

Clause	Item and data
	A. PROJECT INFORMATION
1.1	Works Description: The scope of works comprises of the following: <ol style="list-style-type: none"> 1. Structural Building Works 2. Painting 3. External services 4. Plastering 5. Electrical works 6. Concrete works 7. Fitout works 8. Electrical infrastructure upgrade
1.1	Site Address: The site is at Rhodesdrift Staff Village in the western section of Mapungubwe National Park .
1.1	Particulars of Employer Name: South African National Parks Physical Address: 643 Leyds Street, Muckleneuk, PRETORIA, 0002 Postal address: PO Box 787, PRETORIA, 0001 Telephone: (012) 426 5126
1.1	Particulars of Principal Agent Name: SANParks Infrastructure & Special Projects Units Physical Address: 643 Leyds Street, Muckleneuk, Pretoria, 0002 Postal Address: P O Box 787, Pretoria, 0001 Telephone: (012) 426 5126 E-Mail: Sivuyile.mzileni@sanparks.org
	B. CONTRACT INFORMATION
1.1	Bills of Quantity System/Method of Measurement will be Standard System for Measuring Building Work (7th Edition)
1.1	The interest rate applicable is the interest rate on overdraft facilities as charged by First National Bank to SANParks.
2.1	The law applicable to the agreement shall be that of the Republic of South Africa .
3.2	The currency applicable to this agreement is South African Rands.
5.2	The original agreement will be held by the Employer, South African National Parks.
5.6	One copy of the construction document and one copy of the construction drawings are to be supplied to the contractor free of charge
6.2	Authority is delegated to the Principal Agent and any other agents as instructed by Principal Agent to issue contract instructions and perform certain duties for specific aspects of the work.
6.3	No other interests or involvement other than professional interest are recorded for the Principal Agent and/or other agents.
10	Insurances by Employer - None
10.1.1	Contract insurance is to be affected by the contractor .
10.1.1	Contract works insurance is to be affected by the contractor for a sum not less than the total of prices in the Form of Offer and Acceptance with a deductible in an amount that the contractor deems appropriate.

Contractor

Witness for
Contractor

Employer

Witness for
Employer

Clause	Item and data
10.1.2	<p>The following supplementary insurance is required:</p> <p>SASRIA insurance to be affected by the contractor</p> <p>For an amount equal to the gross tendered value inclusive of VAT plus 30% for fees and escalation.</p> <p>Full Final estimated value of the works including fees and escalation.</p> <p>With a deductible equal to the amount as determined by the contractor's insurance company.</p>
10.1.3	<p>Public liability insurance to be affected by the contractor</p> <p>The contractor will be required to have public liability insurance cover in place for an amount equal to the gross tendered value inclusive of VAT plus 30%. However, liability will not be limited to this amount. It remains the responsibility of the contractor to ensure sufficient insurance cover is available based on their assessment of their risk exposure.</p>
10.1.4	Lateral support insurance is to be affected by the contractor .
10.1.5	Support insurance to be affected by the contractor .
11.1.2	The security to be provided by the contractor is a Fixed Construction Guarantee equal to five per cent (5%) of the contract sum or a payment reduction of five per cent (5%) of the value of each payment certificate .
11.10, 19.5	A waiver of the contractor's lien or right of continuing possession is required.
12.1.5	Possession of the site to the contractor shall be within five (5) working days of the contractor complying with providing the employer with construction guarantees in accordance with the provisions of 11.1.2
12.2.22	Within fifteen (15) working days of the date of the agreement , submit to the principal agent an acceptable health and safety plan, required in terms of the Occupational Health and Safety Act, 1993 (Act No 85 of 1993), including a works programme.
12.1.5, 19.0, 24.0	<p>The period for the commencement of the works after the contractor takes possession of the site is:</p> <p>Seven (7) working days.</p> <p>For the works as a whole:</p> <p>The contract period will be 12 Months. The park and contractor shall agree on an agreed basis on the scope of work per annum, the timeframes for completion of the annual allocated work and completion dates of each project.</p> <p>The penalty per calendar day is R1 500 /day for not completing work as per agreed project programme.</p>
21.1.1	<p>Extended defects liability period will apply to the following elements:</p> <p>n/a</p>
25.2	Contractor's Monthly claims for payment shall be submitted to the QSSP on the 21st day of each month (contractor to ensure that applications for payment from subcontractors are received on the 20th day of each month), following which the QSSP shall submit his valuation to the principal agent within 14 days. The payment shall be made by the employer to the contractor within 21 calendar days. Payment shall only be made following receipt by the employer of both the original payment certificate and the contractor's tax invoice.
25.3.4, 26.0	No provision is made for cost fluctuations nor is the contract value to be adjusted.
30.0	<p>Default dispute resolution process shall be by mediation, then adjudication and if required, arbitration. The latest JBCC Adjudication Rules will apply.</p> <p>In the event that the parties cannot agree on the appointment of a mediator and/or adjudicator, the nominating body will be the Association of Arbitrators South Africa.</p>

Contractor

Witness for
Contractor

Employer

Witness for
Employer

**CONSTRUCTION OF 6 STAFF HOUSES AT RHODESDRIFT STAFF VILLAGE IN MAPUNGUBWE
NATIONAL PARK AND WORLD HERITAGE SITE.**

CONTRACT NO: SP-MG-0093

Part 2: Contract Data completed by the Contractor (COMPULSORY COMPLETION)

Clause	Item and data
1.2	<p>The name of the Contractor is.</p> <p>The address of the Contractor is:</p> <p>Telephone:</p> <p>Facsimile:</p> <p>Cell phone:</p> <p>Address (physical):</p> <p>.....</p> <p>.....</p> <p>Address (postal):</p> <p>.....</p> <p>.....</p> <p>Email:</p>

 Contractor

 Witness for
Contractor

 Employer

 Witness for
Employer

C1.3 Construction Guarantee

[Use for JBCC Principal Building Agreement for Organs of State (Edition 6.2) May 2018]

GUARANTOR DETAILS AND DEFINITIONS

Guarantor means

Physical address

.....

Guarantor's signatory 1 Capacity

Guarantor's signatory 1 Capacity

Employer means The South African National Parks

Contractor means

Agent means

Works means Construction of 6 Staff Villages at Rhodesdrift Staff Village in Mapungubwe National Park.

Site means Rhodesdrift Stall Village

Agreement means the JBCC Principal Building Agreement for Organs of State (Edition 6.2) May 2018

Contract Sum means the total of prices in the Form of Offer and Acceptance inclusive of VAT

Amount in figures R

Amount in words (Rand)

Guaranteed Sum means the maximum aggregate amount of R

Amount in words (Rand)

The Construction Guarantee required is of the type variable and the expiry date for the guarantee is Practical Completion.

AGREEMENT DETAILS

Sections: Total Sections Last Section

Principal Agents issues: Interim payment certificates, Final payment certificates, Practical completion certificates/ and Final completion certificates

1. FIXED CONSTRUCTION GUARANTEE

1.1 Where a Guarantee for Construction (Fixed) in terms of the Agreement has been selected this 1.0 with 2.0 to 12.0 shall apply. The Guarantor's liability shall be limited to the diminishing amounts of the Guaranteed Sum as follows:

GUARANTOR'S LIABILITY

Maximum Guaranteed Sum (not exceeding 5% of the contract sum) in the amount of:

.....

Amount in words:

PERIOD OF LIABILITY

From and including the date of issue of this Guarantee for Construction and up to and including the date of the only Certificate of Practical Completion or the last Certificate of Practical Completion where there are sections, where after this Guarantee for Construction shall expire

.....

Contractor

.....

Witness for
Contractor

.....

Employer

.....

Witness for
Employer

2. The Guarantor hereby acknowledges that:
 - 2.1 Any reference in this Guarantee to the Agreement is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a surety ship.
 - 2.2 Its obligation under this Guarantee is restricted to the payment of money.
 - 2.3 Reference to a recovery statement or an Interim or Final Payment Certificate, or a Certificate(s) of Practical or Final Completion shall mean such certificate issued by the Principal Agent
3. Subject to the Guarantor's maximum liability referred to in clause 1.0, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 3.1 to 3.3:
 - 3.1 A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Principal Agent in an interim or final payment certificate has not been made in terms of the Agreement and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 3.2.
 - 3.2 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) calendar days has elapsed since the first written demand in terms of sub-clause 3.1 and that the sum certified has still not been paid therefore the Employer calls up this Construction Guarantee and demands payment of the sum certified from the Guarantor.
 - 3.3 A copy of the said payment certificate which entitles the Employer to receive payment in terms of the Agreement of the sum certified in clause 3.0.
4. Subject to the Guarantor's maximum liability referred to in clause 1.0, the Guarantor undertakes to pay 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 Construction Guarantee stating that:
 - 4.1 Agreement has been cancelled due to the Contractor's default and that the Construction Guarantee is called up in terms of clause 4.0. The demand shall enclose a copy of the notice of cancellation; or
 - 4.2 A provisional sequestration or liquidation court order has been granted against the Contractor and that the Construction Guarantee is called up in terms of clause 4.0. The demand shall enclose a copy of the court order.
5. It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of clauses 3.0 and 4.0 shall not exceed the Guarantor's maximum liability in terms of clause 1.0.
6. Where the Guarantor is a registered insurer and has made payment in terms of clause 4.0, 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 the Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this Construction 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.
7. Payment by the Guarantor in terms of clause 3.0 or 4.0 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.
8. The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer deems fit and the Guarantor shall not have the right to claim his release from this Construction Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.
9. The Guarantor chooses the physical address as stated above for all purposes in connection herewith.
10. This Guarantee is neither negotiable nor transferable and shall expire in terms of 1.1, or payment in full of the Guaranteed Sum or on the Guarantee expiry date, whichever is the earlier, where after no claims will be considered by the Guarantor. The original of this Construction Guarantee shall be returned to the Guarantor after it has expired.
11. This Guarantee, with the required demand notices in terms of clauses 3.0 or 4.0, shall be regarded as a liquid document for the purpose of obtaining a court order.

 Contractor

 Witness for
Contractor

 Employer

 Witness for
Employer

12. Where this Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.

Signed at Date

Guarantor's
Signatory 1 Guarantor's
Signatory 2

Witness 1 Witness 2

Guarantor's seal or stamp

Contractor

Witness for
Contractor

Employer

Witness for
Employer

C1.4 Adjudicator's Contract

[Use for JBCC Principal Building Agreement for Organs of State (edition 6.2) May 2018]

This agreement is made on the day of between:
 (name of company / organisation)
 of
 (address) and
(name of company / organisation)
 of
 (address)
 (the Parties) and
 (name)
 of
 (address)
 (the Adjudicator).

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

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

* Delete as necessary

IT IS NOW AGREED as follows:

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

SIGNED
by:

Name:

who warrants that he / she is duly
authorised to sign for and on behalf of
the first Party in the presence of

Witness:

Name:

Address:

Date:

SIGNED
by:

Name:

who warrants that he / she is duly
authorised to sign for and on behalf of
the first Party in the presence of

Witness:

Name:

Address:

Date:

SIGNED by:

Name:

the Adjudicator in the presence of

Witness:

Name:

Address:

Date:

Contractor

Witness for
Contractor

Employer

Witness for
Employer

Contract Data

1	The Adjudicator shall be paid at the hourly rate of R. in respect of all time spent upon, or in connection with, the adjudication including time spent travelling.
2	<p>The Adjudicator shall be reimbursed in respect of all disbursements properly made including, but not restricted to:</p> <p>(a) Printing, reproduction and purchase of documents, drawings, maps, records and photographs.</p> <p>(b) Telegrams, telex, faxes, and telephone calls.</p> <p>(c) Postage and similar delivery charges.</p> <p>(d) Travelling, hotel expenses and other similar disbursements.</p> <p>(e) Room charges.</p> <p>(f) Charges for legal or technical advice obtained in accordance with the Procedure.</p>
3	The Adjudicator shall be paid an appointment fee of R This fee shall become payable in equal amounts by each Party within 14 days of the appointment of the Adjudicator, subject to an Invoice being provided. This fee will be deducted from the final statement of any sums which shall become payable under item 1 and/or item 2 of the Contract Data. If the final statement is less than the appointment fee the balance shall be refunded to the Parties.
4	The Adjudicator is/is not* currently registered for VAT.
5	Where the Adjudicator is registered for VAT it shall be charged additionally in accordance with the rates current at the date of invoice.
6	All payments, other than the appointment fee (item 3) shall become due 7 days after receipt of invoice, thereafter interest shall be payable at 5% per annum above the Reserve Bank base rate for every day the amount remains outstanding.

* Delete as necessary

Contractor

Witness for
Contractor

Employer

Witness for
Employer

Part C2: Pricing data

e-Tenders for viewing purposes only

Contractor

Witness for
Contractor

Employer

Witness for
Employer

**CONSTRUCTION OF 6 STAFF HOUSES AT RHODESDRIFT STAFF VILLAGE IN MAPUNGUBWE
NATIONAL PARK AND WORLD HERITAGE SITE.****CONTRACT NO: SP-MG-0093****C2.1 Pricing Instructions**

[Use for JBCC Principal Building Agreement for Organs of State (Edition 6.2) May 2018]

1. The Bills of Quantities have been drawn up in accordance with the Standard System of Measuring Building Work published and issued by the Association of South African Quantity Surveyors (Seventh Edition (Revised)), 2015. Where applicable the:
 - a. Civil engineering work has been drawn up in accordance with the provisions of the latest edition of SANS 1200 Standardized Specifications for Civil Engineering Works.
 - b. Mechanical work has been drawn up in accordance with the provisions of the Model Bills of Quantities for Mechanical Work, published by the South African Association of Quantity Surveyors, July 2005).
 - c. Electrical work has been drawn up in accordance with the provisions of the Model Bills of Quantities or Electrical Work, published by the South African Association of Quantity Surveyors, (July, 2005).
2. The agreement is based on the JBCC Principal Building Agreement for Organs of State, prepared by the Joint Building Contracts Committee, Edition 6.2, May 2018. The additions, deletions and alterations to the JBCC Principal Building Agreement for Organs of State as well as the contract specific variables are as stated in the Contract Data. Only the headings and clause numbers for which allowance must be made in the Bills of Quantities are recited.
3. Preliminary and general requirements are based on the various parts of SANS 1921, Construction and management requirements for works contracts. The additions, deletions and alterations to the various parts of SANS 1921 as well as the contract specific variables are as stated in the Specification Data in the Scope of Work. Only the headings and clause numbers for which allowance must be made in the Bills of Quantities are recited.
4. **It will be assumed that prices included in the Bills of Quantities are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for tenders. (Refer to www.stanza.org.za or www.iso.org for information on standards).**
5. The prices and rates in these Bills of Quantities are fully inclusive prices for the work described under the items. Such prices and rates cover all costs and expenses that may be required in and for the execution of the work described in accordance with the provisions of the Scope of Work, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the Contract Data, as well as overhead charges and profit. These prices will be used as a basis for assessment of payment for additional work that may have to be carried out.
6. The drawings listed in the Scope of Works used for the setting up of these Bills of Quantities are kept by the Principal Agent or Engineer and can be viewed at any time during office hours up until the completion of the works.
7. Reference to any particular trademark, name, patent, design, type, specific origin or producer is purely to establish a standard for requirements. Products or articles of an equivalent standard may be substituted with approval.
See Addendum C2.1.1 – Material specifications.
8. The rates contained in the Bill of Quantities will apply irrespective of the final quantities of the different classes and kinds of work actually executed.

Contractor

Witness for
Contractor

Page 71 of 225

Employer

Witness for
Employer

9. Rates for work of similar description occurring in different sections of the Bill of Quantity shall be identical.
10. An item against which no price is entered will be considered to be covered by the other prices or rates in the Bills of Quantities. A single lump sum will apply should a number of items be grouped together for pricing purposes.
11. Where any item is not relevant to this specific contract, such item is marked N/A (signifying "not applicable")
12. The Contract Data and the standard form of contract referenced therein must be studied for the full extent and meaning of each and every clause set out in Section 1 (Preliminaries) of the Bills of Quantities.
13. The Bills of Quantities is not intended for the ordering of materials. Any ordering of materials, based on the Bills of Quantities, is at the Contractor's risk.
14. The amount of the Preliminaries to be included in each monthly payment certificate shall be assessed as an amount prorated to the value of the work duly executed in the same ratio as the preliminaries bears to the total of prices excluding any contingency sum, the amount for the Preliminaries and any amount in respect of contract price adjustment provided for in the contract
15. Where the initial contract period is extended, the monthly charge shall be calculated on the basis as set out in 10 but taking into account the revised period for completing the works.
16. The amount or items of the Preliminaries shall be adjusted to take account of the theoretical financial effect which changes in time or value (or both) have on this section. Such adjustments shall be based on adjustments in the following categories as recorded in the Bills of Quantities:
 - a. an amount which is not to be varied, namely Fixed (F)
 - b. an amount which is to be varied in proportion to the contract value, namely Value Related (V); and
 - c. an amount which is to be varied in proportion to the contract period as compared to the initial construction period excluding revisions to the construction period for which no adjustment to the contractor is not entitled to in terms of the contract, namely Time Related (T).
17. Where no provision is made in the Bills of Quantities to indicate which of the three categories in 12 apply or where no selection is made, the adjustments shall be based on the following breakdown:
 - a. 10 percent is Fixed;
 - b. 15 percent is Value Related
 - c. 75 percent is Time Related.
18. The adjustment of the Preliminaries shall apply notwithstanding the actual employment of resources in the execution of the works. The contract value used for the adjustment of the Preliminaries shall exclude any contingency sum, the amount for the Preliminaries and any amount in respect of contract price adjustment provided for in the contract. Adjustments in respect of any staged or sectional completion shall be prorated to the value of each section.

Contractor

Witness for
Contractor

Employer

Witness for
Employer

**CONSTRUCTION OF 6 STAFF HOUSES AT RHODESDRIFT STAFF VILLAGE IN MAPUNGUBWE
NATIONAL PARK AND WORLD HERITAGE SITE.**

CONTRACT NO: SP-MG-0093

C2.2 Bill of Quantities

e-Tenders for viewing purposes only

Contractor

**Witness for
Contractor**

Page 73 of 225

Employer

**Witness for
Employer**

Part C3: Scope of Work

e-Tenders for viewing purposes only

Contractor

Witness for
Contractor

Employer

Witness for
Employer

CONSTRUCTION OF 6 STAFF HOUSES AT RHODESDRIFT STAFF VILLAGE IN MAPUNGUBWE NATIONAL PARK AND WORLD HERITAGE SITE.

CONTRACT NO: SP-MG-0093

C3.1 Scope of Work

[Use for JBCC Principal Building Agreement for Organs of State (edition 6.2) May 2018]

1	DESCRIPTION OF THE WORKS
1.1	Employer's objectives
	CONSTRUCTION OF 6 STAFF HOUSES AT RHODESDRIFT STAFF VILLAGE IN MAPUNGUBWE NATIONAL PARK AND WORLD HERITAGE SITE.
1.2	Overview of the works
	<p>Construction of 6 new two-bedroom houses comprising of the following:</p> <ol style="list-style-type: none"> 1. Structural Building Works 2. Painting 3. External services 4. Plastering 5. Electrical works 6. Concrete works 7. Fitout works 8. Electrical infrastructure upgrade <p>All other relevant services and construction deemed necessary.</p>
1.3	Extent of the works
	As above
1.4	Location of the works
	As per the sites in 1.2. The site is situated at Rhodesdrift Staff Village in Mapungubwe National Park and World Heritage Site, Limpopo Province.
1.5	Temporary works
	Nil
2	DRAWINGS
2.1	As per drawing list
3	PROCUREMENT
3.1	Subcontracting
3.1.1	Scope of mandatory subcontractor work
	N/A
3.1.2	Preferred subcontracting / suppliers
	N/A
3.1.3	Subcontracting procedures
	N/A
4	CONSTRUCTION
4.1	<p>Applicable SANS 2001 standards for construction works</p> <p>SANS 10142-1:2020 Edition 3</p> <p>SANS 10407:2016 Edition 2.1</p> <p>SABS 0400</p> <p>SANS 1200</p>

 Contractor

 Witness for
Contractor

 Employer

 Witness for
Employer

	All other SANS standards that may become relevant with a specific project.														
4.2	Applicable national and international standards SANS SABS														
4.3	Certification by recognised bodies All certification must be submitted to Technical Services of SANParks for approval														
4.4	Agreement certificates Alternative materials with Agreement Certificates must be submitted to Technical Services SANParks for approval prior to work commencing														
4.5	Plant materials and equipment supplied by the employer Nil														
4.6	Services and facilities provided by the employer <ul style="list-style-type: none"> • Water: Option B as hereinafter defined • Electricity: Option B as hereinafter defined • Telecommunication services: All communication must be provided by contractor. • Ablution facilities: No Ablution facilities available. Chemical toilets to be provided by contractor. • Medical / first aid facilities: to be provided by contractor • Fire protection services: to be provided by contractor for area of the works 														
4.7	Other facilities and services All temporary facilities to be provided by contractor														
5	MANAGEMENT OF THE WORKS														
5.1	Applicable SANS 1921 standards The following parts of SANS 1921 Construction works standards and associated specification data are applicable to the works: 1) SANS 1921 – 1: General engineering and construction works 2) SANS 1921 – 5: Earthworks activities which are to be performed by hand The abovementioned South African National Standards make several references to the Specification Data for data, provisions and variations that make these standards applicable to this contract. The Specification Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and these standards. Each item of Specification Data given below is cross-referenced to the clause in the standard to which it mainly applies. The associated Specification Data is as follows: <table border="1"> <thead> <tr> <th colspan="2">SANS 1921-1, General engineering and construction works</th></tr> <tr> <th>Clause</th><th>Specification data</th></tr> </thead> <tbody> <tr> <td colspan="2">Essential data</td></tr> <tr> <td>4.1.7</td><td>There are no requirements for drawings, information and calculations for which the contractor is responsible</td></tr> <tr> <td>4.2.1</td><td>The responsibility strategy assigned to the contractor for the works is A.</td></tr> <tr> <td>4.2.2</td><td>The structural engineer is SANParks Engineers.</td></tr> <tr> <td>4.3.1</td><td> The planning, programme and method statements are to comply with the following: 1. Immediately on award of the Contract and prior to commencement on site, the Contractor, in conjunction with the Principal Agent, shall agree the working Programme covering the first month </td></tr> </tbody> </table>	SANS 1921-1, General engineering and construction works		Clause	Specification data	Essential data		4.1.7	There are no requirements for drawings, information and calculations for which the contractor is responsible	4.2.1	The responsibility strategy assigned to the contractor for the works is A.	4.2.2	The structural engineer is SANParks Engineers.	4.3.1	The planning, programme and method statements are to comply with the following: 1. Immediately on award of the Contract and prior to commencement on site, the Contractor, in conjunction with the Principal Agent, shall agree the working Programme covering the first month
SANS 1921-1, General engineering and construction works															
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4.2.2	The structural engineer is SANParks Engineers.														
4.3.1	The planning, programme and method statements are to comply with the following: 1. Immediately on award of the Contract and prior to commencement on site, the Contractor, in conjunction with the Principal Agent, shall agree the working Programme covering the first month														

 Contractor

 Witness for
Contractor

 Employer

 Witness for
Employer

		<p>of the Construction Period. During the first month of the Construction Period the Contractor shall prepare and draw up in conjunction with the Principal Agent the Programme for the balance of the Works in accordance with the conditions stated below.</p> <ol style="list-style-type: none"> 2. The Principal Agent shall have the right to modify such Programme to accommodate changes necessary in his opinion for coordinating the project as a whole. Any cost implications relating to such modification shall be dealt with in accordance with the provisions of the Agreement. 3. This Programme shall be drawn up in accordance with the dates given herein for possession, sectional completion and Practical Completion and shall be in sufficient and approved detail to ensure control over the work. 4. Notwithstanding the fact that the Programme has been prepared in conjunction with the Principal Agent, the Contractor shall be responsible at all times for maintaining the accuracy, validity and reasonableness of the Programme, and the implementation thereof. 5. The Programme shall be compiled based on the Critical Path Method of programming and the critical activities are to be clearly highlighted. It shall be compiled in such a way that logic is not constrained by resource limitations unless specifically agreed otherwise by the Principal Agent. The Programme will be processed on the Principal Agents system and the Contractor shall provide all the co-operation necessary to achieve this. 6. Documentation will not be available in complete detail at the commencement stage. However the Contractor, in conjunction with the Principal Agent, shall plan the Works on provisional information, to an agreed level of detail relating to the level of detailed information available and with sufficient scope to include future detail without disrupting the basic logic as initially agreed. The quantities contained in this document are provisional and shall be utilized as a guide only for the drawing up of the Programme. Where assumptions are made in regard to programming aspects, such assumptions shall be agreed by the Contractor and the Principal Agent, and suitably recorded in the Programme. 7. Should circumstances change to the extent where the Contractor is of the opinion that changes to the Programme are required, then the Contractor shall make written request to the Principal Agent for such changes, clearly identifying the reasons for requiring such change. The Contractor and Principal Agent shall thereafter agree such changes, if any. Should the Principal Agent be of the opinion that the Programme requires revisions, and notwithstanding the fact that a request for such revision has not been received from the Contractor, the Principal Agent shall be entitled to instruct the Contractor to revise the Programme accordingly, unless the Contractor can submit reasonable justification for not doing so. Any acceleration and/or special measures sanctioned by the Principal Agent together with associated effects shall be incorporated in a revision to the Programme. 8. The Contractor and the Principal Agent shall, at regular intervals not exceeding one month, agree the state of progress of the Works relative to the latest agreed revision of the Programme. Such agreement shall include the recording of actual commencement and completion dates for each activity and shall constitute the official record of the progress at such point in time. 9. In addition to and based on the Programme systems and format dictated above, the Contractor shall devise Detailed Working Programmes. These shall be drawn up on a regular basis (at least monthly), to the satisfaction of the Principal Agent. Such Working Programmes shall at all times relate to the constraints of the current Programme. 10. Notwithstanding anything to the contrary contained herein the Principal Agent at all times reserves the right to direct the order in which the various parts of the Contract are to be executed. The Contractor shall give priority to any individual section or portion of the Works that, in the opinion of the Principal Agent, requires to be expedited. 11. Should the Contractor and/or Principal Agent be of the opinion that such instruction warrants a revision to the Programme, then the provisions of 7 above shall apply. 12. Should it appear, in the Principal Agent's opinion, that work in any area is not being executed in accordance with the requirements of the Programme, the Contractor shall provide additional manpower and resources and shall work additional overtime and do everything else required to bring the work back to Programme to the satisfaction of the Principal Agent.
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 Contractor

 Witness for
Contractor

 Employer

 Witness for
Employer

	4.3.2	<p>1. The Contractor is required to identify and provide the employer with material procurement and construction lead in periods for the following aspects:</p> <p>1.1 Building Information</p> <p>1.1.1 Foundation Layouts (Setting Out)</p> <p>1.1.2 Reinforcing Schedules</p> <p>1.1.3 Concrete Layouts (including pile caps, ground beams, columns, beams, stairs, etc)</p> <p>1.1.4 Concrete Details</p> <p>1.1.5 Paint Specifications</p> <p>1.1.6 Metal Work etc.</p> <p>2. The Contractor is further required to identify and provide the employer with lead in periods required for the appointment of anticipated sub-contractors for:</p> <p>2.1 Sundry Fittings</p> <p>2.2 Sundry Metalwork</p> <p>2.3 Sundry Builder's Work</p>
	4.3.3	The notice period for inspection is 14 days.
	4.7.3	Blasting operations will not be required.
	4.9.3	Specific requirements of the employer are described in the scope of work.
	4.12.2	<p>The contractor will provide representative samples of materials, workmanship and finishes as the Principal Agent may require.</p> <p>Upon request of Principal Agent</p>
	4.14.1	Contractor will not be allowed to set up accommodation on site. Contractor to provide own accommodation and transport of workers outside of the park
	4.14.3	<p>The office accommodation, equipment, accommodation for site meetings and other facilities for use by the employer and his agents are:</p> <p>Nil</p>
	4.14.5	The Contractor is required to provide latrine and ablution facilities.
	4.14.6	A Construction sign board and necessary H&S sign/notice boards are required. All signboards need to be approved / accepted by the Employer prior to erection.
	4.17.1	<p>The requirements for the termination, diversion or maintenance of existing services are:</p> <p>Nil</p>
	4.17.3	Services which are known will be pointed / are to be pointed out on site by the Employer.
	4.17.4	<p>The requirements for detection apparatus are:</p> <p>No as-built drawings exist</p>
	4.18	<p>The following standards and specifications shall be in addition to the provisions of 4.18:</p> <p>1. The Occupational Health and Safety Act 85 of 1993 and its Construction Regulations 2014. Said act and regulations are not attached. Health and Safety Specifications for SANParks – Renovations of old chalets at Nossob Rest Camp, no. 1-10. Renovations of old reception building at Nossob Rest Camp. Construction of a new entrance gate at Nossob Rest Camp. (Said Specification is attached as Annexure A: Health and Safety Specifications for South African National Parks)</p>
	4.19	<p>The following standards and specifications shall be in addition to the provisions of 4.19:</p> <p>1. The <u>Environmental Management Programme (EMPr) for Expansion of the Rhodesdrift Staff Village within the Mapungubwe National Park, Limpopo Province</u>. Said specification is attached as Annexure B of the Scope of Works.</p>
	4.22	<p>The works to be undertaken by nominated and selected subcontractors comprise:</p> <p>Nil</p>

 Contractor

 Witness for
Contractor

 Employer

 Witness for
Employer

Variations	
1	<p>Replace 4.1.9 with the following:</p> <p>All rights of publication of articles in the media, together with any advertising relating to, or in any way connected with this project shall vest in the Employer. The Contractor together with his Subcontractors shall not, without the written consent of the Employer, cause any statement or advertisement to be printed, screened or aired by the media.</p>
2	<p>Replace 4.9.3 with the following:</p> <p>Trees and shrubs shall not be removed, cut back or disturbed in any way without the consent of the principal agent. Specific requirements of the employer are described in the Scope Of Works.</p>
3	<p>Replace the heading of 4.12 with the following:</p> <p>"4.12 Materials, samples, fabrication drawings and overloading."</p>
4	<p>Include the following after 4.1.2.5</p> <p>"4.12.6 Overloading"</p> <p>The Contractor shall take all necessary steps to ensure that no damage occurs due to overloading of any portion of the Works or temporary works. Any damage caused to the Works by overloading shall be made good by the Contractor at his sole expense."</p>
Additional Clauses	
1	<p><u>Prime Cost Amounts</u></p> <p>All prime cost items are for material and goods delivered to site. The contract documents shall make provision for the contractor to separately price for overheads and profit and for taking delivery, unloading, checking against invoices and/or delivery notes, getting in, unpacking, storing, hoisting and fixing of such material and goods. The contractor shall check the quantity and condition of all materials and goods on taking delivery as any material and goods subsequently found missing or damaged shall be replaced at the contractor's expense.</p>
2	<p><u>Cash flow predictions</u></p> <p>The contractor shall provide all reasonable assistance to the principal agent in the preparation of cash flow projections of claims for payment certificates. Cash flow predictions will be updated by the Contractor on monthly basis and will be submitted to Employer together with its progress claims. The projections shall be based on the programme. The cooperation of the contractor in terms of this item shall not prejudice his right to receive payment in terms of the agreement.</p>
3	<p><u>Protection/isolation of existing /sectional occupied works</u></p> <p>The contractor shall provide all reasonable temporary measures to protect/isolate the existing and/or sections of the occupied works and remove such measures on completion.</p>
4	<p><u>Security of the works</u></p> <p>The contractor shall take all appropriate measures for general security of the works.</p>
5	<p><u>Minimum requirements for construction equipment</u></p> <p>Construction equipment must comply with all relevant legal requirements and must be adequate to execute the works.</p>
6	<p><u>Deposits and fees</u></p> <p>The contractor shall pay all deposits and fees and charges according to law, regulations or bylaws of any local or other authorities that relate to hoardings, the use of pavements, street encroachment or crossings, permission for the suspension of parking facilities and the like.</p>
7	<p><u>Water and electricity</u></p> <p>The Employer does not warrant that any water supply or electricity supply that may exist is adequate for the proper execution of the works. The responsibility strategies in terms of the tabulation below that will apply to the contract are:</p> <p>a) Water : B</p> <p>b) Electricity : B</p>

 Contractor

 Witness for
Contractor

 Employer

 Witness for
Employer

	Service	Option		
		A Contractor responsibility	B Employer responsibility	C
	Water	The Contractor is to provide, and remove and make good upon completion, all the necessary temporary plumbing connections and purchase water from the local authority for the works at his own cost.	The Contractor shall make, and upon completion remove, all the necessary connections to the Employer's water supply at designated points and make use of water free of charge for construction purposes only.	The Contractor shall make, and upon completion remove, all the necessary connections and water meters to the Employer's water supply at designated points and be responsible for costs associated with all water consumed.
	Electricity	The Contractor is to provide, and remove and make good upon completion, all the necessary temporary electrical connections and installations and purchase electricity from the local authority / ESKOM for the works at his own cost.	The Contractor is to provide, and remove and make good upon completion, all the necessary temporary electrical connections and installations and purchase electricity from the local authority / ESKOM for the works at his own cost.	The Contractor shall make, and upon completion remove, all the necessary connections and meters to the Employer's electrical supply and be responsible for costs associated with all electricity consumed.
5.2.1	<p>1. Water: Will be available for construction purposes in the park, but usage must be arranged through and approved by the local representatives of SANParks. Transport and storage of water for construction and personnel will be for the account of the contractor. (See also JBCC doc 28 – Scope of work [Additional clauses – 7])</p> <p>2. Electricity: Electricity supply is available for construction purposes in the park, but usage must be arranged through and approved by the local representatives of SANParks</p> <p>3. Accommodation: Accommodation is not available in the park. Contractor to establish own sites in the Park on demarcated sites to be identified and to be fenced to the required park standard.</p> <p>4. Telecommunication services: to be provided by contractor where available. Cell phone signal available on site and no landline available.</p> <p>5. Ablution facilities: No Ablution facilities available – contractor to provide in accordance with OHS Act</p> <p>6. Medical / first aid facilities: To be provided by contractor including transport to medical facilities outside the park</p> <p>7. Fire protection services: To be provided by contractor</p> <p>8. Solid waste: Contractor responsible for solid waste in accordance with the Kgalagadi waste management programme.</p> <p>9. Transport: Contractor to provide own transport of workers in accordance with Kgalagadi Transfrontier Park's Code of Conduct regarding traffic rules, speed limits, traveling times, etc. Contractor vehicles to be clearly marked.</p>			
5.2.2	<p>Code of Conduct for working in the SANParks</p> <p>The document <i>Code of Conduct for Implementing a SANParks Project</i> is applicable to this contract, and is attached as Annexure C.</p>			
5.3	<p>Unauthorised Persons On Site</p> <p>The Contractor shall at all times strictly exclude all unauthorised persons from the Works.</p> <p>No workmen or labourers are to be allowed under any circumstances to sleep or deposit any kit on the premises. Unless a designated enclosed and secure camp site for accommodating the Contractors employees has been allocated and approved by the Park Officials.</p> <p>Furthermore, the Contractor shall take all measures necessary to ensure that no workmen are allowed into the building at any time after Practical Completion without the specific permission of the Principal Agent.</p>			

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5.4	Quality plans and control Quality inspections will be held at regular intervals. The contractor must notify the Principal Agent of any closure of works which must be inspected to confirm quality.
5.5	Accommodation of traffic on public roads occupied by the contractor N/A
5.6	Other contractors on site N/A
5.7	Testing, completion, commissioning and correction of defects All testing and certification of the works will be done in accordance with the applicable governing regulations and the procedures for the following will be clarified at the site meeting: <ul style="list-style-type: none"> • Use of the works before completion has been certified; • Handover / beneficial occupation; • Pre-commissioning and commissioning of the works or part thereof, before and after completion; • Certifying completion; • Start-up; operation of the works; special arrangements associated with operating plant and machinery, etc.; • Training and technology transfer; • Take over; • Operational maintenance (if any), after completion; • Work which contractors may carry out after completion has been certified (in addition to correcting defects); and • Arranging access for correction of defects
5.7.1	Product warranties, guarantees and maintenance instructions/manuals The Contractor shall obtain and hand over to the Principal Agent on Practical Completion all relevant product warranties and guarantees, any operating and maintenance instruction manuals, data or instructions required by the Principal Agent or provided by manufacturers, suppliers or Subcontractors. The Contractor shall ensure that all warranties and guarantees received are fully ceded to the Employer on Works Completion, failing which the release of Construction Guarantee/Retention will be withheld until this is satisfactorily completed.
5.7.2	Security at completion At completion, the Contractor shall leave the Works secure with all accesses locked. The Contractor shall account for and hand over to the Principal Agent all keys, properly labelled with an itemised schedule to be signed by the Principal Agent as receipt.
5.8	Recording of weather A record of rain and all other inclement weather should be kept on site.
5.9	Format of communications All site instructions should be in writing on the prescribed format and will not be an approved site instruction until the Principal Agent has signed it. All notifications of inspections and all requests for information should be in writing.
5.9.1	Site Instructions Contract Instructions issued on Site are to be recorded by the Principal Agent in a Site Instruction Book which will be issued by the Principal Agent and which shall be maintained on Site. Only Site Instructions issued in such book will be effected by the contractor.
5.10	Management meetings The schedule for the site meetings will be agreed upon at the site hand-over meeting.

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5.10.1	Progress Meetings The Principal agent and contractor shall hold meetings related to the progress of the works at regular intervals and at such time as may be necessary. Subcontractors shall not be present at progress meetings unless specifically requested by the contractor or principal agent. The principal agent shall record and distribute the minutes of the meetings.
5.10.2	Technical meetings At the instance of the principal agent or the contractor meetings shall be held to deal with technical and subcontractor's coordination matters.
5.11	Forms for contract administration All contract administration procedures will be agreed upon at the site hand-over meeting.
5.12	Electronic payments The contractor must be registered with the National Treasury's Central Supplier Database and provide the registration information in order to enable SANParks to pay him or her electronically.
5.13	Daily records Daily records must be kept of all workers employed on the site as per the attached Attendance Register – Annexure D. The attendance register must be submitted to the project manager together with the monthly certificates. The number of workers and person days should be calculated on these registers on a progressive monthly basis.
5.14	Bonds and guarantees All guarantees must be delivered to the SANParks Principal Agent.
5.15	Payment certificates The Principal Agent shall inspect all work and certify work done on a monthly basis. No payment shall be made for material on site. Material on site must be ceded to the employer and proof of payment to the supplier given to the employer before any payment of such material on site will be made.
5.16	Permits N/A
5.17	Proof of compliance with the law SANParks could request the contractor for proof that all aspects of South African Law are complied with.
5.18	Insurance provided by the employer N/A
ANNEXES	
A	Health and Safety Specifications for SANParks
B	Environmental Management Programme (EMPr) for the EXPANSION OF THE RHODES DRIFT STAFF VILLAGE WITHIN THE MAPUNGUBWE NATIONAL PARK, LIMPOPO PROVINCE.
C	Code of Conduct for Working in a National Park

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C3.2: Drawings

Drawing Description	Drawing number
SANP mun A	1a REV 03
SANP mun A	1b REV 03
SANP mun A	1c REV 03
SANP mun A	1d REV 03
SANP mun A	1e REV 03
SANP mun A	1f REV 03
SANP mun A	1g REV 03
Floor Plan	RNP_7_4_6_1_2_1
Elevations	RNP_7_4_6_1_2_2
Sections	RNP_7_4_6_1_2_3
Electrical	RNP_7_4_6_1_2_4
Window Schedule	RNP_7_4_6_1_2_5
Sewer Layout	RNP_7_4_6_1_2_6
Demolition Plan	RNP-7_4_16_1_2_2
NEW. Floor Plan	RNP-7_4_16_1_2_3
Elevations	RNP-7_4_16_1_2_4
EX. Floor Plan	RNP-7_4_16_1_2_1

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ELEVATIONS	RNP-7_4_17_1_2_00
FLOOR PLAN	RNP-7_4_17_1_2_1
PE Septic tank	GEN-200-03-1
PE Septic Tank with Concrete Slab over	GEN-200-04-1-01
Soakaway - PI chamber w out MH	GEN-201-01-1-01
Soakaway - PI chamber with MH	GEN-201-02-1
Stone trench soakaway	GEN-201-03-1
Reinf concrete found	GEN-ST-001-01-1
Concrete found	GEN-ST-001-02-1
ROOF AND ELECTRICAL	RNP-7_4_17_1_1_4
SECTIONS	RNP-7_4_17_1_1_3
Ex. Floor Plan	RNP-7_4_9_1_1_1
New Floor Plan	RNP-7_4_9_1_1_2
Elevations	RNP-7_4_9_1_1_3
Sections	RNP-7_4_9_1_1_4
Electrical Layout	RNP-7_4_9_1_1_5
Exist Layout	RNP-7_4_16_1_1_1
New floor plan	RNP-7_4_16_1_1_2
Elevations	RNP-7_4_16_1_1_3
Gas store details	RNP-7_4_16_1_1_4
New toilet	RNP-7_4_16_1_1_5
New ramp details	RNP-7_4_16_1_1_6
Section	RNP-7_4_16_1_1_7
New door details	RNP-7_4_16_1_1_8

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C3.3: Specifications

Item	Specification
FOUNDATIONS/ FOOTINGS/FLOORS & RAMPS	15MPa/19mm unreinforced concrete surface blinding under footings and bases. Reinforced Concrete strength 25MPa/19mm strip footings, bases, surface beds & ramps
FLOORS	25mm Screed on 85mm thick concrete slab laid on 375micron DPC.
WALLS	Walls external 230mm and 115mm (internal). Built with SABS approved clay bricks
LINTOLS	Pre-cast lintols to all openings with a minimum of three continuous courses of brickwork.
ROOF COVERING	0.6 mm Corrugated iron roof sheeting at 30° pitches on timber battens and prefabricated timber trusses for houses, laundry, ablution & kitchen, office store and ablution, shop Nutech big six roof sheeting for wall cladding at store.
PERGOLA'S	100-150mm CCA treated poles with 25-30mm CCA treated laths
CEILINGS	6mm Nutech ceilings with 76mm coved cornice on 38 x 38mm bracing.
WINDOWS & DOORS	Steel windows and door frames to be used. Internal doors to be hardwood framed, ledged, braced & battened. Solid hardwood external doors. Glazing of doors & windows to be according to SABS 0400.
PLUMBING AND DRAINAGE	Plumbing works according to SABS0400 & approved plumber.
SEWERAGE	All sewer pipes to be 100mm PVC at min 1:60 fall. All sewer pipes running underneath slabs to be encased in 300mm concrete. At all locations, septic tank, connection and pumps into existing sewer reticulation
ELECTRICAL	Electrical reticulation as per plan and fittings approved by principal agent. Distribution boards, light switches, plug points, solar geysers and sewer pumps.
TILING	200x200x6mm Samca white glazed wall tiles in kitchen, shower & splash backs. 50x50mm Mosaic sheets on shower floors. 300x300x8mm CTM Touchstone Ivory ceramic floor tiles on all floors.
PAINTING	External & internal walls painting, steel frames of doors & windows
PAVING	Block paving SA 80mm interlocking paving blocks on river sand with sand-cement mixture swept into joints
STEEL WORKS	Steel windows and pressed door frames as per specification. Galvanised Chromadek industrial type roller shutter doors. 0.58mm IBR 686 Chromadek clad sliding doors on 100x50x20x3mm lipped steel frame with Hillaldam Rollaway 500 rollers and bottom steel track 60x60x8mm angle with wheels as per specification.
RAINWATER GUTTERS	100X200X3mm Galvanised steel gutters complete with down let pipes.

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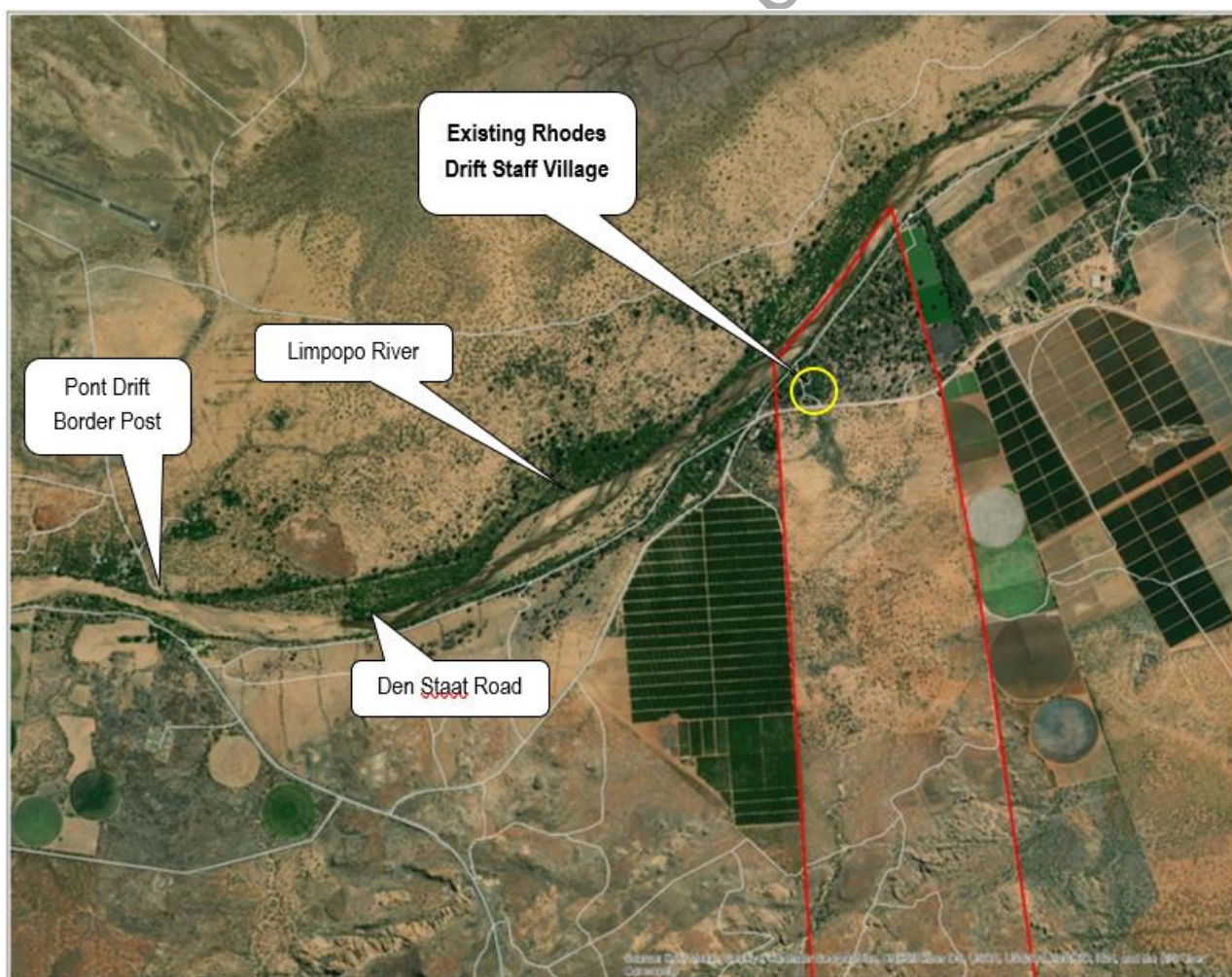
Part C4: Site Information

RHODESDRIFT MAP

The works is at Rhodesdrift Staff Village in Mapungubwe National Park in the Limpopo Province.

The works comprise of the following:

1. 6 New two-bedroom staff accommodation units.
2. DB upgrade
3. External Services



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Annexure A

**Health and Safety Specifications for South African
National Parks**

e-Tenders for viewing purposes only

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HEALTH & SAFETY SPECIFICATIONS FOR

COSNTRUCTION OF 6 STAFF HOUSES IN RHODESDRIFT AT MAPUNGUBWE NATIONAL PARK AND WORLD HERITAGE SITE

CONTRACT NO: SP-MG-0093

(Contractor)

Date: September 2023

Contact person: **Zamakhosi Mkhonza**

Address: PO Box 787
Pretoria, 0001

Tel No: (012) 426 5199

Email Fax: 086 695 9139

Email: zamakhosi.mkhonza@sanparks.org

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- Project Details
- Existing Environment
- Project Health and Safety Requirements
- Activities requiring approved Method Statements
- Activities requiring Permits
- General Arrangements
- Protection of sit against Unauthorized access by public
- Personal Protective Equipment
- Hazardous Substance

8. BASELINE RISK ASSESSMENT

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1. PURPOSE OF THE HEALTH AND SAFETY SPECIFICATION

This Health and Safety Specification has been prepared to comply with the requirements of the Construction Regulations 2014.

The purpose of this sitespecific Health and Safety Specification is to comply with legal requirements and to provide health and safety information about specific project risks known by the Client, Designer and Client Agent to be applicable to this project. This document also provides minimum health and safety requirements, standards and expectations that the principal contractor and contractors must adhere to.

The Contractor must take into account all information in this specification and ensure that their tenders include adequate resource and competence to deal with the matters detailed herein so that all relevant contents are dealt with in a way which is in compliance with legislation and the ethical concerns for the safeguarding of employees, contractors and other persons affected by the construction activities.

The Health and Safety Specification will be implemented during construction of the works and any construction activity that the Client has control over.

This will also assist in ensuring that all the costs related to the compliance with Occupational Health Act 85 of 1993 and the Construction Regulations 2014, as well as this Health and Safety Specification, are taken into consideration at Tender stage.

No advice, approval of any document required by the Health and Safety Specification such as hazard identification and risk assessment action plans or any other form shall be construed as an acceptance by the Client of any obligation that absolves the Contractor from achieving the required level of performance and compliance with legal requirements.

Further, there is no acceptance of liability by the Client which may result from the Contractor failing to comply with the Health and Safety Specification unless the Client has issued an instruction to any requirement, i.e. the Contractor remains responsible for achieving the required performance levels.

2. IMPLEMENTATION OF THE HEALTH AND SAFETY SPECIFICATION

This Health and Safety Specification forms an integral part of the Contract, and Contractors shall make it an integral part of their Contracts with Sub Contractors and Suppliers. Contractors employed by the Client are to ensure that the provisions of the Health and Safety

Specification are applied both on the site and in respect of all off site activities relating to the project, in particular in transport activities and project dedicated off site fabrication works.

The Contractor shall enforce the provisions of the Health and Safety Specification amongst all sub-contractors and suppliers for the project.

The Contractor shall sign the acknowledgment on the last page of this safety specification that he/she has familiarized him/herself with the content of the Health and Safety Specification and shall comply with all obligations in respect thereof.

The successful Contractor will be required to compile a Health and Safety Plan based on the requirements of the Occupational Health Act 85 of 1993 and these Specifications, which will need to be approved by Client prior to commencement with construction work.

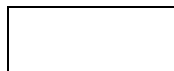
3. APPLICATION AND INTERPRETATION

This document is to be read and understood in Conjunction with the following inter alia:

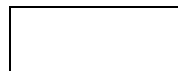
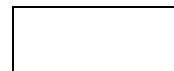
- Occupational Health and Safety Act (Act 85 of 1993)
- SABS codes and standards referred to by the Occupational Health and Safety Act
- Regulations as per the Occupational Health and Safety Act (Act 85 of 1993) with specific reference but not limited to:
 - General Safety Regulations (GN 928, 25 June 2003)
 - General Machinery Regulations (GN R1521, 5 August 1988)
 - Electrical Machinery Regulations (GN R250, 25 March 2011)
 - Electrical Installation Regulations (GN R242, 6 March 2009)
 - Driven Machinery Regulations (GN R1010, 18 July 2003)
 - Hazardous Chemical Substance Regulations (GN R930, 25 June 2003)
 - Hazardous Biological Agents Regulations (GN R 1390, 27 December 2001)
- Basic Conditions of Employment Act (Act 75 of 1997)
- SANParks Environmental Management Plan
- SANParks Code of Conduct of working in a National Park

4. DEFINITIONS

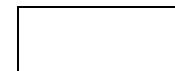
ALL REFERENCES TO CLIENT IN THIS HEALTH AND SAFETY SPECIFICATION ALSO REFER TO CLIENT AGENT, WHERE SO APPOINTED.



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Definitions (as per the Construction Regulations 2014) applicable to this Health and Safety Specification:

"agent" means a competent person who acts as a representative for a client;

"angle of repose" means the steepest angle of a surface at which a mass of loose or fragmented material will remain stationary in a pile on the surface, rather than sliding or crumbling away;

"bulk mixing plant" means machinery, appliances or other similar devices that are assembled in such a manner so as to be able to mix materials in bulk for the purposes of using the mixed product for construction work;

"client" means any person for whom construction work is being performed;

"competent person" means a person who has, in respect of the work or task to be performed, the required knowledge, training and experience and, where applicable, qualifications, specific to that work or task: Provided that where appropriate qualifications and training are registered in terms of the provisions of the National Qualification Framework Act, 2000 (Act No.67 of 2000), those qualifications and that training must be regarded as the required qualifications and training; and is familiar with the Act and with the applicable regulations made under the Act;

"construction manager" means a competent person responsible for the management of the physical construction processes and the coordination, administration and management of resources on a construction site;

"construction site" means a work place where construction work is being performed;

"construction supervisor" means a competent person responsible for supervising construction activities on a construction site;

"construction vehicle" means a vehicle used as a means of conveyance for transporting persons or material, or persons and material, on and off the construction site for the purposes of performing construction work;

"construction work" means any work in connection with-

- the construction, erection, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure; or
- the construction, erection, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system; or the

moving of earth, clearing of land, the making of excavation, piling, or any similar civil engineering structure or type of work ;

"construction work permit" means a document issued in terms of regulation 3;

"contractor" means an employer who performs construction work;

"demolition work" means a method to dismantle, wreck, break, pull down or knock down of a structure or part thereof by way of manual labour, machinery, or the use of explosives;

"design" in relation to any structure, includes drawings, calculations, design details and specifications;

"designer" means a competent person who-

- prepares a design;
- checks and approves a design;
- arranges for a person at work under his or her control to prepare a design, including an employee of that person where he or she is the employer; or
- designs temporary work, including its components;
- an architect or engineer contributing to, or having overall responsibility for a design;
- a building services engineer designing details for fixed plant;
- a surveyor specifying articles or drawing up specifications;
- a contractor carrying out design work as part of a design and building project; or
- an interior designer, shop-fitter or landscape architect;

"excavation work" means the making of any man-made cavity, trench, pit or depression formed by cutting, digging or scooping;

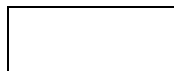
"explosive actuated fastening device" means a tool that is activated by an explosive charge and that is used for driving bolts, nails and similar objects for the purpose of providing fixing;

"fall arrest equipment" means equipment used to arrest a person in a fall, including personal equipment, a body harness, lanyards, deceleration devices, lifelines or similar equipment;

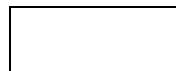
"fall prevention equipment" means equipment used to prevent persons from falling from a fall risk position, including personal equipment, a body harness, lanyards, lifelines or physical equipment such as guard-rails, screens, barricades, anchorages or similar equipment;

"fall protection plan" means a documented plan, which includes and provides for -

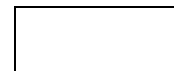
- all risks relating to working from a fall risk position, considering the nature of work undertaken;



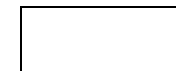
Contractor



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- the procedures and methods to be applied in order to eliminate the risk of falling; and
- a rescue plan and procedures;

"fall risk" means any potential exposure to falling either from, off or into;

"health and safety file " means a file, or other record containing the information in writing required by these Regulations;

"health and safety plan" means a site, activity or project specific documented plan in accordance with the client's health and safety specification;

"health and safety specification" means a site, activity or project specific document prepared by the client pertaining to all health and safety requirements related to construction work;

"material hoist" means a hoist used to lower or raise material and equipment, excluding passengers;

"medical certificate of fitness" means a certificate contemplated in regulation 7(8);

"mobile plant" means any machinery, appliance or other similar device that is able to move independently, and is used for the purpose of performing construction work on a construction site;

"National Building Regulations" means the National Building Regulations made under the National Building Regulations and Building Standards Act, 1977 (Act No. 103 of 1977), and promulgated by Government Notice No. R. 2378 of 30 July 1990, as amended by Government Notices No's R. 432 of 8 March 1991, R. 919 of 30 July 1999 and R. 547 of 30 May 2008;

"person day" means one normal working shift of carrying out construction work by a person on a construction site;

"principal contractor" means an employer appointed by the client to perform construction work;

"Professional Engineer or Professional Certificated Engineer" means a person holding registration as either a Professional Engineer or Professional Certificated Engineer in terms of the Engineering Profession Act, 2000 (Act No. 46 of 2000);

"Professional Technologist" means a person holding registration as a Professional Engineering Technologist in terms of the Engineering Profession Act, 2000;

"provincial director" means the provincial director as defined in regulation 1 of the General Administrative Regulations, 2003;

"scaffold" means a temporary elevated platform and supporting structure used for providing access to and supporting workmen or materials or both;

"shoring" means a system used to support the sides of an excavation and which is intended to prevent the cave-in or the collapse of the sides of an excavation;

"structure" means-

- any building, steel or reinforced concrete structure (not being a building), railway line or siding, bridge, waterworks, reservoir, pipe or pipeline, cable, sewer, sewage works, fixed vessels, road, drainage works, earthworks, dam, wall, mast, tower, tower crane, bulk mixing plant, pylon, surface and underground tanks, earth retaining structure or any structure designed to preserve or alter any natural feature, and any other similar structure;
- any falsework, scaffold or other structure designed or used to provide support or means of access during construction work; or
- any fixed plant in respect of construction work which includes installation, commissioning, decommissioning or dismantling and where any construction work involves a risk of a person falling;

"suspended platform" means a working platform suspended from supports by means of one or more separate ropes from each support;

"temporary works" means any falsework, formwork, support work, scaffold, shoring or other temporary structure designed to provide support or means of access during construction work;

"the Act" means the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993);

"tunneling" means the construction of any tunnel beneath the natural surface of the earth for a purpose other than the searching for or winning of a mineral.

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5. GENERAL REQUIREMENTS in terms of Construction Regulations 2014 and OHS Act and Regulations

5.1 Construction Work Permit

It must be noted that from August 2015 all projects that meet the following criteria will require a construction work permit to be applied for at least 30 days prior to the work being carried out:

- Exceeds 180 days
- Will involve more than 1800 person days of construction work
- Works contract is of a value equal to or exceeding thirteen million rand, or Construction Industry Grading Board (CIDB) grading level 6

It is the client's responsibility to apply for this permit from the Provincial Director and construction work may not commence until the permit has been issued by the Provincial Director.

A copy of this permit will be required to be kept in the principal contractors safety file, and the site specific number issued by the Provincial Director must be displayed at the site entrance.

5.2 Notification of Intention to Commence Construction Work

The Contractor shall notify the Provincial Director of the Department of Labour of the intention to commence construction work at least 7 days prior to the works commencing if the intended construction work will:

- include excavation work
- Include work at height where there is a risk of falling
- Include the demolition of a structure, or
- Include the use of explosives to perform construction work.

If the construction work involves construction of a single storey dwelling for a client, and such client will be residing in such dwelling upon completion, the contractor must also notify the Provincial Director of the Department of Labour at least 7 days before the works commence.

This must be done on a form similar to an Annexure 2 (template of which can be found in the Construction Regulations, 2014). A copy of the notification letter to the Provincial Director shall be forwarded to the Client for record purposes.

5.3 Duties of Principal Contractor / Contractor

A Principal Contractor must:

- provide and demonstrate to the client a suitable, sufficiently documented and coherent site specific health and safety plan, based on the client's documented health and safety specifications, which plan must be applied from the date of commencement of and for the duration of the construction work and which must be reviewed and updated by the principal contractor as work progresses;
- open and keep on site a health and safety file, which must include all documentation required in terms of the Act and these Regulations, which must be made available on request to an inspector, the client, the client's agent or a contractor; and
- on appointing any other contractor, in order to ensure compliance with the provisions of the Act –
 - provide contractors who are tendering to perform construction work for the principal contractor, with the relevant sections of the health and safety specifications pertaining to the construction work which has to be performed;
 - ensure that potential contractors submitting tenders have made sufficient provision for health and safety measures during the construction process;
 - ensure that no contractor is appointed to perform construction work unless the principal contractor is reasonably satisfied that the contractor that he or she intends to appoint, has the necessary competencies and resources to perform the construction work safely;
 - ensure prior to work commencing on the site that every contractor is registered and in good standing with the compensation fund or with a licensed compensation insurer as contemplated in the Compensation for Occupational Injuries and Diseases Act, 1993;
 - appoint each contractor in writing for the part of the project on the construction site
 - take reasonable steps to ensure that each contractor's health and safety plan is implemented and maintained on the construction site;
 - ensure that the periodic site audits and document verification are conducted at intervals mutually agreed upon between the principal contractor and any contractor, but at least once every 30 days;
 - stop any contractor from executing construction work which is not in accordance with the client's health and safety specifications and the principal contractor's health and safety plan for the site or which poses a threat to the health and safety of persons;
- where changes are brought about to the design and construction, make available sufficient health and safety information and appropriate resources to the contractor to execute the work safely;
- discuss and negotiate with the contractor the contents of their health and safety plan and finally approve that plan for implementation;

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- ensure that a copy of both the principal contractor and contractor's health and safety plan is available on request to an employee, an inspector, a contractor, the client or the client's agent;
- hand over a consolidated health and safety file to the client upon completion of the construction work, to include a record of all drawings, designs, materials used and other similar information concerning the completed structure;
- in addition to the documentation required in the health and safety file include and make available a comprehensive and updated list of all the contractors on site accountable to the principal contractor, the agreements between the parties and the type of work being done;
- ensure that all his or her employees have a valid medical certificate of fitness specific to the construction work to be performed and issued by an occupational health practitioner in the form of Annexure 3.

A contractor must prior to performing any construction work-

- provide and demonstrate to the principal contractor a suitable and sufficiently documented health and safety plan, based on the relevant sections of the client's health and safety specification and provided by the principal contractor, which plan must be applied from the date of commencement of and for the duration of the construction work and which must be reviewed and updated by the contractor as work progresses;
- open and keep on site a health and safety file, which must include all documentation required in terms of the Act and these Regulations, and which must be made available on request to an inspector, the client, the client's agent or the principal contractor;
- before appointing another contractor to perform construction work be reasonably satisfied that the contractor that he or she intends to appoint has the necessary competencies and resources to perform the construction work safely;
- co-operate with the principal contractor as far as is necessary to enable each of them to comply with the provisions of the Act;
- as far as is reasonably practicable, promptly provide the principal contractor with any information which might affect the health and safety of any person at work carrying out construction work on the site, any person who might be affected by the work of such a person at work, or which might justify a review of the health and safety plan.

Where a contractor appoints another contractor to perform construction work, the duties that apply to the principal contractor will apply to the contractor as if he or she were the principal contractor.

A principal contractor must take reasonable steps to ensure co-operation between

all contractors appointed by the principal contractor to enable each of those contractors to comply with these Regulations.

No contractor may allow or permit any employee or person to enter any site, unless that employee or person has undergone health and safety induction training pertaining to the hazards prevalent on the site at the time of entry.

A contractor must ensure that all visitors to a construction site undergo health and safety induction pertaining to the hazards prevalent on the site and must ensure that such visitors have the necessary personal protective equipment.

A contractor must at all times keep on his or her construction site records of the health and safety induction training and such records must be made available on request to an inspector, the client, the client's agent or the principal contractor.

A contractor must ensure that all his or her employees have a valid medical certificate of fitness specific to the construction work to be performed and issued by an occupational health practitioner in the form of Annexure 3 (a template of which can be found in the Construction Regulations, 2014).

5.4 Management and Supervision of Construction Work

A principal contractor must, in writing, appoint one full-time competent person as the construction manager with the duty of managing all the construction work on a single site, including the duty of ensuring occupational health and safety compliance, and in the absence of the construction manager an alternate must be appointed by the principal contractor.

A principal contractor must upon having considered the size of the project, in writing appoint one or more assistant construction managers for different sections thereof: Provided that the designation of any such person does not relieve the construction manager of any personal accountability for failing in his or her management duties in terms of this regulation.

Where the construction manager has not appointed assistant construction managers, or, in the opinion of an inspector, a sufficient number of such assistant construction managers have not been appointed, that inspector must direct the construction manager in writing to appoint the number of assistant construction managers indicated by the inspector, and those assistant construction managers must be regarded as having been appointed.

No construction manager appointed in terms of the Regulations may manage any construction work on or in any construction site other than the site in respect of which he or she has been appointed.

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A contractor must, after consultation with the client and having considered the size of the project, the degree of danger likely to be encountered or the accumulation of hazards or risks on the site, appoint a full-time or part-time construction health and safety officer in writing to assist in the control of all health and safety related aspects on the site: Provided that, where the question arises as to whether a construction health and safety officer is necessary, the decision of an inspector is decisive.

No contractor may appoint a construction health and safety officer to assist in the control of health and safety related aspects on the site unless he or she is reasonably satisfied that the construction health and safety officer that he or she intends to appoint is registered with a statutory body approved by the Chief Inspector and has necessary competencies and resources to assist the contractor

A construction manager must in writing appoint construction supervisors responsible for construction activities and ensuring occupational health and safety compliance on the construction site.

A contractor must, upon having considered the size of the project, in writing appoint one or more competent employees for different sections thereof to assist the construction supervisor, and every such employee has, to the extent clearly defined by the contractor in the letter of appointment, the same duties as the construction supervisor: Provided that the designation of such employee does not relieve the construction supervisor of any personal accountability for failing in his or her supervisory duties.

Where the contractor has not appointed such an employee, or, in the opinion of an inspector, a sufficient number of such employees have not been appointed, that inspector must instruct the employer to appoint the number of employees indicated by the inspector.

No construction supervisor appointed may supervise any construction work on or in any construction site other than the site in respect of which he or she has been appointed: Provided that if a sufficient number of competent employees have been appropriately designated on all the relevant construction sites, the appointed construction supervisor may supervise more than one site.

5.5 Assignment of Contractor's Responsible Persons to Manage Health and Safety on Site

The Contractor shall submit management and supervisory appointments as well as any relevant appointments in writing (as stipulated by the Construction Regulations 2014 and the Occupational Safety and Health Act 1993), prior to commencement of work (refer to **Annexure B** at the end of this Health and Safety Specification).

5.6 Competency for Contractor's Responsible Persons

The Contractor's responsible persons shall be competent in health and safety and be familiar with the Occupational Health and Safety Act 1993, and applicable regulations. Valid proof of pertinent health and safety courses attended by such persons will be required to be presented to the Client.

5.7 Compensation of Occupational Injuries and Diseases Act 130 of 1993 (COIDA)

The successful Contractor shall submit to the Client a valid letter of good standing with the Compensation Insurer prior to appointment.

5.8 Occupational Health and Safety Policy

The Contractor shall submit their Health and Safety Policy, prior to construction commencement, signed by the Chief Executive Officer. The Policy must outline objectives and how they will be achieved and implemented within the operations.

5.9 Health and Safety Organogram

The Contractor shall submit an organogram, prior to construction commencement, outlining the Health and Safety Site Team that will be assigned to the project, if successful with the tender. In cases where appointments have not been made, the organogram shall reflect the position. The organogram shall be updated, when there is a change in the site team.

5.10 Risk Assessments

Baseline Risk Assessment

The Client shall cause a baseline risk assessment to be conducted by a competent person before the design process and tender process commence, and the assessed risks shall form part of the health and safety specifications.

The Contractor must, before commencement of any construction work, and during construction work, have risk assessments performed by a competent person appointed in writing, which risk assessments form part of the health and safety plan to be applied on the site and must include:

- The identification of the risks and hazards to which persons may be exposed to;
- An analysis and evaluation of the risks and hazards identified; based on a documented method

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- A documented plan and applicable safe work procedures to mitigate, reduce or control the risks and hazards that have been identified;
- A monitoring plan; and
- A review plan

The Contractor must ensure that, as far as is reasonably practicable, ergonomic related hazards are analysed, evaluated and addressed in a risk assessment.

The Contractor must ensure that all employees under his control are informed, instructed and trained by a competent person regarding any hazard and the related work procedures and/or control measures **before any work commences** and thereafter **at the times determined in the risk assessment monitoring and review plan of the relevant site**.

The Principal Contractor must ensure that all contractors are informed regarding any hazard that is stipulated in the risk assessment **before any work commences** and thereafter **at the times determined in the risk assessment monitoring and review plan of the relevant site**.

The Contractor must consult with the health and safety committee or with a representative trade union or representative group of employees if no health and safety committee exists, on the monitoring and review of the risk assessments for the site.

The Contractor must ensure that copies of risk assessment for this site are available on site for inspection purposes by interested parties (inspector, the client, client's agent, any contractor, any employee, a representative trade union, a health and safety representative or safety committee member.

A Contractor must review the relevant risk assessment where changes are effected to the design and/or construction that result in a change to the risk profile, or when an incident has occurred.

Preventative measures must first address the elimination of the hazard or risk. Should PPE be required to reduce risk, the equipment or clothing to be used must be SABS approved

In general the Contractor must ensure that the Risk Assessment involves identifying the hazards present in a work activity on site. This is followed by an evaluation of the extent of the risk involved taking into account those precautions already being taken.

The following general principle should be followed when conducting a risk assessment:

- All relevant risks and/or hazards should be systematically addressed;

- The risk assessment should address what actually happens in the workplace during the work activity;
- All employees and those who may be affected must be considered, including maintenance staff, security guards, visitors and subcontractors;
- The risk assessment should highlight those groups and individuals who may be required to work alone or who have disabilities;
- The risk assessment process should take into account the existing safety measures and controls.
- The level of detail on a risk assessment should be appropriate to the level of risk.

5.11 Safe Work Procedures

Safe Work Procedures are to form part of the H&S Plan and **must be compiled for all the identified activities**.

The safe work procedures must address the following elements:

- The work method to be followed to conduct work safely
- Mitigation of identified risks
- Reducing and controlling risks and hazards that have been identified
- Responsibilities of competent persons
- Required personal protective equipment
- Correct equipment/tools/machinery to be used
- Reference to relevant registers to be completed
- Reference to applicable risk assessment

5.12 Health and Safety Representative(s)

The Contractor shall ensure that Health and Safety Representative(s) is/are elected and trained to carry out his / her functions. The appointment must be in writing. The Health and Safety Representative shall carry out regular inspections, keep records and report to the supervisor to take appropriate action. He / she shall attend Health and Safety Committee Meetings. The Health and Safety Representative shall be part of the team that will investigate incidents, accidents and non-conformances.

5.13 Health and Safety Committee

Where two or more health and safety representatives have been appointed on site, the Contractor shall ensure that monthly health and safety meetings are held with such representatives and minutes are kept on record. Meetings must be organized and chaired by the Contractor's Health and Safety Committee Chairperson. Minutes of these meetings must be available for the employees of the contractor to refer to.

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5.14 Medical Certificate of Fitness

The contractor must ensure that their employees on site have a valid medical certificate of fitness, specific to the construction work being performed, issued by an occupational health practitioner in the form of an Annexure 3 template (refer to the Construction Regulations 2014 on the Department of Labour website for a sample of this form).

5.15 Health and Safety Training

The Contractor shall quarterly conduct a training needs analysis to ascertain what health and safety training is required. A plan of action should be devised and forwarded to the Client for records. Once the identified people have attended the training, the Contractor must provide the Client with copies of certificates obtained.

5.15.1 Induction

No Contractor may allow or permit any employee or person to enter site unless they have undergone health and safety induction training pertaining to the hazards prevalent on site at the time of entry. This includes visitors to site. The Contractor must ensure that visitors to site have the necessary protective equipment (PPE). A copy of attendance registers of all employees who attend inductions shall be kept.

5.15.2 Awareness

The Contractor shall conduct periodic toolbox talks on site, preferably weekly or before any hazardous work takes place. The talks shall cover the relevant activity and an attendance register must be signed by all attendees. This record of who attended and the content of the topic will be kept on the site health and safety file as evidence of training.

5.16 Competency

After the Contractor has identified the training to be conducted as part of the competency requirement, and based on Risk Assessment, he shall send the relevant persons on appropriate courses and keep certificates of training for reference. Familiarity with the Health and Safety Act and Regulations is an integral part of the definition of competence.

5.17 General Record Keeping

The Contractor shall keep and maintain Health and Safety records to demonstrate compliance with the Health and Safety Specification and the Occupational Health and Safety Act. The contractor shall ensure that all records of incidents, spot fines, training etc. are kept

on site. All documents shall be available for inspection by the Client, or the Department of Labour's Inspectors.

5.18 General Inspection, Monitoring and Reporting

The Contractor shall carry out inspections as required by **Annexure C** in this Health and Safety Specification, as well as by health and safety legislation.

5.19 Emergency Procedures

The Contractor shall submit a detailed Emergency Procedure for approval by the Client prior to commencement on site. The procedure shall detail the response plan including the following:

- List of key personnel;
- Details of emergency services;
- Actions or steps to be taken in the event of the emergency; and
- Information on hazardous materials / situations, including each material's hazardous potential impact or risk on the environment or human and measures to be taken in the event of an accident.

Emergency procedure(s) shall include, but shall not be limited to, fire, spills, accidents to employees, use of hazardous substances, dangers as a result of riot / service deliver protests / intimidation, etc. The Contractor shall advise the Client in writing of any on-site emergencies, together with a record of action taken, within 24 hours of the emergency occurring. A contact list of all service providers (Fire Department, Ambulance, Police, Medical and Hospital, etc) must be maintained and available to site personnel.

5.20 First Aid Box and First Aid Equipment

The Contractor shall provide first aid box/es and appoint, in writing, First Aider(s) for this project in line with the results of the Contractor's risk assessment for the project, this health and safety specification as well as the provisions of the General Safety Regulations. The appointed First Aider(s) are to be sent for accredited first aid training before starting on site. Valid certificates are to be kept on site.

First Aid box/es must be adequately stocked at all time, accessible and be controlled by a qualified First Aider. If required by the Client, the Contractor shall have a stretcher on site to be used in case of a serious incident.

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5.21 Accident / Incident Reporting and Investigation

The Contractor shall, in addition to the prescribed requirements of the Occupational Health and Safety Act and General Safety Regulations, investigate, record and report all Section 24 reportable incidents to the Client within 24 hours of the incident occurring. Incident investigations shall be conducted by the Contractor's appointed Accident Investigator – this Investigator must be a competent person or persons who have sufficient knowledge to carry out an investigation.

In the event of a fatality or a permanent disabling injury the Contractor must submit proof of reporting of incident to Department of Labour as well as proof of preventative measures to the Client. The Client reserves the right to conduct investigations into any incidents that they deem fit and the Contractor is required to provide full co-operation in this regard.

5.22 Hazards and Potential Situations

The Contractor shall immediately notify other Contractors of any hazardous or potentially hazardous situations, which may arise during performance of the activities.

5.23 Occupational Health and Safety Signage

The Contractor shall ascertain and provide adequate on site health and safety signage. This signage shall include, but shall not be limited to, Hard Hat / Helmet Area; Safety Shoes to be worn on site; Dust Masks to be worn in areas where there might be exposure to excessive dust; Ear Plugs / Muffs to be worn where there might be noise exposure over 85 db; Gloves; Safety Goggles; Safety Harness, Workers in Excavation, traffic management, etc. The Contractor shall be responsible to maintain the quality and replacement of signage.

5.24 Management of Contractors by Principal Contractor

The Principal Contractor shall ensure that all contractors under his control are complying with the respective Health and Safety Plans, as well as Health and Safety Legislation.

5.25 Fall protection

The Contractor must:

- designate a competent person to be responsible for the preparation of a fall protection plan
- ensure that the fall protection plan contemplated above is implemented, amended where and when necessary and maintained as required; and
- take steps to ensure continued adherence to the fall protection plan.

A fall protection plan contemplated above must include-

- a risk assessment of all work carried out from a fall risk position and the procedures and methods used to address all the risks identified per location;
- the processes for the evaluation of the employees' medical fitness necessary to work at a fall risk position and the records thereof;
- a programme for the training of employees working from a fall risk position and the records thereof;
- the procedure addressing the inspection, testing and maintenance of all fall protection equipment; and
- a rescue plan detailing the necessary procedure, personnel and suitable equipment required to affect a rescue of a person in the event of a fall incident to ensure that the rescue procedure is implemented immediately following the incident.

A contractor must ensure that a construction manager appointed under regulation 8(1) is in possession of the most recently updated version of the fall protection plan.

A contractor must ensure that all unprotected openings in floors, edges, slabs, hatchways and stairways are adequately guarded, fenced or barricaded or that similar means are used to safeguard any person from falling through such openings;

Also that no person is required to work in a fall risk position, unless such work is performed safely as contemplated in above and fall prevention and fall arrest equipment are approved as suitable and of sufficient strength for the purpose for which they are being used, having regard to the work being carried out and the load, including any person, they are intended to bear; and securely attached to a structure or plant, and the structure of plant and the means of attachment thereto are suitable and of sufficient strength and stability for the purpose of safely supporting the equipment and person who could fall, and fall arrest equipment is used only where it is not reasonably practicable to use fall prevention equipment.

5.26 Structures

A contractor must ensure that-

- all reasonably practicable steps are taken to prevent the uncontrolled collapse of any new or existing structure or any part thereof, which may become unstable or is in a temporary state of weakness or instability due to the carrying out of construction work;
- no structure or part of a structure is loaded in a manner which would render it unsafe; and
- all drawings pertaining to the design of the relevant structure are kept on site and are available on request to an inspector, other contractors, the client and the client's agent or employee.

An owner of a structure must ensure that-

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- inspections of that structure are carried out periodically by competent persons in order to render the structure safe for continued use;
- that the inspections contemplated in paragraph (a) are carried out at least once every six months for the first two years and thereafter yearly;
- the structure is maintained in such a manner that it remains safe for continued use;
- the records of inspections and maintenance are kept and made available on request to an inspector.

5.27 Temporary works

A contractor must appoint a temporary works designer in writing to design, inspect and approve the erected temporary works on site before use.

A contractor must ensure that all temporary works operations are carried out under the supervision of a competent person who has been appointed in writing for that purpose.

A contractor must ensure that-

- all temporary works structures are adequately erected, supported, braced and maintained by a competent person so that they are capable of supporting all anticipated vertical and lateral loads that may be applied to them, and that no loads are imposed onto the structure that the structure is not designed to withstand;
- all temporary works structures are done with close reference to the structural design drawings, and where any uncertainty exists the structural designer should be consulted;
- detailed activity specific drawings pertaining to the design of temporary works structures are kept on the site and are available on request to an inspector, other contractors, the client, the client's agent or any employee;
- all persons required to erect, move or dismantle temporary works structures are provided with adequate training and instruction to perform those operations safely;
- all equipment used in temporary works structure are carefully examined and checked for suitability by a competent person, before being used;
- all temporary works structures are inspected by a competent person immediately before, during and after the placement of concrete, after inclement weather or any other imposed load and at least on a daily basis until the temporary works structure has been removed and the results have been recorded in a register and made available on site;
- no person may cast concrete, until authorization in writing has been given by the competent person contemplated above;
- if, after erection, any temporary works structure is found to be damaged or weakened to such a degree that its integrity is affected, it is safely removed or reinforced immediately;

- adequate precautionary measures are taken in order to-
- secure any deck panels against displacement; and
- prevent any person from slipping on temporary works due to the application of release agents;
- as far as is reasonably practicable, the health of any person is not affected through the use of solvents or oils or any other similar substances;
- upon casting concrete, the temporary works structure is left in place until the concrete has acquired sufficient strength to safely support its own weight and any imposed load, and is not removed until authorization in writing has been given by the competent person
- the foundation conditions are suitable to withstand the loads caused by the temporary works structure and any imposed load in accordance with the temporary works design.
- provision is made for safe access by means of secured ladders or staircases for all work to be carried out above the foundation bearing level;
- a temporary works drawing or any other relevant document includes construction sequences and methods statement;
- the temporary works designer has been issued with the latest revision of any relevant structural design drawing;
- a temporary works design and drawing is used only for its intended purpose and for a specific portion of a construction site; and
- the temporary works drawings are approved by the temporary works designer before the erection of any temporary works.

No contractor may use a temporary works design and drawing for any work other than its intended purpose.

5.28 Excavation

A contractor must-

- ensure that all excavation work is carried out under the supervision of a competent person who has been appointed in writing for that purpose; and
- Evaluate, as far as is reasonably practicable, the stability of the ground before excavation work begins.

A contractor who performs excavation work-

- must take reasonable and sufficient steps in order to prevent, as far as is reasonably practicable, any person from being buried or trapped by a fall or dislodgement of material in an excavation;

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- may not require or permit any person to work in an excavation which has not been adequately shored or braced: Provided that shoring and bracing may not be necessary where-
- the sides of the excavation are sloped to at least the maximum angle of repose measured relative to the horizontal plane; or
- such an excavation is in stable material: Provided that-
- permission has been given in writing by the appointed competent person contemplated above upon evaluation by him or her of the site conditions; and
- where any uncertainty pertaining to the stability of the soil still exists, the decision from a professional engineer or a professional technologist competent in excavations is decisive and such a decision must be noted in writing and signed by both the competent person and the professional engineer or technologist, as the case may be;
- must take steps to ensure that the shoring or bracing contemplated above is designed and constructed in a manner that renders it strong enough to support the sides of the excavation in question;
- must ensure that no load, material, plant or equipment is placed or moved near the edge of any excavation where it may cause its collapse and consequently endangers the safety of any person, unless precautions such as the provision of sufficient and suitable shoring or bracing are taken to prevent the sides from collapsing.
- must ensure that where the stability of an adjoining building, structure or road is likely to be affected by the making of an excavation, steps are taken to ensure the stability of such building, structure or road and the safety of persons;
- must cause convenient and safe means of access to be provided to every excavation in which persons are required to work, and such access may not be further than six meters from the point where any worker within the excavation is working;
- must ascertain, as far as is reasonably practicable, the location and nature of electricity, water, gas or other similar services which may in any way be affected by the work to be performed, and must before the commencement of excavation work that may affect any such service, take the steps that are necessary to render the circumstances safe for all persons involved;
 - must ensure that every excavation, including all bracing and shoring, is inspected-
 - daily, prior to the commencement of each shift;
 - after every blasting operation;
 - after an unexpected fall of ground;
 - after damage to supports; and
 - after rain,

by the competent person, in order to ensure the safety of the excavation and of persons, and those results must be recorded in a register kept on site and made available on request to an inspector, the client, the client's agent, any other contractor or any employee;

- must cause every excavation which is accessible to the public or which is adjacent to public roads or thoroughfares, or whereby the safety of persons may be endangered, to be –
 - adequately protected by a barrier or fence of at least one metre in height and as close to the excavation as is practicable; and
 - provided with warning illuminates or any other clearly visible boundary indicators at night or when visibility is poor, or have resort to any other suitable and sufficient precautionary measure where this is not practicable;
- must ensure that all precautionary measures stipulated for confined spaces as determined in the General Safety Regulations, 2003, are complied with by any person entering any excavation;
- must, where the excavation work involves the use of explosives, appoint a competent person in the use of explosives for excavation, and must ensure that a method statement is developed by that person in accordance with the applicable explosives legislation; and
- must cause warning signs to be positioned next to an excavation within which or where persons are working or carrying out inspections or tests.

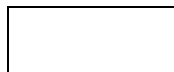
5.29 Demolition Work

A contractor must-

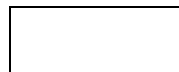
- Appoint a competent person in writing to supervise and control all demolition work on site.
- ensure that before any demolition work is carried out, and in order to ascertain the method of demolition to be used, a detailed structural engineering survey of the structure to be demolished is carried out by a competent person and that a method statement on the procedure to be followed in demolishing the structure is developed by that person.
- During a demolition, the competent person contemplated in sub regulation (1) must check the structural integrity of the structure at intervals determined in the method statement contemplated in sub regulation (2), in order to avoid any premature collapses.

A contractor who performs demolition work must-

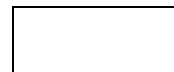
- with regard to a structure being demolished, take steps to ensure that-
 - no floor, roof or other part of the structure is overloaded with debris or material in a manner which would render it unsafe;



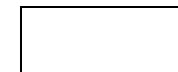
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- all reasonably practicable precautions are taken to avoid the danger of the structure collapsing when any part of the framing of a framed or partly framed building is removed, or when reinforced concrete is cut; and
- precautions are taken in the form of adequate shoring or other means that may be necessary to prevent the accidental collapse of any part of the structure or adjoining structure;
- ensure that no person works under overhanging material or a structure which has not been adequately supported, shored or braced;
- ensure that any support, shoring or bracing contemplated in paragraph (b), is designed and constructed so that it is strong enough to support the overhanging material;
- where the stability of an adjoining building, structure or road is likely to be affected by demolition work on a structure, take steps to ensure the stability of such structure or road and the safety of persons;
- ascertain as far as is reasonably practicable the location and nature of electricity, water, gas or other similar services which may in any way be affected by the work to be performed, and must before the commencement of demolition work that may affect any such service, take the steps that are necessary to render circumstances safe for all persons involved;
- cause every stairwell used and every floor where work is being performed in a building being demolished, to be adequately illuminated by either natural or artificial means;
- cause convenient and safe means of access to be provided to every part of the demolition site in which persons are required to work; and
- erect a catch platform or net above an entrance or passageway or above a place where persons work or pass under, or fence off the danger area if work is being performed above such entrance, passageway, or place so as to ensure that all persons are kept safe where there is a danger or possibility of persons being struck by falling objects.
- ensure that no material is dropped to any point, which falls outside the exterior walls of the structure, unless the area is effectively protected. (
- No person may dispose of waste and debris from a high place by a chute unless the chute-
 - is adequately constructed and rigidly fastened.
 - if inclined at an angle of more than 45 degrees to the horizontal, is enclosed on its four sides;
 - if of the open type, is inclined at an angle of less than 45 degrees to the horizontal;
 - where necessary, is fitted with a gate at the bottom end to control the flow of material; and

- discharges into a container or an enclosed area surrounded by barriers.

- A contractor must ensure that every chute used to dispose of rubble is designed in such a manner that rubble does not free-fall and that the chute is strong enough to withstand the force of the debris travelling along the chute.
- A contractor must ensure that no equipment is used on floors or working surfaces, unless such floors or surfaces are of sufficient strength to support the imposed loads.
- Where a risk assessment indicates the presence of asbestos, a contractor must ensure that all asbestos related work is conducted in accordance with the Asbestos Regulations, 2001, promulgated by Government Notice No. R. 155 of 10 February 2002.
- Where a risk assessment indicates the presence of lead, a contractor must ensure that all lead related work is conducted in accordance with the Lead Regulations, 2001, promulgated by Government Notice No. R.236 of 28 February 2002. (11) Where the demolition work involves the use of explosives, a method statement must be developed in accordance with the applicable explosives legislation, by an appointed person who is competent in the use of explosives for demolition work and all persons involved in the demolition works must adhere to demolition procedures issued by the appointed person.
- A contractor must ensure that all waste and debris are as soon as reasonably practicable removed and disposed of from the site in accordance with the applicable legislation.

5.30 Tunnelling

No person may enter a tunnel, which has a height dimension of less than 800 millimetres.

5.31 Scaffolding

A contractor must appoint a competent person in writing who must ensure that all scaffolding work operations are carried out under his or her supervision and that all scaffold erectors, team leaders and inspectors are competent to carry out their work.

A contractor using access scaffolding must ensure that such scaffolding, when in use, complies with the safety standards incorporated for this purpose into these Regulations under section 44 of the Act.

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5.32 Suspended Platforms

A contractor must appoint a competent person in writing who must ensure that all suspended platforms work operations are carried out under his or her supervision and that all suspended platform erectors, operators and inspectors are competent to carry out their work.

No contractor may use or permit the use of a suspended platform, unless-

- the design, stability and construction thereof comply with the safety standards incorporated for this purpose into these Regulations under section 44 of the Act;
- he or she is in possession of a certificate of system design issued by a professional engineer, certificated engineer or a professional technologist for the use of the suspended platform system; and
- he or she is, before the commencement of the work, in possession of an operational compliance plan developed by a competent person based on the certificate of system design contemplated in subparagraph (b) and applicable to the environment in which the system is being used, which operational compliance plan must include proof of the- (i) appointment of the competent person contemplated in sub regulation (1); (ii) competency of erectors, operators and inspectors; (iii) operational design calculations, which must comply with the requirements of the system design certificate; (iv) performance test results; (v) sketches indicating the completed system with the operational loading capacity of the platform; (vi) procedures for and records of inspections having been carried out; and (vii) procedures for and records of maintenance work having been carried out.

A contractor making use of a suspended platform system must submit a copy of the certificate of system design contemplated in sub regulation (2)(b), including a copy of the operational design calculations contemplated in sub regulation 2(c)(iii), sketches and test results, to the provincial director before commencement of the use of the system and must further indicate the intended type of work that the system will be used for.

A contractor must submit a copy of the certificate of system design in the manner contemplated in sub regulation (3) for every new project. (5) A contractor must ensure that the outriggers of each suspended platform – (a) are constructed of material of adequate strength and have a safety factor of at least four in relation to the load it is to carry; and (b) have suspension points provided with stop devices or other effective devices at the outer ends to prevent the displacement of ropes.

A contractor must ensure that-

- the parts of the building or structure on which the outriggers of a suspended platform are supported, are checked by means of calculations to ensure that the required safety factor is adhered to without risk of damage to the building or structure;
- the suspension wire rope and the safety wire rope are separately connected to the outrigger;

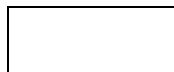
- each person on a suspended platform is provided with and wears a body harness as a fall prevention device, which must at all times be attached to the suspended platform;
- the hand or power driven machinery to be used for the lifting or lowering of the working platform of a suspended platform is constructed and maintained in such a manner that an uncontrolled movement of the working platform cannot occur;
- the machinery referred to in paragraph (d) is so situated that it is easily accessible for inspection;
- the rope connections to the outriggers are vertically above the connections to the working platform; and
- when the working platform is suspended by two ropes only, the connections of the ropes to the working platform are of a height above the level of the working platform to ensure the stability of the working platform.

A contractor must ensure that a suspended platform-

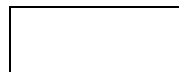
- is suspended as near as possible to the structure to which work is being done to prevent as far as is reasonably practicable horizontal movement away from the face of the structure;
- is fitted with anchorage points to which workers must attach the lanyard of the safety harness worn and used by the worker, and such anchorage connections must have sufficient strength to withstand any potential load applied to it; and
- is fitted with a conspicuous notice easily understandable by all workers working with the suspended platform, showing- (i) the maximum mass load; (ii) the maximum number of persons; and (iii) the maximum total mass load, including load and persons, which the suspended platform can carry.

A contractor must cause-

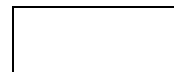
- the whole installation and all working parts of a suspended platform to be thoroughly examined by a competent person in accordance with the manufacturer's specification;
- the whole installation to be subjected to a performance test as determined by the standard to which the suspended platform was manufactured;
- the performance test contemplated in paragraph (b) to be done by a competent person appointed in writing, with the knowledge and experience of erection and maintenance of suspended platforms or similar machinery, and who must determine the serviceability of the structures, ropes, machinery and safety devices before they are used, every time suspended platforms are erected; and
- the performance test contemplated in paragraph (b) of the whole installation of the suspended platform to be subjected to a load equal to that prescribed by the manufacturer or, in the absence of such load, to a load of 110 per cent of the rated



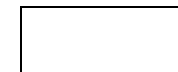
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mass load, at intervals not exceeding 12 months and in such a manner that every part of the installation is stressed accordingly.

A contractor must, in addition to sub regulation (8), cause every hoisting rope, hook or other load-attaching device which forms part of the suspended platform to be thoroughly examined in accordance with the manufacturer's specification by the competent person contemplated in sub regulation (8) before they are used every time they are assembled, and, in cases of continuous use, at intervals not exceeding three months.

A contractor must ensure that the suspended platform supervisor contemplated in sub regulation (1), or the suspended platform inspector contemplated in sub regulation (8)(c), carries out a daily inspection of all the equipment prior to use, including establishing whether-

- all connection bolts are secure;
- all safety devices are functioning;
- all safety devices are not tampered with or vandalized;
- the total maximum mass load of the platform is not exceeded;
- the occupants in the suspended platform are using body harnesses which have been properly attached; there are no visible signs of damage to the equipment; and
- all reported operating problems have been attended to.

A contractor must further ensure that –

- all inspection and performance test records are kept on the construction site at all times and made available to an inspector, the client, the client's agent or any employee upon request.
- all employees required to work or to be supported on a suspended platform are- (a) medically fit to work safely in a fall risk position or such similar environment by being in possession of a medical certificate of fitness; (b) competent in conducting work related to suspended platforms safely; (c) trained or received training, which includes at least- (i) how to access and egress the suspended platform safely; (ii) how to correctly operate the controls and safety devices of the equipment; (iii) information on the dangers related to the misuse of safety devices; and (iv) information on the procedures to be followed in the case of- (aa) an emergency; (bb) the malfunctioning of equipment; and (cc) the discovery of a suspected defect in the equipment; and (v) instructions on the proper use of body harnesses.
- where the outriggers of a suspended platform are to be moved, only persons trained and under the supervision of the competent person effect such move, within the limitation stipulated in the operational compliance plan contemplated in sub regulation (2)(c), and that the supervisor must carry out an inspection and record the result thereof prior to re-use of the suspended platform.
- the suspended platform is properly isolated after use at the end of each working day in such a manner that no part of the suspended platform presents a danger to any person thereafter.

5.33 Rope Access Work

A contractor must-

- appoint a competent person in writing as a rope access supervisor with the duty of supervising all rope access work on the site, including the duty of ensuring occupational health and safety compliance in relation to rope access work: Provided that the appointment of any such person does not relieve the construction manager of any personal accountability for failing in his management duties in terms of this regulation;
- ensure that all rope access work on the construction site is carried out under the supervision of a competent person; and
- ensure that all rope access operators are competent and licensed to carry out their work.

No contractor may use or allow the use of rope access work unless-

- the design, selection and use of the equipment and anchors comply with the safety standards incorporated for this purpose into these Regulations under section 44 of the Act; and
- he or she is in possession of a site specific fall protection plan developed by a competent person applicable to the specific work and environment prior to the commencement of the work, including records of maintenance and inspections of all the equipment used for the work operations.

A contractor must ensure that adequate measures are in place to allow rescue procedures to commence immediately in the event of a fall incident taking place.

5.34 Material Hoists

A contractor must ensure that-

- every material hoist and its tower have been constructed in accordance with the generally accepted technical standards and are strong enough and free from defects.
- the tower of every material hoist is- (a) erected on firm foundations and secured to the structure or braced by steel wire guy ropes, and extends to a distance above the highest landing to allow a clear and unobstructed space of at least 900 millimeters for over travel; (b) enclosed on all sides at the bottom, and at all floors where persons are at risk of being struck by moving parts of the hoist, except on the side or sides giving access to the material hoist, with walls or other effective means to a height of at least 2100 millimeters from the ground or floor level; and (c) provided with a door or gate at least 2100 millimeters in height at each landing, and

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that door or gate must be kept closed except when the platform is at rest at such a landing.

- every material hoist- (a) is inspected on daily basis by a competent person appointed in writing by the contractor and such competent person must have the experience pertaining to the erection and maintenance of material hoists or similar machinery; (b) inspection contemplated in paragraph (a) , includes the determination of the serviceability of the entire material hoist, including guides, ropes and their connections, drums, sheaves or pulleys and all safety devices; (c) inspection results are entered and signed in a record book by a competent person, which book must be kept on the premises for that purpose; (d) is properly maintained and the maintenance records in this regard are kept on site.

A contractor must cause-

- the platform of every material hoist to be designed in a manner that it safely contains the loads being conveyed and that the combined mass of the platform and the load does not exceed the designed lifting capacity of the hoist;
- the hoisting rope of every material hoist which has a remote winch to be effectively protected from damage by any external cause to the portion of the hoisting rope between the winch and the tower of the hoist; and
- every material hoist to be provided with an efficient brake capable of holding the platform with its maximum load in any position when power is not being supplied to the hoisting machinery.
- a notice, indicating the maximum mass load which may be carried at any one time and the prohibition of persons from riding on the platform of the material hoist, to be affixed around the base of the tower and at each landing.

No contractor may require or permit trucks, barrows or material to be conveyed on the platform of a material hoist and no person may so convey trucks, barrows or material unless those articles are secured or contained in a manner that displacement thereof cannot take place during movement. A contractor of a material hoist may not require or permit any person to operate a hoist, unless the person is competent in the operation of that hoist. No contractor may require or permit any person to ride on a material hoist.

5.35 Bulk mixing plant

A contractor must ensure that the operation of a bulk mixing plant is supervised by a competent person who has been appointed in writing and is –

- aware of all the dangers involved in the operation thereof; and
- conversant with the precautionary measures to be taken in the interest of health and safety.

No person supervising or operating a bulk mixing plant may authorize any other person to operate the plant, unless that person is competent to operate a bulk mixing plant.

A contractor must ensure that the placement and erection of a bulk mixing plant complies with the requirements set out by the manufacturer and that such plant is erected as designed.

A contractor must ensure that all devices to start and stop a bulk mixing plant are provided and that those devices are placed in an easily accessible position and constructed in a manner to prevent accidental starting.

A contractor must ensure that the machinery and plant selected is suitable for the mixing task and that all dangerous moving parts of a mixer are placed beyond the reach of persons by means of doors, covers or other similar means.

No person may remove or modify any guard or safety equipment relating to a bulk mixing plant, unless authorized to do so by the appointed person.

A contractor must ensure that all precautionary measures stipulated for confined spaces as determined in the General Safety Regulations, 2003, are complied with when entering any silo.

A contractor must ensure that a record is kept of all repairs or maintenance to a bulk mixing plant and that the record is available on site to an inspector, the client, the client's agent or any employee.

5.36 Explosive Actuated Fastening Device

No contractor may use or permit any person to use an explosive actuated fastening device, unless-

- the user is provided with and uses suitable protective equipment;
- the user is trained in the operation, maintenance and use of such a device;
- the explosive actuated fastening device is provided with a protective guard around the muzzle end, which effectively confines any flying fragments or particles; and
- the firing mechanism is so designed that the explosive actuated fastening device, will not function unless it is held against the surface with a force of at least twice its weight; and the angle of inclination of the barrel to the work surface is not more than 15 degrees from a right angle.

A contractor must ensure that-

- only cartridges suited for the relevant explosive actuated fastening device, and the work to be performed, are used;

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- an explosive actuated fastening device is cleaned and examined daily before use and as often as may be necessary for its safe operation by a competent person who has been appointed for that purpose;
- the safety devices of an explosive actuated fastening device are in good working order prior to use;
- when not in use, an explosive actuated fastening device and its cartridges are locked up in a safe place, which is inaccessible to unauthorized persons;
- an explosive actuated fastening device is not stored in a loaded condition; a warning notice is displayed in a conspicuous manner in the immediate vicinity wherever an explosive actuated fastening device is used; and
- the issuing and collection of cartridges and nails or studs of an explosive actuated fastening device are- (i) controlled and done in writing by a person having been appointed in writing for that purpose; and (ii) recorded in a register by a competent person and that the recipient has accordingly signed for the receipt thereof as well as the returning of any spent and unspent cartridges.

5.37 Cranes

A contractor must, in addition to compliance with the Driven Machinery Regulations, 1988 ensure that where tower cranes are used-

- they are designed and erected under the supervision of a competent person;
- a relevant risk assessment and method statement are developed and applied;
- the effects of wind forces on the crane are taken into consideration and that a wind speed device is fitted that provides the operator with an audible warning when the wind speed exceeds the design engineer's specification;
- the bases for the tower cranes and tracks for rail-mounted tower cranes are firm, level and secured;
- the tower crane operators are competent to carry out the work safely; and the tower crane operators have a medical certificate of fitness to work in such an environment, issued by an occupational health practitioner.

5.38 Construction Vehicles and Mobile Plant

A contractor must ensure that all construction vehicles and mobile plant-

- are of an acceptable design and construction;
- are maintained in a good working order;
- are used in accordance with their design and the intention for which they were designed, having due regard to safety and health;
- are operated by a person who-

- has received appropriate training, is certified competent and in possession of proof of competency and is authorised in writing to operate those construction vehicles and mobile plant;
- has a medical certificate of fitness to operate those construction vehicles and mobile plant, issued by an occupational health practitioner in the form of Annexure 3.
- have safe and suitable means of access and egress;
- are properly organized and controlled in any work situation by providing adequate signalling or other control arrangements to guard against the dangers relating to the movement of vehicles and plant, in order to ensure their continued safe operation;
- are prevented from falling into excavations, water or any other area lower than the working surface by installing adequate edge protection, which may include guard-rails and crash barriers;
- are fitted with structures designed to protect the operator from falling material or from being crushed should the vehicle or mobile plant overturn;
- are equipped with an acoustic warning device which can be activated by the operator;
- are equipped with an automatic acoustic reversing alarm; and
- are inspected by the authorised operator or driver on a daily basis using a relevant checklist prior to use and that the findings of such inspection are recorded in a register kept in the construction vehicle or mobile plant.

A contractor must ensure that-

- no person rides or is required or permitted to ride on a construction vehicle or mobile plant otherwise than in a safe place provided thereon for that purpose;
- every construction site is organized in such a way that, as far as is reasonably practicable, pedestrians and vehicles can move safely and without risks to health;
- the traffic routes are suitable for the persons, construction vehicles or mobile plant using them, are sufficient in number, in suitable positions and of sufficient size;
- every traffic route is, where necessary, indicated by suitable signs;
- all construction vehicles and mobile plant left unattended at night, adjacent to a public road in normal use or adjacent to construction areas where work is in progress, have appropriate lights or reflectors, or barricades equipped with appropriate lights or reflectors, in order to identify the location of the vehicles or plant;
- all construction vehicles or mobile plant when not in use, have buckets, booms or similar appendages, fully lowered or blocked, controls in a neutral position, motors stopped, wheels chocked, brakes set and ignition secured;
- whenever visibility conditions warrant additional lighting, all mobile plant are equipped with at least two headlights and two taillights when in operation;

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- tools, material and equipment are secured and separated by means of a physical barrier in order to prevent movement when transported in the same compartment with employees;
- vehicles used to transport employees have seats firmly secured and adequate for the number of employees to be carried; and
- all construction vehicles or mobile plant travelling, working or operating on public roads comply with the requirements of the National Road Traffic Act, 1996.

5.39 Electrical Installations and Machinery on Construction Sites

A contractor must, in addition to compliance with the Electrical Installation Regulations and the Electrical Machinery Regulations, ensure that –

- before construction commences and during the progress thereof, adequate steps are taken to ascertain the presence of and guard against danger to workers from any electrical cable or apparatus which is under, over or on the site;
- all parts of electrical installations and machinery are of adequate strength to withstand the working conditions on construction sites;
- the control of all temporary electrical installations on the construction site is designated to a competent person who has been appointed in writing for that purpose;
- all temporary electrical installations used by the contractor are inspected at least once a week by a competent person and the inspection findings are recorded in a register kept on the construction site; and
- all electrical machinery is inspected by the authorized operator or user on a daily basis using a relevant checklist prior to use and the inspection findings are recorded in a register kept on the construction site.

5.40 Use and Temporary Storage of Flammable Liquids on Construction Sites

A contractor must, in addition to compliance with the provisions for the use and storage of flammable liquids in the General Safety Regulations, 2003, ensure that –

- where flammable liquids are being used, applied or stored at the workplace concerned, it is done in a manner that does not cause a fire or explosion hazard, and that the workplace is effectively ventilated;
- no person smokes in any place in which flammable liquid is used or stored, and the contractor must affix a suitable and conspicuous notice at all entrances to any such areas prohibiting such smoking;
- an adequate amount of efficient fire-fighting equipment is installed in suitable locations around the flammable liquids store with the recognized symbolic signs;
- only the quantity of flammable liquid needed for work on one day is taken out of the store for use;

- all containers holding flammable liquids are kept tightly closed when not in actual use and, after their contents have been used up, are removed from the construction site and safely disposed of;
- where flammable liquids are decanted, the metal containers are bonded and earthed; and
- no flammable material, including cotton waste, paper, cleaning rags or similar material is stored together with flammable liquids

5.41 Water environments

A contractor must ensure that where construction work is done over or in close proximity to water, provision is made for-

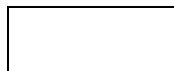
- preventing persons from falling into water; and
- the rescuing of persons in danger of drowning.

A contractor must ensure that where a person is exposed to the risk of drowning by falling into the water, the person is provided with and wears a lifejacket.

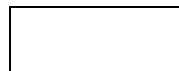
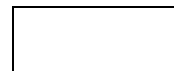
5.42 Housekeeping and General Safeguarding on Construction Sites

A contractor must, in addition to compliance with the Environmental Regulations for Workplaces, 1987, promulgated by Government Notice No. R. 2281 of 16 October 1987, ensure that suitable housekeeping is continuously implemented on each construction site, including-

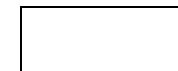
- the proper storage of materials and equipment;
- the removal of scrap, waste and debris at appropriate intervals;
- ensuring that materials required for use, are not placed on the site so as to obstruct means of access to and egress from workplaces and passageways;
- ensuring that materials which are no longer required for use, do not accumulate on and are removed from the site at appropriate intervals;
- ensuring that waste and debris are not disposed of from a high place with a chute, unless the chute complies with the requirements set out in the regulations;
- ensuring that construction sites in built-up areas adjacent to a public way are suitably and sufficiently fenced off and provided with controlled access points to prevent the entry of unauthorized persons; and
- ensuring that a catch platform or net is erected above an entrance or passageway or above a place where persons work or pass under, or fencing off the danger area if work is being performed above such entrance, passageway, or place so as to ensure that all persons are kept safe in the case of danger of possibility of persons being struck by falling objects.



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5.43 Stacking of Materials

In addition to the provisions for the stacking of articles in the General Safety Regulations, 2003, the contractor must ensure that –

- a competent person is appointed in writing with the duty of supervising all stacking and storage on a construction site;
- adequate storage areas are provided;
- there are demarcated storage areas; and
- storage areas are kept neat and under control.

5.44 Fire precautions on Construction Sites

A contractor must, in addition to compliance with the Environmental Regulations for Workplaces, 1987, ensure that –

- all appropriate measures are taken to avoid the risk of fire;
- sufficient and suitable storage is provided for flammable liquids, solids and gases;
- smoking is prohibited and notices in this regard are prominently displayed in all places containing readily combustible or flammable materials;
- in confined spaces and other places in which flammable gases, vapours or dust can cause danger-
 - only suitably protected electrical installations and equipment, including portable lights, are used;
 - there are no flames or similar means of ignition;
 - there are conspicuous notices prohibiting smoking;
 - oily rags, waste and other substances liable to ignite are without delay removed to a safe place; and
 - adequate ventilation is provided;
- combustible materials do not accumulate on the construction site;
- welding, flame cutting and other hot work are done only after appropriate precautions have been taken to reduce the risk of fire;
- suitable and sufficient fire-extinguishing equipment is placed at strategic locations or as may be recommended by the Fire Chief or local authority concerned, and that such equipment is maintained in a good working order;
- the fire equipment contemplated above is inspected by a competent person, who has been appointed in writing for that purpose, in the manner indicated by the manufacturer thereof;
- a sufficient number of workers are trained in the use of fire- extinguishing equipment;
- where appropriate, suitable visual signs are provided to clearly indicate the escape routes in the case of a fire;

- the means of escape is kept clear at all times;
- there is an effective evacuation plan providing for all -
 - persons to be evacuated speedily without panic;
 - persons to be accounted for; and
 - plant and processes to be shut down; and
 - a siren is installed and sounded in the event of a fire.

5.45 Construction Employees' Facilities

A contractor must, in terms of the Construction Regulations 2014, provide:

- Shower facilities after consultation with the employees or employees representatives, or at least one shower facility for every 15 persons;
- at least one sanitary facility for each sex and for every 30 workers;
- changing facilities for each sex;
- and sheltered eating area.

A contractor must provide reasonable and suitable living accommodation for the workers at construction sites who are far removed from their homes and where adequate transportation between the site and their homes, or other suitable living accommodation, is not available.

5.46 Hazardous Chemical Substances (HCS)

In addition to the requirements in the HCS Regulations, the principal contractor must provide proof in the Health and Safety Plan that:

- Material Safety Data Sheets (MSDS's) of the relevant materials / hazardous chemical substances are available prior to use by the contractor. All MSDS's shall be available for inspection by the agent at all times.
- Risk assessments are done at least once every 6 months.
- Exposure monitoring is done according to OESSM and by an Approved Inspection Authority (AIA) and that the medical surveillance programme is based on the outcomes of the exposure monitoring.
- How the relevant HCS's are being/going to be controlled by referring to:
 - Limiting the amount of HCS
 - Limiting the number of employees
 - Limiting the period of exposure
 - Substituting the HCS
 - Using engineering controls
 - Using appropriate written work procedures
- The correct PPE is being used.
- HCS are stored and transported according to SABS 072 and 0228.

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- Training with regards to these regulations was given.

The Health and Safety plan should make reference to the disposal of hazardous waste on classified sites and the location thereof (where applicable).

The First Aider must be made aware of the MSDS and trained in how to treat HCS incidents appropriately.

5.47 Hazardous Biological Substances (HBS)

Because of the possible exposure of workers to raw sewage the H&S Plan shall include details of the following:

- The conducting of Risk Assessment specifically aimed at exposure to HBA which shall include the following
 - Nature and dose of HBA
 - Where HBA may be present and in what physical form
 - The nature of work or process
 - Steps in the event of failure of control measures
 - The effect of the HBA
 - The period of exposure
 - Control measures to be implemented
- Monitoring of exposure of workers shall be conducted to establish whether any worker is infected with an HBA associated with working or being exposed to raw sewage, in terms of the following:
 - By an occupational medical practitioner
 - Before entering the site to establish the workers baseline
 - During the period of the contract the risk assessment indicate possible exposure
 - After completion of the contract
- Medical surveillance should such be required after the above-mentioned by an occupational health practitioner.
- Indication on how all records of assessment, monitoring, etc will be kept, taking into account that records have to be kept for a period of 40 years.
- How exposure to HBA is to be controlled
- The provision of personal protective equipment
- What information and training is to be provided to employees regarding the following:
 - The contents of these regulations
 - Potential risks to health

- Control measures to be implemented
- The correct use and maintenance of personal protective equipment
- The results of the risk assessment.

5.48 Noise Induced Hearing Loss

Where noise is identified as a hazard the requirements of the NIHL regulations must be complied with and the following must be included / referred to in the Health and Safety Plan:

- Proof of training with regards to these regulations.
- Risk assessment done within 1 month of commencement of work.
- That monitoring carried out by an AIA and done according to SABS 083.
- Medical surveillance programme established and maintained for the necessary employees.
- Control of noise by referring to:
 - Engineering methods considered
 - Admin control (number of employees exposed) considered
 - Personal protective equipment considered/decided on
 - Describe how records are going to be kept for 40 years.

5.49 Personal Protective Equipment (PPE)

The Contractor shall carry out PPE or clothing needs analysis in accordance with his risk assessment, to determine the necessary PPE or clothing to be used during construction. The Contractor shall make provision and keep adequate quantities of SABS approved PPE or clothing on site at all times.

The Contractor must ensure that personnel are trained in the correct use of PPE to be used.

The Contractor must ensure that lost, stolen, worn out or damaged PPE is replaced as required and receipt signed for by employees on site.

5.50 Asbestos

Should asbestos be identified as a hazard whilst work is carried out, the following must be included in the health and safety plan:

- Notification to the Provincial Director in writing, prior to commencement of asbestos work.
- Proof of a structured medical surveillance programme, drawn up by an occupational medicine practitioner.
- Proof that an occupational health practitioner carried out an initial health evaluation within 14 days after commencement of work.

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- Copies of the results of all assessments, exposure monitoring and the written inventory of the location of the asbestos at the workplace.
- Only proof that medical surveillance has been conducted and not the actual records itself since these areas of a confidential nature.
- How records are going to be kept safe for the stipulated period of 40 years.
- Proof that asbestos demolition (if applicable) is going to be done by a registered asbestos contractor and provide proof that a plan of work for such demolition is submitted to an Approved Asbestos Inspection Authority 30 days prior to commencement of the demolition.
- Provide proof that the plan of work was approved by the asbestos AIA and submitted to the provincial director 14 days prior to commencement of demolition work together with the approved standardised procedures for demolition work

5.51 Lead

Should lead be identified as a hazard whilst work is carried out, the following must be included in the health and safety plan:

- Proof that an occupational health practitioner carried out an initial health evaluation within 14 days after commencement of work.
- Copies of the results of all assessments, exposure monitoring and the written inventory of the location of the lead at the workplace.
- Only proof that medical surveillance has been conducted and not the actual records since these are of a confidential nature.
- How records are going to be kept safe for the stipulated period of 40 years.

5.52 Fire Extinguishers and Fire Fighting Equipment

The Contractor shall provide adequate, regularly serviced fire extinguishers located at strategic points on site. The Contractor shall keep spare serviced portable fire extinguishers. The Contractor shall have adequate persons trained or competent to use the Fire Fighting Equipment.

Safety signage shall be posted up in all areas where fire extinguishers are located.

5.53 Ladders and Ladder work

The Contractor shall ensure that all ladders are numbered and inspected regularly keeping record of inspections. It should be noted that Aluminium ladders are preferred to wooden ladders.

5.54 General Machinery

The Contractor shall comply with the Driven Machinery Regulations, which include inspecting machinery regularly, appointing a competent person to inspect and ensure maintenance, issuing PPE or clothing and training those that use machinery and enforce compliance.

5.55 Pressure Equipment

The Contractor shall comply with the Pressure Equipment Regulations, which include inspecting equipment regularly, appointing a competent person to inspect and ensure maintenance, issuing PPE or clothing and training those that use equipment and enforce compliance.

5.56 Portable Electrical Tools

The Contractor shall comply with the Electrical Machinery Regulations and shall ensure that use and storage of all portable electrical tools are in compliance with relevant legislation.

The Contractor shall consider that:

- A competent person undertakes routine inspections;
- Only authorised persons use the tools;
- There are safe working procedures applied;
- Awareness training is carried out and compliance is enforced at all times; and
- PPE and clothing is provided and maintained.

5.57 High Voltage Electrical Equipment

The Contractor shall ensure that, where the work is under, on or near high-voltage electrical equipment the Electrical Installation Regulations, together with safety instructions (Regulations of the Owner of the Equipment) are complied with. Such equipment includes:

- Eskom and the Local Authority equipment
- The Contractor's own power supply; and
- Electrical equipment being installed but not yet taken over from a Contractor by The Client.

5.58 Welding, Flame-Cutting, Soldering and Similar Operations

No employer or user of machinery shall require or permit welding or flame cutting operations to be undertaken, unless –

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- the person operating the equipment has been fully instructed in the safe operation and use of such equipment and in the hazards which may arise from its use;
- effective protection is provided and used for the eyes and respiratory system and, where necessary, for the face, hands, feet, legs, body and clothing of persons performing such operations, as well as against heat, incandescent or flying particles or dangerous radiation;
- leads and electrode holders are effectively insulated; and
- the workplace is effectively partitioned off where practicable and where not practicable all other persons exposed to the hazards contemplated in paragraph (b) are warned and provided with suitable protective equipment.

No employer or user of machinery shall require or permit welding or name cutting operations to be undertaken in a confined space, unless –

- effective ventilation is provided and maintained; or
- masks or hoods maintaining a supply of safe air for breathing are provided and used by the persons performing such operations.

No employer or user of machinery shall require or permit electric welding to be undertaken in wet or damp places, inside metal vessels or in contact with large masses of metal, unless

- the insulation of the electrical leads is in a sound condition;
- the electrode holder is completely insulated to prevent accidental contact with current-carrying parts;
- the welder is completely insulated by means of boots, gloves or rubber mats; and
- at least one other person who has been properly instructed to assist the welder in case of an emergency is and remains in attendance during operations: Provided that the provisions of this sub-regulation shall not apply to a welding process where the maximum voltage to earth does not exceed 50 volts.

No employer or user of machinery shall require or permit welding, flame cutting, grinding, soldering or similar work to be undertaken in respect of any tube, tank, drum, vessel or similar object or container where such object or container –

- is completely closed, unless a rise in internal pressure cannot render it dangerous; or
- contains any substance which, under the action of heat, may --
 - (i) ignite or explode; or
 - (ii) react to form dangerous or poisonous substances, unless a person who is competent to pronounce on the safety thereof has, after examination, certified in writing that any such danger has been removed by opening, ventilating or purging with water or steam, or by any other effective means.

Where hot work involving welding, cutting, brazing or soldering operations is carried out at places, other than workplaces which have been specifically designated and equipped for such work, the employer shall take steps to ensure that proper and adequate fire precautions are taken.

5.59 Public Health and Safety

The Contractor shall ensure that each person working on or visiting a site, and the surrounding community, shall be made aware of the dangers likely to arise from onsite activities and the precautions to be observed to avoid or minimize those dangers. Appropriate health and safety signage shall be posted at all times.

5.60 Work in confined space

An employer or a user of machinery shall take steps to ensure that a confined space is entered by an employee or other person only after the air therein has been tested and evaluated by a person who is competent to pronounce on the safety thereof, and who has certified in writing that the confined space is safe and will remain safe while any person is in the confined space, taking into account the nature and duration of the work to be performed therein.

Where the provisions of sub regulation (1) cannot be complied with the employer or user of machinery, as the case may be, shall take steps to ensure that any confined space in which there exists or is likely to exist a hazardous gas, vapor, dust or fumes, or which has or is likely to have, an oxygen content of less than 20 per cent by volume, is entered by an employee or other person only when—

- subject to the provisions of sub regulation (3), the confined space is purged and ventilated to provide a safe atmosphere therein and measures necessary to maintain a safe atmosphere therein have been taken; and
- the confined space has been isolated from all pipes, ducts and other communicating openings by means of effective blanking other than the shutting or locking of a valve or a cock, or, if this is not practicable, only when all valves and cocks which are a potential source of danger have been locked and securely fastened by means of chains and padlocks.

Where the provisions of sub regulation (2)(a) cannot be complied with, the employer or user of machinery shall take steps to ensure that the confined space in question is entered only when the employee or person entering is using breathing apparatus of a type approved by the chief inspector and, further, that—

- the provisions of sub regulation (2) (b) are complied with;

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- any employee or person entering the confined space is using a safety harness or other similar equipment, to which a rope is securely attached which reaches beyond the access to the confined space, and the free end of which is attended to by a person referred to in paragraph (c);
- at least one other person trained in resuscitation is and remains in attendance immediately outside the entrance of the confined space in order to assist or remove any or persons from the confined space, if necessary; and
- effective apparatus for breathing and resuscitation of a type approved by the chief inspector is available immediately outside the confined space.

An employer or user of machinery shall take steps to ensure that all persons vacate a confined space on completion of any work therein.

Where the hazardous gas, vapor, dust or fumes contemplated in sub regulation (2) are of an explosive or flammable nature, an employer or user of machinery shall further take steps to ensure that such a confined space is entered only if –

- the concentration of the gas, vapor, dust or fumes does not exceed 25 per cent of the lower explosive limit of the gas, vapor, dust or fumes concerned where the work to be performed is of such a nature that it does not create a source of ignition; or
- such concentration does not exceed 10 per cent of the lower explosive limit of the gas, vapor, dust or fumes where other work is performed.

The provisions of this regulation shall mutatis mutandis also apply, in so far as they can be so applied, to any work which is performed in any place or space on the outside of and bordering on or in the immediate vicinity of, any confined space, and in which place or space, owing to its proximity to the confined space, any hazardous article, oxygen-deficient atmosphere or dangerous concentration of gas, vapor, dust or fumes may occur or be present.

5.61 Work in Elevated Heights

No employer shall require or permit any person to work in an elevated position, and no person shall work in an elevated position, unless such work is performed safely from a ladder or scaffolding, or from a position where such person has been made as safe as if he were working from scaffolding

5.62 Lighting

Where poor or lack of illumination is identified as a hazard the lighting regulations must be complied with and the following must be included in the H&S Plan:

- How lighting will be ensured/ provided where daylight is not sufficient and /or after hours are worked.

- Planned maintenance programme for replacing luminaries.
- Proof of illumination levels of artificial illumination equipment.

5.63 Environmental Conditions and Flora and Fauna

The Contractor must be mindful of adverse weather conditions upon the health and safety of the workforce. This includes inclement weather, strong wind, heat stress, extreme cold, etc. The Contractor's risk assessment process must take into account the risks associated with such weather conditions. The same is true when working in an environment where there is a risk to employees' health and safety from presence of poisonous flora, or wildlife (including bees, snakes, etc). The Contractor's risk assessment process must take these risks into account.

5.64 Occupational Health

Exposure of workers to occupational health hazards and risks are very common in any work environment, especially in construction. Occupational health hazards and risks exposure is a major problem and all Contractors are to ensure that proper health and hygiene measures are put in place to prevent exposure to these hazards and risks.

The occupational hazards and risks may enter the body in three ways:

- Inhalation through breathing e.g. cement dust;
- Ingestion through swallowing maybe through food intake;
- Absorption through the skin (pores) e.g. painting or use of thinners.

The contractor is required to ensure that all his personnel are medically fit prior to being allowed onto the work site.

All Contractors should ensure that Occupational Hygiene surveys are conducted as per the Occupational Health and Safety Act to ensure employees are not exposed to hazards. Risk Assessments should identify areas where surveys are to be conducted.

5.65 Blasting and Explosives

The Contractor shall comply with the Explosives Regulations with regards to the Danger Area, Safeguarding workplace, Supervision, Safe Handling, and permissions.

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1. TRAINING, INSPECTIONS AND RECORDS

The Contractor must be aware of the following additional requirements:

What	When	Output
Awareness training (Toolbox Talks)	At least fortnightly and before hazardous work is carried out	Attendance Register
Health and Safety Committee Meetings	Monthly	Minutes signed by employer
Health and Safety Reports	Monthly	Report covering: a) Incidents / Accidents and investigation b) Non conformance c) Health and Safety Training d) HIRA Updates e) Internal & External Audits
General Inspections	As per Health and Safety Specifications & OHSA	Report of Health and Safety Specifications and OHSA compliance: a) Scaffolding b) Lifting Machinery c) Excavations d) Construction vehicle
General Inspections	Monthly	Covering: a) Fire Fighting Equipment b) Portable Electrical Equipment c) Hand Tools d) Ladders
Record Keeping	On-going	Covering: a) General Complaints b) Fines c) General Incidents d) MSDS e) Surveillance Medicals f) Inspection Registers g) Department of Labour Notices

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ANNEXURE A

The contractor shall submit the info below in an Annexure 2 prior to construction commencement.

Item No.	Health and Safety Specification Requirement	OHS Act Requirement	Submission date
1	Notification of Intention to Commence Construction	Construction Regulation 2014	At least 7 days before commencement on site
2	Construction Work Permit	Construction Regulation 2014	At least 30 days prior to project commencement
3	Assignment of Responsible Person to Manage Building Work Via Health and Safety Organogram	Construction Regulation 2014	Before commencement on site
4	Competency for Health and Safety Positions	Client / Client Agent requirement	Before commencement on site
5	Letter of Good Standing	Compensation of Occupational Injuries & Disease Act (COIDA) 130 of 1993	Before commencement on site
6	Occupational Health and Safety Policy	Client / Client Agent requirement	Before commencement on site
7	Risk Assessment, Safety Plan, Fall Protection Plan, Demolition Method Statement	Client / Client Agent requirement	Before commencement on site

ANNEXURE B: APPOINTMENTS

The Contractor shall make the following appointments:

No	Description	No	Description
1	Chief Executive Officer (OSHACT 16(1))	17	Material Hoist Inspector (CR19(8)(a))
2	Contract Director/Manager (OSHACT 16(2))	18	Material Hoist Operator (CR19(6))
3	Construction Manager (CR 8(1))	19	Bulk Mixing Plant Supervisor (CR20(1))
4	Construction Supervisor (CR 8(7))	20	Bulk Mixing Plant Operator (CR20(2))
5	Assistant Construction Supervisor (CR 8(8))	21	Controller of Explosive Actuated Fastening Devices (CR21(2)(g)(1))
6	Construction Safety Officer (CR 8(5))	22	Construction Vehicle and Mobile Plant Operator (CR23(1)(d)(i))
7	Construction risk assessor (CR 9(1))	23	Controller of Temporary Electrical Installations (CR24(c))
8	Fall Protection Competent Person (CR 10(1))	24	Stacking Supervisor (CR28(a))
9	Traffic Safety Officer	25	Fire Extinguishing Equipment Inspector (CR29(h))
10	Safety Representative (where > 20 employees on site)	26	Fire Fighters (CR29(i))
11	Temporary work Designer (CR 12(1))	27	First Aider (GSR 3)
12	Temporary work Supervisor (CR12(2))	28	Fall Protection Plan Developer (CR 10(1)(a))
13	Excavation Supervisor (CR13(1)(a))	29	Incident Investigator (OSHACT 9(2))
14	Demolition Supervisor (CR14(1))	30	Competent Person – Confined Spaces (GAR 5(1))
15	Scaffold Supervisor (CR16(1))	31	Health and Safety technical Committee (CR 31)
16	Suspended Platform Supervisor (CR17(1))	32	General Machinery Competent Person (GMR 2)

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7. PROJECT DETAILS

PROJECT DIRECTORY:		
Client	SANParks 643 Leyds Street, Muckleneuk Pretoria Contact: Ms Antionet van Wyk	Tel: (012) 426-5126 email: antionet.vanwyk@sanparks.org
Client Agent	I&SP Unit SANParks Contact: Mr Sivuyile Mzileni	Tel: 081 040 3798 email: sivuyile.mzileni@sanparks.org

PROJECT DETAILS:
Description of Works CONSTRUCTION OF 6 STAFF HOUSES IN RHODESDRIFT AT MAPUNGUBWE NATIONAL PARK WORLD HERITAGE SITE
Anticipated Construction Duration 12 Months
Provisional Start Date March 2024
Completion Date February 2024

EXISTING ENVIRONMENT:	
Hazards particular to this project by virtue of location: Wild Animals: The site is in Mapungubwe National Park. A lookout for Baboons and snakes is going to be required to protect the workers.	
Members of public and children: All necessary steps to be taken to protect them from any dangers associated with the construction works being undertaken.	
Public Roads: Use of roads network to be carefully planned to accommodate public, tenants and traffic	
Other: None	
Overhead, Above Ground and Underground Services crossing the site:	
Overhead:	Not Applicable
Underground:	Not Applicable
Ground Level:	Not Applicable
Services Drawings available	Yes
Way leaves required:	Not Applicable
Permits required:	Not Applicable
Isolation required:	Not Applicable
Existing structures and surrounding land use (with a significant impact on Health and Safety): There are semi-detached houses and an old farm house which is used to accommodate staff.	
Existing ground conditions and ground survey report: Ground is sandy to loamy soils. There is no GEO Tech report available.	
Existing Traffic Systems:	

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Conditions:	Provincial tarred road is in a bad condition, i.e. potholes and gravel roads to site are in a fair to good condition.
Restrictions to access:	Applicable
Speed restrictions:	Normal road restrictions: 40km/h

PROJECT HEALTH AND SAFETY REQUIREMENTS:

Significant health and safety hazards identified by Designer and Client Agent:

Working at Heights: With the construction of the Sewage Treatment Plant, the Principal Contractor must ensure that all registers and scaffolding being used is according to SANS 10085.

Members of the Public: The Principal Contractor is responsible for the safety of the workers as well as the public. The Principal Contractor will have to have sufficient warning & information signage to assist with the information to the public. The Principal Contractor will be responsible to have sufficient directional signage and to have proper road traffic management in place.

Wild animals: There are baboons and probably snakes roaming the area and the principal Contractor will have to ensure that they or the workers do not get killed or hurt during the construction phase.

Other:

Normal construction hazards expected are as follow:

Bricklaying
 Bruch Cutting
 Compacting and filling / Compactors Operations
 Concrete / Concrete pumping
 Confined Spaces
 Electric Tools & Electrical Installations
 Excavations
 Fire
 Hand Tools
 Hazardous Substances
 Kerb Laying
 Manual Handling of plant/material/equipment
 Members of public
 Metal work
 Noise and Dust
 Painting
 Plant / Vehicle and Equipment Operations
 Plastering
 Plumbing
 Road Construction
 Scaffolding
 Site Establishment
 Snakes
 Steel fixing
 Temporary Works
 Transportation of workers
 Working at heights

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NOTE: Please refer to the end of this Health and Safety Specification for the baseline risk assessment of these risks.

ACTIVITIES REQUIRING APPROVED METHOD STATEMENTS

Not applicable

ACTIVITIES REQUIRING PERMITS

Permit to Dig / Permit to Enter Excavations:	Not applicable on this project
Permit to Work with Electricity:	Not applicable on this project
Confined Space Permit:	Not applicable on this project
Hot Works Permit:	Not applicable on this project
Permit to work under Power Lines:	Not applicable on this project
Blasting:	Not applicable on this project
Temporary Works:	Yes - Authorization in writing by competent person

GENERAL ARRANGEMENTS

Restrictions on times:	Monday - Friday 07:00 to 17:00
Access to site by Construction Vehicles:	Yes, principal contractor to manage
Access to site by Construction workers & Visitors:	Visitors and personnel to report to site office
Site camp location and set up:	Restrictions/requirements, storage areas and security to be advised in consultation with principal agent
Ablution and Welfare:	Contractor to provide as per regulations
Environmental Conditions:	Contractor must take into account adverse weather conditions on site activities and implement control measures to mitigate risk
Induction Training:	All workers to receive induction training prior to commencement on site. Special reference to SANParks EMPr and Code of Conduct

PROTECTION OF SITE AGAINST UNAUTHORIZED ACCESS BY PUBLIC

Excavation Fencing: Note that excavations accessible to public, or adjacent to public roads / through fares, must have (1) barrier / fence of at least 1m in height, and (2) warning illuminates at night or when visibility is poor, or have other suitable precautionary measures if both of these are not practicable. The entire site is to be fenced off with ready fencing. There needs to be access control as well as security personnel on site at all times.

General Fencing of Site: Note that construction site must be **fenced off** and have controlled access point.

Warning Notices: Construction site, Visitors to report to the site office. Pedestrian arrow signage towards the other side of the road, Fire Extinguisher, First Aid, Emergency Assembly area and Emergency telephone numbers. Reflective vests, safety boots and dust masks signage to be displayed.

PERSONAL PROTECTIVE EQUIPMENT (PPE)



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The Client requires the Contractor to ensure that employees (and other under his/her control) wear the following minimum PPE:

Overalls:	Yes, required
Safety Harnesses:	May be required
Hard Hats:	Yes, required
Safety Footwear:	Yes, required
Reflective Vests:	Yes, required
Goggles / Gloves / ear and respiratory protection	As per job function
Specialist equipment:	As per job function

HAZARDOUS SUBSTANCES

The following materials and substances have, or may have, to be used in the works and are identified as potentially posing special health and / or safety hazards during the project. Appropriate measures will need to be specified for their control:

Petrol	Cement
Diesel	Silicone
Bitumen	Other
Paint	

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BASELINE RISK ASSESMENT

e-Tenders for viewing purposes only

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Baseline Risk Assessment
CONSTRUCTION OF 6 STAFF HOUSES AT RHODESDRIF STAFF VILLAGE IN MAPUNGUBWE NATIONAL PARK AND WORLD HERITAGE SITE

Risk Rating is measured by determining the Likelihood (L) and Consequence (C) and using the Matrix to determine the Risk Rating (R).

Risk Ranking below 8 is deemed Tolerable, between 9 and 15 is deemed Medium Risk and above 16 is deemed High Risk

Steps in operation	Ref No.	Hazard	Risk	Risk Rating			Controls Measures	Other Controls
				L	C	R		
General Onsite Activities	A1	Access to Site	Pedestrian & people equipment interaction causing injury	4	2	12	Occupational Health and Safety Act 24(1)	Area to be secured and barricaded / fenced
			Dust Inhalation	3	1	4	Hazardous Chemical Substances Regulation (36)(37)(38)	Induction Training & PPE
			Unauthorised entry	3	2	8	Occupational Health and Safety Act 12(2)	Site Visit Register, signage, Permit for vehicle access
			Slip,trip,and fall	3	2	8	Occupational Health and Safety Act 12(1)(b)(c)	Induction Training & PPE
	A2	Placing of office/ containers if lifting is involved	Heavy objects swinging out of control causing injury/damage	2	4	14	Driven Machinery 18(11)	Safe work area, Induction Training, Trained operator, Lifting Plan
			Crane/lifting tackle failure causing object to fall	2	4	14	General Machinery Regulations 7(a)9b)	Inspection Register, Trained operator
			Accidental collision with overhead power lines	2	4	14	General Machinery Regulations 7(a)(b)	Assign a flag man, determine safe work area
			Lifting machine/crane falling over	2	4	14	General Machinery Regulations 5(1)(2)	Assign a flag man, determine safe work area
	A3	Hand Loading and offloading of heavy machinery & equipment	Items rolling/slipping falling causing injury	4	2	12	General Machinery Regulations 2(1)	Induction training, PPE
			Incorrect Lifting procedure resulting in injury	3	2	8	General Machinery Regulations 3(2)	Induction training, Proper lifting procedure, PPE
	A4	Machine loading and offloading of heavy machinery & equipment	Failure of machinery causing injury	3	3	13	Driven Machinery 18(1)(a)(b)	Supervision
			Equipment falling	3	3	13	General Machinery Regulations 2(2)	PPE

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Steps in operation	Ref No.	Hazard	Risk	Risk Rating			Controls Measures	Other Controls
				L	C	R		
			Collision of vehicles	3	3	13	General Machinery Regulations 7(a)(b)	Flag men
	A5	Traffic	Equipment interaction	3	4	18	Construction Regulation 23(1)(d)(i)(ii)	Traffic management plan
			Pedestrian collision	3	4	18	Construction Regulation 23(2)(c)	Pedestrians Walkways
	A6	Lack of employee's facilities	Lack of drinking water, dehydration of workers	3	5	22	Construction Regulation 30(1)(a)	Provision of drinking water & Induction training
			Lack of sanitary facilities, unhygienic conditions	3	5	22	Construction Regulation 30(1)(b) and 30(2)	Provision of chemical toilets & proper housekeeping
	A7	Stacking & Storage	Fall, slip resulting in potential injury/damage	4	3	17	Construction Regulation 28(d)	Storage plan, induction training and restricted access
			Obstructing critical equipment and walkways	4	3	17	Construction Regulation 27 (a)(c)(g)	Storage plan, induction training and restricted access
			Flammable liquids catching fire	3	3	13	Construction Regulation 25(a)(b)(c)	Storage plan, induction training and firefighting equipment
			Hazardous storage of materials	3	3	13	Hazardous Chemical Regulation (25)9A (2)	Storage plan, regular inspections
	A8	Handling of chemicals and fuels	Exposure	3	3	13	Hazardous Chemical Regulation 9A (1) (a-p)	PPE
			Inhalation	3	3	13	Hazardous Chemical Substances Regulation (36)(37)(38)	
			Burns to Skin	3	3	13	Hazardous Chemical Substances Regulations 9A (2); Material Data Sheet	
	A9	Temporary Low voltage Electrical installation	Exposure to live wires-electrocution	2	5	19	Construction Regulation 24(a)(b)	Lockable DB box, Inspection register
			Faulty earth leakage	2	5	19	SANS 10142	Competent person to do installation & inspection
			Short circuit causing fire	2	4	14	Construction Regulation 24(b)	Weekly inspection, Induction Training & Firefighting equipment
	A10	Issue of PPE	Incorrect PPE	4	2	12	General Safety Regulation 2(1)	PPE Register

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Steps in operation	Ref No.	Hazard	Risk	Risk Rating			Controls Measures	Other Controls
				L	C	R		
	A11	Usage of PPE	Incorrect use of PPE	4	2	12	General Safety Regulation 3(2)	PPE Register, Induction Training, supervision
			Negligence to use PPE	4	2	12	General Safety Regulation 5	PPE Register, Induction Training, supervision
	A12	Adverse storms	Struck by lightning	2	5	19	Induction Training Safe Operation Procedure	Proper warning system
	A13	Adverse heat	Dehydration, Sunburn, heat stroke	3	4	18	Induction Training Safe Operation Procedure	Proper drinking water, PPE
	A14	Working in excessive winds	Exposure to dust	3	4	18	Hazardous Chemical Substances Regulation (36)(37)(38)	PPE
	A15	House keeping	Objects lying around can result in slip/fall	4	2	12	Construction Regulation 27(a)(b)	Regular cleaning of site
			Unhygienic conditions	3	3	13	Construction Regulation 27(d)	Induction Training
			Pollution of area	3	2	8	Construction Regulation 27(e)	Proper waste bins and waste removal
	A16	Fire prevention	Open Fires	3	3	13	Construction Regulation 29(a)	SANParks EMP & Code of conduct
			Inadequate firefighting equipment	4	3	17	Construction Regulation 29(g)(h)	Inspection register, supervision
			Run-away fires	4	4	21	Emergency evacuation plan	SANParks EMP & Code of conduct
			Accidental Fires	3	4	18	Construction Regulation 29(a)(d)(iii)	Designated smoking areas
	A17	Environmental pollution	Pollution of ground, air,workspace	3	2	8	Environmental Regulation 6(d)	SANParks EMP & Code of conduct
			Littering	4	2	12	SANParks Environmental Management Plan	Induction Training, Provide proper trash bins
	A18	Working near hazardous animals including snakes, spiders & scorpions also dangerous animals	Poisons bites/ attack by large animals	3	3	13	SANParks Environmental Management Plan	Induction Training, SANParks ranger where required, Proper treatment in first aid kit

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Steps in operation	Ref No.	Hazard	Risk	Risk Rating			Controls Measures	Other Controls
				L	C	R		
	A19	Working in close proximity of water	Falling into water & drowning	3	4	18	Construction Regulation 26(1)(a)(b)	Safe work area, Induction Training, barricades
			Pollution of water body	3	4	18	SANParks Environmental Management Plan Construction Regulation 26(2)	Induction Training
Plant or vehicle & equipment	B1	Construction vehicles	Equipment Failure	4	4	21	Construction Regulation 23(1)(k)	Vehicle check list and regular maintenance
			Unroadworthy vehicles	3	4	18	Construction Regulation 23(2)(i)(j)(k)	Vehicle check list and regular maintenance
			Speeding/ Operation	3	4	18	Construction Regulation 23(2)(l)	Safe traffic route, imply penalties, traffic calming measures
			Potential accident/collision	4	4	21	General Machinery Regulations 7(a)	Induction Training, Reflective vests, safe work area
			Material/equipment fall from vehicle	4	4	21	Construction Regulations 23(1)(b)(g)(h)	Properly secure all goods
			Vehicle/plant not used for correct purpose	3	3	13	Construction Regulations 23(1)(b)(c)	Supervision, controlled access to vehicle/plant
	B2	Licencing of operators	Unauthorized operation of equipment	3	3	13	Construction Regulation 23(1)(d)(i)(ii)	Valid operator, restricted access to machinery, supervision
			Expired licenses	3	1	6	Construction Regulation 23(1)(d)(i)(ii)	Keep OHS file up to date
	B3	Parking of vehicles	Runaway vehicle	3	4	17	Safe Operation Procedures (SOP)	Vehicle check list, use stop block behind tyres
			Parking in unsafe areas	3	1	4	Construction Regulation 23(2)(i)(j)	Demarcate proper parking areas
Transportation	C1	Transportation of employees	Interaction with other vehicle-collision	4	4	21	Construction Regulation 23(1)(b)(j)	Supervisor
			Equipment not roadworthy	3	1	4		Vehicle checklist, vehicle must meet required standards
			Equipment not licensed	3	1	4	Construction Regulations 23(a)(b)	Supervision and monitor
			Operator of vehicle transporting employees not licensed and authorized	3	1	4	Construction Regulation 23(2)(i)(j)	Supervision and monitor if Driver has Valid PDP

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Steps in operation	Ref No.	Hazard	Risk	Risk Rating			Controls Measures	Other Controls
				L	C	R		
			Vehicle not equipped to transport employees	3	1	4	Construction Regulation 23(d)(i)(j)	Vehicle checklist, vehicle must meet required standards
			Not Adhering traffic legislation	3	1	4	Construction Regulation 23(2)(j)	Supervision, implement fines
	C2	Transportation of material or equipment with people	Material/equipment fall from vehicle	4	4	21	Construction Regulation 23(g)(h)	Properly secure all goods
			Potential accident/collision	4	4	21	Construction Regulation 23(2)(g)(h)(j)	Induction Training, Reflective vests, safe work area
	C3	Towing a Trailer	Vehicle accident	4	4	21	Construction Regulations 23(e); Occupational Health and Safety Act 24(1)(c)(iii)(iv)	Awareness, trained operator
			Towing coupler failure	3	3	13	Construction Regulation 22(e)	Inspection Register
Hand Tools	D1	Injury Due to	Incorrect tools used	4	3	17	Hand tool register, Induction Training,	Supervision
			Defective tools	4	3	17	Safe Operation Procedure	Supervision
			Struck by flying debris	3	3	13	Safe Operation Procedure	PPE
	D2	Hand Drills	Clothing being grabbed by rotating drill	3	3	13	Safe Operation procedure, Toolbox Talks Electrical Machinery Regulations 10(3)(4)	PPE, Supervision
			Unsecured work piece rotating with drill	3	3	13		PPE, Supervision
			Shaving flying into eyes	3	3	13		PPE, Supervision
			Accidental injury	4	3	17	Electrical Machinery Regulations 10(4)	PPE, Supervision
			Electrocution	3	5	22	Electrical Machinery Regulations 10(1) (a)(b)	Tool inspection register
	D3	Angle Grinder	Cutting disc cracked and breaks	3	3	13	Safe Operation procedure, Toolbox Talks	PPE, Supervision

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Steps in operation	Ref No.	Hazard	Risk	Risk Rating			Controls Measures	Other Controls
				L	C	R		
			Shaving flying into eyes	3	3	13	Electrical Machinery Regulations 10(3)	PPE, Supervision
			Exposure to noise	3	3	13	Noise Induced Hearing Loss Regulations (7)(1)(a)(b)(c)(d)	PPE
			Vibration	2	2	5	Safe Operation procedure, Toolbox Talks	
			Accidental injury	4	3	17	Safe Operation procedure, Toolbox Talks	PPE, Supervision
			Electrocution	3	5	22	Electrical Machinery Regulations 10(1) (a)(b)	Tool inspection register
	D4	Other electrical portable hand tools	Electrocution	3	5	22	Electrical Machinery Regulations 10(1) (a)(b)	Tool inspection register, inspect extension cord
			Exposure to noise	3	3	13	Noise Induced Hearing Loss Regulations (7)(1)(a)(b)(c)(d)	PPE
			Accidental injury	4	3	17	Safe Operation procedure, Toolbox Talks	PPE, Supervision
			Shaving flying into eyes	3	3	13	Safe Operation procedure	PPE, Supervision
	D5	Explosive actuated fastening device	Malfunction of equipment causing injury/damage	3	3	13	Explosive Regulations 15(a)(b)	Tool inspection register, inspect extension cord
			Accidental injury	3	3	13	Explosive Regulations 15(b)	PPE, Supervision
			Accidental discharge	3	3	13	Explosive Regulations 15(a)(b)	Safety mechanism working, Store in unloaded condition
Site Clearance	E1	Site/Bush Clearing	Moving machinery accident	4	3	17	Construction Regulation 23(2)(b)	Reflective vests, restricted access, induction training
			Injury due to hand tools	4	3	17	Safe Operation Procedures (SOP)	Induction Training, PPE, First Aider
			Snakes/ Spider bites	3	3	13	SANParks Environmental Management Plan	Induction Training, Proper First Aid treatment available

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Steps in operation	Ref No.	Hazard	Risk	Risk Rating			Controls Measures	Other Controls
				L	C	R		
			Dangerous animals in vicinity	3	3	13	SANParks Environmental Management Plan	Induction training, armed rangers escort
			Electrical cables and other services in way of work area	3	4	17	Construction Regulation 24(c)	Properly mark & demarcate existing services
	E2	Tree felling	Injury from chainsaw	3	3	13	Safe Operation Procedures (SOP)	Trained operator, PPE
			Injury from falling tree	3	3	13		Safe work area, PPE
			Felling from height	3	3	13		Safety Harness, Fall Protection Plan, PPE
			Exposure to electrical cables	3	3	13	Electrical Installation Regulations (5)(1)(2)	Safe work area, PPE
	E3	Removal of waste	Moving machinery accident	4	4	22	Construction Regulation 23(1)(b)(c)	Reflective vests, restricted access, induction training
			Waste material falling of vehicle	3	3	13	Construction Regulations 23(h)	Secure load, stay within maximum vehicle load capacity
			Dust Inhalation	3	2	8	Hazardous Chemical Substances Regulation (36)(37)(38)	Induction Training & PPE
	E4	Demolition	Structure/rubble falling on person	3	3	13	Construction Regulation 14(1); 4(ii)	Induction Training, PPE, demarcate area
			Dust Inhalation	3	2	8	Hazardous Chemical Substances Regulation (36)(37)(38)	Induction Training & PPE
			Presence of lead	2	4	14	Lead Regulations (3)	PPE, Induction Training
			Presence of Asbestos	2	4	14	Asbestos Regulations (4)	PPE, Induction Training
			Hitting electrical cable - electrocution	3	5	22	Construction Regulation 24(a)	Induction training, Site map indicating existing services
			Hitting of gas line - explosion	3	5	22	Construction Regulation 14(1)(2)	Induction training, Site map indicating existing services
Excavation & backfilling	F1	Hand Digging of holes/trenches	Injury due to defective tools	4	3	18	Construction Regulation 13(a)	Hand tool register, Induction Training

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Steps in operation	Ref No.	Hazard	Risk	Risk Rating			Controls Measures	Other Controls
				L	C	R		
			Injury due to improper work method	4	3	18		Induction training, supervision
			Trip/fall into holes	3	3	13		Demarcate area, induction training, PPE
	F2	Machine Digging of holes/trenches	Collapse of trench	3	3	13	Construction Regulation 14(4)(iii)	Excavation inspection register by component person daily
			Collapse of adjacent structure	3	3	13	Construction Regulation 11(1)(a)	Safeguard adjacent structures
			Malfunction of machinery	3	3	13	General Machinery Regulations 2(2)	Machinery Inspection Register
			Unauthorized driver	2	2	5	General Machinery Regulations 2(1)	Trained operator, supervision, restricted access to machinery
			Unnecessary Damage to environment	3	2	9	SANParks Environmental Management Plan	Induction Training, designated work area
	F3	Tipping of material	Material falling on to person	3	3	13	Construction Regulation 23(g)	PPE, Safe Work area, Flag men
			Malfunction of equipment causing injury/damage	3	3	13		
	F4	Use of Jackhammer	Exposure to excessive noise	3	3	13	Noise Induced Hearing Loss Regulations 7(1)(a)(b)(c)(d)	PPE
			Injury due to malfunction of equipment	3	3	13		Inspection Register
			Exposure to prolonged vibration	3	3	13		
	F5	Hitting of electrical cable and services	Electrocution	3	5	22	Construction Regulation 24(a)(b)(c)	Induction training, Site map indicating existing services
	F6	Opening trenches	Risk of collapse	3	3	13	Construction Regulation 13(h)(l)	Stabilize trench, work permit, induction training
			Fall, slip into trench	4	3	17	General Safety Regulations 2(5)(6)	Barricade trench, PPE
	F7	Compaction	Personal Injury	3	3	13	General Safety Regulations 2(5)	PPE, Trained operator

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Steps in operation	Ref No.	Hazard	Risk	Risk Rating			Controls Measures	Other Controls
				L	C	R		
			Collision of machinery	3	3	13	General Machinery Regulations 4(1)	Induction Training, Reflective vests, safe work area
			Dust Inhalation	3	2	8	Hazardous Chemical Substances Regulation (36)(37)(38)	Induction Training & PPE
Installation of pipes/cables	G1	Installation of sewer/water pipes in trenches	Fall, slip into trench	4	3	17	Electrical Installation Regulations (5)(1)(2)	Barricade trench, PPE
			Exposure to hazardous biological agents	3	3	13	Hazardous Biological Agent Regulations 5(2)	Induction training, PPE
			Pipe handling/lifting resulting in injury	3	3	13		Induction training, PPE
	G2	Installation of electrical cable in trench	Fall, slip into trench	4	3	17	Electrical Installation Regulations (2)(1)(2)	Barricade trench, PPE
			Cable handling/lifting resulting in injury	3	3	13	Electrical Installation Regulations (2)(1)	Induction training, PPE,
			Dangerous/unsafe cable Joints	3	3	13	Electrical Installation Regulations (5)(1)(2)	Competent installer
Temporary Works	H1	Shoring/formwork/ Shuttering	Collapse of equipment	3	3	13	Construction Regulation 12(1)(2)	Built by competent person, PPE
			Injury during assembly/dismantling	3	3	13	Construction Regulations 12(3)(a)	Induction Training, PPE, Supervision
			Failure of equipment	3	3	13		Inspection register
			Collapse/bursting of structure	2	3	9	Construction Regulation 12(3)(c)(f)	Design of structure to be loaded to be approved by competent designer
			Inaccessibility to work area	2	3	9		Adequate safe access provided
			Fall, slip from shoring/formwork	3	3	13	Construction Regulation 10(1)(b) ;(2)(a)(b)	Fall Protection Plan, PPE, safety nets
			Falling material from height	4	3	17		PPE, safety nets

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Steps in operation	Ref No.	Hazard	Risk	Risk Rating			Controls Measures	Other Controls
				L	C	R		
	H2	Stop & Go Procedures - Moving Vehicles	injuries to employees involved in an accident while setting up and taking down Stop/Go procedure	4	4	21	Construction Regulation 12(3)(d)	Visibility jackets, radio communication
			Injuries to employees involved in an accident - in the midst of Stop/Go activity	4	4	21		
			Injuries to road users involved in an accident - approaching a Stop/Go activity	4	4	21	Construction Regulation 12(3)(d)	
Concrete	I1	Manual Mixing	Cement dust inhalation	3	2	8	Hazardous Chemical Substances Regulations 8(a)(b)(c)	Material Safety Data Sheet, PPE, Supervision
			Hazardous substance contact - dry cement mix	3	3	13	Hazardous Chemical Substances Regulations 9A(2); 2; and Material Data Sheet	PPE, Induction Training
			Spillage/ pollution	3	3	13		PPE, Concrete mixing sheet
			Injury during mixing/ cement burns	3	3	13		Induction Training, supervision and PPE
	I2	Concrete Mixer Machine	Poor ventilation causing ill health	3	2	8	General Safety Regulations 5(5)	PPE, additional ventilation
			Accidental injury through flying objects	3	3	13	Hazardous Chemical Substances Regulations 10(3)	Induction training, supervision
			Spillage/ pollution	4	3	17		PPE, Concrete mixing sheet
			Clothing/body parts getting caught in open pulley. V-belts	3	3	13		Induction training, inspection register, all moving parts covered with guard
	I3	Bulk Mixing Plant	Unauthorized operation	3	2	8	Construction Regulation 20(1)(a)(b)	Competent Operator, Supervision
			Malfunction of equipment causing injury/damage	3	3	13		Inspection Register & maintenance register
	I4	Concrete pumping	Cement Burns	3	2	8	Safe Operation Procedures (SOP)	PPE, Induction Training

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Steps in operation	Ref No.	Hazard	Risk	Risk Rating			Controls Measures	Other Controls
				L	C	R		
			Accidental collision with pump	2	3	9	General Safety Regulations 2(5)	Trained operator, supervision, restricted access to machinery
			Collapse/bursting of structure	2	3	9	Safe Operation Procedures (SOP)	Design of structure to be loaded to be approved by competent designer
			Malfunction of equipment causing injury/damage	3	3	13	Safe Operation Procedures (SOP)	Inspection register
	I5	Exposure to Hazardous chemical substances	Exposure	3	3	13	Hazardous Chemical Substances Regulations 10(1)(a)(b)(f)(3)	PPE
			Burns to Skin	3	3	13		
			Inhalation	3	3	13		
Working at heights	J1	Climbing up and down equipment	Fall from equipment	4	3	17	General Safety Regulations (6)	Induction, PPE, Fall Protection plan
			Equipment used for incorrect purposes	3	3	13		Induction training, supervision
			Equipment failure resulting in injury/damage	3	3	13		Inspection register
	J2	Working on Scaffolding	Collapse of Scaffolding	3	3	13	Construction Regulation 16(1)	Competent scaffold erector, inspection register
			Person slipping/falling from scaffolding	4	3	17	Construction Regulation 16(2)	Fall protection plan, safety harnesses, barricades
			Falling objects from scaffolding causing injury/damage	4	3	17	Construction Regulation 16(1)(2)	PPE, safe work area, catch nets
			Scaffolding used for incorrect purpose	3	2	8		Induction Training, supervision
			Sharp edges causing injury	3	2	8		Eliminate or clearly mark edges
	J3	Working on Ladders	Fall from ladder	4	3	17	General Safety Regulation 13A(4)(a)(b)	PPE, safety harness, Fall protection plan
			Ladder not secure - slip	3	3	13	General Safety Regulation 13A(2)(a)(b)	Secure ladder

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Steps in operation	Ref No.	Hazard	Risk	Risk Rating			Controls Measures	Other Controls
				L	C	R		
			Ladder damaged or substandard	3	3	13	General Safety Regulation 13A(2)(a)(b)	Ladder inspection Register
			Ladder used for incorrect purpose	3	2	8	General Safety Regulation 13A(3)(a)(b)	Induction Training, supervision
Work in Confined Spaces	K1	Confined Spaces	Lack of oxygen	2	3	9	General Safety Regulations 5(1)	Additional ventilation
			Intoxicating Fumes	2	3	9	General Safety Regulations 5(1)(2)(a)(b)	Respiratory masks
Construction	L1	Bricklaying	Injury due to sharp bladed tools	3	3	13	Occupational Health and Safety 8(1)(2)	PPE, Induction Training
			Fall from heights	3	3	13		PPE, Fall Protection Plan
			Injury due to hauling of bricks	4	3	17		PPE, Induction Training
			Shards flying into eyes from breaking bricks	4	3	17		PPE, Induction Training
			Bricks falling from height	4	3	17		Safe work area, Induction Training, barricades
	L2	Plastering	Falling Material onto person	3	3	13	Safe Operation Procedures (SOP)	PPE, Induction Training
			Fall from heights	3	3	13		PPE, Fall Protection Plan
			Spillage/ pollution	3	3	13	Hazardous Chemical Substances Regulations 10(1)(a)(b)(f)(3)	Drop sheets to be used
			Hazardous substance contact - dry plaster mix	3	3	13		PPE, Induction Training
			Dust -ill health	3	3	13		PPE, Induction Training
	L3	Painting	Unauthorised use of grinders during preparation for painting	3	3	13	Hazardous Chemical Substances Regulations 10(1)(a)(b)(f)(3)	PPE, Supervision
			Exposure to chemicals/ inhalation of fumes	3	4	18		PPE, Supervision

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Steps in operation	Ref No.	Hazard	Risk	Risk Rating			Controls Measures	Other Controls
				L	C	R		
			Spillage/ pollution from paint	3	3	13	Construction Regulation 25(a)(b)(c)(d)(e)(f)(g)	PPE, Supervision
			Flammable liquids - Accidental fire	3	4	18		Proper storage facilities, Fire fighting equipment
			Improper ventilation	3	3	13		Restricted access
			Unauthorized access to flammable liquids	3	3	13		
			Fall from heights	3	3	13		
	L4	Tiling	Injury due to sharp bladed tools	3	3	13	Safe Operation Procedures (SOP)	PPE, Induction Training
			Shards flying into eyes from breaking tiles	4	3	17		PPE, Induction Training
			Exposure to chemicals/ inhalation of fumes	3	4	18	Hazardous Chemical Substances Regulations 10(1)(a)(b)(f)(3)	PPE, Supervision
	L5	Carpentry & Joinery	Injury due to sharp bladed tools	3	3	13	Safe Operation Procedures (SOP)	PPE, Induction Training
			Shards flying into eyes	4	3	17		PPE, Induction Training
			Exposure to chemicals/ inhalation of fumes	3	4	18	Hazardous Chemical Substances Regulations 10(1)(a)(b)(f)(3)	PPE, Supervision
			Injury due to hauling of material	4	3	17		PPE, Induction Training
	L5	Chasing of services into brickwork	Dust Inhalation	3	2	8	Hazardous Chemical Substances Regulation (36)(37)(38)	Induction Training & PPE
			Electrocution - hitting of services				Construction Regulation 24(a)	
			Injury due to sharp bladed tools	3	3	13	Safe Operation Procedures (SOP)	PPE, Induction Training
			Shards flying into eyes	4	3	17		PPE, Induction Training

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Steps in operation	Ref No.	Hazard	Risk	Risk Rating			Controls Measures	Other Controls
				L	C	R		
	L6	Rope Access Work	Falling from height	3	3	13	Construction Regulations 18(1)(a)(b)(c)	
			Failure of equipment	4	3	17	Construction Regulations 18(2)(a)(b)(3)	
			Improper equipment	3	3	13		
	L7	Roof Construction	Falling Material onto person	3	3	13	Construction Regulations 10(1)(a)(b)(c)	PPE, Induction Training
			Fall from heights	3	3	13		PPE. Fall Protection Plan
			Collapse of structure	3	3	13		Competent designer, supervision
	L8	Water pipeline connections	Person coming into contact with liquid under pressure	3	3	13	Safe Work Procedure	PPE
			Exposure to thread sealant	3	3	13		PPE
			Release of pressure during pressure test	2	2	5		PPE
	L9	Sewer pipeline connections	Person coming into contact with hazardous biological agents	3	2	8	Hazardous Biological Agents Regulation 4(1)(a)(b)(c);(2)(3)	PPE
			Explosion due to hazardous fumes	3	2	8		PPE, Induction Training
			Person coming into contact with liquid under pressure	3	3	13		PPE
	L10	Electrical cable connections/ electrical installations	Electrocution	3	5	22	Construction Regulation 24(a)	Competent person to do installation & inspection
			Dangerous/unsafe cable Joints	3	3	13	Construction Regulation 24(a)(b)(d)(e)	Supervision
			Accidental switch on while work in progress	3	5	22		Apply lockout procedure before doing connections
			Inadequate material used, causing short circuit/fire	3	3	13		SABS approved material

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Steps in operation	Ref No.	Hazard	Risk	Risk Rating			Controls Measures	Other Controls
				L	C	R		
			Short circuit can blow up when switching	3	5	22		PPE
	L11	Work on Water pipeline reticulation	Person coming into contact with liquid under pressure	3	3	13	Safe Work Procedure Hazardous Biological Agents Regulation 10(1)(a)(b); 2(a)(b)(c)	PPE
			Exposure to thread sealant	3	3	13		PPE
			Release of pressure during pressure test	2	2	5		PPE
	L12	Work on Sewer pipeline reticulation	Person coming into contact with hazardous biological agents	3	2	8	Safe Work Procedure Hazardous Biological Agents Regulation 10(1)(a)(b); 2(a)(b)(c)	PPE
			Explosion due to hazardous fumes	3	2	8		PPE, Induction Training
			Suspended pipe work, pipe falling on person	3	2	8		
			Person coming into contact with liquid under pressure	3	3	13		PPE
	L13	Medium Voltage reticulation	Electrocution	3	5	22	Construction Regulation 24(a)(b)(c)	Competent person to do installation & inspection
			Dangerous/unsafe cable Joints	3	3	13	Construction Regulation 24(d)(e)	Supervision
			Accidental switch on while work in progress	3	5	22		Apply lockout procedure before doing connections
			Short circuit can blow up when switching	3	5	22		PPE
	L14	Exposure to mechanical components	Injury from moving parts	3	3	13	Occupational Health and Safety Act 24(1)(a)(c)	
			Electrocution	3	3	13		
	L15	Water & Sewerage Treatment	Explosions	3	3	13		
			Chemical Exposure					Sampling

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Steps in operation	Ref No.	Hazard	Risk	Risk Rating			Controls Measures	Other Controls
				L	C	R		
	L16	High Voltage reticulation > 1000V	Slip and fall				Hazardous Chemical Substances Regulations 4(a)(b)(d)(f)(g) Material Data Sheet	
			Exposure to UV lights					
			Discharge of cable	3	5	22	Electrical Installation Regulations 9(1) General Machinery Regulations 2(1)(2)(3)(i)	Correct measuring equipment
			Electrocution	3	5	22	Construction Regulation 24(a)(b)(c)	Competent person to do installation & inspection
			Dangerous/unsafe cable Joints	3	3	13	Electrical Installation Regulations 2(1)(2)(3)	Supervision
	L17	Road Construction	Accidental switch on while work in progress	3	5	22		Apply lockout procedure before doing connections
			Short circuit can blow up when switching	3	5	22		PPE
			Risk of being struck by vehicle while working next to road	4	4	21	Occupational Health and Safety Act 24(3)(a)(b)	Traffic Management Plan, Road Signs, reflective vests, Flag man
			Failure of regulating traffic causing collisions	3	4	18		Competent person, supervision
			Injury from road users and public	4	4	21	Construction Regulations 23(1)(e)(j)	Restrict access to site, Signage
			Noise pollution	3	2	8	Noise Induced Hearing Loss Regulations 7(1)(a)(b)(c)(d)	PPE
			Inhalation of dust	3	2	8	Hazardous Chemical Substances Regulations 8(a)(b)(c)	PPE
	L18	Paving	Injury due to sharp bladed tools	3	3	13	Occupational Health and Safety 8(1)(2)	PPE, Induction Training
			Injury due to hauling of paving blocks	4	3	17		PPE, Induction Training
			Shards flying into eyes from breaking bricks	4	3	17		PPE, Induction Training

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Steps in operation	Ref No.	Hazard	Risk	Risk Rating			Controls Measures	Other Controls
				L	C	R		
	L19	Kerb laying	Bodily injury due to handling	4	2	12	Occupational Health and Safety Act 24(1)(a)	PPE, Induction Training
			Falling of kerb onto person	3	2	8		Proper offloading plan, PPE
Metalwork	M1	Welding and flame cutting	Unsafe flame cutting/ welding equipment	3	5	22	General Safety Regulations 9(1)(a)(b)(c)(d)	Flame cutting equipment to be fitted with flashback arrestors, supervision
			Employees not competent to perform duty	3	3	13		Supervision
			Unsafe storage	3	3	13	General Safety Regulations 9(3)	Proper storage facility
			Injury / burns to person	3	3	13	General Safety Regulations 9(5)	Burn shield in First Air Box
			Accidental fire	3	3	13		Firefighting equipment
	M2	Steel fixing	Injuries from tie wire	3	3	13	General Administrative Regulations 8(1)(a)(b)	PPE, Induction Training
			Fall from heights	3	3	13		PPE, Fall Protection Plan
			Falling components	3	3	13		PPE, safe work area, catch nets
			Back injuries from manual handling	3	3	13		PPE, limit lifting weight
			Steel structure collapsing	3	3	13		PPE, Supervision

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LIKELIHOOD RATING	DESCRIPTION	FREQUENCY
5 - Almost certain	Expected to occur in most circumstances	Recurring event e.g. More than once per month.
4 - Likely	The event will probably occur	Event that may occur frequently once per year
3 - Possible	Might occur occasionally	Event that may occur. Once in 3 years
2 - Unlikely	Could happen some time	Event that is unlikely to occur. Once in 10 years
1 - Rare	May happen only in exceptional circumstances	Event that is very unlikely to occur

IMPACTS				
CONSEQUENCE RATING	ENVIRONMENTAL	SAFETY	HEALTH	FINANCIAL IMPACT
5 - Critical	Permanent environmental damage to an extensive area	Fatality. Permanent disabling injuries.	Life threatening or permanently disabling illness.	>R 500 000
4 - Major	Long term environmental damage extending to a large area requiring high level intervention	Severe irreversible damage to one or more persons. Lost Time Injury greater than 10 days.	Severe and irreversible health effects or disabling illness.	R100 000 –R499 000
3 - Moderate	Short term environmental damage requiring some intervention	Reversible injury or moderate irreversible impairment. Less than 10 days lost time	Severe but reversible health effects. Results in a lost time illness of less than 10 days.	R10 000 - R99 999
2 - Minor	Short term environmental damage affecting a small area easily remediated	Medically treated injury. Does not lead to restricted duties.	Reversible health effects of concern that results in medical treatment but does not lead to restricted duties.	R1 000 – R9 999
1 - Insignificant	Minimal environmental damage affecting a very small area immediately remediated	Single minor injury to one person. First aid or no treatment required. No lost time.	Reversible health effects of minor concern only requiring minor medical treatment.	R0 - R1 000

Contractor

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LIKELIHOOD							
<u>CONSEQUENCE</u>			<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
			<u>RARE</u>	<u>UNLIKELY</u>	<u>POSSIBLE</u>	<u>LIKELY</u>	<u>ALMOST CERTAIN</u>
	<u>1</u>	<u>INSIGNIFICANT</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
	<u>2</u>	<u>MINOR</u>	<u>2</u>	<u>4</u>	<u>6</u>	<u>8</u>	<u>10</u>
	<u>3</u>	<u>MODERATE</u>	<u>3</u>	<u>6</u>	<u>9</u>	<u>12</u>	<u>15</u>
	<u>4</u>	<u>MAJOR</u>	<u>4</u>	<u>8</u>	<u>12</u>	<u>16</u>	<u>20</u>
	<u>5</u>	<u>CRITICAL</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>

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Risk rating	Risk magnitude	Response
16 - 25	High	Immediate action required to reduce risk. Introduce hard barriers and adequate controls to reduce risk. Control hazards/ Monitor regularly. Ensure the risk has been eliminated so far as is reasonably practicable
9 - 15	Moderate	Urgent attention to improve controls & reduce inherent risks. Monitor systems controls, implement controls, or minimised in accordance with the hierarchy of controls so far as is to reduce the risk.
0 - 8	Low	Tolerable risk level. Carry out activity following review and implementation of effective risk controls in accordance with the hierarchy of controls. Ongoing monitoring and management required by employees and line supervisors to use safe working procedure

INITIALS	SURNAME	DESIGNATION	CONTACT DETAILS	HIRA TRAINING	SIGNATURE	DATE
S	Mzileni	Regional Project Manager	081 040 3798	Yes		
L	De Bruin	Project Manager	084 458 0912	Yes		
Z	Mkhonza	OHS Coordinator Compliance	012 426 5199	Yes		27 July 2023

Contractor

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DEFINITIONS		Probability (1 - 5)		Determining your prioritisation rating (AP)			
Hazard	Is a condition, activity, object or substance that has the ability to cause harm.	1	Highly improbable	%	Prioritization indicator	Action	
Risk	Is the chance or likelihood of a hazard causing harm or damage.	2	Less than even chance	1% - 20%	E	Monitor the situation	
Probability	The likelihood of a specific outcome/consequence	3	Improbable	21% - 40%	D	Within six months	
Frequency	A measure of the rate of occurrences of an event expressed as the number of occurrences at a given time	4	Probable	41% - 60%	C	Within one month	
Severity	Degree or harm of the outcome/consequence	5	Inevitable	61% - 80%	B	Within one week	
This HIRA does not necessarily cover all hazards associated with the operation / equipment. It is designed as a guide to compliment the Operational Specific HIRA, which must be carried out for each task forming part of an operation.				81% - 100%	A	Immediate	
Frequency (1 - 5)		Severity (1 - 15)					
1	Hazard arise 2 yearly	1	Superficial injuries, minor cuts and bruises, nuisance and irritations (e.g. eye irritations & headaches), ill health leading to temporary discomfort.	6	Laceration, burns, concussion, serious sprains, minor fractures, deafness, dermatitis, asthma, work related upper limb disorder, ill health leading to permanent minor disablement.	11	Amputation, major fractures, poisoning, multiple injuries, fatal injuries, Occupational cancer, other severely life shortening diseases, acute fatal diseases.
2	Hazard arise yearly	2		7		12	
3	Hazard arise every month	3		8		13	
4	Hazard arise every week	4		9		14	
5	Hazard permanently present	5		10		15	

Contractor

Witness for Contractor

Employer

Witness for Employer

Maximum Reasonable Consequence (C)

C	People Health and Safety	Property or Production	Environmental or Community	Financial Impact
5	Could Kill or permanently disable	Could cause very major damage > R500K	A Major event creating irreversible damage/loss	>R10m
4	Could cause serious injury or disease (Major LTI)	Could cause major damage R100K to R500K	An event having substantial & permanent consequence to the environment	> R2.5m & < R10m
3	Could cause typical MTI / RWI / LTI	Could cause moderate damage R50K to R100K	An event having substantial temporary or a minor permanent consequence to the environment	> R500k & < R2.5m
2	Could cause First Aid injury	Could cause damage R5K to R50K	An event having temporary or a minor consequence to the environment	> R5k & < R500k
1	Couldn't cause injury or disease	Could not cause damage < R5K	No detrimental impact on the environment	<R5k

Likelihood of the event occurring(L)

L	Description of probability or potential of event occurring		
5	Very High	Common regular occurrence	Almost certain to happen
4	High	Possibility of regular occurrence	Likely to happen / Known to happen
3	Moderate	Isolated incidents - Could happen	Has been reported from else where so it could happen
2	Low	Not likely to occur	Unlikely: not likely to happen but not impossible
1	Very Low	Rare - Very unlikely	Practically impossible

Contractor

Witness for
Contractor

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Employer

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Employer

DEFINITIONS		Probability (1 - 5)		Determining your prioritisation rating (A/P)			
Hazard	Is a condition, activity, object or substance that has the ability to cause harm.	1	Highly improbable	%	Prioritization indicator	Action	
Risk	Is the chance or likelihood of a hazard causing harm or damage.	2	Less than even chance	1% - 20%	E	Monitor the situation	
Probability	The likelihood of a specific outcome/consequence	3	Improbable	21% - 40%	D	Within six months	
Frequency	A measure of the rate of occurrences of an event expressed as the number of occurrences at a given time	4	Probable	41% - 60%	C	Within one month	
Severity	Degree or harm of the outcome/consequence	5	Inevitable	61% - 80%	B	Within one week	
This HIRA does not necessarily cover all hazards associated with the operation / equipment. It is designed as a guide to compliment the Operational Specific HIRA, which must be carried out for each task forming part of an operation.				81% - 100%	A	Immediate	
Frequency (1 - 5)		Severity (1 - 15)					
1	Hazard arise 2 yearly	1	Superficial injuries, minor cuts and bruises, nuisance and irritations (e.g. eye irritations & headaches), ill health leading to temporary discomfort.	6	Laceration, burns, concussion, serious sprains, minor fractures, deafness, dermatitis, asthma, work related upper limb disorder, ill health leading to permanent minor disablement.	11	Amputation, major fractures, poisoning, multiple injuries, fatal injuries, Occupational cancer, other severely life shortening diseases, acute fatal diseases.
2	Hazard arise yearly	2		7		12	
3	Hazard arise every month	3		8		13	
4	Hazard arise every week	4		9		14	
5	Hazard permanently present	5		10		15	

Contractor

Witness for Contractor

Employer

Witness for Employer



Contractor's Acknowledgement:

I, _____ representing
_____ (Contractors), have satisfied
myself with the content of this Health and Safety Specification and have made the relevant provision under
my Preliminary & General Section for any and all costs involved to ensure

Compliance of this Specification and shall we be the successful contractor, we shall ensure that our
employees and contractors on site comply with the requirements of this documents, our safety
documentation and health and safety legislation.

Signature of Contractor

Date

Comments:

Contractor

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Contractor

Employer

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Employer

Annexure B

Environmental Management Programme (EMPr)

**FOR THE EXPANSION OF THE RHODESDRIFT STAFF VILLAGE WITHIN
THE MAPUNGUBWE NATIONAL PARK, LIMPOPO PROVINCE**

The EMPr has been approved by the Department of Forestry, Fisheries and the Environment (DFFE) as part of the Environmental Authorisation (EA) for the expansion of the existing Rhodesdrift Staff Village. The Contractor must take note of the responsibilities for the implementation of the construction project which have certain conditions as per the EA.

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ENVIRONMENTAL IMPACT ASSESSMENT

EXPANSION OF THE RHODES DRIFT STAFF VILLAGE WITHIN THE MAPUNGUBWE NATIONAL PARK, LIMPOPO PROVINCE

Authority Ref: 14/12/16/3/3/1/2636

FINAL ENVIRONMENTAL MANAGEMENT

Prepared on behalf of:



SOUTH AFRICAN NATIONAL PARKS (SANParks)
Farm Rhodes Drift 22-MS, Mapungubwe National Park

For Review and Approval by:

DEPARTMENT OF FORESTRY, FISHERIES AND THE ENVIRONMENT
The Director: Integrated Environmental Authorisations
Private Bag X447
Pretoria
0001

JANUARY 2023

A Report Compiled by:

DELRON CONSULTING (Pty) Ltd
Mr. P De Lange BL (UP) Pr Larch, Reg. EAP (EAPASA): 2021/3751
Delron Project No: 0704
Report / Revision No: 0

Contractor

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ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)

1. PURPOSE

The National Environmental Management Act 107 of 1998 (NEMA) requires that an **Environmental Management Programme** (EMPr) be submitted where an environmental impact assessment must be utilised as the basis for a decision on an application for environmental authorisation.

There is a reliance on the EMPr to ensure that a project's actual environmental impacts are consistent with those evaluated in the (EIA) process. The EMPr is therefore fundamental to the EIA process and should ensure that commitments given at a project's planning and assessment stage are carried through the construction and/ or operation stage.

The EMPr, as contemplated in Chapter 5 Section 24 N (1A) of NEMA, plays a vital role in the implementation of consistent and continued environmental management for the duration of a project life cycle.

2. SCOPE

The EMPr contains a **1) General Environmental Specifications Section** which contains generally accepted impact management outcomes and impact management actions required for the avoidance, management and mitigation of impacts and risks associated with development.

The EMPr also contains a **2) Project Specific Environmental Specifications Section** which describes mitigation measures and environmental control requirements specific to the particular project. These requirements are based on the findings from the BA/EIA and any conditions attached to Environmental Authorisation (EA).

The project specific section of the EMPr identifies where project specific information from the EIA or BA will need to be included in to the EMPr. This includes:

- Environmental sensitivity mapping including "No Go" areas
- Final project footprint
- Project information including landowner details and specific access requirements.

The overall objectives of the EMPr are to realise the following:

- Ensure that impact avoidance and mitigation measures associated with construction are identified and that practical recommendations are provided to implement and monitor these actions.
- Ensure environmental protection.

3. LEGAL REQUIREMENTS

3.1 Key Environmental Legislation and Policies

In terms of legal requirements, a crucial objective of the EMPr is to satisfy the requirements of Section 24N of the NEMA Regulations and Regulation 19 of the NEMA EIA Regulation of 2014. These regulations regulate and prescribe the content of the EMPr and specify the type of supporting information that must accompany the submission of the report to the authorities.

In addition to satisfying these requirements, the content of the EMPr has been compiled in accordance with the requirements of legislation of other authorising authorities responsible for providing approvals, general authorisations or letters of no objections for projects. The following additional legislation was considered in this regard:

- General Authorisation of water use in terms of the amended GN 1199 of the National Water Act (No. 36 of 1998);
- National Heritage Resource Act (No. 25 of 1999).

The Contractor shall identify and comply with all South African environmental legislation, including associated regulations and all local by-laws relevant to the project. Key legislation at the time of this EMPR being in effect applicable to the construction and implementation phases of the project must be complied with. The list of applicable legislation provided below is intended to serve as a guideline only and is not exhaustive:

- **General**
 - The Constitution of South Africa Act of 1996 (Act No. 108 of 1996);
 - National Environmental Management Act of 1998 (Act No. 107 of 1998);
 - Environment Conservation Act of 1989 (Act No. 73 of 1989) and the Environmental Impact Assessment Regulations, 2014.
- **Land, Soil and Plants**
 - The Conservation of Agricultural Resources Act of 1983 (Act No. 43 of 1983);
 - National Forests Act of 1998 (Act No. 84 of 1998);
 - National Environmental Management Biodiversity Act of 2004 (Act No. 10 of 2004);
 - National Veld and Forest Fire Act of 1998 (Act No. 101 of 1998).
- **Protected Areas**
 - National Environmental Management: Protected Areas Act of 2003 (Act No. 57 of 2003);
 - The Protected Areas Amendment Act of 2004 (Act 31 of 2004).
- **Inland Water Resources**
 - National Water Act of 1998 (Act No. 36 of 1998);
 - Water Service Act of 1997 (Act No. 108 of 1997).
- **Cultural Resources**
 - Natural Heritage Resources Act of 1999 (Act No. 25 of 1999).
- **Animals and Wildlife**
 - Animals Protection Act of 1962 (Act No. 71 of 1962);
 - Game Theft Act of 1991 (Act No. 105 of 1991);
 - The National Environmental Management: Biodiversity Act of 2004 (Act No. 10 of 2004) and the regulations and lists regarding threatened and protected species
- **Pollution Control and Waste Management**
 - National Environmental Management: Waste Act, 2008;
 - Environment Conservation Act of 1989 (Act No. 73 of 1989);
 - National Environmental Management: Waste Act 2008 (Act No. 58 of 2008);
 - Minimum requirements for waste disposal by landfill, Department of Water Affairs and Forestry, 2nd addition, 1998.
- **Hazardous and Toxic Substances**
 - Hazardous Substances Act of 1973 (Act No. 15 of 1973);
 - Minimum requirements for the handling, classification and disposal of hazardous waste (Department of Water Affairs and Sanitation);
 - Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act of 1947 (Act No. 36 of 1947).
- **Air Pollution**
 - Atmospheric Pollution Prevention Act of 1965 (Act No. 45 of 1965);
 - National Environmental Management: Air Quality Act of 2004 (Act No. 39 of 2004).
- **Minerals, Energy and Mining**
 - Mineral & Petroleum Resources Development Act of 2002 (Act No. 28 of 2002)
 - Minerals and Petroleum Resources Development Act 28 of 2002

- **Other**
 - Road Traffic Act of 1989 (Act No. 29 of 1989)
 - Explosives Act of 2003 (Act No. 15 of 2003)
 - Advertising on Roads and Ribbon Development Act of 1940 (Act No. 21 of 1940)
 - Depending on the location of the project, applicable provincial legislation will also apply.

WORKING AREA

Construction activities shall be limited to the area for which EA is applied for/issued. Any area outside the development envelope required to facilitate access, construction activities, construction camps or material storage areas, shall be negotiated with the affected Landowner and written agreements shall be obtained. Location of construction camps must be carefully considered and approved by the ECOs and this involves determining whether any further approvals would be required in terms of the relevant environmental and health legislation.

All construction areas shall be cleared in accordance with the requirements of this EMPr. Any extra space to be cleared outside the development envelope shall be negotiated with the relevant Landowner and approved by the ECOs. All areas marked as “No Go” areas shall be treated with the utmost care and responsibility and in accordance with the requirements of the EMPr.

Should water be required from sources other than from those provided by the developer's supply, a written agreement shall be reached between the Contractor and the Landowner. Should the Contractor be required to use water from a water resource, the Contractor shall supply a method statement to that effect and first obtain the required licences from DWS. Strict control shall be maintained and the ECOs shall regularly inspect the abstraction point and methods used.

4. DEFINITIONS AND TERMINOLOGY

For the purposes of this EMPr, the following definitions shall apply:

Assembly Area	Means any area used for the assembly of infrastructure prior to its erection. Such assembly areas may be within the construction camp or elsewhere within the Working Area.
Biophysical Aspects	Are the naturally occurring objects and processes of an area on the assumption that all naturally occurring things can be classified as being either living (i.e. biotic) or non-living (physical or abiotic).
Botanical Specialist	Should be Pr.Sci.Nat registered.
Clearing	Means the clearing and removal of vegetation, whether partially or in whole, including trees and shrubs, as specified.
Construction Camp	Is the area designated for key construction infrastructure and services, including but not limited to offices, overnight vehicle parking areas, stores, the workshop, stockpile and lay down areas, hazardous storage areas (including fuels), the batching plant (if one is located at the construction camp), designated access routes, equipment cleaning areas and the placement of staff accommodation, cooking and ablution facilities, waste and wastewater management.
Contaminated Water	Means water contaminated by the Contractor's activities, e.g. concrete water and runoff from equipment, camp sites, ablution facilities and personnel wash areas.
ECO	Means an Environmental Control Officer (ECO) appointed full time by the Employer to monitor compliance by the Contractor and his staff with the environmental requirements of the environmental authorisation and EMPr.
Endemic	Is the natural distribution of an organism (plant or animal) restricted to the local environmental conditions within an area.

Environment	<p>Means the surroundings within which humans exist. It comprises:</p> <ul style="list-style-type: none"> i) The land, water and atmosphere of the earth; ii) Micro-organisms, plant and animal life; iii) Any part or combination of i) and ii) and the interrelationships among and between them; and iv) The physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being (i.e. the social environment). <p>This is a definition that encompasses many different facets, including biological, physical, social, economic, cultural, historical and political components.</p>
Heritage Resource	As per the provisions of the National Heritage Resources Act (No 25 of 1999), means all those heritage resources that are of cultural significance or other special value for present and future generations, and which are accordingly considered part of the National Estate. In this regard, the National Estate includes those items identified in terms of Section 2 of National Heritage Resources Act No. 25 of 1999.
Heritage Specialist	For the purposes of this EMPr, means a specialist suitably qualified to deal with the type of heritage resource discovered. For example where the resource is an archaeological artefact or site, the heritage specialist would be an archaeologist and where it is a fossil the specialist would be a palaeontologist.
Maintenance Period	Means the period after the establishment period up to and until the end of the defects liability period, during which the contractor shall be responsible for maintaining the vegetation.
Method Statement	<p>Means a written submission by the Contractor to the Project Manager in response to this EMPr or a request by the Project Manager and ECO. The Method Statement must set out the equipment, materials, labour and method(s) the Contractor proposes using to carry out an activity identified by the Project Manager when requesting the Method Statement. This must be done in such detail that the Project Manager and ECO is able to assess whether the Contractor's proposal is in accordance with this specification and/or will produce results in accordance with this specification.</p> <p>The Method Statement shall cover applicable details with regard to:</p> <ul style="list-style-type: none"> i) Construction procedures; ii) Plant, materials and equipment to be used; iii) Transporting the equipment to and from site; iv) How the plant/ material/ equipment will be moved while on site; v) How and where the plant/ material/ equipment will be stored; vi) The containment (or action to be taken if containment is not possible) of leaks or spills of any liquid or material that may occur; vii) Timing and location of activities; viii) Compliance/ non-compliance; and ix) Any other information deemed necessary by the Project Manager.
Indigenous Vegetation	Means all existing species of trees, shrubs, groundcover, grasses and all other plants native to the site.
Pollution Incident	Means any incident that may cause or has caused damage to or the contamination of the natural environment.
Hazardous Substances	Is a substance governed by the Hazardous Substances Act, 1973 (Act No. 15 of 1973) as well as the Hazardous Chemical and Substances Regulations, 1995.
Sensitive Area	means any area that is denoted as sensitive by the BA/EIA, Environmental Authorisation, and EMPr, ECO or Project Manager due to its particular

	attributes, which could include the presence of rare or endangered vegetation, the presence of heritage resources (e.g. archaeological artefacts or graves), the presence of a unique natural feature, the presence of a watercourse or water body, the presence of steep slopes (in excess of 1:4) etc.
Slope	Means the inclination of a surface expressed as one unit of rise or fall for so many horizontal units.
Solid Waste	Means all solid waste, including construction debris, hazardous waste, excess cement/ concrete, wrapping materials, timber, cans, drums, wire, nails, food and domestic waste (e.g. plastic packets and wrappers).
Spoil	Means excavated material which is unsuitable for use as material in the construction works or is material which is surplus to the requirements of the construction works.
Topsoil	Means a varying depth (up to 300 mm) of the soil profile irrespective of the fertility, appearance, structure, agricultural potential, fertility and composition of the soil.
Watercourse	Means any river, stream and natural drainage channel whether carrying water or not.
Water body	Means a body containing water and includes dams and wetlands, whether ephemeral or permanent.
Wetland	Means any area that is transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the area is covered by shallow water. Specifically, an area is classified as a "wetland" if it meets at least one of the following criteria: i) The area predominantly supports hydrophytes, at least periodically; ii) The substrate(soil) is predominantly undrained hydric soil; and/ or iii) The substrate is non-soil, and is saturated with water or covered by shallow water at some time during the growing season.
Works	Means the Works to be executed in terms of the Contract.
Working Area	Means the land and any other place on, under, over, in or through which the Works are to be executed or carried out, and any other land or place made available by the Employer in connection with the Works. The Working Area shall include the site office, construction camp, stockpile and laydown areas, assembly areas, batching areas, the construction corridor, all access routes and any additional areas to which the Project Manager permits access.

5. Roles & Responsibilities

The effective implementation of the EMPr is dependent on established and clear roles, responsibilities and reporting lines within an institutional framework. This section of the EMPr identifies the various environmental roles and reporting lines and defines responsibilities for each role. This institutional structure will be maintained throughout the construction phase until such time as the final construction phase Environmental Audit Report has been prepared and accepted.

The Environmental Responsibilities and Reporting Structure are represented below:

Function	Role and Responsibilities
Environmental Assessment Practitioner (EAP)	<p><u>Responsibility</u></p> <ul style="list-style-type: none"> The EAP is to be appointed by the Developer or Environmental Authorisation Holder (EAH). The responsibility of the EAP is to supplement the pre-approved generic

Function	Role and Responsibilities
	<p>EMPr requirements with project specific information and requirements from the authorised Basic Assessment or Environmental Impact Assessment Report.</p> <ul style="list-style-type: none"> • Details of the EAP including the Curriculum Vitae of the EAP shall be included in the EMPr.
Environmental Authorisation Holder (EAH)	<p><u>Role</u></p> <p>The Environmental Authorisation Holder is accountable for ensuring compliance with the EMPr and any conditions of approval from the Competent Authority (CA). Where required, an Environmental Control Officer (ECO) must be contracted by the EAH to objectively monitor the implementation of the EMPr according to relevant environmental legislation, and the conditions of the environmental authorisation (EA). The EAH is further responsible for providing and giving mandate to enable the ECO to perform responsibilities, and he must ensure that the ECO is integrated as part of the project team while remaining independent.</p> <p><u>Responsibilities</u></p> <ul style="list-style-type: none"> • Be fully conversant with the conditions of the EA. • Ensure that all stipulations within the EMPr are communicated and adhered to by the Developer and its Contractor(s). • Issuing of site instructions to the Contractor for corrective actions required. • Monitor the implementation of the EMPr throughout the project by means of site inspections and meetings. Overall management of the project and EMPr implementation. • Ensure that periodic environmental performance audits are undertaken on the project implementation; and • Ensure all permits, authorisations and licences are obtained, monitored and adhered to.
Environmental Control Office (ECO)	<p><u>Role and Qualifications</u></p> <p>The ECO should be employed by the EAH for the duration of the project. The ECO should have appropriate training and experience in the implementation of environmental management specifications. The primary role of the Environmental Control Officer is to act as an independent quality controller and monitoring agent regarding all environmental concerns and associated environmental impacts. In this respect, the ECO is to conduct periodic site inspections, attend regular site meetings, pre-empt problems and suggest mitigation and be available to advise on incidental issues that arise. The ECO is also required to conduct compliance audits, verifying the monitoring reports submitted by the Contractor. The ECO provides feedback to the EAH and Project Manager regarding all environmental matters. The Contractor/s are answerable to the Environmental Control Officer for non-compliance with the Performance Specifications as set out in the Environmental Authorisation and EMPr.</p> <p>Issues of non-compliance raised by the ECO must be taken up by the Project Manager, and resolved with the Contractor as per the conditions of his contract. Decisions regarding environmental procedures, specifications and requirements which have a cost implication (i.e. those that are deemed to be a variation, not allowed for in the Performance Specification) must be endorsed by the Project Manager.</p> <p>The ECO must also, as specified by the Environmental Authorisation, report to the Government Authorising Department as and when required.</p> <p><u>Responsibilities</u></p>

Function	Role and Responsibilities
	<p>The responsibilities of the ECO will include the following:</p> <ul style="list-style-type: none"> • Be aware of the findings and conclusions of the Environmental Impact Assessment and Water Use Licensing process (where applicable) and the conditions stated within the environmental licenses. • Be familiar with the recommendations and mitigation measures of this EMPr. • Be conversant with relevant environmental legislation, policies and procedures, and ensure compliance with them. • Undertake regular and comprehensive site inspections / audits of the construction site according to the EMPr and applicable licenses in order to monitor compliance with the EMPr. • Educate the construction team about the management measures contained in the EMPr and environmental licenses. • Compilation and administration of an environmental monitoring plan to ensure that the environmental management measures are implemented and are effective. • Monitoring the performance of the Contractors and ensuring compliance with the EMPr and associated Method Statements. • In consultation with the Project Manager order the removal of person(s) and/or equipment which are in contravention of the specifications of the EMPr and/or environmental licenses. • Liaison between the Project Manager, Contractors, authorities and other lead stakeholders on all environmental concerns. • Issuing of site instructions to the Contractor for corrective actions required. • Compile a regular environmental audit report highlighting any non-compliance issues as well as satisfactory or exceptional compliance with the EMPr. • Validating the regular site inspection reports, which are to be prepared by the contractor. • Checking the contractor's record of environmental incidents (spills, impacts, legal transgressions etc) as well as corrective and preventive actions taken. • Checking the contractor's public complaints register in which all complaints are recorded, as well as action taken. • Assisting in the resolution of conflicts. • Facilitate training for all personnel on the site – this may range from carrying out the training, to reviewing the training programmes of the Contractor and/or sub-contractors. • In case of non-compliances, the ECO must first communicate this to the Project Manager and Contractor, who has the power to ensure this matter is addressed. Should no action or insufficient action be taken, the ECO may report this matter to the authorities as non-compliance. • Maintenance, update and review of the EMPr; and • Communication of all modifications to the EMPr to the relevant stakeholders. <p>Further note, the ECO function is not limited to the construction phase alone, but is also an active role during the operational and later phases of the project.</p>
Contractor (C)	<p><u>Role</u></p> <p>The Contractor has overall responsibility for ensuring that all work, activities, and actions linked to the delivery of the contract are in line with the EMPr and that Method Statements are implemented as described.</p>

Function	Role and Responsibilities
	<u>Responsibilities</u> <ul style="list-style-type: none"> • Implementation and compliance with recommendations and conditions of the EA and EMPr, including providing the Contractor's Environmental Protection Policy and the specific Method Statements for the project. • Appoints dedicated and qualified contractor's Environmental Officer (cEO) to work with the ECO; and • Ensure all site staff are trained and kept updated in terms of the EA, EMPr and other legal requirements.

6. Environmental Documentation Reporting and Compliance

To ensure accountable and demonstrated implementation of the EMPr, a number of reporting systems, documentation controls and compliance mechanisms shall be in place for all projects as a minimum requirement. This section of the report details each of these and how they shall be used throughout the project EMPr.

6.1 Document control/Filing system

The approved filing system shall be established at the outset of the construction phase and shall be maintained throughout the lifespan of the project. The ECOs are solely responsible for the upkeep and management of the EMPr file. At a minimum, all documentation detailed below will be stored in the EMPr file. A hardcopy of all documentation shall be filed, while an electronic copy may be kept where relevant. A duplicate file will be maintained in the office of the Developer's Site Supervisor (where applicable). This duplicate file will be the responsibility of the ECOs and must remain current and up-to-date. The filing system must be updated and relevant documents added as required. The EMPr file must be made available at all times on request by the Competent Authority (in terms of NEMA) or other relevant authorities. The EMPr file will form part of any Environmental Audits undertaken.

6.2 Documentation to be available

At the outset of the project the following documents shall be placed in the filing system and be accessible at all times:

- 1) Full copy of the signed Environmental Authorisation from the Competent Authority in terms of NEMA granting approval for the activity.
- 2) Records of acknowledgement and acceptance of the EMPr from the Competent Authority in terms of NEMA.
- 3) Complete copy of the EMPr.
- 4) All signed copies of the Contractor's Environmental Agreement.
- 5) All the Contractor's Method Statements.
- 6) Completed Weekly Environmental Checklists.
- 7) Copies of the accepted Monthly Environmental Reports.
- 8) Minutes and attendance register of Environmental Site meetings.
- 9) An up-to-date Environmental Incident Log.
- 10) A copy of all non-compliances issued; and
- 11) A copy of all corrective actions signed off. The corrective actions must be filed in such a way that a clear reference is made to the non-compliance record.

6.3 Weekly Environmental Checklists

The ECOs are required to complete a Weekly Environmental Checklist which meets the requirements of the EMPr. The ECOs are required to sign and date the checklist, retain a copy in the EMPr file and submit a copy of the completed checklist to the Contractor on a weekly basis.

The checklists will form the basis for the Monthly Environmental Monitoring Reports. Copies of all completed checklists will be attached as Annexures to the Final Environmental Audit Report. The ECOs

will report on the week's "highs and lows" to the Contractor on a weekly basis.

6.4 Environmental Audit Reports

The ECOs shall prepare a monthly Environmental Audit Report. The Report will be tabled as the key point on the agenda of the Environmental Site Meeting. The Report is submitted for acceptance at the meeting and the final report will be circulated to the Project Manager and filed in the EMPr file. At a frequency determined by the environmental authorisation, the ECOs shall submit the monthly reports to the Competent Authority in terms of NEMA. At a minimum the Monthly Monitoring Report is to cover the following:

- 1) Weekly Environmental Checklists.
- 2) Deviations and non-compliances with the checklists.
- 3) Non-compliances issued.
- 4) Completed and reported corrective actions.
- 5) Environmental Monitoring.
- 6) General environmental findings and actions; and
- 7) Minutes of the Bi-monthly Environmental Site Meetings.

6.5 Environmental Site meetings

An Environmental Site Meeting will take place at least bi-monthly (i.e. every two weeks). The meeting will be chaired by the Project Manager or ECO. The contractor will be required to attend. All environmental issues shall be tabled at the meeting for discussion and resolution.

Minutes of the Environmental Site Meetings shall be kept. The Minutes must include an attendance register and will be attached to the Monthly Report that is distributed to attendees. Each set of Minutes must clearly record Matters for Attention that will be reviewed at the next meeting.

6.6 Required Method Statements

A Method Statement is a written submission by the contractor to the Project Manager or ECO in response to the EMPr, setting out the plant, materials, labour and method the contractor proposes using to carry out an activity. The Method Statement will be done in such detail that the ECOs are enabled to assess whether the contractor's proposal is in accordance with the EMPr.

The Method Statement shall cover applicable details with regard to:

- 1) Construction procedures.
- 2) Materials and equipment to be used.
- 3) Getting the equipment to and from site.
- 4) How the equipment/ material will be moved while on site.
- 5) How and where material will be stored.
- 6) The containment (or action to be taken if containment is not possible) of leaks or spills of any liquid or material that may occur.
- 7) Timing and location of activities.
- 8) Compliance/ non-compliance with the EMPr; and
- 9) Any other information deemed necessary by the ECOs.

Unless indicated otherwise by the Project Manager, the Contractor shall provide the following Method Statements to the Project Manager no less than 14 days prior to the programmed Commencement Date of the subject Works or activity:

- 1) Site establishment – camps, lay-down or storage areas, satellite camps, infrastructure.
- 2) Batch plants.
- 3) Workshop or plant servicing.
- 4) Handling, transport and storage of Hazardous Chemical Substance's.
- 5) Vegetation management – protected, clearing, aliens, felling.
- 6) Access management – roads, gates, crossings etc.

- 7) Fire plan.
- 8) Waste management – transport, storage, segregation, classification, disposal (all waste streams).
- 9) Social interaction – complaints management, compensation claims, access to properties etc.
- 10) Water – use (source, abstraction and disposal), access and all related information, crossings and mitigation.
- 11) Emergency preparedness – Spills, training, other environmental emergencies.
- 12) Dust and noise.
- 13) Fauna interaction and risk management – only if the risk was identified – wildlife interaction especially in a national park; and
- 14) Heritage and palaeontology management.

The ECOs shall ensure that the contractors perform in accordance with these Method Statements. Completed and authorised Method Statements shall be captured in **Appendix B**.

6.7 Environmental Incident Log (Diary)

The ECOs are required to maintain an up-to-date and current Environmental Incident Log (environmental diary).

The Environmental Incident Log is a means to record all environmental incidents for which a non-compliance notice would not be issued. An environmental incident is defined as:

- 1) Any deviation from the listed environmental mitigation measures (listed in this EMPr) that may be addressed immediately by the ECOs. (For example a contractor's staff member littering or a drip tray that has not been emptied);
- 2) Any environmental impact resulting from an action or activity by a contractor in contravention of the environmental stipulations and guidelines listed in the EMPr which as a single event would have a minor impact but which if cumulative and continuous would have a significant effect (for example no toilet paper available in the ablutions for an afternoon); and
- 3) General environmental information such as road kills or injured wildlife.

The ECOs are to record all environmental incidents in the Environmental Incident Log. All incidents regardless of severity must be reported to the Developer. The Log is to be kept in the EMPr file and at a minimum the following will be recorded for each environmental incident:

- 1) The date and time of the incident.
- 2) Description of the incident.
- 3) The name of the Contractor responsible.
- 4) The incident must be listed as significant or minor.
- 5) If the incident is listed as significant, a non-compliance notice must be issued, and recorded in the log.
- 6) Remedial or corrective action taken to mitigate the incident; and
- 7) Record of repeat minor offences by the same contractor or staff member.

The Environmental Incident Log will be captured in the Environmental Audit Report.

6.8 Non-compliance

A non-compliance notice will be issued to the responsible contractor by the ECOs via the Project Manager. The non-compliance notice will be issued in writing; a copy filed in the EMPr file and will at a minimum include the following:

- 1) Time and date of the non-compliance.
- 2) Name of the contractor responsible.
- 3) Nature and description of the non-compliance.
- 4) Recommended / required corrective action; and
- 5) Date by which the corrective action to be completed.

The Contractors shall act immediately when a notice of non-compliance is received and correct

whatever is the cause for the issuing of the notice. Complaints received regarding activities on the construction site pertaining to the environment shall be recorded in a dedicated register and the response noted with the date and action taken. The ECO should be made aware of any complaints. Any non-compliance with the agreed procedures of the EMPr is a transgression of the various statutes and laws that define the manner by which the environment is managed. Failure to redress the cause shall be reported to the relevant authority (DAFF, DFFE, DWS) for them to deal with the transgression, as it deems fit. The Contractor is deemed not to have complied with the EMPr if, inter alia:

- 1) Deviates from the environmental conditions and requirements as set out in the EMPr that has, or may cause, an environmental impact; OR
- 2) Contravenes environmental legislation; OR
- 3) Results in an unforeseen environmental impact. This may be caused by direct or indirect actions or activities on site. Significance will be determined by the ECOs, but will be informed by geographic extent, duration, lasting effects of the impact and extent of remediation to rectify the impact.

6.9 Corrective Action records

For each non-compliance notice issued, a documented corrective action must be recorded. On receiving a non-compliance notice from the ECO, the Contractor will ensure that the corrective actions required take place within the stipulated timeframe. On completion of the corrective action the Contractor is to issue a Corrective Action Report in writing to the ECOs. If satisfied that the corrective action has been completed, the ECOs are to sign-off on the Corrective Action Report, and attach the report to the non-compliance notice in the EMPr file. A corrective action is considered complete once the report signed off by the ECOs.

6.10 Contractor Environmental Agreements

Each contractor working on site is required to sign the Contractor Environmental Agreement. This agreement provides for:

- Signed acknowledgement by the Contractor of the EMPr and the environmental controls and stipulations therein;

The signed copies of the Contractor Environmental Agreements are to be filed in the EMPr file. No contractor will be allowed to start work without having signed the Contractor Environmental Agreement.

6.11 Photographic Record

A digital photographic record will be kept. The photographic record will be used to show before, during and post rehabilitation evidence of the project as well used in cases of damages claims if they arise. Each image must be dated and a brief description note attached.

The Contractor shall:

- 1) Allow the ECOs access to take photographs of all areas, activities and actions.
- 2) The ECOs shall keep an electronic database of photographic records which will include:
 1. Pictures of all areas designated as work areas, camp areas, construction sites and storage areas taken before these areas are set up.
 2. All bunding and fencing.
 3. Road conditions and road verges.
 4. Condition of all fences.
 5. Topsoil storage areas.
 6. Waste management sites.
 7. Ablution facilities (inside and out).
 8. Any non-conformances deemed to be "significant".
 9. All completed corrective actions for non-compliances.

10. All required signage; and
11. All areas before, during and post rehabilitation.

3) Include relevant photographs in the Final Environmental Audit Report

6.12 Complaints Register

The ECOs shall keep a current and up-to-date complaints register. The complaints register is to be a record of all complaints received from communities, stakeholders and individuals. The Complaints Record shall:

1. Record the name and contact details of the complainant.
2. Record the time and date of the complaint.
3. Contain a detailed description of the complaint.
4. Where relevant and appropriate, contain photographic evidence of the complaint or damage (ECOs to take relevant photographs); and
5. Contain a copy of the ECOs written response to each complaint received and keep a record of any further correspondence with the complainant. The ECO's written response will include a description of any corrective action to be taken and must be signed by the Contractor, ECO and affected party. Where a damage claim is issued by the complainant, the ECOs shall respond as described below.

6.13 Claims for Damages

In the event that a Claim for Damages is submitted by a community, landowner or individual, the ECOs shall:

1. Record the full detail of the complaint as described in (6.12) above.
2. The ECOs will evaluate the claim and associated damage and submit the evaluation to the Project Manager for approval.
3. Following consideration by the Developer's Project Manager, the claim is to be resolved and settled immediately, or the reason for not accepting the claim communicated in writing to the claimant. Should the claimant not accept this, the ECO shall, in writing report the incident to the Developer's negotiator and legal department; and
4. A formal record of the response by the ECOs to the claimant as well as the rectification and/or payment will be recorded in the EMP file.

6.14 Interaction with affected parties

Open, transparent and good relations with affected landowners, communities and regional staff are an essential aspect to the successful management and mitigation of environmental impacts. The Contractor shall ensure that:

1. All negotiations with affected parties are done with the affected parties, Project Manager and ECO present.
2. No oral agreements between the above parties shall be entered into. All agreements will be recorded in writing, signed by all parties and filed in the EMP file.
3. Affected parties will be informed of any changes to the construction programme.
4. The Contractor's contact telephone numbers are made available to all I&APs.
5. Contact with all affected parties will be courteous at all times; and

The ECOs shall:

1. Ensure that all queries, complaints and claims are dealt with immediately.
2. Ensure that any or all negotiations take place with the affected parties, Project Manager and Contractor present.
3. Ensure that any or all agreements are documented, signed by all parties and a record of the agreement kept in the EMP file.
4. Ensure that his/her contact telephone numbers are made available to all landowners and affected parties.

5. Ensure that a current and up-to-date list of affected parties and their contact details are available at all times in the EMPr file.
6. Ensure that contact with affected parties is courteous at all times; and
7. Attach all documented agreements, settlements and claims to the Final Environmental Audit Report.

6.15 Environmental Audits

Environmental Audits of the construction phase and implementation of the EMPr will be undertaken by the ECO and are a legal requirement in terms of NEMA once an EA is issued and as long as the EMPr is valid. The findings and outcomes of these audits will be recorded in the EMPr file. The environmental audits and associated reports must be conducted and submitted to the Competent Authority at intervals as indicated in the environmental authorisation.

6.16 Final Environmental Audit Report

On final completion of the Construction Phase, the ECOs are required to prepare a Final Environmental Audit Reports. The Report is to be submitted to the Competent Authority for acceptance and approval. The Environmental Report shall contain the following in accordance with Appendix 7 of National Environmental Management Act, 1998 (Act No. 107 of 1998) Environmental Impact Assessment Regulations, 2014.

- 1) Details of the independent person who prepared the report;
- 2) Details of the expertise of independent person that compiled the report;
- 3) A declaration that the independent auditor is independent in a form as may be specified by the Competent Authority;
- 4) An indication of the scope of, and the purpose for which, the environmental audit report was prepared;
- 5) A description of the methodology adopted in preparing the environmental audit report;
- 6) An indication of the ability of the EMPr, and where applicable, the closure plan to –
 - o Sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity on an on-going basis;
 - o Sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the closure of the facility; and
 - o Ensure compliance with the provisions of environmental authorisation, EMPr, and where applicable, the closure plan;
- 7) A description of any assumptions made, and any uncertainties or gaps in knowledge;
- 8) A description of any consultation process that was undertaken during the course of carrying out the environmental audit report;
- 9) A summary and copies of any comments that were received during any consultation process; and
- 10) Any other information requested by the Competent Authority.
- 11) Acceptance and approval of the Final Environmental Audit Report by the Competent Authority will end the construction phase EMPr as successful and completed.

PART 1: GENERAL ENVIRONMENTAL SPECIFICATIONS

7. Overview of the General Environmental Specifications

7.1 Purpose

This procedure describes the minimum standards for environmental management to which Contractors and sub-contractors on a construction site must comply. It is a generic standard for use across all construction works executed by the Environmental Authorisation Holder (EAH).

There may be project specific environmental standards in addition to the standards in this document, or that exceed the standards prescribed here. These project specific environmental standards will be described in the Project Environmental Specification (PES) that will be issued separately for each project (where relevant).

This document must be read in conjunction with the Environmental Authorisation Holder's (EAH) Environmental Management Programme (EMPr).

7.2 Scope

This standard applies to Contractors that work on site under the authority of the Environmental Authorisation Holder (EAH).

7.3 Standards for Environmental Management

The Contractor shall identify the potential environmental impacts that may occur as a result of his/her activities and accordingly prepare separate Method Statements describing how each of these impacts will be prevented or managed so that the standards set out in this document are achieved. These Method Statements will be prepared in accordance with the requirements set out in the EMPr.

The Contractor will comply with the standards described below.

7.3.1 Site Planning and Establishment

- 1) The Contractor shall establish his construction camps, offices, workshops, staff accommodation and any other facilities on the site in a manner that does not adversely affect the environment. These facilities must not be sited close proximity to sensitive areas.

7.3.1.1 Site Plan

- 1) Before the onset of construction, the Contractor shall submit to the ECO for his approval, plans of the exact location, extent and construction details of these facilities and the impact mitigation measures the Contractor proposes to put in place.
- 2) The Site Plan must as a minimum include but not be limited to:
 - Detailed layout of the construction works areas including access roads, site offices, material laydown areas, temporary stockpile areas and parking areas.
 - Detailed locality and layout of all waste storage and handling facilities for litter, kitchen refuse and workshop-derived effluents.
 - Proposed areas for the stockpiling of topsoil and excavated spoil material.
 - Demarcation of the construction footprint including areas not to be disturbed by the development.
 - Location of sewage and sanitary facilities at the site offices and staff accommodation and all localities on the site where there will be a concentration of labour. Sanitary arrangements should be to the satisfaction of the ECO.
 - The site offices should not be cited in close proximity to steep areas. It is recommended that the offices, and in particular the ablution facilities, aggregate stockpiles, spoil areas and hazardous material stockpile be located as far away as possible from any watercourse as possible.

7.3.1.2 Identification and Establishment of Suitable Access Routes/Roads

- 1) Existing access routes to the construction/works area must be used as far as possible. The building of access roads must be restricted to within the development footprint to prevent unnecessary disturbance of the surrounding environment. Access tracks must be maintained in a good condition at all times during construction to minimise erosion and dust generation.

7.3.1.3 Demarcation of Site Limits

- 1) Prior to the commencement of construction, the actual site to be developed must be clearly demarcated by means of highly visible barriers such as fences and orange snow netting. Vegetation within the demarcated zone may be cleared. Disturbance of vegetation outside of the demarcated development footprint is not permitted.
- 2) All plant, material and equipment required for construction must be located within the designated areas. Laydown areas must be clearly demarcated within the site limits. No activities are allowed outside of the demarcated development footprint.

7.3.1.4 Eating Areas

- 1) The Contractor is responsible for providing temporary shade areas within the works area to ensure that workers do not leave the site to eat during working hours. Refuse bags must be provided at all established eating areas.

7.3.1.5 Effluent Management

- 1) All effluent water from site shall be disposed of in a properly designed and constructed system, situated so as not to adversely affect water courses (streams, rivers, pans, dams, etc.) Only domestic type wastewater shall be allowed to enter the designated system.

7.3.2 Sewage and Sanitation

- 1) The Contractor is responsible for providing adequate sanitary facilities to all workers on site and for enforcing the proper use of these facilities. Safe and effective sewage treatment will require one of the following sewage handling methods: septic tanks and soak-aways, dry-composting toilets such as "enviro loos", or the use of chemical toilets which are supplied and maintained by a suitably qualified sub-contractor. The type of sewage treatment will depend on the location of the site and the surrounding land uses, the duration of the contract and proximity (availability) of providers of chemical toilets. Should a soak-away system be used, it shall not be closer than 100 metres from any natural water course or water retention system. The waste material generated from these facilities shall be serviced on a regular basis.
- 2) Toilets and latrines shall be easily accessible and shall be positioned within walking distance from wherever employees are employed on the works. Use of open area (i.e. the veldt) shall not, under any circumstances, be allowed.
- 3) Outside toilets shall be provided with locks and doors and shall be secured to prevent them from blowing over. The toilets shall also be placed outside areas susceptible to flooding and high winds. The Contractor shall arrange for regular emptying of toilets and shall be entirely responsible for enforcing their use and for maintaining such facilities in a clean, orderly and hygienic condition to the satisfaction of the ECO.
- 4) The Contractor shall ensure that there are separate toilet facilities for male and females on site at a ratio of one facility for every 10 employees.

7.3.3 Waste Management

- 1) Waste is grouped into “general” or “hazardous”, depending on its characteristics. The classification determines handling methods and the ultimate disposal of the material.
- 2) General waste to be expected during construction includes the following;
 - Trash (waste paper, plastics, cardboard, etc.) and food from construction personnel.
 - Uncontaminated construction debris such as used wood and scrap metal.
 - Uncontaminated soil and non-hazardous rubble from excavation or demolition.
- 3) Hazardous waste means any waste that contains organic or inorganic elements or compounds that may, owing to its inherent physical, chemical characteristics, such as toxic, ignitable, corrosive, carcinogenic other properties or toxicological characteristics of that waste have a detrimental impact on health and the environment.
- 4) The Contractor shall classify all wastes expected to be generated during the construction period.
- 5) Examples of typical construction waste which could be expected on the site and how they should be classified are indicated in the following table:

Table 1: Example of Construction Waste Classification.

WASTE	CLASSIFICATION	
	HAZARDOUS	GENERAL
Aerosol containers	X	
Batteries, light bulbs, circuit boards, etc.	X	X
Clean soil		X
Construction debris contaminated by oil or organic compounds	X	
Domestic waste		X
Empty drums (depends on prior use)	X	X
Empty paint and coating containers		X
Explosive waste	X	
PCB waste	X	
Rubble (not contaminated by oil or organic compounds)		X
Waste cable		X
Waste plastic		X
Waste paint and/or solvent	X	
Waste oil	X	
Waste concrete		X
Waste containing fibrous asbestos	X	
Waste timber		X
Sewerage sludge	X	
Scrap metal		X
Chemically-derived sanitary waste	X	

- 6) A hierarchical control approach to waste management is encouraged. Waste should preferably be managed in the following order of preference:
 1. **Avoidance:** using goods in a manner that minimises their waste components.
 2. **Reduction:** reduction of the quantity and toxicity of waste generated during construction.

3. **Re-use:** removing an article from a waste stream for use in a similar or different purpose without changing its form or properties.
 4. **Recycling:** separating articles from a waste stream and processing them as products or raw materials.
 5. **Recovery:** reclaiming particular components or materials, or using the waste as a fuel.
 6. **Treatment:** processing of waste by changing its form or properties in order to reduce toxicity and quantity.
 7. **Disposal:** burial, deposit, discharge, abandoning or release of waste.
- 7) The Contractor is responsible for the removal of all waste from site generated through the Contractor's activities. The Contractor shall ensure that all waste is removed to appropriate licensed waste management facilities. (For the identification of an appropriate facility, the following source may be utilized: www.sawic.org.za).
- 8) The Contractor shall manage **HAZARDOUS WASTE** anticipated to be generated by his operations as follows:
1. Characterise the waste to determine if it is general or hazardous.
 2. Obtain and provide an acceptable container with correct classification label.
 3. Place hazardous waste material in allocated container.
 4. Inspect the container on a regular basis as prescribed by the Contractor's waste management plan.
 5. Track the accumulation time for the waste.
 6. Haul the full container to the disposal site.
 7. Provide documentary evidence of proper disposal of the waste.
- 9) The Contractor's Environmental Officer will work in conjunction with the Contractor's construction safety and industrial hygiene personnel to create a Hazardous Materials Management Program. This program will establish the necessary protocol for proper handling and removal of hazardous materials on the site.
- 10) Information on each hazardous substance will be available to all persons on site in the form of Material Safety Data Sheets (MSDS). Training and education about the proper use, handling, and disposal of the material will be provided to all workers handling the material.
- 11) The Contractor's Environmental Officer must be informed of all activities that involve the use of hazardous substances to facilitate prompt response in the event of a spill or release.
- 12) The Contractor shall manage **GENERAL WASTE** that is anticipated to be generated by operations as follows:
1. Determine if waste is non-hazardous and obtain containers for waste storage.
 2. Notify waste hauler when container is full so that it can be removed and replaced with an empty.
 3. No littering is allowed on site. In the event where staff mobility is high, refuse bags will be made available by the Contractor.
 4. Provide documentary evidence of proper disposal of waste.
- 13) The Contractor shall recycle **GENERAL WASTE** (as far as practically possible) that is anticipated to be generated by its operations as follows:
1. Obtain and label recycling containers for the following (whichever relevant) and locate within temporary office building and trailers:
 - Office Waste;
 - Aluminium;
 - Steel;
 - Glass;
 - Ferrous Metals; Non Ferrous Metals; and
 - Waste Timber

2. Establish recycled material collection schedule.
3. Arrange for full bins to be hauled away.
- 14) Spent batteries, circuit boards, and bulbs, while non-hazardous, require separate storage, special collection and handling.
- 15) **No burning, burying or dumping of waste of any kind will be permitted.**
- 16) The Contractor shall quantify all waste disposed of, whether general or hazardous (including waste disposed of by any sub-contractors) and keep record of these quantities on site.

7.3.4 Workshops, equipment maintenance and storage

- 1) All vehicles and equipment must be kept in good working order to maximize efficiency and minimise pollution. Maintenance, including washing and refuelling of plant on site must be done at designated locations at workshop areas. These designated areas must be agreed with the ECO. The Contractor must ensure that no contamination of soil or vegetation occurs around workshops and plant maintenance facilities. All machinery servicing areas must be bunded. Drip trays should be used to collect used oil, lubricants and other during maintenance. Drip trays must be provided for all stationary plant. Washing of equipment should be restricted to urgent maintenance requirements only. Adequate wastewater collection facilities must be provided.

7.3.5 Vehicle and Equipment Refuelling

7.3.5.1 Stationary/Designated Refuelling

- 1) No vehicles or machines shall be serviced or refuelled on site except at designated servicing or refuelling locations. No oil or lubricant changes shall be made except at designated locations, or in case of breakdown or emergency repair.
- 2) The Contractor shall store fuel and oil at a secure area, which shall be bunded to contain 110% of the total volume within the bund and designed with an impervious layer or liner or paved surface to prevent spillage from entering the ground.
- 3) The Contractor shall provide details of its proposed fuel storage and fuelling facility to the ECO for approval. The design shall comply with the regulations of the National Water Act, (Act 36 of 1998), the Hazardous substances Act, (Act 15 of 1973), the Environmental Conservation Act, (Act 73 of 1989), and the Occupational Health and Safety Act, (Act 85 of 1993), mainly the Construction – and Hazardous Chemical Substances Regulations.

7.3.5.2 Mobile Refuelling

- 1) In certain circumstances, the refuelling of vehicles or equipment in a designated area is not a viable/practicable option and refuelling has to be done from a tank, truck or container moved around on site. In such circumstances, the Contractor may request approval from the ECO to conduct mobile refuelling subject to the following control measures:
 1. Secondary containment equipment shall be in place. This equipment shall be sized to contain the most likely volume of fuel that could be split during transfer.
 2. Absorbent pads or drip trays are to be placed around the fuel inlet prior to dispensing.
 3. Mobile refuelling units are to be operated by a designated competent person.
 4. The transfer of fuel must be stopped prior to overflowing. Fuel tanks or refuelling equipment on vehicles may only be filled to 90% carrying capacity.
 5. Mobile fuelling tanks must be stored in an area where they are not susceptible to collisions. The fuel storage area must be located away from drainage channels.
 6. Mobile refuelling operations shall not take place within 15 meter of any residential buildings, or 7.5 meter from other structures, property lines, public ways or combustible storage.

7. All mobile refuelling tanks are to be properly labelled and fire extinguishers shall be located near the fuel storage areas. These extinguishers must be of a suitable type and size.

7.3.6 Spill Response

- 1) The Contractor shall have adequate spill response materials/equipment on site which must be aligned with the volumes of hazardous substances used on site and the risk of pollution to sensitive environmental attributes.
- 2) The Contractor shall provide details for approval by the ECO of its spill response plan in the event of any spills of fuel, oils, solvents, paints or other hazardous materials. The plan will show measures to be taken in removing contaminated material from site and demonstrate complete removal of contamination.
- 3) The Contractor shall instruct construction personnel on the following spill prevention and containment responsibilities:
 1. Immediately repair all leaks of hydrocarbons or chemicals.
 2. Take all reasonable means to prevent spills or leaks.
 3. Do not allow sumps receiving oil or oily water to overflow.
 4. Prevent storm water runoff from contamination by leaking or spilled drums of oil or chemicals.
 5. Do not discharge oil or contaminants into storm water or sewer systems.
- 4) If a spill occurs on land, the Contractor must:
 1. Immediately stop or reduce the spill.
 2. Contain the spill.
 3. Recover the spilled product.
 4. Remediate the site.
 5. Implement actions necessary to prevent the spill from contaminating groundwater or off-site surface water.
 6. Dispose of contaminated material to a location designated thereto.
- 5) Any spill to water has the potential to disperse quickly; therefore, the spill must be contained immediately using appropriate containment equipment.
- 6) If a spill to water occurs, the Contractor must:
 1. Take immediate action to stop or reduce the spill and contain it.
 2. Notify the appropriate on-site authorities.
 3. Implement actions necessary to prevent the spread of the contamination by deploying booms and/or absorbent material.
 4. Recover the spilled product.
 5. Properly dispose of spilled material.

7.3.7 Spray Painting and Sandblasting

- 1) Spray painting and sandblasting should be kept to a minimum. All painting should, as far as practicable, be done before equipment and material is brought on site. Touch-up painting is to be done by hand painting or by an approved procedure. A Method Statement shall be submitted to the ECO for approval.
- 2) The relevant Contractor will inform the ECO of when and where spray painting or sandblasting is to be carried out prior to commencement of work. The Environmental Officer will monitor these activities to ensure that adequate measures are taken to prevent contamination of the soil.
- 3) If the area is in confined or high (elevated) area, a protection plan must be issued for approval.

7.3.8 Dust Management

- 1) Material in transit should be loaded and contained within the load bin of the vehicle in such a way as to prevent any spillage onto the roads and the creation of dust clouds. If necessary, the bin of the vehicle shall be covered with a tarpaulin to prevent dust.
- 2) Dust is to be controlled on unpaved access roads and site roads using sprayed water. Contractors are responsible for managing dust generated as a result of their activities.
- 3) Some dust control measures which are normally applied during construction are presented in this section for inclusion by the Contractor in his Dust Control Method Statement:
 1. Operate vehicles within speed limits, where no speed limit has been specified the limit shall be 20 km/h.
 2. Wash paved surfaces within the construction area twice a week.
 3. Minimise haulage distances.
 4. Apply water to gravel roads with a spraying truck when required.
 5. Environmentally friendly soil stabilisers may be used as additional measures to control dust on gravel roads and construction areas.
 6. Dust suppression measures will also apply to inactive construction areas. (An inactive construction site is one on which construction will not occur for a month or more).
 7. Construction material being transported by trucks must be suitably moistened or covered to prevent dust generation.
 8. Minimise disturbance of natural vegetation during right-of-way construction (e.g. transmission lines and erection of fences) to reduce potential erosion, runoff, and air-borne dust.
 9. Implement a system of reporting excessive dust conditions by construction personnel (as instructed through Environmental Awareness Training).
- 4) Water for dust control shall only be taken from approved sources.

7.3.9 Storm Water and Dewatering Management

- 1) The Contractor shall be aware that, apart from runoff from overburden emplacements and stock piles, storm water can also be contaminated from batch plants, workshops, vehicle wash-down pads, etc., and that contaminants during construction may include hydrocarbons from fuels and lubricants, sewerage from employee ablutions and excess fertiliser from rehabilitated areas, etc.
- 2) The Contractor shall take note that discharges to controlled waters such as the sea, rivers, and groundwater or to sewerage systems are controlled under South African Water Legislation.
- 3) The following specific measures are required:
 1. Temporary drainage must be established on site during the construction period until permanent drainage is in place. Contractors are responsible for maintaining the temporary drainage in their areas. Contractors must provide secondary drainage that prevents erosion.
 2. Contractors must employ good housekeeping in their areas to prevent contamination of drainage water.
 3. The Contractor shall clear stagnant water.
 4. The Contractor shall ensure that no contaminated surface water flows off-site as a result of Contractor operations. Silt traps shall be constructed to ensure retention of silt on site and cut-off ditches shall be constructed to ensure no runoff from the site except at points where silt traps are provided. The Contractor shall be responsible for checking and maintaining all silt traps for the duration of the project.
 5. If applicable, the Contractor shall be responsible for collection, management, and containment within the site boundaries of all dewatering from all general site preparation activities. The dewatering water shall be contained within the site boundaries by sequentially pumping or routing water to and from

sub-area within the site as the construction activities precede. No discharge/dewatering to off-site land or surface water bodies will be allowed.

6. On-site drainage shall be accomplished through gravity flow. The surface drainage system shall consist of mild overland slopes, ditches, and culverts. The graded areas adjacent to buildings shall be sloped away with a 5 %. Other areas shall have a minimum slope of 0.2% or as otherwise indicated.
7. Ditches shall be designed to carry a 25-year storm event with velocities in accordance to minimise erosion. Erosion protection shall consist of suitable stabilising surfaces in all ditches.
8. Culverts shall be designed to ensure passage of the 50-year storm peak runoff flow.

7.3.10 Erosion Control

- 1) Both structural and non-structural (vegetative) erosion control measures will be designed, implemented, and properly maintained in accordance with best management practices which will include the following:
 1. Scheduling of activities to minimise the amount of disturbed area at any one time.
 2. Implementation of re-vegetation as early as feasible.
 3. Limiting construction traffic and/or avoidance thereof on access roads and areas to be graded to the extent feasible at drainage ditches.
 4. Compacting loose soil as soon as possible after excavation, grading, or filling.
 5. Using slit fences, geo-textiles, temporary rip-rap, soil stabilisation with gravel, diversionary berms or swales, small sedimentation basins, and gravelled roads to minimise transport of sediment.
 6. Implementing the erosion and sedimentation control plan and ensuring that construction personnel are familiar with and adhere to it.
 7. Managing runoff during construction.
 8. The Contractor shall be responsible for checking and maintaining all erosion and sedimentation controls.

7.3.11 Rehabilitation

- 1) Contractors shall rehabilitate the entire site upon completion of work. A rehabilitation plan will be submitted to the Construction Manager for approval at least six weeks before completion. The following are critical issues to be included in the rehabilitation plan:
 1. Details of soil preparation procedures including proposed fertilisers or other chemicals being considered for use.
 2. A list of the plant species that will be used in the rehabilitation process. Note that these should all be indigenous species, and preferably species that are endemic to the area. The assistance of an appropriately qualified botanist should be sought in developing this list.
 3. Procedures for watering the planted areas (frequency of watering, methodology proposed, etc.)
 4. An indication of the monitoring procedures that will be put in place to ensure the successful establishment of the plants (duration and frequency of monitoring, proposed criteria for declaring rehabilitation as being successful).
 5. Procedures for the prevention of the establishment and spread of alien invasive species.

7.3.12 Noise Management

- 1) Keep all equipment in good working order.
- 2) Operate equipment within its specification and capacity and don't overload machines.
- 3) Apply regular maintenance, particularly with regards to lubrication.
- 4) Operate equipment with appropriate noise abatement accessories, such as sound hoods.
- 5) Sensitive social receptors shall be notified of any excessive noise-generating activities that could affect them.
- 6) Ensure that the potential noise source will conform to the South African Bureau of Standards recommended code of practice, SANS 10103:2004, so that it will not produce excessive or undesirable noise when released.

- 7) All the Contractor's equipment shall be fitted with effective exhaust silencers and shall comply South African Bureau of Standards recommended code of practice, SANS 10103:2004, for construction plant noise generation.
- 8) All the Contractor's vehicles shall be fitted with effective exhaust silencers and shall comply with the Road Traffic Act, (Act 29 of 1989) when any such vehicle is operated on a public road.
- 9) If on-site noise control is not effective, protect the victims of noise (e.g. ear-plugs) by ensuring that all noise-related occupational health provisions are met (Occupational Health and Safety Act, (Act 85 of 1993)).

7.3.13 Protection of heritage resources

7.3.13.1 Archaeological Sites

- 1) If an artefact on site is uncovered, work in the immediate vicinity shall be stopped immediately. The Contractor shall take reasonable precautions to prevent any person from removing or damaging any such article and shall immediately upon discovery inform the engineer of such a discovery. The South African Heritage Resources Agency (SAHRA) is to be contacted and will appoint an archaeological consultant. Work may only resume once clearance is given in writing by the archaeologist.

7.3.13.2 Graves and middens

- 2) If a grave or midden is uncovered on site, or discovered before the commencement of work, all work in the immediate vicinity of the graves/middens shall be stopped and the EAH's Construction Manager informed of the discovery. The South African Heritage Resources Agency (SAHRA) should be contacted and in the case of graves, arrangements made for an undertaker to carry out exhumation and reburial. The undertaker will, together with SAHRA, be responsible for attempts to contact family of the deceased and for the site where the exhumed remains can be re-interred.

7.3.14 Fire Prevention

- 1) Fires shall only be allowed in facilities or equipment specially constructed for this purpose. A firebreak shall be cleared and maintained around the perimeter of the camp and office sites. All conditions incorporated in the requirements of the Occupational Health and Safety Act shall be implemented.

7.3.15 Water Protection and Management

- 1) No water shall be abstracted from any water resource (stream, river, or dam) without the express permission of the ECO. Such permission shall only be granted once it can be shown that the water is safe for use, that there is sufficient water in the resource to meet the demand, and once permission has been obtained from the Department of Water Affairs in accordance with the requirements of the National Water Act (Act 36 of 1998).
- 2) Water for human consumption shall be available at the site offices and at other convenient locations on site. The generally acceptable standard is that a supply of drinking water shall be available within 200m of any point on the construction site.
- 3) The Contractor shall keep record of the quantities of water used during construction (including use by sub-contractors), irrespective of the purpose of use.

7.3.16 Protection of Fauna and the collection of firewood

- 1) On no account shall any hunting or fishing activity of any kind be allowed. This includes the setting of traps, or the killing of any animal caught in construction works.
- 2) On no account shall any animal, reptile or bird of any sort be killed. This specifically includes snakes or other creatures considered potentially dangerous discovered on site. If such an animal is discovered on site an appropriately skilled person should be summoned to remove the creature from site. Consideration

should be given to selection and nomination of such a person prior to site establishment. If no-one is available, training should be provided to at least two site staff members.

- 3) The Contractor shall provide adequate facilities for all his staff so that they are not encouraged their comforts on site by accessing what can be taken from the natural surroundings. The Contractor shall ensure that energy sources are available at all times for construction and supervision personnel for heating and cooking purposes.

7.3.17 Environmental Awareness Training

- 1) An Environmental Awareness Program is considered a necessary part of the Construction Environmental Management Plan for the Project. Training of the appropriate construction personnel will help ensure that all environmental regulations and requirements are followed which must be defined in the relevant Method Statement to be prepared by the Contractor.
- 2) Objectives of environmental awareness training are:
 1. Environmental Management – protecting the environment from the effects of construction by making personnel aware of sensitive environmental resources.
 2. Regulatory compliance – complying with requirements contained in project-specific permit conditions, also complying with requirements in regional and local regulations.
 3. Problem recognition and communication – training personnel to recognise potential environmental problems, i.e. spills, and communicate the problem to the proper person for solution.
 4. Liability control – non-compliance with regulatory requirements can lead to personal and corporate liability.
- 3) All individuals on the Project construction site will need to have a minimum awareness of environmental requirements and responsibilities. However, not all need to have the same degree of awareness. The required degree of knowledge is greatest for personnel in the Safety, Health and Environmental Sections and the least for the manual personnel.
- 4) The Contractor shall present environmental awareness programmes on a weekly/bi-monthly basis and keep record of all the environmental related training of the personnel.

7.3.18 Handling and Batching of Concrete and Cement

- 1) Concrete batching shall only be conducted in demarcated areas which have been approved by the ECO.
- 2) Such areas shall be fitted with a containment facility for the collection of cement-laden water. This facility shall be bunded and have an impermeable surface protection so as to prevent soil and groundwater contamination. Drainage of the collection facility will be separated from any infrastructure that contains clean surface runoff.
- 3) The batching facility will not be placed in areas prone to floods or the generation of stagnant water. Access to the facility will be controlled so as to minimise potential environmental impacts.
- 4) Hand mixing of cement and concrete shall be done on mortarboards and/or within the bunded area with impermeable surface or concrete slab.
- 5) Bulk and bagged cement and concrete additives will be stored in an appropriate facility at least 10m away from any watercourse, gullies and drains.
- 6) Waste water collected in the containment facility shall be left to evaporate. The Contractor shall monitor water levels to prevent overflows from the facility. Water can be pumped into sealed drums for temporary storage and must be disposed of as liquid hazardous waste.

- 7) All concrete washing equipment, such shovels, mixer drums, concrete chutes, etc. shall be done within the washout facility. Water used for washing shall be restricted as far as practically possible.
- 8) Ready-mix concrete trucks are not allowed to wash out anywhere other than in an area designated for this purpose.
- 9) The Contractor shall periodically clean out hardened concrete from the wash-out facility or concrete mixer, which can either be reused or disposed of as per accepted waste management procedures.
- 10) Empty cement and bags, if temporarily stored on site, must be collected and stored in weatherproof containers. Used cement bags may not be used for any other purpose and must be disposed of on a regular basis in accordance with the Contractor's solid waste management system.
- 11) Sand and Aggregates containing cement will be kept damp to prevent the generation of dust.
- 12) Concrete and cement or any solid waste materials containing concrete and cement will be disposed of at a registered disposal facility. Where disposal facilities for general waste are utilised, written consent from the relevant municipality must be obtained.

7.3.19 Clearance of Vegetation, Stockpiling and Soil Management

- 1) The Contractor shall measure the extent of all areas cleared for construction purposes and keep this figure updated.
- 2) The detail of vegetation clearing shall be subject to the ECO's approval.
- 3) Before site clearance takes place, vegetation surveys will be conducted and protected species identified.
- 4) No protected plant species shall be removed without written consent from the relevant authorities.
- 5) Clearance of vegetation shall be restricted to that which is required to facilitate the execution of the works.
- 6) Vegetation clearance shall occur in a planned manner, and cleared areas shall be stabilised as soon as possible.
- 7) No vegetation located outside the construction site shall be destroyed or damaged.
- 8) The Contractor shall identify and eradicate all declared alien and invasive plant species occurring on site.
- 9) Stockpiling may only take place in designated areas indicated on the approved site layout plan. Sensitive areas shall be avoided in this regard.
- 10) Any area to be used for stockpiling or material laydown shall be stripped of all topsoil.
- 11) Stockpiles must be positioned in areas sheltered from the wind and rain to prevent erosion and dispersion of loose materials.
- 12) Stockpiled soil shall be protected by adequate erosion-control measures.
- 13) Soil stockpiles shall be located away from drainage lines, watercourses and areas of temporary inundation.
- 14) Topsoil shall be stockpiled separately from other materials and kept moist.
- 15) Excavated subsoil, where not contaminated, must be used for backfilling and topsoil for landscaping and rehabilitation of disturbed areas.

- 16) Where topsoil has become mixed with subsoil or is not up to the original standard, fertiliser or new topsoil shall be provided by the Contractor.
- 17) Stockpiles (excluding ballast stockpiles) shall not exceed 2m in height unless otherwise permitted by the ECO.
- 18) As far as is reasonably practicable, existing roads must be used for access to site and right of way.
- 19) The development of new embankments or fill areas must be undertaken in consultation with the ECO.
- 20) No dumping of solid waste or refuse shall be allowed within or adjacent to areas of natural vegetation.

7.3.20 Traffic Management

- 1) Vehicles are not permitted to leave access roads.
- 2) Turning of vehicles should only take place within a clearly demarcated "turn area" located within the approved construction footprint.
- 3) The Contractor must co-ordinate the loading and offloading of material during the construction phase so as to ensure that vehicular movement is in one direction only at any one time and that side-tracks are not created on the site.
- 4) Vehicles should only be parked within designated parking areas as demarcated on the site layout plan.

7.3.21 Transportation of Materials

- 1) The Contractor is responsible for ensuring that all suppliers and delivery drivers are aware of procedures and restrictions (e.g. no-go areas) in terms of the CEMP and this Specification. Material must be appropriately secured to ensure safe passage between destinations during transportation. Loads must have appropriate cover to prevent spillage from the vehicles. The Contractor will be held responsible for any clean-up resulting from the failure to properly secure transported materials.

7.3.22 Borrow Pits and Quarries

- 1) The Contractor shall make use of commercial suppliers for all rock and sand raw materials.
- 2) The Contractor shall ensure that any supplier is in possession of the required permit/license and keep record of the quantity of material supplied.
- 3) The Contractor will not make direct use of any borrow pits and quarries unless he has obtained written approval from the Construction Manager and Method Statement has been submitted.
- 4) The abovementioned Method Statement will provide the detailed description of the location of the borrow pits and/or quarries and the procedures that will be followed to adhere to any pertinent national or local legislation (e.g. mineral extraction, safety and noise levels).

7.3.23 Social and Labour Issues

- 1) The criteria for and selection of labourers, sub-contractors and suppliers for the project shall demonstrate preference for the local community and shall be aligned with the criteria set by SANParks in appointing the Contractor. The Contractor shall keep records of the identity of all staff.
- 2) Under no circumstances shall the Contractors engage in formal discussions with landowners without prior consent.
- 3) No activity on private property shall be allowed without written consent by the relevant landowner.

- 4) Any damage to private property caused by the Contractor during the construction period shall be repaired to the satisfaction of the Construction Manager.
- 5) The Contractor shall keep record of any complaint raised during the construction period relating to the Contractor's activities.
- 6) No job-seekers shall be allowed on site.

7.3.24 Energy Management

- 1) The Contractor shall measure and keep updated records of the following:
 1. Electricity consumption (to be measured in Watt Hours)
 2. Fuel consumption (to be measured in litres)

7.3.25 Handling, Storage and Management of Hazardous Substances

- 1) All hazardous materials/substances shall be stored in a second, designated area that is fenced and has restricted entry.
- 2) All storage shall take place using suitable containers to the approval of the ECO.
- 3) All hazardous liquids shall be located in a secure, demarcated area and an adequate bund wall (110% of the total volume stored) shall be provided. The floor and wall of the bund area shall be impervious to prevent infiltration of any spilled/leaked liquids into the soil.
- 4) No possible spillages or accumulated stormwater within this bunded area will be allowed to be flushed from the bund into the surrounding area.
- 5) Hazard signs indicating the nature of the stored materials shall be displayed on the storage facility or containment structure.
- 6) Weighbills of hazardous substances shall be sources from suppliers and kept on site for inspection by the ECO.
- 7) The Contractor must provide a method statement detailing the hazardous substances that are to be used during construction, as well as the storage, handling and disposal procedures for each substance. Emergency procedures in the event of misuse or spillage that might negatively affect the environment must be specified.

PART 2: PROJECT SPECIFIC ENVIRONMENTAL MANAGEMENT PROGRAMME

8. PROJECT SPECIFIC ENVIRONMENTAL SPECIFICATIONS

8.1 PROJECT INFORMATION

8.2 DESCRIPTION OF THE PROPERTY

The Farm Name, 21 Digit Surveyor General Code and Coordinates are given below.

Table 1: Description of the Applicable Property

Province/s	Limpopo
District Municipality/ies	Vhembe District Municipality
Local Municipality/ies	Musina Local Municipality
Ward number/s	2
Nearest town/s	Musina
Farm name/s and number/s	Farm Rhodes Drift 22-MS
Portion number/s	n/a
Current Zoning	Mapungubwe National Park (Schedule 1, National Park)
Present Land-use	Existing Rhodes Drift Staff Village
Ownership	South African National Parks ("SANParks")
Development footprint of the proposed development & associated infrastructure (ha)	Approx. 8 500m ²

Table 2: 21 Digit Surveyor General Code

Farm Rhodes Drift 22-MS (Rhodes Drift Staff Village)																				
T	0	M	S	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0
1	2		3			4					5									

Table 3: Coordinates

The co-ordinates are in degrees, minutes and seconds in the WGS84 spheroid projection.

Structure	Latitude (S):	Longitude (E):
Approx. centre point of development site	22°12'8.66"S	29°10'31.50"E

(Approx. 6 Corners of the Site) – Refer to Figure below.

Point	Latitude (S):	Longitude (E):
1	22°12'7.52"S	29°10'28.71"E
2	22°12'6.59"S	29°10'31.60"E
3	22°12'9.12"S	29°10'32.60"E

4	22°12'9.59"S	29°10'31.22"E
5	22°12'10.42"S	29°10'31.09"E
6	22°12'10.76"S	29°10'29.93"E



Figure : Approx. 6 Corners of the Site

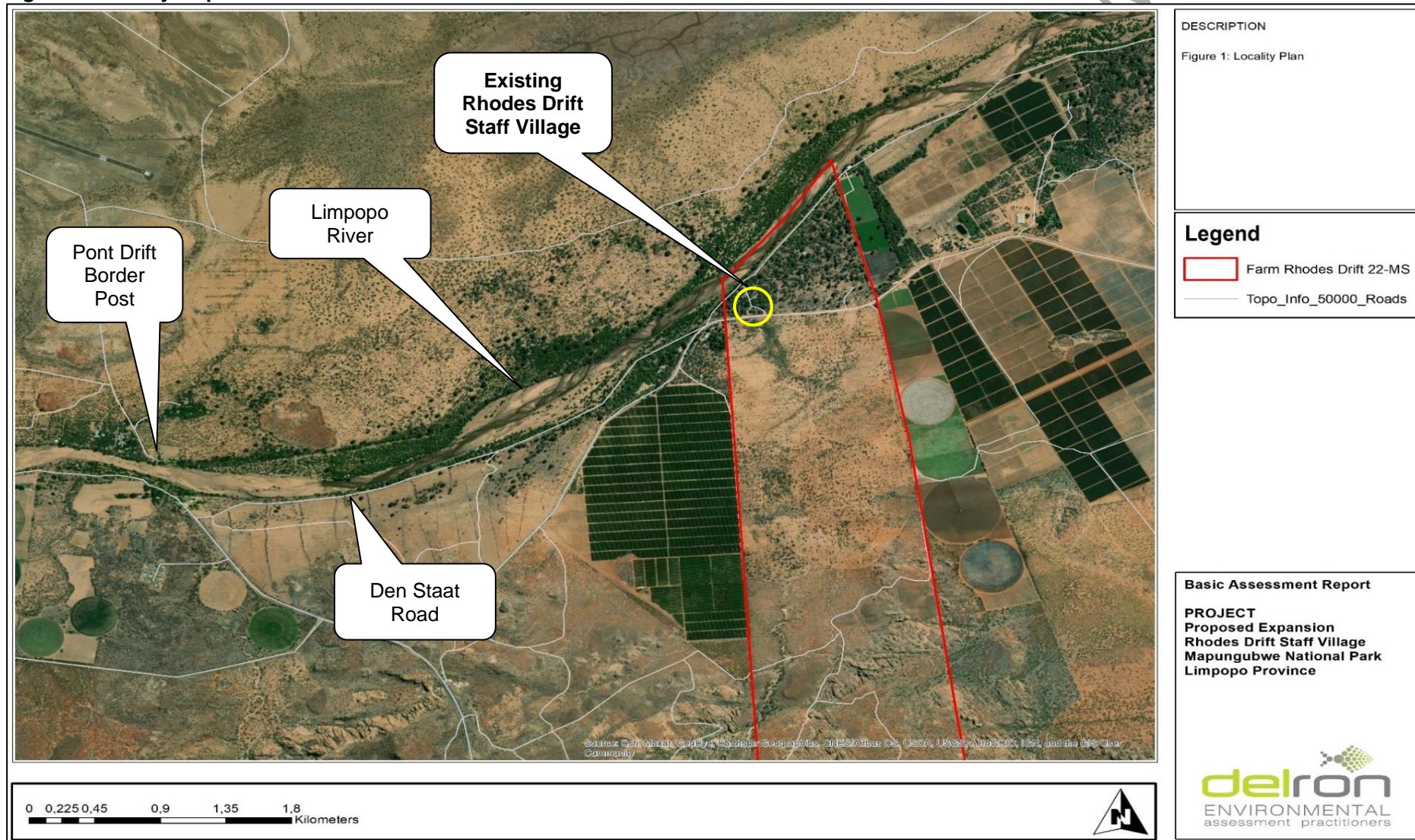
8.3 LOCALITY OF THE PROJECT

The Mapungubwe National Park is located on the border between South Africa, Zimbabwe and Botswana. It is located on the South African side of the confluence between the Shashe and Limpopo Rivers. The Limpopo River forms the northern boundary and the R572 and R521 Provincial tar roads form the southern and western boundaries respectively. The core stretches from the farm Rhodes Drift in the west for 35 km to the farm Riedel in the east, and from the Limpopo River in the north to the R572 tar road in the south.

The existing Rhodes Drift Staff Village and proposed expansion site is situated within the Mapungubwe National Park in the Vhembe District Municipality of the Limpopo Province. The subject site is located on the Farm Rhodes Drift 22-MS, approx. 3,8 km north-east from the R521 Intersection. The site is situated north and accessed from the Den Staat Road.

The locality of the site is shown on in Figure 1.

Figure 1: Locality Map



8.4 DESCRIPTION OF THE SCOPE OF THE PROPOSED OVERALL ACTIVITY

The proposed Rhodes Drift Staff Village expansion project comprises the following:

Staff Housing Units

- Construction of additional 10 (ten) x 2 bedroom staff housing units (floor size of each house is approx. 63m² and with a car port totalling approx. 70m² per unit).
- Total expansion footprint (structures and infrastructure) is approx. 8 500m².

Refer to **Figure 2: Site Layout Plan**

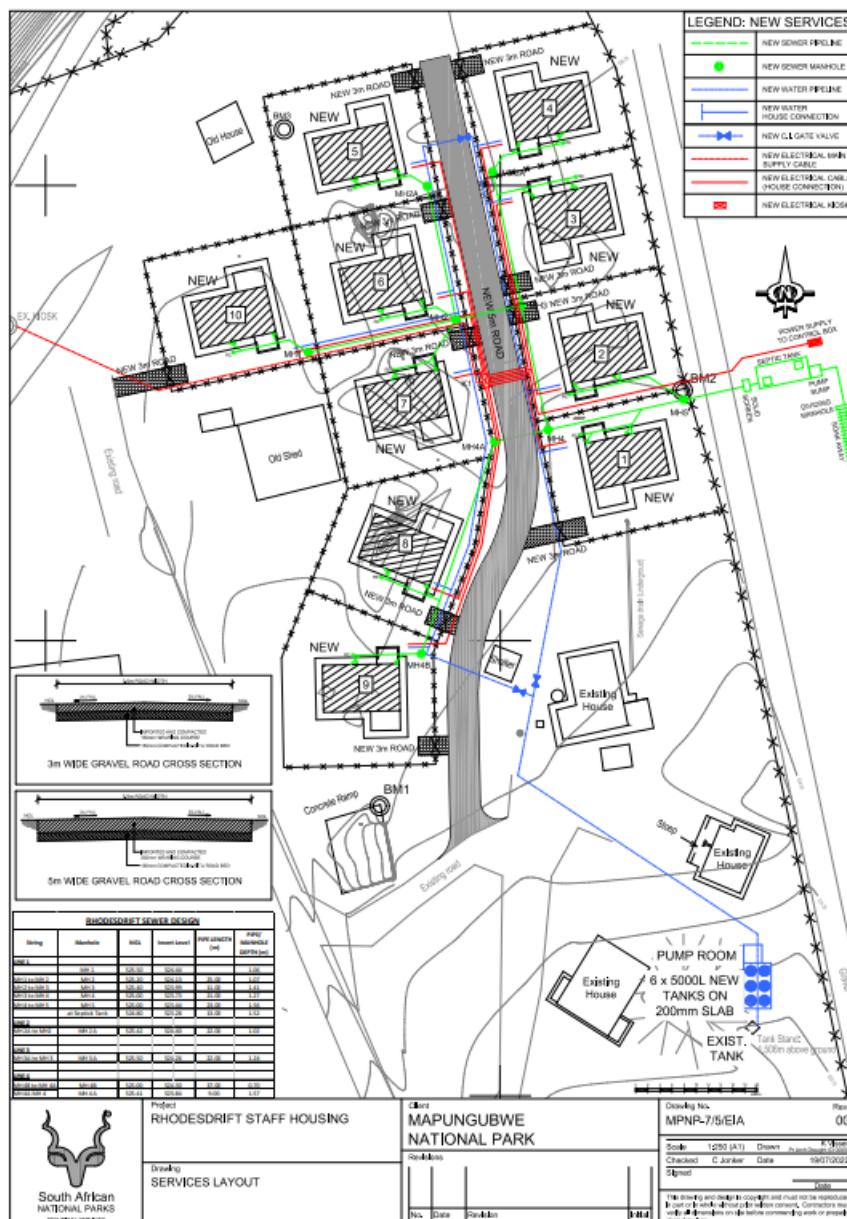


Figure 2: Site Layout Plan

Associated Infrastructure

- **Water**

Potable water is available on site by means of a borehole, which pump water to tanks situated on tank stands. An additional 6 tanks on a concrete slab needs be constructed next to the existing one to accommodate the additional water demand of the new units. The New and the Existing tanks will be connected to each other. From there it will go to the pump room which supply the new housing units with pressurised water.

The new water reticulation system will consist of the supply and installation of:

- (i) New 6 x 5000L tanks on new concrete slab connected to the existing one tank on the tank stand.
- (ii) New 3 x 3m pump station building with pressure pump set.
- (iii) New 63mm Ø HDPE main pipeline from the Pump room to each unit.
- (iv) New house connections with water meters at each unit.

Water Demand

- o 10 houses x 5 people/house x 200L/person/day = 10 000L/day
- o Additional Water storage of 30 000L will be provided.

- **Sewerage**

All sewerage and grey water effluent from the new units, will be diverted to a new septic tank with a pump-sump from there the grey water will be dispersed to a soak-away system.

The new sewage system will consist of the supply and installation of:

- (i) New 110mm Ø uPVC pipeline from each building and between manholes up to the septic tanks.
- (ii) Construction of new septic tank with pump-sump and soak-aways.
- (iii) Installation and commissioning of sewer pumps.

Sewerage Production and Treatment

- o 10 houses x 5 people/house x 200L/person/day = 10 000L/day x 85% = 8 500L/d
- o Septic Tank Size = 8,6m x 2,4m x 1,5m = 30,96m³ = 30 960L (3 days Retention)

- **Electricity**

- o **Transformer** - The current Eskom power supply is 50KVA. The current load will not be adequate, thus the total power reticulation need to be upgraded. Transformer upgrade will be a pole mounted 100/150KVA Eskom distribution point.
- o **Routing** - Current infrastructure will be upgraded to accommodate the ten new houses. Cables will be installed with the planned water reticulation infrastructure. Some cabling will need to be upgraded to accommodate load requirement needs.
- o **Cable and trenching** - The required trenching at a cable depth of 900mm with relevant danger tape accompanying the cable at 600mm.
- o **Kiosks and cabling** - The three existing kiosks require an upgrade and two new kiosks will be implemented in the proposed building construction zone. The cabling will vary with distances from 200 to 300 m intervals from point of supply to point of use kiosk distribution lengths will vary.
- o **Outer lights** - Pole mounted lights will be along the road side at 30-50m intervals.

- **Roads**

The new access road to the new Housing Units will start from where the existing one ends. It will be a 5m wide gravel road, 200mm thick.

- Access Road – 140 meter staff village's access road.
- Yard Access – 85 meter internal access to each house – 10 units in total.

The current conditions can be summarised as follows:

There is currently no internal road in the development. The area is veld and the in-situ material is mostly clay. The area is free draining from stormwater.

It is proposed that the following minimum standard be implemented.

Taking in to account the following:

- Low traffic volumes;
- Weather conditions;
- In-situ clay material;
- Available road construction material; and
- Future maintenance requirements.

- **Road Structure**

- Access road. To be constructed with a 250mm thick and 5m wide dolerite layer.
- Yard access. To be constructed with a 150mm thick and 3m wide dolerite layer.

- **Stormwater**

- The road surface will be free draining.
- The total road length and land profile justify no additional stormwater systems.

The construction methodology can be listed as follows:

- Establishing road construction plant at development (excavator, grader, tip trucks watercart and roller).
- Excavation and spoil of road prism material (clay and top soil).
- Compaction of excavation floor.
- Importation of road construction material and compact.

Road construction material will be sourced from active borrow pits within the Mapungubwe NP.

8.4 CONDITIONS ATTACHED TO ENVIRONMENTAL AUTHORISATION (EA)**RATING****0** = Non-Compliance**1** = Partial-
Compliance**2** = Compliance**N/A** = Not
Applicable

CONDITIONS AS PER THE ENVIRONMENTAL AUTHORISATION		RATING	NOTES
Scope of Authorisation			

e-Tenders for viewing purposes only

8.5 IMPACTS AND MITIGATION MEASURES FROM THE EIA

Vegetation Clearance

Receiving Environment	Ecology and Biodiversity (Flora and Fauna)
<p>Key Considerations / Potential Impacts / Risks of the Development</p>	<ul style="list-style-type: none"> (i) Degradation, destruction or elimination of ecosystems - Ecosystems will be permanently lost where structures and associated infrastructure consume land. Ecosystems may be disturbed or destroyed during construction. Many of the areas disturbed during construction, such as road verges and sidewalks, open space, cuttings and embankments, and construction camps will be rehabilitated after construction, but impacts will remain until rehabilitation has been implemented successfully. Even after rehabilitation, species diversity and ecosystem dynamics may not be the same as prior to the disturbance. (ii) Ecosystem fragmentation: A development may result in the fragmentation of an ecosystem, dividing it into smaller parts. Fragmentation may affect the integrity and stability of the ecosystem. Smaller habitats are more vulnerable and their ability to support the original number and diversity of species may be compromised. Detached / isolated units created by developments are often not able to support their original species composition. (iii) Impacts on migration routes of wildlife - In some instances, developments with their road networks, perimeter walls and fences, paved areas and other structures may create a barrier to movement of faunal species. When a development intersects or blocks the migration routes through which species travel to or from waterholes, feeding, breeding and birthing grounds and seasonal ranges, it may result in cessation of use of the migration route and increased mortalities. (iv) Creation of habitats: Gardens and landscaped areas often provide habitats for a variety of faunal species that would not have occurred in the area prior to the establishment of the development. Some species are attracted to commercial for various reasons, including protection from predators, good hunting conditions, good nesting sites, and ample food supplies at waste disposal sites, kitchens, fruit and vegetable gardens, bird feeding tables, etc. (v) Impacts of pollution on fauna and flora - Dust generated on unsurfaced roads and air pollution due to biomass burning may settle on nearby flora. Contaminated runoff from the development may reach aquatic ecosystems after entering watercourses. Water may be contaminated due to the use of herbicides, pesticides and fertilisers, and other hazardous chemicals; erosion and elevated silt loads; and inappropriate waste management and sanitation services. If the accumulation of pollutants is significant, it may become a problem for certain floral species if it interferes with pollination and photosynthesis, hormonal balances and nutrient uptake. It may also result in death of plant tissues. Consumption of these plants may impact on faunal species, especially those on the top of the food chain.

	<p>(vi) Introduction of species - The seed bank contained in top layer of soil often contains dormant seeds of invasive species. The growth of these may be stimulated if the soil is disturbed or if the natural vegetation cover is damaged or removed. Invasive species, particularly those that specialise in colonising recently disturbed areas, may be introduced to an area during construction or may gain an advantage due to removal of naturally occurring species. Non-endemic vegetation species may be used for landscaping and stabilisation of cuttings and embankments. The introduction of new species may result in competition for resources, often to the detriment of naturally occurring species.</p> <p>(vii) Firewood collection and poaching can have a major impact on local floral and faunal populations. This may result in gradual habitat degradation, deforestation and depletion of fauna populations well beyond the immediate surroundings of the development.</p>	
Alternative:	Proposal	No-Go (Current staff village operations continue)
Description of Impact on the Environment	Impact Prediction - Ranking	Impact Prediction - Ranking
Period	Planning & Construction & Operation	No Impact
Extent	Site Specific (1)	No Impact
Duration	Long Term (3)	No Impact
Consequence / Intensity / Severity	Low (1)	No Impact
Probability	Highly Probable (3)	No Impact
Irreplaceable loss of resources:	Marginal (2)	No Impact
Significance rating of impact prior to mitigation	Medium (10)	No Impact
Degree to impact mitigation	CO (-5)	No Impact
Significance rating of impact after mitigation	Low (5)	No Impact
Environmental Management Objective and Mitigation Measures	<p>Prevention</p> <p>(i) Planning must be consistent with Mapungubwe National Park (MPNP) and World Heritage Site Integrated Park Management Plan (2019-2028).</p> <p>(ii) Planning must be consistent with Limpopo Conservation Plan version 2 (2013).</p> <p>Minimisation</p> <p>(i) Ensure compliance with applicable legislation, such as the National Environmental Management Act, the National Environmental Management: Biodiversity Act, the National Environmental Management Protected</p>	

	<p>Areas Act, the National Water Act, the National Forest Act, the Conservation of Agricultural Resources Act and the National Veld and Forest Fire Act.</p> <ul style="list-style-type: none"> (ii) Indigenous vegetation which does not interfere with the safe construction and operation of the staff village shall be left undisturbed. (iii) Protected or endangered species may occur near the construction site. Special care should be taken not to damage such species. (iv) Limit vegetation clearing to development footprint. (v) Limit removal of indigenous tree species to a minimum. (vi) Debris through vegetation clearing shall not be burned under any circumstances. (vii) Landscaping with naturally occurring species to maintain ecosystem integrity. (viii) Avoid the establishment of invasive species. (ix) Control poaching and firewood collection. (x) Trees, shrubs, grass, natural features and topsoil which are not removed during vegetation clearance shall be protected from damage during operation of the staff village. <p>Compensation</p> <ul style="list-style-type: none"> (i) Conservation, rehabilitation or creation of ecosystems to 'replace' damaged or destroyed ecosystems in the case of unavoidable loss of highly sensitive ecosystems. <p>Monitoring</p> <ul style="list-style-type: none"> (i) Integrity of vegetation cover. (ii) Presence of invasive species. <p>Enhancement</p> <ul style="list-style-type: none"> (i) Eradicate existing exotic species. (ii) Rehabilitate previously disturbed ecosystems and creation of alternative habitats.
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Heritage Resources

Receiving Environment	Heritage Resources (Cultural, Historical and Pre-Historical)
Key Considerations / Potential Impacts / Risks of the Development	<p>This impact relates to potential effects construction activities may have on existing archaeological artefacts (if any). Impact on structures and sites of architectural heritage and value (buildings, bridges etc.). Impact on structures and sites of cultural heritage (stonewalls, kraals etc.). Impact on structures and sites of historic heritage (battlefields etc.). Impact on sites of archaeological or palaeontological importance (prehistoric, Iron-age etc.). Impact on sites used in traditional rituals or events. Impact on sites or areas of religious or spiritual significance (holy places, graveyards etc.). Impact on integrity of cultural resources. Impact on level of disturbance due to improved access (destruction, vandalism, collectors etc.).</p>

Alternative:	Proposal	No-Go (Current staff village operations continue)
Description of Impact on the Environment	Impact Prediction - Ranking	Impact Prediction - Ranking
Period	Planning & Construction & Operation	No Impact
Extent	Site Specific (1)	No Impact
Duration	Long Term (3)	No Impact
Consequence / Intensity / Severity	Low (1)	No Impact
Probability	Improbable (1)	No Impact
Irreplaceable loss of resources:	No loss of resource (1)	No Impact
Significance rating of impact prior to mitigation	Medium (7)	No Impact
Degree to impact mitigation	CO (-5)	No Impact
Significance rating of impact after mitigation	Low (2)	No Impact
Environmental Management Objective and Mitigation Measures	Prevention (i) Identify, demarcate and prevent impact to all known sensitive heritage features on site in accordance with the HIA. (ii) Carry out general monitoring of excavations for potential fossils, artefacts and material of heritage importance. (iii) All work must cease immediately, if any human remains and/or other archaeological, palaeontological and historical material are uncovered. Such material, if exposed, must be reported to the nearest museum, archaeologist/ palaeontologist (or the South African Police Services), so that a systematic and professional investigation can be undertaken. Sufficient time should be allowed to remove/collect such material before construction recommences.	

8.6 GENERAL AND SPECIFIC ENVIRONMENTAL CONTROLS EMPr

NOTE: (EA-71) In the event of any conflicting mitigation measures and conditions of the Environmental Authorisation, the specific condition of this Environmental Authorisation will take preference.

8.6.1 Appointment of ECO - EA & EMPr Monitoring

Management Objective: To ensure that a project's actual environmental impacts are consistent with those evaluated in the (EIA) process.					
Management Outcome: EA & EMPr Compliance					
Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
<ul style="list-style-type: none"> 23. The holder of the authorisation must appoint an experienced independent Environmental Control Officer (ECO) or a section ranger for the construction phase of the development that will have the responsibility to ensure that the mitigation / rehabilitation measures and recommendations referred to in this environmental authorisation are implemented and to ensure compliance with the provisions of the approved EMPr. 23.1 The ECO or a section ranger must be appointed before commencement of any authorised activities. 23.2 Once appointed, the name and contact details of the ECO or a section ranger must be submitted to the Director: Compliance Monitoring of the Department. 23.3 The ECO or a section ranger must keep record of all activities on site, problems identified, transgressions noted and a task schedule of tasks undertaken by the ECO or a section ranger. 23.4 The ECO or a section ranger must remain employed until all rehabilitation measures, as required for implementation due to construction damage, are completed and the site is ready for operation. 24. All documentation e.g. audit / monitoring / compliance reports and notifications, required to be submitted to the Department in terms of this environmental authorisation, must be submitted to the Director: Compliance Monitoring of the Department. 	SANParks	Pre-construction	Contract	Once off / As necessary	Notice to DFFE - Director: Compliance Monitoring of the Department.

<ul style="list-style-type: none"> • 25. The holder of the environmental authorisation must, for the period during which the environmental authorisation and EMPr remain valid, ensure that project compliance with the conditions of the environmental authorisation and the EMPr are audited, and that the audit reports are submitted to the Director: Compliance Monitoring of the Department. • 26. The frequency of auditing and of submission of the environmental audit reports must be as per the frequency indicated in the EMPr, taking into account the processes for such auditing as prescribed in Regulation 34 of GN R. 982, as amended. • 27. The holder of the authorisation must, in addition, submit environmental audit reports to the Department within 30 days of completion of the construction phase (i.e. within 30 days of site handover) and a final environmental audit report within 30 days of completion of rehabilitation activities. • 28. The environmental audit reports must be compiled in accordance with Appendix 7 of the EIA Regulations, 2014, as amended and must indicate the date of the audit, the name of the auditor and the outcome of the audit in terms of compliance with the environmental authorisation conditions as well as the requirements of the approved EMPr. • 29. Records relating to monitoring and auditing must be kept on site and made available for inspection to any relevant and competent authority in respect of this development. • 30. A written notification of commencement must be given to the Department no later than fourteen (14) days prior to the commencement of the activity. Commencement for the purposes of this condition includes site preparation. The notice must include a date on which it is anticipated that the activity will commence, as well as a reference number. • 31. A written notification of operation must be given to the Department no later than fourteen (14) days prior to the commencement of the activity operational phase. • 37. A copy of this environmental authorisation, the audit and compliance monitoring reports, and the approved EMPr. must be made available for inspection and copying - • 37.1. at the site of the authorised activity; • 37.2. to anyone on request; and • 37.3. Where the holder of the environmental authorisation has a website, on such publicly accessible website. 					
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8.6.2 Environmental Awareness Training

Management Objective: Environmental training of construction staff minimises the occurrence of environmental impact to the work area.					
Management Outcome: Environmental impact as a result of construction activities is minimised through the development of effective environmental awareness training material and execution of environmental awareness training all staff					
Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
1. All staff to receive environmental awareness training; 2. All staff are aware of the conditions and controls linked to the EA and within the EMP; 3. All staff are made aware of their individual roles and responsibilities in achieving compliance with the EA and EMP; 4. Environmental awareness training should include as a minimum the following: a) Description of significant environmental impacts, actual or potential, related to their work activities; b) Mitigation measures to be implemented when carrying out specific activities; c) Emergency preparedness and response procedures; d) Emergency procedures; e) Procedures to be followed when working near or within sensitive areas; f) Wastewater management procedures; g) Water usage and conservation; h) Solid waste management procedures; i) Sanitation procedures; j) Disease prevention; and k) Chance find procedure for archaeological/paleontological/historical sites unearthed during construction; 5. A record of all environmental awareness training courses undertaken as part of the EMP must be available; 6. A staff attendance register of all staff to have received environmental awareness training must be available.	Contractor	Pre-construction	Conduct training for all construction personnel.	Start of construction & Monthly	ECO

8.6.3 Construction Site Establishment

Management Objective: Ensure that environmental issues are taken into consideration in the planning and construction of site establishment					
Management Outcome: Impact to the environment during site establishment is minimised.					
Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
1. A Method Statement shall be provided by the contractor prior to any onsite activity that includes the layout of the construction camp in the form of a plan showing the location of key infrastructure and services (where applicable), including but not limited to offices, overnight vehicle parking areas, stores, the workshop, stockpile and lay down areas, hazardous materials storage areas (including fuels), the batching plant (if one is located at the construction camp), designated access routes, equipment cleaning areas and the placement of staff accommodation, cooking and ablution facilities, waste and wastewater management. 2. Location of construction camps must be carefully considered and approved by the ECO to ensure that the site does not impact on sensitive areas identified in the EIA or site walk through. 3. Sites should be located where possible on previously disturbed areas; and 4. The construction camp shall be fenced. • (EA – 40) The holder of this environmental authorisation must restrict the construction activities to the footprint area. • (EA – 42) The holder of this environmental authorisation must take note that no temporary site camps will be allowed outside the footprint of the development area as the establishment of such structures might trigger a listed activity as defined in the Environmental Impact Assessment Regulations, 2014, as amended.	Contractor	Pre-construction	Monitor compliance and record non-compliance and incidents.	Before construction	Method Statements ECO and Project Manager

8.6.4 No-Go Areas

Management Objective: Construction related activity inside No-Go areas is prevented in an effort to avoid environmental impacts to such areas.					
Management Outcome: Impact to No-Go areas is avoided through the effective demarcation and management of these areas.					
Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
1. Identification of No-Go areas is to be informed by the BA/EIA and any additional areas identified during construction. 2. Prior to the commencement of construction, the actual site to be developed must be clearly demarcated by means of highly visible barriers such as fences and orange snow netting. Vegetation within the demarcated zone may be cleared. Disturbance of vegetation outside of the demarcated development footprint is not permitted. 3. All plant, material and equipment required for construction must be located within the designated areas. Laydown areas must be clearly demarcated within the site limits. No activities are allowed outside of the demarcated development footprint. <ul style="list-style-type: none"> (EA-39) No activities will be allowed to encroach into a water resource without a water use authorisation being in place from the Department of Water and Sanitation (DWS). (EA-41) Construction activities must be restricted to demarcated areas in order to restrict impacts on sensitive environmental features. (EA-48) Water bodies outside the approved footprint of the proposed development must be treated as 'no-go' areas and demarcated as such. No vehicles, machinery, personnel, construction material, fuel, oil, bitumen or waste must be allowed into these areas without the express permission of and supervision of the ECO or a section ranger, except for rehabilitation work in these areas. (EA-54) All geological features should be regarded as sensitive and as such must be treated as "no-go" area. (EA-65) Contractors and construction workers must be clearly informed of the 'no-go' areas. The 'no-go' areas must be clearly demarcated and must be avoided. 	Contractor & ECO	Pre-construction	Demarcation Sensitivity Plan	Before construction	Demarcation ECO and Project Manager

8.6.5 Access Roads

Management Objective: Minimise impact to the environment through the planned and controlled movement of vehicles on site.					
Management Outcome: Vehicle movement to adhere to agreed access plan.					
Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
1. Existing access routes to the construction/works area must be used as far as possible. The building of access roads must be restricted to within the development footprint to prevent unnecessary disturbance of the surrounding environment. Access tracks must be maintained in a good condition at all times during construction to minimise erosion and dust generation. 2. Access roads shall be constructed in accordance with design standards (SANS 1200). <ul style="list-style-type: none"> (EA-50) Existing road infrastructure must be used for providing access to the site. (EA-51) Signs must be placed along construction road to identify speed limits, travel restrictions, and other standard traffic control information. (EA-52) All construction vehicles must adhere to a low speed limit to avoid collisions with vulnerable species such as snakes and tortoises within the Park. 	Contractor	Pre-construction & construction	Monitor compliance and record non-compliance and incidents.	Before construction & weekly	Method Statement ECO and Project Manager

8.6.6 Fencing and Gate Installation

Management Objective: To minimise impact to the environment and ensure safe and controlled access to the site through the erection of fencing and gates where required					
Management Outcome: The erection of fencing and management of fencing is to be undertaken in accordance with the Fencing Act No 31 of 1963					
Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
1. The Fencing Act No 31 of 1963 shall be adhered to at all times with regards to the leaving open of gates and the dropping of fences for crossing, purposes, climbing and wilful damage or removal of gates.	Contractor	Construction	Monitor compliance and record non-	Weekly	ECO and Project Manager

<ol style="list-style-type: none"> 2. Use existing gates provided to gain access to all parts of the defined Working Area, where possible. 3. All gates shall be fitted with locks and be kept locked at all times during the construction phase. 4. Where there is no suitable gate for access to the site, on the instruction of the Project Manager, a gate shall be installed. 5. Care shall be taken that the gates shall be so erected that there is a gap of no more than 100 mm between the bottom of the gate and the ground. 6. Original tension shall be maintained in the fence wires. 7. All gates installed in electrified fencing must be re-electrified. 8. All demarcation fencing and barriers shall be maintained in good working order for the duration of construction activities. 9. Fencing shall be erected around the construction camp, batching plants, hazardous storage areas, and all designated no-go areas, where applicable. 10. All fencing shall be constructed of high quality material bearing the SABS mark. 11. Fenced areas with gate access will remain locked after hours, during weekends and on holidays if staff are away from site. Site security will be required at all times. 12. On completion of the project all temporary fences are to be removed and where possible re-used by the contractor at new projects. 13. The contractor will ensure that all fence uprights are appropriately removed, ensuring that no uprights are cut at ground level but rather removed completely. 			compliance and incidents.		
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8.6.7 Water Supply Management

Management Objective: Undertake responsible water usage during construction					
Management Outcome: Water use during construction is compliant with the requirements of the National Water Act (No 36 of 1998)					
Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
1. All abstraction points or bore holes must be registered with the DWS and suitable water meters installed to ensure that the abstracted volumes are measured on a daily basis.	Contractor	Construction	Monitor compliance	Weekly	Method Statement

<p>2. Should water abstraction be required and the necessary authorisation from DWS and permission from the landowner has been received, the Contractor shall ensure the following:</p> <ul style="list-style-type: none"> a) The vehicle abstracting water from a river does not enter or cross it and does not operate from within the river; b) No damage occurs to the river bed or banks and that the abstraction of water does not entail stream diversion activities; and c) All reasonable measures to limit pollution or sedimentation of the downstream watercourse are implemented. <p>3. Ensure water conservation is being practiced by:</p> <ul style="list-style-type: none"> a) Minimising water use during cleaning of equipment; b) Undertaking regular audits of water systems; and c) Including a discussion on water usage and conservation during environmental awareness training. 			and record non-compliance and incidents.		ECO and Project Manager
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8.6.8 Waste Water Management

Management Objective: To avoid, manage and mitigate potential impacts to the environment caused by waste water discharge during construction.					
Management Outcome: Waste water management is undertaken in accordance with relevant national and provincial legislation and local by-laws.					
Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
<ul style="list-style-type: none"> 1. Runoff from the cement/ concrete batching areas shall be strictly controlled, and contaminated water shall be collected, stored and either treated or disposed of off-site, at a location approved by the ECO. 2. All spillage of oil onto concrete surfaces shall be controlled by the use of an approved absorbent material and the used absorbent material disposed of at an appropriate waste disposal facility. 3. Natural storm water runoff not contaminated by construction operations and clean water can be discharged directly to watercourses and water bodies, subject to the Project Manager's approval and support by the ECO. 	Contractor	Construction	Monitor compliance and record non-compliance and incidents.	Weekly	Method Statement ECO and Project Manager

<p>4. Water that has been contaminated with suspended solids, such as soils and silt, may be released into watercourses or water bodies only once all suspended solids have been removed from the water by settling out these solids in settlement ponds. The release of settled water back into the environment shall be subject to the Project Manager's approval and support by the ECO.</p> <p>5. Safe disposal certificates for the disposal of any waste spillage, including those that would be pumped from the sump and discharged at a hazardous landfill site by a specialist contractor, must be kept by the Licence Holder for a minimum of five years. This must be reflected in the EMPr.</p> <p>6. Waste disposal certificates for mobile chemical toilets, as described in the EMPr, must be retained for a minimum of five years and this must be reflected in the EMPr.</p> <ul style="list-style-type: none"> • (EA-49) The ECO or a section ranger must conduct a routine monitoring of the site for any spillages and water pollution I contamination that can have potential impacts on fauna and flora. 					
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8.6.9 Solid Waste Management

Management Objective: To avoid, manage and mitigate potential impacts to the environment caused by the incorrect storage, handling and disposal of general and hazardous solid waste.					
Management Outcome: Solid waste management is undertaken in accordance with relevant national and provincial legislation and local by-laws.					
Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
<p>1. All measures regarding waste management shall be undertaken using an integrated waste management approach – Refer to EMPr.</p> <p>2. Waste is grouped into “general” or “hazardous”, depending on its characteristics. The classification determines handling methods and the ultimate disposal of the material.</p> <p>3. Waste must be separated at source (e.g. containers for glass, paper, metals, plastics, organic waste and hazardous wastes).</p>	Contractor	Construction	Monitor compliance and record non-compliance and incidents.	Weekly	Method Statement ECO and Project Manager

<p>4. Sufficient, covered waste collection bins (scavenger and weatherproof) to be positioned strategically across the site at all working areas.</p> <p>5. All waste collection receptacles must be provided with lids and an external closing mechanism to prevent their contents blowing out and must be scavenger-proof to prevent access by animals that may be attracted to the waste.</p> <p>6. The entire site will be cleared of construction material, metal, tins, glass bottles, and food packaging or any other type of empty container or waste material or waste equipment used by the construction team on a daily basis.</p> <p>7. The Contractor must dispose of all refuse generated on site or from the activities of construction or its related activities. The contractor must on a weekly basis dispose of all refuse at Twee Rivieren.</p> <p>8. No refuse or litter is allowed to be burnt or buried on site.</p> <ul style="list-style-type: none"> • (EA-58) Hazardous waste such as bitumen, oils, oily rags, paint tins etc. must be disposed of at an approved waste landfill site licensed to accept such waste. • (EA-59) No dumping or temporary storage of any materials may take place outside designated and demarcated laydown areas, and these must all be located within areas of low environmental sensitivity. • (EA-67) An integrated waste management approach must be implemented that is based on waste minimisation and must incorporate reduction, recycling and re-use options where appropriate. Where solid waste is disposed of, such disposal shall only occur at a landfill licensed in terms of section 20 (b) of the National Environment Management Waste Act, 2008 (Act 59 of 2008). 					
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8.6.10 Protection of Watercourses and Water Bodies

Management Objective: Construction related activity is undertaken in a manner which prevents impacts to watercourses, water bodies and wetlands.					
Management Outcome: Impact to No-Go areas is avoided through the effective demarcation and management of these areas.					
Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
1. All watercourses and water bodies shall be protected from direct or indirect spills of pollutants such as solid waste, sewage, cement, oils, fuels, chemicals, aggregate tailings, wash and contaminated water or organic material resulting from the Contractor's activities. 2. In the event of a spill, prompt action shall be taken to clear the polluted or affected areas. 3. Where possible, no construction equipment shall traverse any seasonal or permanent wetland. 4. No natural watercourse or water body shall be used for the purposes of swimming, personal washing and the washing of machinery or clothes. 5. Excavation or construction in a water course or wetland area shall be avoided unless exceptional circumstances require that excavation or construction cannot be avoided. 6. No excavation or construction shall be permitted within the 1:100 year flood line or riparian zone (whichever is the greatest) of a watercourse or within 500 m from the boundary of a wetland area without prior approval from the Competent Authority (DWS or Catchment Management Agency) in the form of a water use authorisation. 7. When working in or near any watercourse or wetland, the following environmental controls and consideration shall be taken: <ul style="list-style-type: none"> a. River levels during the period of construction; b. Construction within flowing water is to be minimised. All diversions shall be in place, water diverted away from the Working Area and the area properly stabilised prior to excavations commencing; c. When working in flowing water, downstream sedimentation shall be controlled by installing and maintaining the necessary temporary sedimentation barriers, e.g. geotextile silt curtains or sedimentation weirs constructed out of suitably secured 	Contractor	Construction	Monitor compliance and record non-compliance and incidents.	Weekly	ECO and Project Manager

straw bales. Sedimentation barriers shall be a maximum of 25 m downstream of the construction activities; d. During the execution of the Works, appropriate measures to prevent pollution and contamination of the riverine environment shall be implemented e.g. including ensuring that construction equipment is well maintained; e. Where earthwork is being undertaken in close proximity to any watercourse, slopes shall be stabilised using suitable materials, i.e. sandbags or geotextile fabric, to prevent sand and rock from entering the channel; and f. Appropriate rehabilitation and re-vegetation measures for the river banks shall be implemented timeously. In this regard, the banks should be appropriately and incrementally stabilised as soon as construction allows.					
<ul style="list-style-type: none"> (EA-39) No activities will be allowed to encroach into a water resource without a water use authorisation being in place from the Department of Water and Sanitation (DWS). (EA-48) Water bodies outside the approved footprint of the proposed development must be treated as 'no-go' areas and demarcated as such. No vehicles, machinery, personnel, construction material, fuel, oil, bitumen or waste must be allowed into these areas without the express permission of and supervision of the ECO or a section ranger, except for rehabilitation work in these areas. 					

8.6.11 Vegetation Clearing

Management Objective: To ensure the safe construction and operation of the project without causing unnecessary environmental damage.					
Management Outcome: Vegetation clearance is minimised through adherence to EMPr vegetation clearance requirements.					
Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
1. Protected trees may not be cut, disturbed, damaged and/or destroyed except under license granted by the Department of Agriculture, Forestry and Fisheries.	Contractor	Construction	Monitor compliance and record non-	Weekly	ECO and Project Manager

<ol style="list-style-type: none"> 2. The detail of vegetation clearing shall be subject to the ECO's approval. Indigenous vegetation which does not interfere with the safe construction and operation of the project shall be left undisturbed. 3. The Contractor shall measure the extent of all areas cleared for construction purposes and keep this figure updated. 4. Before site clearance takes place, vegetation surveys will be conducted and protected species identified. 5. No protected plant species shall be removed without written consent from the relevant authorities. 6. Clearance of vegetation shall be restricted to that which is required to facilitate the execution of the works. 7. No vegetation located outside the construction site shall be destroyed or damaged. 8. The Contractor shall identify and eradicate all declared alien and invasive plant species occurring on site. 9. Alien vegetation on-site shall be managed in terms of the GNR 1048 of 25 May 1984 (as amended) issued in terms of the Conservation of Agricultural Resources Act, Act 43 of 1983; 10. Alien invasive vegetation should be removed immediately (in line with Appendix 2: Alien Plant Species Eradication Plan, relevant SANParks and provincial procedures, guidelines and recommendations) and disposed of at a licenced waste disposal facility. 11. The use of herbicides shall be in compliance with the terms and conditions of The Fertilisers, Farm, Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act 36 of 1947). A register shall be kept of all relevant details of herbicide usage as stipulated in Act 36 of 1947. 12. Rivers, watercourses and other water bodies shall be kept clear of felled trees, vegetation cuttings and debris. 13. All protected species and sensitive vegetation not removed must be clearly marked and such areas fenced off if required in accordance with No-Go procedure. <ul style="list-style-type: none"> • (EA-46) Cleared alien vegetation must not be dumped on adjacent intact vegetation during clearing but must be temporarily stored in a demarcated area. • (EA-68) Removal of alien invasive species or other vegetation and follow-up procedures must be in accordance with the Conservation of Agricultural Resources Act, 1983 (Act 43 of 1983). 			compliance and incidents.		
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<ul style="list-style-type: none"> (EA-69) Relevant permits must be obtained from relevant authorities for any removal or destruction of Threatened or Protected Species (TOPs). (EA-70) Before the clearing of the site, the appropriate permits must be obtained from the Department of Agriculture, Forestry and Fisheries (DAFF) for the removal of plants listed in the National Forest Act and from the relevant provincial department for the destruction of species protected in terms of the specific provincial legislation. Copies of the permits must be kept by the ECO or a section ranger. 					
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8.6.12 Protection of Fauna

Management Objective: Ensure care is taken to minimise disturbance to fauna during construction and potential future impact during the operation of the project.					
Management Outcome: Impact to fauna is avoided during construction and mitigated during operation.					
Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
<ol style="list-style-type: none"> On no account shall any animal, reptile or bird of any sort be killed. This specifically includes snakes or other creatures considered potentially dangerous discovered on site. If such an animal is discovered on site an appropriately skilled person should be summoned to remove the creature from site. Consideration should be given to selection and nomination of such a person prior to site establishment. If no-one is available, training should be provided to at least two site staff members. No poaching must be tolerated under any circumstances. All animal dens in close proximity to the works areas must be marked as No-Go areas. The Contractor or Contractor's Environmental Officer must monitor trenches/excavations at the start and end of each working day to check if any small animals are trapped. The Contractor must ensure that the work site be kept clean, tidy and free of waste that would attract animals. <ul style="list-style-type: none"> (EA-55) Animals crossing the road must always be given a right of way and hunting is not permitted within the Kalahari Gemsbok National Park (KGNP). 	Contractor	Construction	Monitor compliance and record non-compliance and incidents.	Weekly	ECO and Project Manager

8.6.13 Protection of Heritage and Palaeontological Resources

Management Objective: Prevent damage and destruction to fossils, artefacts and materials of heritage significance					
Management Outcome: Impact to heritage resources is avoided					
Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
1. Identify, demarcate and prevent impact to all known sensitive heritage features on site in accordance with the No-Go procedure in Section : No-Go areas; 2. Carry out general monitoring of excavations for potential fossils, artefacts and material of heritage importance; 3. All work must cease immediately, if any human remains and/or other archaeological, palaeontological and historical material are uncovered. 4. Monitoring reports of all development areas must be submitted to SAHRA upon completion of the construction phase; 5. 38(4)c(i) – If any evidence of archaeological sites or remains (e.g. remnants of stone-made structures, indigenous ceramics, bones, stone artefacts, ostrich eggshell fragments, charcoal and ash concentrations), fossils or other categories of heritage resources are found during the proposed development, SAHRA APM Unit (Natasha Higgitt/Phillip Hine 021 462 5402) must be alerted as per section 35(3) of the NHRA. Non-compliance with section of the NHRA is an offense in terms of section 51(1)e of the NHRA and item 5 of the Schedule; 6. 38(4)c(ii) – If unmarked human burials are uncovered, the SAHRA Burial Grounds and Graves (BGG) Unit (Thingahangwi Tshivhase/Mimi Seetelo 012 320 8490), must be alerted immediately as per section 36(6) of the NHRA. Non-compliance with section of the NHRA is an offense in terms of section 51(1)e of the NHRA and item 5 of the Schedule; 7. 38(4)d – See section 51(1) of the NHRA; 8. 38(4)e – The following conditions apply with regards to the appointment of specialists: 9. i) If heritage resources are uncovered during the course of the development, a professional archaeologist or palaeontologist, depending on the nature of the finds, must be contracted as soon as possible to inspect the heritage resource. If the newly discovered heritage resources	Contractor	Construction	Monitor compliance and record non-compliance and incidents. Appendix 1	Weekly	Appendix 1 ECO and Project Manager

<p>prove to be of archaeological or palaeontological significance, a Phase 2 rescue operation may be required subject to permits issued by SAHRA;</p> <p>10. The Final EMPr must be submitted to SAHRA for recorded purposes.</p> <p>11. Should human remains be discovered at any stage, these should be reported to the Heritage Specialist and relevant authorities (SAHRA) and development activities should be suspended until the site has been inspected by the Specialist. The Specialist will advise on further management actions and possible relocation of human remains in accordance with the Human Tissue Act (Act 65 of 1983 as amended), the Removal of Graves and Dead Bodies Ordinance (Ordinance no. 7 of 1925), the National Heritage Resources Act (Act no. 25 of 1999) and any local and regional provisions, laws and by-laws pertaining to human remains. A full social consultation process should occur in conjunction with the mitigation of cemeteries and burials.</p> <p><u>Palaeontological Resources</u></p> <p>(i) The Environmental Control Officer (ECO) responsible for the tourism developments should be aware of the possibility of important fossils (e.g. shells, trace fossils, mammalian bones and teeth) being present or unearthed on site and should regularly monitor all substantial excavations into superficial sediments as well as fresh (i.e. unweathered) sedimentary bedrock for fossil remains;</p> <p>(ii) In the case of any significant fossil finds made during construction, these should be safeguarded - preferably in situ - and reported by the ECO as soon as possible to the relevant heritage management authority, SAHRA (Contact details: SAHRA, 111 Harrington Street, Cape Town. PO Box 4637, Cape Town 8000, South Africa. Phone: +27 (0)21 462 4502. Fax: +27 (0)21 462 4509. Web: www.sahra.org.za). This is so that appropriate mitigation (i.e. recording, sampling or collection) by a palaeontological specialist can be considered and implemented, at the developer's expense; and</p>					
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<p>(iii) These recommendations are summarized as a tabulated Chance Fossil Finds Procedure in Appendix 1 and should be incorporated into the Environmental Management Plan (EMP) for the tourism projects.</p> <p>(iv) The palaeontologist concerned with recording and mitigation work will need a valid palaeontological collection permit from SAHRA. All work would have to conform to international best practice for palaeontological fieldwork and the study (e.g. data recording fossil collection and curation, final report) should adhere to the minimum standards for palaeontological heritage studies developed by SAHRA (2013).</p> <ul style="list-style-type: none"> • (EA-64) Construction managers/foremen must be informed before construction starts of the possible types of heritage sites and cultural material that may be encountered and the procedures to follow when they find sites. • (EA-66) If concentrations of archaeological heritage material, fossils and human remains are uncovered during construction, all work must cease immediately and be reported to the South African Heritage Resources Agency (SAHRA) or a qualified archaeologist must be informed of such discovery so that a systematic and professional investigation / excavation can be undertaken. 					
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8.6.14 Safety of the Public

Management Objective: Reasonable measures are taken to ensure the safety of the public at all times during construction.					
Management Outcome: All precautions are taken where possible to minimise the risk of injury, harm or complaints.					
Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
1. Identify fire hazards, demarcate and restrict public access to work areas. 2. All unattended open excavations shall be adequately fenced or demarcated. 3. Adequate protective measures must be implemented to prevent unauthorised access to and climbing of partly constructed towers and protective scaffolding. 4. Ensure structures vulnerable to high winds are secured.	Contractor	Construction	Monitor compliance and record non-compliance	Weekly	ECO and Project Manager

5. Maintain an incidents and complaints register in which all incidents or complaints involving the public are logged.			and incidents.		
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8.6.15 Sanitation

Management Objective: An abundant supply of suitably located, clean and well maintained toilet facilities are available to all staff in an effort to minimise the risk of disease and impact to the environment.

Management Outcome: No pollution or disease arises on-site as a result of sanitation facilities or lack thereof.

Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
1. Mobile chemical toilets are installed onsite if no other ablution facilities are available. 2. The use of ablution facilities and or mobile toilets shall be used at all times and no indiscriminate use of the veld for the purposes of ablutions shall be permitted under any circumstances. 3. Ablution facilities shall be located within 100 m of any work place and shall be numerous enough to accommodate the workforce (minimum requirement of 1:15 workers on site). 4. Where mobile chemical toilets are required, the following shall be ensured: a) Toilets are located no closer than 100 m to any watercourse or water body; b) Toilets are secured to the ground to prevent them from toppling due to wind or any other cause; c) No spillage occurs when the toilets are cleaned or emptied and the contents are managed in accordance with the EMP; d) Toilets have an external closing mechanism and are closed and secured from the outside when not in use to prevent toilet paper from being blown out; e) Toilets are emptied before long weekends and workers holidays, and shall be locked after working hours; f) Toilets are serviced regularly and the ECO must inspect toilets to ensure compliance to health standards; 5. A copy of the waste disposal certificates shall be maintained.	Contractor	Construction	Monitor compliance and record non-compliance and incidents.	Weekly	ECO and Project Manager

<ul style="list-style-type: none"> (EA-62) On site chemical ablation facilities must be available for the use of construction workers at the times during the construction period. (EA-63) The ablation facilities must be removed from the site when the construction phase is completed as well as associated waste to be disposed of at a registered waste site. 					
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8.6.16 Prevention of Disease

Management Objective: All necessary precautions linked to the spread of disease during construction are taken.					
Management Outcome: The risk of the occurrence and spread of disease is minimised through the effective implementation of EMPr actions.					
Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
1. Undertake environmentally-friendly pest control in the camp area; 2. Ensure that the workforce is sensitised to the effects of sexually transmitted diseases, especially HIV AIDS; 3. The Contractor shall ensure that information posters on AIDS are displayed in the Contractor Camp area; 4. Information and education relating to sexually transmitted diseases to be made available to both construction workers and local community, where applicable; 5. Medical support shall be made available; 6. Provide access to Voluntary HIV Testing and Counselling Services.	Contractor	Construction	Monitor compliance and record non-compliance and incidents.	Monthly	ECO and Project Manager

8.6.17 Emergency Procedures

Management Objective: Emergency procedures are in place to enable a rapid and effective response to all types of environmental emergencies.					
Management Outcome: All emergency situations are managed in accordance with the emergency procedures.					
Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
1. Compile an Emergency Response Action Plan (ERAP) prior to the commencement of the proposed project; 2. The Emergency Plan must deal with accidents, potential spillages and fires in line with relevant legislation; 3. All staff shall be made aware of emergency procedures as part of environmental awareness training; 4. The relevant local authority shall be made aware of a fire as soon as it starts; 5. In the event of emergency necessary mitigation measures to contain the spill or leak shall be implemented (see Hazardous Substances section B.17). 6. Any event resulting in a spill, as described in the BAR, of any hazardous substances (e.g. diesel), must be reported to all relevant authorities, including Directorate: Pollution and Chemicals Management, within 14 (fourteen) days. This requirement is in terms of Section 30 (10) of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) that pertains to the control of emergency incidents and should include the reporting, containment and clean-up procedure of such incident and the remediation of the affected area. All necessary documentation must be completed and submitted within the prescribed timeframes. Containment, clean-up and remediation must commence immediately in the case of NEMA Section 30 incidents. Kindly insert the former into the reporting procedure in the EMPr. • (EA-60) Leakage of fuel must be avoided at all times and if spillage occurs, it must be remedied immediately. • (EA-61) Spill kits must be made available on-site for clean-up of spills.	Contractor	Construction	Monitor compliance and record non-compliance and incidents.	Monthly	Method Statement ECO and Project Manager

8.6.18 Hazardous Substances

Management Objective: To minimise the risk of impact to the environment through the safe storage, handling, use and disposal of hazardous substances.					
Management Outcome: The management of hazardous substances is undertaken in accordance with the Hazardous Substances Act of 1973 (Act No. 15 of 1973), the Minimum Requirements for the Handling, Classification and Disposal of Hazardous Waste (Department of Water Affairs and Forestry, 1998) and Farm Feeds, Agricultural Remedies and Stock Remedies Act of 1947 (Act No. 36 of 1947) and National Environmental Management: Waste Act of 2008.					
Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
1. The Occupational Health and Safety Act No 85 of 1993 to be complied with at all times; 2. The use and storage of hazardous substances to be minimised and non-hazardous and non-toxic alternatives substituted where possible; 3. All hazardous substances will be stored in suitable containers as defined in the Method Statement; 4. Containers will be clearly marked to indicate contents, quantities and safety requirements. 5. All storage areas will be bunded. The bunded area will be of sufficient capacity to contain a spill / leak from the stored containers; 6. An Alphabetical Hazardous Chemical Substance (HCS) control sheet will be drawn up and kept up to date on a continuous basis. All hazardous chemicals that will be used on site will have Material Safety Data Sheets; 7. All employees working with HCS will be trained in the safe use of the substance and according to the safety data sheet; 8. Employees handling hazardous substances / materials must be aware of the potential impacts and follow appropriate safety measures. Appropriate personal protective equipment (PPE) must be made available; 9. The Contractor shall ensure that diesel and other liquid fuel, oil and hydraulic fluid is stored in appropriate storage tanks or in bowzers; 10. The tanks/ bowzers shall be situated on a smooth impermeable surface (concrete) with a permanent bund. The impermeable lining shall extend to the crest of the bund and the volume inside the bund shall be 130% of the total capacity of all the storage tanks/ bowzers (110% statutory requirement plus an allowance for rainfall);	Contractor	Construction	Monitor compliance and record non-compliance and incidents.	Weekly	Method Statement ECO and Project Manager

<p>11. The floor of the bund shall be sloped, draining to an oil separator;</p> <p>12. Provision shall be made for refuelling at the storage area by protecting the soil with an impermeable groundcover. Where dispensing equipment is used, a drip tray shall be used to ensure small spills are contained;</p> <p>13. All empty externally dirty drums shall be stored on a drip tray or within a bunded area;</p> <p>14. No unauthorised access into the hazardous substances storage areas shall be permitted;</p> <p>15. No smoking shall be allowed within the vicinity of the hazardous storage areas;</p> <p>16. Adequate fire-fighting equipment shall be made available at all hazardous storage areas;</p> <p>17. Where refuelling away from the dedicated refuelling station is required, a mobile refuelling unit shall be used. Appropriate ground protection such as drip trays shall be used as well;</p> <p>18. An appropriately sized spill kit kept onsite relevant to the scale of the activity/s involving the use of hazardous substance shall be available at all times;</p> <p>19. The responsible operator shall have the required training to make use of the spill kit in emergency situations;</p> <p>20. In the event of a spill, contaminated soil must be collected in containers and stored in a central location and disposed of according to the National Environmental Management: Waste Act 59 of 2008. Refer to relevant sections for procedures concerning waste water management and for solid waste management.</p> <ul style="list-style-type: none"> • (EA-60) Leakage of fuel must be avoided at all times and if spillage occurs, it must be remedied immediately. • (EA-61) Spill kits must be made available on-site for clean-up of spills. 					
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8.6.19 Workshop, Equipment Maintenance and Storage

Management Objective: The control operation, maintenance and storage of equipment prevents soil, surface water and groundwater contamination					
Management Outcome: Soil, surface water and groundwater contamination is prevented as due to adherence of EMP requirements					
Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
1. Where possible and practical all maintenance of vehicles and equipment must take place in the workshop area; 2. During servicing of vehicles or equipment, especially where emergency repairs are effected outside the workshop area, a suitable drip tray must be used to prevent spills onto the soil; 3. Leaking equipment must be repaired immediately or be removed from site to facilitate repair; 4. Workshop areas must be monitored for oil and fuel spills and such spills; 5. Appropriately sized spill kit kept onsite relevant to the scale of the activity taking place shall be available; 6. The responsible operator of equipment must have the required training to make use of the spill kit in emergency situations; 7. The workshop area shall have a bunded concrete slab that is sloped to facilitate runoff into a collection sump or suitable oil / water separator where maintenance work on vehicles and equipment can be performed; 8. Water drainage from the workshop area shall be contained and managed in accordance the Section on Waste water management (EA-53) The holder of the environmental authorisation must ensure that all equipment and machinery are well maintained and equipped with silencers.	Contractor	Construction	Monitor compliance and record non-compliance and incidents.	Weekly	Method Statement ECO and Project Manager

8.6.20 Batching Plants

Management Objective: To control concrete and cement batching activities in order to prevent spillages and concomitant contamination of soil, surface water and groundwater environment.					
Management Outcome: The management, handling and storage of sand, stone and cement is undertake in accordance with the EMPr					
Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
1. Concrete mixing shall be carried out on an impermeable surface (such as on boards or plastic sheeting and/or within a bunded area with an impermeable surface); 2. Concrete mixing areas must be fitted with a containment facility for the collection of cement laden water. This facility must be impervious to prevent soil and groundwater contamination; 3. Bagged cement must be stored in an appropriate facility and at least 10 m away from any water courses, gullies and drains; 4. A washout facility must be provided for washing of concrete associated equipment. Water used for washing must be restricted; 5. Hardened concrete from the washout facility or concrete mixer can either be reused or disposed of at an appropriate licenced disposal facility; 6. Empty cement bags must be secured with adequate binding material if these will be temporarily stored on site in appropriate containers; 7. Sand and aggregates containing cement must be kept damp to prevent the generation of dust (Refer Section to dust emissions) 8. Any excess sand, stone and cement must be removed from site on completion of construction period and disposed at a registered disposal facility if it cannot be reused; 9. Temporary fencing shall be erected around batching plants in accordance with Section: Fencing and gate installation.	Contractor	Construction	Monitor compliance and record non-compliance and incidents.	Weekly	Method Statement ECO and Project Manager

8.6.21 Dust Emissions

Management Objective: To reduce dust emissions during construction activities.					
Management Outcome: Minimal occurrence of dust due the adherence of EMPr requirements.					
Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
1) Material in transit should be loaded and contained within the load bin of the vehicle in such a way as to prevent any spillage onto the roads and the creation of dust clouds. If necessary, the bin of the vehicle shall be covered with a tarpaulin to prevent dust. 2) Dust is to be controlled on unpaved access roads and site roads using sprayed water. Contractors are responsible for managing dust generated as a result of their activities. 3) Water for dust control shall only be taken from approved sources. 4) Some dust control measures which are normally applied during construction are presented in this section for inclusion by the Contractor in his Dust Control Method Statement: <ul style="list-style-type: none"> • Operate vehicles within speed limits, where no speed limit has been specified the limit shall be 20 km/h. • Wash paved surfaces within the construction area twice a week. • Minimise haulage distances. • Apply water to gravel roads with a spraying truck when required. • Environmentally friendly soil stabilisers may be used as additional measures to control dust on gravel roads and construction areas. • Dust suppression measures will also apply to inactive construction areas. (An inactive construction site is one on which construction will not occur for a month or more). • Construction material being transported by trucks must be suitably moistened or covered to prevent dust generation. • Minimise disturbance of natural vegetation during right-of-way construction (e.g. transmission lines and erection of fences) to reduce potential erosion, runoff, and air-borne dust. 	Contractor	Construction	Monitor compliance and record non-compliance and incidents.	Weekly	Method Statement ECO and Project Manager

<ul style="list-style-type: none"> Implement as system of reporting excessive dust conditions by construction personnel (as instructed through Environmental Awareness Training). (EA-57) Appropriate dust suppression techniques must be implemented on all exposed surfaces to minimise and control airborne dust. Such measures must include amongst others wet suppression, chemical stabilisation, the use of a wind fence, covering surfaces with straw chippings and re-vegetation of open areas. 					
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8.6.22 Noise

Management Objective: To prevent unnecessary noise to the environment by ensuring that noise from construction activity is mitigated.					
Management Outcome: Noise management is undertaken in accordance with SANS 10103 and requirements of the EMPr.					
Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
1. The contractor shall take into consideration that the project areas are located within a natural environment and that noise could be a major disturbance/nuisance for the fauna and visitors to the park. 2. Operating hours as determined by the environmental authorisation are adhered to during the construction phase. Where not defined, construction shall be limited to daylight hours. 3. Conduct noise monitoring tests, as required by the ECO or environmental authorisation. 4. Noise levels are to comply with ECA's 7dB rule i.e. cannot generate noise that increases the noise levels to 7db above the current ambient.	Contractor	Construction	Monitor compliance and record non-compliance and incidents.	Weekly	Method Statement ECO and Project Manager

8.6.23 Fire Prevention

Management Objective: To minimise the risk of fire during construction					
Management Outcome: Fire prevention measures are carried out in accordance with the National Veld and Forest Fire Act, 101 of 1998					
Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
1. Designate smoking areas where the fire hazard could be regarded as insignificant; 2. Educate workers on the dangers of open and/or unattended fires; 3. No open fires shall be allowed on site under any circumstances; 4. Firefighting equipment shall be available on all vehicles located on site; 5. The local Fire Protection Agency (FPA) must be informed of construction activities; 6. Contact numbers for the FPA and emergency services must be communicated in environmental awareness training and displayed at a central location on site. • (EA-56) No unsupervised open fires for cooking or heating must be allowed on site and within the Park.	Contractor	Construction	Monitor compliance and record non-compliance and incidents.	Weekly	Method Statement ECO and Project Manager

8.6.24 Stockpiling and Stockpile Areas

Management Objective: To reduce potential erosion and sedimentation as a result of stockpiling of materials					
Management Outcome: Stockpiling management is undertaken in accordance with the requirements of the EMP					
Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
1. Stockpiles must be located at least 10 m away from storm water channels and drains, and at least 32 m away from any watercourse, water body or wetland, and on flat areas where runoff will be minimise. 2. Stockpiling may only take place in designated areas indicated on the approved site layout plan. Sensitive areas shall be avoided in this regard.	Contractor	Construction	Monitor compliance and record non-compliance	Monthly	Method Statement ECO and Project

3. Any area to be used for stockpiling or material laydown shall be stripped of all topsoil. 4. Stockpiles must be positioned in areas sheltered from the wind and rain to prevent erosion and dispersion of loose materials. 5. Stockpiled soil shall be protected by adequate erosion-control measures. 6. Soil stockpiles shall be located away from drainage lines, watercourses and areas of temporary inundation. 7. Topsoil shall be stockpiled separately from other materials and kept moist. 8. Excavated subsoil, where not contaminated, must be used for backfilling and topsoil for landscaping and rehabilitation of disturbed areas. 9. Where topsoil has become mixed with subsoil or is not up to the original standard, fertiliser or new topsoil shall be provided by the Contractor. 10. Stockpiles (excluding ballast stockpiles) shall not exceed 2m in height unless otherwise permitted by the ECO. • (EA-44) Topsoil from all excavations and construction activities must be salvaged and reapplied during reclamation.			and incidents.		Manager
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8.6.25 Civil Works

Management Objective: Impact to the environment to be minimised during civil works.					
Management Outcome: Impact to the environment is minimised through adherence to EMP requirements.					
Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
1. Where terracing is required, topsoil must be collected and retained for the purpose of re-use later to rehabilitate disturbed areas; 2. Where required, all sloped areas must be stabilised to ensure proper rehabilitation is effected and erosion is controlled; 3. These areas can be stabilised using design structures or vegetation as specified in the design to prevent erosion of embankments. The contract design specifications must be adhered to and implemented strictly;	Contractor	Construction	Monitor compliance and record non-compliance and incidents.	Weekly	Method Statement ECO and Project Manager

4. Rehabilitation of the disturbed areas shall be managed in accordance with Section: Landscaping and rehabilitation; 5. Any blasting activities must be controlled and executed by a licensed person. Blasting activities must be well communicated with nearby communities; 6. All excess spoil generated during terracing activities must be disposed of in an appropriate manner and at a legally operated landfill site; 7. Spoil can however be used for landscaping purposes and must be covered with a layer of 150mm topsoil for rehabilitation purposes; 8. Under no circumstances may any illegal / hazardous substances or materials be dumped with topsoil and used during landscaping. • (EA-44) Topsoil from all excavations and construction activities must be salvaged and reapplied during reclamation.					
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8.6.26 Excavation of Foundation, Cable Trenching and Drainage Systems

Management Objective: Impact to the environment to be minimised during the excavation of foundations					
Management Outcome: Impact to the environment is minimised through adherence to EMP requirements					
Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
1. All excess spoil generated during foundation excavation must be disposed of in an appropriate manner and at a legally operated landfill site, if not used for backfilling purposes; 2. Spoil can however be used for landscaping purposes and must be covered with a layer of 150mm topsoil for rehabilitation purposes; 3. Management of equipment for excavation purposes shall be undertaken in accordance with Section: Workshop equipment maintenance and storage; 4. Hazardous substances spills from equipment shall be managed in accordance with Section: Hazardous substances.	Contractor	Construction	Monitor compliance and record non-compliance and incidents.	Weekly	ECO and Project Manager

• (EA-44) Topsoil from all excavations and construction activities must be salvaged and reapplied during reclamation.					
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8.6.27 Steelwork Assembly and Erection

Management Objective: Impact to the environment to be minimised during steelwork assembly and erection					
Management Outcome: Impact to the environment is minimised through adherence to EMP requirements					
Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
1. During assembly, care must be taken to ensure that no wasted/unused materials are left on site e.g. bolts and nuts 2. Emergency repairs due to breakages of equipment shall be managed in accordance with Section: Workshop equipment maintenance and storage and Section: Emergency procedures.	Contractor	Construction	Monitor compliance and record non-compliance and incidents.	Weekly	ECO and Project Manager

8.6.28 Temporary Site Closure

Management Objective: Minimise the risk of environmental impact during periods of site closure greater than five days					
Management Outcome: Site closure procedures are implemented in accordance with the EMP					
Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
1. Bunds shall be emptied (where applicable); 2. Hazardous storage areas shall be well ventilated; 3. Fire extinguishers shall be serviced and accessible; 4. Emergency and contact details displayed shall be displayed;	Contractor	Construction	Monitor compliance and record non-	Weekly	ECO and Project Manager

5. Fencing and barriers shall be in place as per the Occupational Health and Safety Act (No 85 of 1993); 6. Security personnel shall be briefed and have the facilities to contact or be contacted by relevant management and emergency personnel; 7. Night hazards such as reflectors, lighting, traffic signage etc. shall have been checked; 8. Fire hazards identified and the local authority shall have been notified of any potential threats e.g. large brush stockpiles, fuels etc.; 9. Stockpiles shall be appropriately secured; 10. Structures vulnerable to high winds shall be secured; 11. Wind and dust mitigation shall be implemented; 12. Cement and materials stores shall have been secured; 13. Toilets shall have been emptied and secured; 14. Refuse bins shall have been emptied and secured; 15. Drip trays shall have been emptied and secured.			compliance and incidents.		
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8.6.29 Dismantling of Old Equipment

Management Objective: Impact to the environment to be minimised during the dismantling, storage and disposal of old equipment commissioning					
Management Outcome: Site closure procedures are implemented in accordance with the EMP					
Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
1. All old equipment removed during the project must be stored in such a way as to prevent pollution of the environment; 2. Oil containing equipment must be stored to prevent leaking or be stored on drip trays; 3. All scrap steel must be stacked neatly and any disused and broken insulators must be stored in containers; 4. Once material has been scrapped and the contract has been placed for removal, the disposal Contractor must ensure that any equipment containing pollution causing substances is dismantled and transported in such a way as to prevent spillage and pollution of the environment;	Contractor	Construction	Monitor compliance and record non-compliance and incidents.	Monthly	ECO and Project Developer

5. The Contractor must also be equipped to contain and clean up any pollution causing spills;					
6. Disposal of unusable material must be at a registered waste disposal site and a certificate of disposal must be obtained and copied to the developer.					

8.6.30 Landscaping and Rehabilitation

Management Objective: Areas disturbed during construction are returned to a state that approximates the state which they were before disruption					
Management Outcome: Landscaping and rehabilitation is undertaken in accordance with the approved rehabilitation plan/specification					
Impact Management Actions	Implementation		Monitoring		
	Responsible person	Time Period	Method	Frequency	Mechanism for Monitoring Compliance
1. All areas disturbed by construction activities shall be subject to landscaping and rehabilitation. 2. All spoil and waste will be removed to a registered waste site and certificates of disposal provided. 3. All slopes in excess of 2% (1:50) must be contoured in accordance with the Conservation of Agricultural Resources Act, No 43 of 1983. 4. All slopes in excess of 12% (1:8.3) must be terraced in accordance with the Conservation of Agricultural Resources Act, No 43 of 1983. 5. Rehabilitation of project sites shall be undertaken in accordance with civil designs. 6. Indigenous species will be used for replanting. 7. Stockpiled topsoil shall be used for rehabilitation (refer to Section: Stockpiling and stockpiled areas). 8. Stockpiled topsoil will be evenly spread so as to facilitate seeding and minimise loss of soil due to erosion. 9. Before placing topsoil, all visible weeds from the placement area and from the topsoil shall be removed. 10. Subsoil shall be ripped before topsoil is placed. 11. The project shall be timed so that rehabilitation can take place at the optimal time for vegetation establishment.	Contractor	Construction	Monitor compliance and record non-compliance and incidents.	Weekly	Method Statement ECO and Project Manager

<p>12. Where impacted through construction related activity, all sloped areas must be stabilised to ensure proper rehabilitation is effected and erosion is controlled as per the instruction from the ECO.</p> <p>13. Sloped areas stabilised using design structures or vegetation as specified in the design to prevent erosion of embankments. The contract design specifications must be adhered to and implemented strictly;</p> <p>14. Where required, re-vegetation can be enhanced using a vegetation seed mixture as described below. A mixture of seed can be used provided the mixture is carefully selected to ensure the following:</p> <ul style="list-style-type: none"> a) Annual and perennial plants are chosen. b) Pioneer species are included. c) Species chosen must grow in the area without any problems. d) Root systems must have a binding effect on the soil. e) The final product should not cause an ecological imbalance in the area. <ul style="list-style-type: none"> • (EA-43) All areas of disturbed soil must be reclaimed using only indigenous grass and shrubs. Reclamation activities shall be undertaken according to the rehabilitation plan indicated in the EMPr. • (EA-45) No exotic plants must be used for rehabilitation purposes; only indigenous plants of the area must be utilised. • (EA-47) Disturbed areas must be rehabilitated as soon as possible after construction with locally indigenous plants to enhance the conservation of existing natural vegetation on site. 					
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ANNEXURE A1: DECLARATION OF UNDERSTANDING - DEVELOPER

DECLARATION OF UNDERSTANDING

I, _____
representing _____

declare that I have read and understood the contents of the Environmental Management Programme for

Contract: _____

I also declare that I am able and shall comply with all legislation pertaining to the nature of work to be done and all things incidental thereto.

I further declare that I understand my responsibilities in terms of enforcing and implementing the Environmental Specifications for the aforementioned Contract.

Signed: _____

Place: _____

Date: _____

Witness 1: _____

Witness 2: _____

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Contractor

Witness for
Contractor

Employer

Witness for
Employer

ANNEXURE A2: DECLARATION OF UNDERSTANDING - CONTRACTOR

DECLARATION OF UNDERSTANDING

I, _____
representing _____

declare that I have read and understood the contents of the Environmental Management Programme for
Contract _____

I also declare that I understand my responsibilities in terms of enforcing and implementing the Environmental Specifications for the aforementioned Contract.

Signed: _____

Place: _____

Date: _____

Witness 1: _____

Witness 2: _____

Contractor

Witness for
Contractor

Employer

Witness for
Employer

ANNEXURE A3: PRO FORMA: PROTECTION OF THE ENVIRONMENT

PRO FORMA

Employer: _____

Contract No: _____

Contract title: _____

PROTECTION OF THE ENVIRONMENT

The Contractor will not be given right of access to the Site until this form has been signed

I/ we,{Contractor} record as follows:

1. I/ we, the undersigned, do hereby declare that I/ we am/ are aware of the increasing requirement by society that construction activities shall be carried out with due regard to their impact on the environment.
2. In view of this requirement of society and a corresponding requirement by the Employer with regard to this Contract, I/ we will, in addition to complying with the letter of the terms of the Contract dealing with protection of the environment, also take into consideration the spirit of such requirements and will, in selecting appropriate employees, plant, materials and methods of construction, in-so-far as I/ we have the choice, include in the analysis not only the technical and economic (both financial and with regard to time) aspects but also the impact on the environment of the options. In this regard, I/ we recognise and accept the need to abide by the "precautionary principle" which aims to ensure the protection of the environment by the adoption of the most environmentally sensitive construction approach in the face of uncertainty with regard to the environmental implications of construction.
3. I/we have signed the Declaration of Understanding with respect to the Environmental Management Plan
4. I/ we acknowledge and accept the right of the Developer to deduct, should he so wish, from any amounts due to me/ us, such amounts (hereinafter referred to as fines) as the Project Manager (PM) / Environmental Control Officer (ECO) shall certify as being warranted in view of my/ our failure to comply with the terms of the Contract dealing with protection of the environment, subject to the following:
 - 4.1 The Project Manager (PM) / Environmental Control Officer (ECO), in determining the amount of such fine, shall take into account inter alia, the nature of the offence, the seriousness of its impact on the environment, the degree of prior compliance/non-compliance, the extent of the Contractor's overall compliance with environmental protection requirements and, in particular, the extent to which he considers it necessary to impose a sanction in order to eliminate/reduce future occurrences
 - 4.2 The Project Manager (PM) / Environmental Control Officer (ECO) shall, with respect to any fine imposed, provide me/ us with a written statement giving details of the offence, the facts on which the Project Manager (PM) / Environmental Control Officer (ECO) has based his assessment and the terms of the Contract (by reference to the specific clause) which has been contravened.

Signed

Date

CONTRACTOR

 Contractor

 Witness for
Contractor

 Employer

 Witness for
Employer

ANNEXURE B: METHOD STATEMENTS

APPENDIX 1: Alien plant species eradication plan

Responsibility	Project Manager, Contractor and ECO (SANParks)
Objective	To minimise or prevent degradation impacts by maintaining or restoring key ecological processes which support long term persistence of biodiversity.
Legal Framework	<p>Conservation of Agricultural Resources Act (Act No. 43 of 1983)</p> <p>In terms of the amendments to the regulations under the Conservation of Agricultural Resources Act (Act No. 43 of 1983), all declared aliens must be effectively controlled. Landowners are legally responsible for the control of invasive alien plants on their properties. In terms of this Act 198 alien species were listed as declared weeds and invaders and ascribed to one of the following categories:</p> <ul style="list-style-type: none"> • Category 1: Prohibited and must be controlled. • Category 2 (commercially used plants): May be grown in demarcated areas provided that there is a permit and that steps are taken to prevent their spread. • Category 3 (ornamentally used plants): May no longer be planted. Existing plants may be retained as long as all reasonable steps are taken to prevent the spreading thereof, except within the flood line of watercourses and wetlands. <p>National Environmental Management: Biodiversity Act, 2004 (Act No.10 of 2004)</p> <p>The National Environmental Management: Biodiversity Act (NEMBA) regulates all invasive organisms in South Africa, including a wide range of fauna and flora. Regulations have been published in Government Notices R.506, R.507, R.508 and R.509 of 2013 under NEMBA. According to this Act and the regulations, any species designated under section 70 cannot be propagated, grown, bought or sold without a permit. Below is an explanation of the three categories :</p> <ul style="list-style-type: none"> • Category 1a: Invasive species requiring compulsory control. Any specimens of Category 1a listed species need, by law, to be eradicated from the environment. No permits will be issued. • Category 1b: Invasive species requiring compulsory control as part of an invasive species control programme. Remove and destroy. These plants are deemed to have such a high invasive potential that infestations can qualify to be placed under a government sponsored invasive species management programme. No permits will be issued. • Category 2: Invasive species regulated by area. A demarcation permit is required to import, possess, grow, breed, move, sell, buy or accept as a gift any plants listed as Category 2 plants. No permits will be issued for Cat 2 plants to exist in riparian zones. • Category 3: Invasive species regulated by activity. An individual plant permit is required to undertake any of the following restricted activities (import, possess, grow, breed, move, sell, buy or accept as a gift) involving a Category 3 species. No permits will be issued for Cat 3 plants to exist in riparian zones. <p>It is important to note that alien species that are regulated in terms of the Conservation of Agricultural Resources Act (Act 43 of 1983) (CARA) as weeds and invader plants are exempted from NEMBA. This implies that the provisions of the CARA in respect of listed weed and invader plants supersede those of NEMBA.</p>

Impact	Continued movement of personnel and vehicles on and off the site, as well as occasional delivery of materials required for maintenance, will result in a risk of importation of alien species throughout the life of the project.
Clearing Methods	<p>All AIS (Alien and invasive species) have been put through the NEM:BA decision making process and assigned to different management aims in relation to each AIS or group of AIS habit as well as the zonation of the park taking into consideration invasion corridors. In addition, preferred treatment methods have been identified for each of the key species or species groups.</p> <p>Control methods implemented to date by both park management as well as the BSP have been effective and do follow the guiding principles. This has included both (i) mechanical and chemical as (ii) manual control methods. In the case of <i>Prosopis</i>, the key to suppression and eradication is ensuring the correct follow-up periods are adhered to.</p> <p>Note: Alien invasive vegetation will removed in line with relevant SANParks and provincial procedures, guidelines and recommendations) and disposed of at a licenced waste disposal facility. Park Management in conjunction with SANParks Scientific Services will specify preferred control and treatments methods.</p>

Construction Phase

Mitigation Measures	Actions	Responsibility	Timeframe
	The Environmental Control Officer (ECO) is to provide permission before any natural vegetation is to be cleared for development.	ECO	Daily / when required
	Clearing of vegetation must be undertaken as the work front progresses. Mass clearing is not to be permitted unless the entire cleared area is to be rehabilitated immediately thereafter.	Contractor / ECO	Weekly
	Should revegetation not be possible immediately, the cleared areas must be protected with packed brush or appropriately battered with fascine work (fixing horizontal branches along the ground using vertical pegs to create resistance to down-slope flow of water/materials). Alternatively, jute (Soil Saver) may be pegged over the soil to stabilize it.	Contractor / ECO	Weekly
	Organic matter used to encourage regrowth of vegetation on cleared areas should not be brought onto site from foreign areas. Brush from cleared areas should be used as much as possible. Arid areas generally have low organic content in the soil and the use of manure or other soil amendments should not be used as this would encourage invasion.	Contractor / ECO	Weekly
	Care must be taken to avoid the introduction of alien invasive plant species to the site. Particular attention must be paid to imported material such as building sand or dirty earth-moving equipment. Stockpiles should be checked regularly and any weeds emerging from material stockpiles should be removed.	Contractor / ECO	Weekly
	ECO to survey site once a month to detect aliens and have them removed.	Contractor / ECO	Monthly
	Alien vegetation regrowth must be controlled throughout the entire site during the construction period.	Contractor / ECO	Monthly
	The alien plant removal and control method guidelines should adhere to best practice for the species concerned. Such information can be obtained from the Working for Water	Contractor / ECO / SANParks	Monthly

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	website as well as herbicide guidelines.		
	Clearing activities must be contained within the affected zones and may not spill over into adjacent no-go areas. No-go areas should be clearly demarcated prior to construction.	Contractor / ECO	Weekly
Operational Phase The Park Management Plan Lower Level Plan for Management of Invasive Alien Species is applicable. Attached as Appendix 2B.			
Sub-objectives	Actions	Responsibility	Timeframe
To systematically survey and list alien species in and around the park.	Survey the site/s, to determine alien and invasive species (fauna and flora) abundance and distribution, and maintain updated species lists.	Park Management	Annually
	Monitor the spread of high priority species (fauna and flora).	Park Management	Ongoing
To prevent, where possible, the introduction of alien species.	Prohibit the presence of alien species (fauna and flora) in staff quarters and tourism accommodation.	Park Management	Ongoing
	Monitor, and / or where necessary, manage previously degraded areas within the site/s to reduce post clearing reinvasion.	Park Management	Ongoing
To ensure the effective and timely development and implementation of integrated control strategies, in such a manner that rapid response and long-term maintenance goals are met.	Introduce biological control agents (where applicable) and / or other appropriate and novel methods (subject to risk-benefit evaluation) where appropriate and necessary.	Park Management	Annually
	Maintain control of alien invasive species according to the NEM:BA clearing plans ascribed to per species.	Park Management	Annually
	Eradicate, where possible, all new incursions of alien species (fauna and flora) and monitor the efficiency of the eradication programme.	Park Management	Ongoing

Contractor

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Annexure C

Code of Conduct for Working in a National Park

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Employer



SOUTH AFRICAN NATIONAL PARKS

Project: CONSTRUCTION OF 6 STAFF HOUSES AT RHODESDRIFT STAFF VILLAGE IN MAPUNGBWE NATIONAL PARK AND WORLD HERITAGE SITE

CODE OF CONDUCT FOR WORKING IN A NATIONAL PARK

OUTSIDE ORGANISATIONS WORKING TEMPORARILY IN A NATIONAL PARK

CODE OF CONDUCT FOR PERSONNEL FROM OTHER ORGANISATIONS TEMPORARILY WORKING IN NATIONAL PARKS

1. INTRODUCTION

You will presently begin an important task in a national park, which is an area controlled by South African National Parks (SANParks). For obvious reasons your task must be completed in the shortest possible time and to accomplish this, there has to be co-operation at all levels between yourselves and personnel from SANParks.

In the past, you and your sub-ordinates worked in uncontrolled areas, but you are presently in a controlled area and furthermore in a national park.

As the name implies, the main objective with a national park is the protection, conservation and utilization of our heritage, in such a way to allow future generations to enjoy, appreciate and admire nature in its unspoiled state. This great endeavour can only be achieved if every individual who works in a national park admits to and accepts nature conservation as part of their heritage (daily life). Certain procedures were followed in the past to accomplish your tasks, but now you must accept that adaptations will have to be made to complete your task in a national park without disturbing the natural environment.

You will also be subjected to certain necessary restrictions during your stay and operations in a national park. Certain expectations will be made in accordance with your work commitments. Restrictions will be kept to a minimum, those that are enforced must please be respected and seen in a positive light to promote co-operation and to prevent any unpleasantness.

Depending on where you are resident while working in a national park, you are requested to discuss any problems you may encounter, with the Park Manager, (*Section Ranger or the person in charge of Visitor Services*). You can be assured that these officials will do everything in their power to ensure that you have a pleasant and productive stay in the national park.

Please study and commit yourself to the attached Code of Conduct.

Any uncertainties must be cleared up with a SANParks' official.

We wish you a pleasant and productive stay in our national parks.

2. PRINCIPLES WITH RESPECT TO BEHAVIOUR AND DISCIPLINE

All persons residing in or working in a national park, are subject to the National Environmental Management Protected Areas Act 57 of 2003.

The following principles should be complied with at all times in a national park:

- 2.1 No prospecting or mining is allowed on any land forming part of a national park or protected area.
- 2.2 No person, except an employee authorised by SANParks may:
 - 2.2.1 Enter or reside in a national park without permission;

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Contractor

Employer

Witness for
Employer

- 2.2.2 Be in possession of an unsealed weapon, explosives, traps or poison in the park or convey the same into a park;
- 2.1.3 Hunt or kill an animal, collect, damage or destroy a bird's nest or it's eggs;
- 2.1.4 Purposely or negligently cause a veld fire or damage any object of geological, archaeological, historical, ethnological or of any other scientific value to SANParks;
- 2.1.5 Bring any animal or pet into a national park or allow domestic animals to stray into a national park, if found it will be confiscated and destroyed by an official;
- 2.1.6 Remove any animal (dead or alive) or parts thereof from the park (unless lawfully brought into the park);
- 2.1.7 Cut down trees or remove plants from a park or in any way damage any tree, plant or seeds;
- 2.1.8 Feed animals in national parks;
- 2.1.9 Drive a vehicle without a licence or allow a minor to drive a vehicle under his control;
- 2.1.10 Spend the night anywhere in a national park, (other than in a designated area) except in a rest camp or private home, without the permission of SANParks;
- 2.1.11 Enter a national park in an:
- Unlicensed (or unregistered) vehicles;
 - Enter or use any closed road (no entry);
- 2.1.12 Vehicles may not be driven recklessly or negligently in a national park.
- 2.1.13 All drivers must consider other drivers and all animals.
- 2.1.14 No person under the influence of alcohol or drugs may drive a vehicle in a national park or be in the driver's seat of a vehicle with the engine running.
- 2.1.15 Without special permission, no person may organize or perform public entertainment or fund-raising campaigns.
- 2.1.16 Angling in rivers or dams is prohibited.
- 2.1.17 Angling, where permitted, is only allowed from sunrise to sunset.
- 2.1.18 Swimming is prohibited at designated angling areas.
- 2.1.19 No person may damage property or endanger property belonging to SANParks.
- 2.1.20 No person may use a radio or musical instruments in such a way as to cause a disturbance to others.
- 2.1.21 No person may dispose of any article or rubble other than in containers provided by SANParks.
- 2.1.22 No person may remove sand, stone or wood without the permission of SANParks.

- 2.1.23 Unless issued with an official late permit, no one may travel from a rest camp or entry gate after gate closing times. Permits are issued by the Park Manager or designated person after acceptance of a legitimate motivation.
- 2.1.24 The proclaimed speed limit in a national park must be strictly adhered to, except if and when concessionary speed limits have been approved.

3. RESPONSIBILITIES TOWARDS NATURE CONSERVATION

- 3.1 Antiquities or objects of historical value which you may discover during your operation in a national park, are and remain the property of SANParks. These items must be handed the Park Manager or designated person as soon as possible. Any person found possession of such articles, either to keep or sell, will be liable to prosecution.
- 1.2 No firewood may be collected or removed without the permission of a Nature Conservation official. Under no circumstances will permission be granted to remove firewood from the park unless proof of sale from one of the shops can be produced.
- 1.3 Stone, sand and/or soil may not be removed from any area, unless permission has been granted by the Park Manager or designated person. These products may only be removed from sites specified by the Park Manager.
- 1.4 On request, the Park Manager or local Section Ranger will point out to the foreman, the sites allowed for removal of stone, sand and/or water for building or other purposes. No water may be taken from existing boreholes unless the Park Manager or designated person gives permission.
- 1.5 The removal, cutting down or damage to any living plant in a national park is illegal and may only be done with permission. Where the construction of roads, buildings etc. necessitates the destroying of indigenous trees, shrubs or plants, it must be kept to an absolute minimum.
- 1.6 Gravel pits must, where at all possible, not be visible from any road. After construction, these gravel pits must be rehabilitated as per contract document and/or Environmental Management Plan.
- 1.7 No animals may be killed in the park.
- 1.8 Other than SANParks employees, personnel resident in a park, but not employed by SANParks, may only kill an animal in an emergency, to protect a life or property or when specifically authorised to do so by SANParks. A report of all animals killed and the circumstance surrounding it, must be sent to the Park Manager or designated person as soon as possible.

NB Snakes may only be killed in residences, rest camps and living quarters if it cannot be captured and removed by a knowledgeable person. Under no circumstances may poisonous or non-poisonous snakes be killed in the bush or elsewhere. Residents in a park are encouraged to study the poisonous and non-poisonous snake species for their own protection.

Contractor

Witness for
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Employer

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4. FIREARMS

Only authorised persons are allowed to possess firearms in a park. Firearms will only be allowed in exceptional circumstances, where an employee may need it in the execution of his duties and will be subject to certain strict conditions.

5. LITTER

All residents and work teams are expected to have proper respect towards the scenic beauty of a national park and not litter tins, paper etc. as well as construction debris, where new roads, bridges, dams or buildings are being constructed. It is the duty of the contractor and/or his supervisors to ensure that after completion of the projects, all litter is carted away. Under no circumstances may this litter be dumped in the bush or anywhere else. It is your responsibility to find out from the Park Manager or designated person if and where litter may be dumped. Littering is a serious offence and perpetrators can be prosecuted.

NB: After completion of any project, a contractor is required to obtain a report from the Park Manager declaring his satisfaction with the condition of the terrain and immediate surroundings.

6. PETS

No dogs or other pets are allowed in a national park without written permission of the Executive Director: Parks.

7. PERSONNEL RELATIONS

7.1 Park Managers or any designated person are officials of the SANParks and are responsible for the enforcement of the Protected Areas Act 57, 2003 in their respective parks. To uphold the organization's authority, they have to be aware of all activities and especially extraordinary activities in their park. It is therefore not only a matter of courtesy but of necessity to report all activities to the Park Manager. It is very important that all new building activities, the construction of new roads, etc., be reported by the supervisor to the Park Manager. It is just as important to report the use of firebreak roads as well as unscheduled night trips to the Park Manager.

7.2 No person residing or working in a rest camp may leave the rest camp gate after gate closing times, without the Park Manager's or designated person's permission.

8. TRAVELLING TIMES AND TRANSPORT MATTERS

8.1 All private and official trips within a national park, must be undertaken during daylight hours and permission to travel after-hours will only be given in emergencies, by the Park Manager or designated person.

8.2 No person (employee or visitor) may transport passengers on the back of an open vehicle within a national park, unless in the execution of official duties.

9. ROAD RULES AND SPEED LIMITS**9.1 Road Rules**

All personnel, whether in an official or private capacity, must ensure that their driving sets an example to other drivers. Although all people working in a park with the necessary approval, may drive at a faster speed than the tourists, they must do this as unobtrusively as possible by approaching another vehicle at a decreased speed, passing it and then accelerating slowly to the required speed. As soon as an oncoming vehicle is in sight, speed must once again be decreased until the vehicle is out of sight.

9.2 Speed limit for personnel

All employees of SANParks, as well as employees from outside organizations with written consent working in a national park, may travel at a maximum speed of 65km/h during the day and 50km/h at night regardless of the speed limit. These speed limits are applicable to all official trips and may only be exceeded in emergencies. Personnel and/or their spouses may also drive at 65km/h during the day, whilst in their private vehicles en route to the entrance gate closest to their residence. During private trips in the rest of the park, the designated speed limit has to be adhered to as well as in all the rest camps and personnel villages.

Please take note that all transgressors of this privilege will be prosecuted in the same way as tourists who disregard the speed limit.

10. CONTROL AT ENTRANCE AND RESTCAMP GATES

When entering or leaving an entrance gate of a national park, you must identify yourself to the tourist officer in charge. No one may leave a rest camp after hours unless the Park Manager or designated person has granted permission and anyone arriving after hours at a rest camp must report to the Park Manager or designated person.

11. ENTRANCE TO NO-ENTRY ROADS**Fire-break and patrol roads**

Please take note that no one may drive along a fire-break or patrol road with a no-entry sign in their private capacity or along any road which has been closed in any way. Only the Park Manager or designated person may give permission to do so. When a fire-break or patrol road has to be used officially the Park Manager or designated person must preferably be given prior notice of the date and the route. If it is not possible to notify him, it must be done immediately on completion of the trip.

12. GUEST PRIVILEGES

Arrangements regarding guests must be made by the site supervisor with the Park Manager or designated person.

Only immediate family members (parents and children) will be allowed free access to a national park with the permission of the Park Manager or designated person.

Contractor

Witness for
Contractor

Employer

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Employer

13. GENERAL DISCIPLINE

It is the responsibility of every supervisor in a park to ensure that the following rules and regulations are brought to the attention of every employee under their supervision and to see that it is adhered to.

13.1 Every employee residing in living quarters in a rest camp or on a designated site must:

- 13.1.1 Obey all reasonable and lawful rules given by the Park Manager or designated person;
- 13.1.2 Reside only in specific quarters/designated site reserved for them;
- 13.1.3 Maintain cleanliness and sanitation in his place of residence.

13.2 No person residing, working or officially present in a park, is allowed to:

- 13.2.1 Accommodate any unauthorised person, assist him or give him permission to enter or live in any designated living areas;
- 13.2.2 Behave in such a way as to be detrimental to maintaining discipline, order for health in such living areas;

13.3 Without written permission from the Park Manager or designated person;

- 13.3.1 Keep live animals or poultry;
- 13.3.2 Excavate or have excavations made
- 13.3.3 Build or make any alterations to existing building;

13.4 In any way, either directly or indirectly, hinder any employee, Security Officer, Ranger or anyone authorised by the Park Manager, in the execution of their duties; inspections or any investigations deemed necessary or purposely hinder, obstruct, mislead or refuse to divulge information when requested to, or refuse to assist in any way or heed legitimate request or command.

13.5 Purposely disturb the peace by making a noise, shouting, screaming, arguing, causing violence or acting violently or improperly.

13.6 Enter or leave a Park or living quarters other than through the official gates.

13.7 Gamble in any way.

13.8 Defecate in a place or manner as to offend any other person.

13.9 Dispose of rubble or leftovers in any place other than in bins provided.

13.10 Aimlessly loiter or hang around near or in a rest camp or personnel accommodation at any time.

13.11 Introduce, brew or be in possession of alcohol.

13.12 Be in possession of habit forming drugs.

13.13 Be in possession of any fresh meat, especially raw venison or other animal products and, if required legally, it may not be transported out of the park without the necessary veterinary permits.

13.14 Hitch-hike in a national park.

13.15 Possess a firearm or any dangerous weapon without the necessary permission or permit.

13.16 Where work teams reside and work in the field, wander away from the work site or living quarters.

13.17 Temporary work teams (supervisors excluded) are not allowed to receive visitors in a national park.

13.18 It is the contractor's responsibility to ascertain the rules and regulations laid down by SANParks.

14. MALARIA AND MALARIA CONTROL

Some of the national parks, e.g. Kruger National Park and Mapungubwe National Park are in an endemic malaria area and the residents are constantly exposed to the disease and must be aware of the fact.

Malaria is a potentially dangerous disease and if not treated timeously and correctly, can be fatal. It is therefore extremely important that all residents, their children and their employees take adequate preventative measure to protect themselves from disease. Malaria is a disease caused by small parasites, which destroy red blood corpuscles of an affected person. Parasites are transmitted from person to person by the *Anopheles* mosquitoes. Various types of malaria occur of which *plasmodium falciparum* is the most common and also the most dangerous.

The possibility of contracting the disease can be reduced by avoiding mosquito bites and taking prophylactics which prevent the development of parasites in the body. Please contact the local physician for precautionary measures or if you think you have malaria.

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Employer

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