



NEC3 Engineering & Construction Contract

Between **ESKOM HOLDINGS SOC Ltd**
(Reg No. 2002/015527/30)

and **[Insert at award stage]**
(Reg No. _____)

for **Raw Water Contamination Project (Majuba internal
roads rehabilitation project)**

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CONTRACT No.

Part C1: Agreements & Contract Data

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C1.1 Form of Offer & Acceptance

Offer

The *Employer*, identified in the Acceptance signature block, has solicited offers to enter into a contract for the procurement of:

Raw Water Contamination Project (Majuba internal roads rehabilitation)

The tenderer, identified in the Offer signature block, has examined the documents listed in the Tender Data and addenda thereto 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.

Options A	The offered total of the Prices exclusive of VAT is	R [●]
	Sub total	R [●]
	Value Added Tax @ 15% is	R [●]
	The offered total of the amount due inclusive of VAT is ¹	R [●]
	(in words) [●]	

This Offer may be accepted by the *Employer* by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document including the Schedule of Deviations (if any) to the tenderer before the end of the period of validity stated in the Tender Data, or Other period as agreed, whereupon the tenderer becomes the party named as the *Contractor* in the *conditions of contract* identified in the Contract Data.

Signature(s)

Name(s) _____

Capacity _____

For the tenderer:

(Insert name and address of organisation)

Name & signature of witness

Date

Tenderer's CIDB registration number (if applicable)

¹ This total is required by the *Employer* for budgeting purposes only. Actual amounts due will be assessed in terms of the *conditions of contract*.

Acceptance

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 Form of Offer and Acceptance)
Part C2	Pricing Data
Part C3	Scope of Work: <i>Works</i> Information
Part C4	Site Information

and drawings and documents (or parts thereof), which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Returnable 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 Form of Offer and Acceptance. No amendments to or deviations from said documents are valid unless contained in this Schedule.

The tenderer shall within two weeks of receiving a completed copy of this agreement, including the Schedule of Deviations (if any), contact the *Employer's* agent (whose details are given in the Contract Data) to arrange the delivery of any 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 at, or just after, the date this agreement comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the tenderer receives one fully completed original copy signed between them of this document, 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)

Name(s)

Capacity

**for the
Employer**

.....
(Insert name and address of organisation)

Name &
signature of
witness

Date

Note: If a tenderer wishes to submit alternative tenders, use another copy of this Form of Offer and Acceptance.

Schedule of Deviations to be completed by the *Employer* prior to contract award

No.	Subject	Details
1		
2		
3		
4		
5		
6		
7		

By the duly authorised representatives signing this Schedule of Deviations below, the *Employer* and the tenderer agree to and accept this Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Tender Schedules, as well as any 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 Form shall have any meaning or effect in the contract between The Parties arising from this Agreement.

	For the tenderer:	For the <i>Employer</i>
Signature	_____	_____
Name	_____	_____
Capacity	_____	_____
On behalf of	(Insert name and address of organisation)	(Insert name and address of organisation)
Name & signature of witness	_____	_____
Date	_____	_____

C1.2 ECC3 Contract Data

Part one - Data provided by the *Employer*

Clause	Statement	Data
1	General	
	The <i>conditions of contract</i> are the core clauses and the clauses for main Option	
	dispute resolution Option	A: Priced contract with activity schedule
	and secondary Options	W1: Dispute resolution procedure
		X1: Price adjustment for inflation
		X2: Changes in the law
		X5: Sectional Completion
		X7: Delay damages
		X13: Performance Bond
		X16: Retention
		Z: <i>Additional conditions of contract</i>
	of the NEC3 Engineering and Construction Contract, April 2013 (ECC3)	
10.1	The <i>Employer</i> is (Name):	Eskom Holdings SOC Ltd (reg no: 2002/015527/30), a state owned company incorporated in terms of the company laws of the Republic of South Africa
	Address	Registered office at Megawatt Park, Maxwell Drive, Sandton, Johannesburg
10.1	The <i>Project Manager</i> is: (Name)	Siphesihle Mbebeza
	Address	Majuba Power Station Private Bag 9001 Volksrust 2470
	Tel	017 799 2245
	Fax	017 799 2245
	e-mail	Mbebez@eskom.co.za

10.1	The <i>Supervisor</i> is: (Name)	Sindi Zuma	
	Address	Majuba Power Station Private Bag 9001 Volksrust 2470	
	Tel No.	017 799 3242	
	Fax No.	017 799 3242	
	e-mail	ZumaSPi@eskom.co.za	
11.2(13)	The <i>works</i> are	Raw Water Contamination Project (Majuba internal roads rehabilitation project)	
11.2(14)	The following matters will be included in the Risk Register	<ol style="list-style-type: none"> 1. Community strikes 2. Natural disasters 3. Unprecedented pandemic 4. Undocumented underground utilities 5. Delays due to unavailability of Plant if hired. 6. Adverse weather conditions 	
11.2(15)	The <i>boundaries of the site</i> are	Internal roads at Majuba Power Station	
11.2(16)	The Site Information is in	Part 4: Site Information	
11.2(19)	The <i>Works</i> Information is in	Part 3: Scope of Work and all documents and drawings to which it makes reference.	
12.2	The <i>law of the contract</i> is the law of	the Republic of South Africa	
13.1	The <i>language of this contract</i> is	English	
13.3	The <i>period for reply</i> is	3 working days	
2	The Contractor's main responsibilities	Data required by this section of the core clauses is provided by the Contractor in Part 2 and terms in italics used in this section are identified elsewhere in this Contract Data.	
3	Time		
11.2(3)	The Completion Date for the whole of the <i>works</i> is	31 May 2027	
11.2(9)	The Key Dates and the <i>conditions</i> to be met are:	Condition to be met	Key Date
		1	
		Ring road south	
		Traffic management set up	14 August 2026
		Complete base layer	28 August 2026
		Asphalt surfacing	04 September 2026
		Road marking	11 September 2026

	2	Contractor's yard road network	
		Traffic management set up	25 September 2025
		Complete base layer	09 October 2026
		Asphalt surfacing	16 October 2026
		Road marking	23 October 2026
	3	Ash haul road 1	
		Traffic management set up	06 November 2026
		Complete base layer	27 November 2026
		Asphalt surfacing	04 December 2026 (1 week)
		Road marking	11 December 2026
	4	Ash haul road 2	
		Traffic management set up	24 December 2026
		Complete base layer	22 January 2027
		Asphalt surfacing	5 February 2027
		Road marking	12 February 2027
5	As built drawings	30 April 2027	
6	Demobilizing	31 May 2027	

30.1 The access dates are:

	Part of The Site	Date
1	Ring road south	01 July 2026
2	Contractor's yard road network	01 August 2026
3	Ash haul road 1	01 September 2026
4	Ash haul road 2	01 October 2026

31.1	The <i>Contractor</i> is to submit a first programme for acceptance within	2 weeks from the <i>starting date</i>.
31.2	The <i>starting date</i> is	01 June 2026
32.2	The <i>Contractor</i> submits revised programmes at intervals no longer than	1 week However, the <i>Employer</i> may request more frequent programme update submissions at any time during the <i>works</i>, as and when necessary, at no additional cost.
35.1	The <i>Employer</i> is not willing to take over the <i>works</i> before The Completion Date.	[No data needed if this statement is included]

4 Testing and Defects

42.2	The Defects <i>date</i> is	52 weeks after Completion of the whole of the <i>works</i>.
43.2	The Defect <i>correction period</i> is	2 weeks

5 Payment

50.1	The <i>assessment interval</i> is	5 working days after Completion of each payment milestone as agreed for this contract.
51.1	The <i>currency of this contract</i> is the	South African Rand.
51.2	The period within which payments are made is	30 days after submission of the invoice, as applicable to the contract.
51.4	The <i>interest rate</i> is	<p>the publicly quoted prime rate of interest (calculated on a 365 day year) charged from time to time by the Standard Bank of South Africa Limited (as certified, in the event of any dispute, by any manager of such bank, whose appointment it shall not be necessary to prove) for amounts due in Rands and</p> <p>(ii) the LIBOR rate applicable at the time for amounts due in Other currencies. LIBOR is the 6 month London Interbank Offered Rate quoted under the caption "Money Rates" in The Wall Street Journal for the applicable currency or if no rate is quoted for the currency in question then the rate for United States Dollars, and if no such rate appears in The Wall Street Journal then the rate as quoted by the Reuters Monitor Money Rates Service (or such service as may replace the Reuters Monitor Money Rates Service) on the due date for the payment in question, adjusted <i>mutatis mutandis</i> every 6 months thereafter and as certified, in the event of any dispute, by any manager employed in the foreign exchange department of The Standard Bank of South Africa Limited, whose appointment it shall not be necessary to prove.</p>

6 Compensation events

60.1(13) The place where weather is to be recorded is: **Majuba Power Station**

The *weather measurements* to be recorded for each calendar month are, **the cumulative rainfall (mm)**

the number of days with rainfall more than 10 mm

the number of days with minimum air temperature less than 0 degrees Celsius

the number of days with snow lying at 09:00 hours South African Time

and these measurements:

The *weather measurements* are supplied by **South African Weather Bureau**

The *weather data* are the records of past *weather measurements* for each calendar month which were recorded at: **Volksrust**

and which are available from: **the South African Weather Bureau and included in Annexure A to this Contract Data provided by the *Employer***

60.1(13)	Assumed values for the ten-year return <i>weather data</i> for each <i>weather measurement</i> for each calendar month are:	As stated in Annexure A , Part 1 and Part 4, Site Information, section 8.10 - Precipitation
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7	Title	There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.
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8	Risks and insurance	
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80.1	These are additional <i>Employer's</i> risks	As listed under Contract Data 11.2(14)
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9	Termination	There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.
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10	Data for main Option clause	
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A	Priced contract with activity schedule	There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.
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11	Data for Option W1	
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W1.1	The <i>Adjudicator</i> is	the person selected from the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering Panel of <i>Adjudicators</i> by the Party intending to refer a dispute to him. (see www.ice-sa.org.za). If The Parties do not agree on an <i>Adjudicator</i> the
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Adjudicator will be appointed by the Arbitration Foundation of Southern Africa (AFSA).

Address

Tel No.

Fax No.

e-mail

W1.2(3)	The <i>Adjudicator nominating body</i> is:	the Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering and the London Institution of Civil Engineers. (See www.ice-sa.org.za) or its successor body.
W1.4(2)	The <i>tribunal</i> is:	arbitration.
W1.4(5)	The <i>arbitration procedure</i> is	the latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.
	The place where arbitration is to be held is	South Africa
	The person or organisation who will choose an arbitrator	
	- if The Parties cannot agree a choice or	the Chairman for the time being or his nominee of the Association of Arbitrators (Southern Africa) or its successor body.
	- if the arbitration procedure does not state who selects an arbitrator, is	

12 Data for secondary Option clauses

X1	Price adjustment for inflation		
X1.1(a)	The <i>base date</i> for indices is	One month before the contract start date. Rates will be fixed for one year, following that, annual CPA adjustments will be applied.	
X1.1(c)	The proportions used to calculate the Price Adjustment Factor are:	proportion	linked to index for
		0. 10	Labour
		0. 35	Material
		0. 20	Mobile Plant
			Index prepared by
			Seifsa Table C-3 All hourly paid employees
			CMPI P0151.1 Table 6: Civil engineering material - roads, refurbishment
			CMPI P0151.1 Table 4: Plant and Equipment

	0.10	Fuel	L-3 Diesel Prod Index (Diesel 0,005%)
	0.10	Overhead	Seifsa Table D3: Consumer Price Index (CPI)
	0.15	Fixed	Non-adjustable
	Total	1.00	

X2 Changes in the law There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.

X5 Sectional Completion

X5.1	The Completion Date for each <i>section</i> of the <i>works</i> is:		
	Section	Description	Completion Date
	1	Ring road south	11 September 2026
	2	<i>Contractor's</i> yard road network	23 October 2026
	3	Ash haul road 1	11 December 2026
	4	Ash haul road 2	12 February 2027

X5 & X7 Sectional Completion and delay damages used together

X7.1 X5.1	Delay damages for late Completion of the <i>sections</i> of the <i>works</i> are:		
	section	Description	Amount per day
	1	Ring road south	R10 000.00
	2	<i>Contractor's</i> yard road network	R10 000.00
	3	Ash haul road 1	R10 000.00
	4	Ash haul road 2	R10 000.00
	Remainder of the <i>works</i>		
	The total delay damages payable by the <i>Contractor</i> does not exceed:		R 2 500 000.00

X13 Performance bond

X13.1 The amount of the performance bond is **20% of the Contract value**

X16	Retention (not used with Option F)	
X16.1	The <i>retention free amount</i> is	R0.00
	The <i>retention percentage</i> is	5% for the works An additional 2.5% which is applicable to the fulfilment of the SDL obligations. (Total retention 7.5%)
Z	The Additional conditions of contract are	Z1 to Z15 always apply.

Z1 Cession delegation and assignment

- Z1.1 The *Contractor* does not cede, delegate or assign any of its rights or obligations to any person without the written consent of the *Employer*.
- Z1.2 Notwithstanding the above, the *Employer* may on written notice to the *Contractor* cede and delegate its rights and obligations under this contract to any of its subsidiaries or any of its present divisions or operations which may be converted into separate legal entities as a result of the restructuring of the Electricity Supply Industry.

Z2 Joint ventures

- Z2.1 If the *Contractor* constitutes a joint venture, consortium or Other unincorporated grouping of two or more persons or organisations then these persons or organisations are deemed to be jointly and severally liable to the *Employer* for the performance of this contract.
- Z2.2 Unless already notified to the *Employer*, the persons or organisations notify the *Project Manager* within two weeks of The Contract Date of the key person who has the authority to bind the *Contractor* on their behalf.
- Z2.3 The *Contractor* does not alter the composition of the joint venture, consortium or Other unincorporated grouping of two or more persons without the consent of the *Employer* having been given to the *Contractor* in writing.

Z3 Change of Broad Based Black Economic Empowerment (B-BBEE) status

- Z3.1 Where a change in the *Contractor's* legal status, ownership or any Other change to his business composition or business dealings results in a change to the *Contractor's* B-BBEE status, the *Contractor* notifies the *Employer* within seven days of the change.
- Z3.2 The *Contractor* is required to submit an updated verification certificate and necessary supporting documentation confirming the change in his B-BBEE status to the *Project Manager* within thirty days of the notification or as Otherwise instructed by the *Project Manager*.
- Z3.3 Where, as a result, the *Contractor's* B-BBEE status has decreased since The Contract Date the *Employer* may either re-negotiate this contract or alternatively, terminate the *Contractor's* obligation To Provide The Works.
- Z3.4 Failure by the *Contractor* to notify the *Employer* of a change in its B-BBEE status may constitute a reason for termination. If the *Employer* terminates in terms of this clause, the procedures on termination are P1, P2 and P3 as stated in clause 92, and the amount due is A1 and A3 as stated in clause 93.

Z4 Confidentiality

- Z4.1 The *Contractor* does not disclose or make any information arising from or in connection with this contract available to Others. This undertaking does not, however, apply to information which at the time of disclosure or thereafter, without default on the part of the *Contractor*, enters the public domain or to information which was already in the possession of the *Contractor* at the time of disclosure (evidenced by written records in existence at that time). Should the *Contractor* disclose information to Others in terms of clause 25.1, the *Contractor* ensures that the provisions of this clause are complied with by the recipient.
- Z4.2 If the *Contractor* is uncertain about whether any such information is confidential, it is to be regarded as such until notified Otherwise by the *Project Manager*.
- Z4.3 In the event that the *Contractor* is, at any time, required by law to disclose any such information which is required to be kept confidential, the *Contractor*, to the extent permitted by law prior to disclosure, notifies the *Employer* so that an appropriate protection order and/or any Other action can be taken if possible, prior to any disclosure. In the event that such protective order is not, or cannot, be obtained, then the *Contractor* may disclose that portion of the information which it is required to be disclosed by law and uses reasonable efforts to obtain assurances that confidential treatment will be afforded to the information so disclosed.
- Z4.4 The taking of images (whether photographs, video footage or Otherwise) of the *works* or any portion thereof, in the course of Providing the *Works* and after Completion, requires the prior written consent of the *Project Manager*. All rights in and to all such images vests exclusively in the *Employer*.
- Z4.5 The *Contractor* ensures that all his *SubContractors* abide by the undertakings in this clause.

Z5 Waiver and estoppel: Add to core clause 12.3:

- Z5.1 Any extension, concession, waiver or relaxation of any action stated in this contract by The Parties, the *Project Manager*, the *Supervisor*, or the *Adjudicator* does not constitute a waiver of rights, and does not give rise to an estoppel unless The Parties agree Otherwise and confirm such agreement in writing.

Z6 Health, safety and the environment: Add to core clause 27.4

- Z6.1 The *Contractor* undertakes to take all reasonable precautions to maintain the health and safety of persons in and about the execution of the *works*. Without limitation the *Contractor*:
- accepts that the *Employer* may appoint him as the "Principal *Contractor*" (as defined and provided for under the Construction Regulations 2014 (promulgated under the Occupational Health & Safety Act 85 of 1993) ("the Construction Regulations") for The Site;
 - warrants that the total of the Prices as at The Contract Date includes a sufficient amount for proper compliance with the Construction Regulations, all applicable health & safety laws and regulations and the health and safety rules, guidelines and procedures provided for in this contract and generally for the proper maintenance of health & safety in and about the execution of *works*; and
 - undertakes, in and about the execution of the *works*, to comply with the Construction Regulations and with all applicable health & safety laws and regulations and rules, guidelines and procedures Otherwise provided for under this contract and ensures that his *SubContractors*, employees and Others under the *Contractor's* direction and control, likewise observe and comply with the foregoing.
- Z6.2 The *Contractor*, in and about the execution of the *works*, complies with all applicable environmental laws and regulations and rules, guidelines and procedures Otherwise provided for under this contract and ensures that his *SubContractors*, employees and Others under the *Contractor's* direction and control, likewise observe and comply with the foregoing.

Z7 Provision of a Tax Invoice and interest. Add to core clause 51

- Z7.1 Within one week of receiving a payment certificate from the *Project Manager* in terms of core clause 51.1, the *Contractor* provides the *Employer* with a tax invoice in accordance with the *Employer's* procedures stated in the *Works Information*, showing the amount due for payment equal to that stated in the payment certificate.
- Z7.2 If the *Contractor* does not provide a tax invoice in the form and by the time required by this contract, the time by when the *Employer* is to make a payment is extended by a period equal in time to the delayed submission of the correct tax invoice. Interest due by the *Employer* in terms of core clause 51.2 is then calculated from the delayed date by when payment is to be made.
- Z7.3 The *Contractor* (if registered in South Africa in terms of the companies Act) is required to comply with the requirements of the Value Added Tax Act, no 89 of 1991 (as amended) and to include the *Employer's* VAT number 4740101508 on each invoice he submits for payment.

Z8 Notifying compensation events

- Z8.1 Delete from the last sentence in core clause 61.3, "unless the *Project Manager* should have notified the event to the *Contractor* but did not".

Z9 Employer's limitation of liability

- Z9.1 The *Employer's* liability to the *Contractor* for the *Contractor's* indirect or consequential loss is limited to R0.00 (zero Rand)
- Z9.2 The *Contractor's* entitlement under the indemnity in 83.1 is provided for in 60.1(14) and the *Employer's* liability under the indemnity is limited.

Z10 Termination: Add to core clause 91.1, at the second main bullet point, fourth sub-bullet point, after the words "against it":

- Z10.1 or had a business rescue order granted against it.

Z11 Addition to secondary Option X7 Delay damages (if applicable in this contract)

- Z11.1 If the amount due for the *Contractor's* payment of delay damages reaches the limits stated in this Contract Data for Option X7 or Options X5 and X7 used together, the *Employer* may terminate the *Contractor's* obligation To Provide The *Works* using the same procedures and payment on termination as those applied for reasons R1 to R15 or R18 stated in the Termination Table.

Z12 Ethics

For the purposes of this Z-clause, the following definitions apply:

- Affected Party** means, as the context requires, any party, irrespective of whether it is the *Contractor* or a third party, such party's employees, agents, or *SubContractors* or *SubContractor's* employees, or any one or more of all of these parties' relatives or friends,
- Coercive Action** means to harm or threaten to harm, directly or indirectly, an Affected Party or the property of an Affected Party, or to Otherwise influence or attempt to influence an Affected Party to act unlawfully or illegally,
- Collusive Action** means where two or more parties co-operate to achieve an unlawful or illegal purpose, including to influence an Affected Party to act unlawfully or illegally,

- Committing Party** means, as the context requires, the *Contractor*, or any member thereof in the case of a joint venture, or its employees, agents, or *SubContractor* or the *SubContractor's* employees,
- Corrupt Action** means the offering, giving, taking, or soliciting, directly or indirectly, of a good or service to unlawfully or illegally influence the actions of an Affected Party,
- Fraudulent Action** means any unlawfully or illegally intentional act or omission that misleads, or attempts to mislead, an Affected Party, in order to obtain a financial or Other benefit or to avoid an obligation or incurring an obligation,
- Obstructive Action** means a Committing Party unlawfully or illegally destroying, falsifying, altering or concealing information or making false statements to materially impede an investigation into allegations of Prohibited Action, and
- Prohibited Action** means any one or more of a Coercive Action, Collusive Action Corrupt Action, Fraudulent Action or Obstructive Action.

- Z12.1 A Committing Party may not take any Prohibited Action during the course of the procurement of this contract or in execution thereof.
- Z12.2 The *Employer* may terminate the *Contractor's* obligation to Provide the Services if a Committing Party has taken such Prohibited Action and the *Contractor* did not take timely and appropriate action to prevent or remedy the situation, without limiting any Other rights or remedies the *Employer* has. It is not required that the Committing Party had to have been found guilty, in court or in any Other similar process, of such Prohibited Action before the *Employer* can terminate the *Contractor's* obligation to Provide the Services for this reason.
- Z12.3 If the *Employer* terminates the *Contractor's* obligation to Provide the Services for this reason, the amounts due on termination are those intended in core clauses 92.1 and 92.2.
- Z12.4 A Committing Party co-operates fully with any investigation pursuant to alleged Prohibited Action. Where the *Employer* does not have a contractual bond with the Committing Party, the *Contractor* ensures that the Committing Party co-operates fully with an investigation.

Z13 Insurance

Z 13.1 Replace core clause 84 with the following:

Insurance cover 84

- 84.1** When requested by a Party, the Other Party provides certificates from his insurer or broker stating that the insurances required by this contract are in force.
- 84.2** The *Contractor* provides the insurances stated in the Insurance Table A.
- 84.3** The insurances provide cover for events which are at the *Contractor's* risk from the *starting date* until the earlier of Completion and the date of the termination certificate.

INSURANCE TABLE A

Insurance against	Minimum amount of cover or minimum limit of indemnity
Loss of or damage to the works, Plant and Materials	The replacement cost where not covered by the <i>Employer's</i> insurance

	The <i>Employer's</i> policy deductible, as at Contract Date, where covered by the <i>Employer's</i> insurance
Loss of or damage to Equipment	The replacement cost
Liability for loss of or damage to property (except the <i>works</i> , Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the <i>Contractor</i>) caused by activity in connection with this contract	<p><u>Loss of or damage to property</u></p> <p><u>Employer's property</u> The replacement cost where not covered by the <i>Employer's</i> insurance</p> <p>The <i>Employer's</i> policy deductible, as at Contract Date, where covered by the <i>Employer's</i> insurance</p> <p><u>Other property</u> The replacement cost</p> <p><u>Bodily injury to or death of a person</u> The amount required by applicable law</p>
Liability for death of or bodily injury to employees of the <i>Contractor</i> arising out of and in the course of their employment in connection with this contract	The amount required by the applicable law

Z 13.2

Replace core clause 87 with the following:

The *Employer* provides the insurances stated in the Insurance Table B.

INSURANCE TABLE B

Insurance against or name of policy	Minimum amount of cover or minimum limit of indemnity
Assets All Risk	Per the insurance policy document
Contract <i>Works</i> insurance	Per the insurance policy document
Environmental Liability	Per the insurance policy document
General and Public Liability	Per the insurance policy document
Transportation (Marine)	Per the insurance policy document
Motor Fleet and Mobile Plant	Per the insurance policy document
Terrorism	Per the insurance policy document
Cyber Liability	Per the insurance policy document
Nuclear Material Damage and Business Interruption	Per the insurance policy document
Nuclear Material Damage Terrorism	Per the insurance policy document

Z14 Nuclear Liability

Z14.1 The *Employer* is the operator of the Koeberg Nuclear Power Station (KNPS), a nuclear installation, as designated by the National Nuclear Regulator of the Republic of South Africa, and is the holder of a nuclear licence in respect of the KNPS.

- Z14.2 The *Employer* is solely responsible for and indemnifies the *Contractor* or any Other person against any and all liabilities which the *Contractor* or any person may incur arising out of or resulting from nuclear damage, as defined in Act 47 of 1999, save to the extent that any liabilities are incurred due to the unlawful intent of the *Contractor* or any Other person or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS Site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.
- Z14.3 Subject to clause Z14.4 below, the *Employer* waives all rights of recourse, arising from the aforesaid, save to the extent that any claims arise or liability is incurred due or attributable to the unlawful intent of the *Contractor* or any Other person, or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS Site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.
- Z14.4 The *Employer* does not waive its rights provided for in section 30 (7) of Act 47 of 1999, or any replacement section dealing with the same subject matter.
- Z14.5 The protection afforded by the provisions hereof shall be in effect until the KNPS is decommissioned.

Z15 Asbestos

For the purposes of this Z-clause, the following definitions apply:

AAIA	means approved asbestos inspection authority.
ACM	means asbestos containing materials.
AL	means action level, i.e. a level of 50% of the OEL, i.e. 0.1 regulated asbestos fibres per ml of air measured over a 4 hour period. The value at which proactive actions is required in order to control asbestos exposure to prevent exceeding the OEL.
Ambient Air	means breathable air in area of work with specific reference to breathing zone, which is defined to be a virtual area within a radius of approximately 30cm from the nose inlet.
Compliance Monitoring	means compliance sampling used to assess whether or not the personal exposure of workers to regulated asbestos fibres is in compliance with the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, Equipment and articles.
OEL	means occupational exposure limit.
Parallel Measurements	means measurements performed in parallel, yet separately, to existing measurements to verify validity of results.
Safe Levels	means airborne asbestos exposure levels conforming to the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, Equipment and articles.
Standard	means the <i>Employer's</i> Asbestos Standard 32-303: Requirements for Safe Processing, Handling, Storing, Disposal and Phase-out of Asbestos and Asbestos Containing Material, Equipment and Articles.
SANAS	means the South African National Accreditation System.
TWA	means the average exposure, within a given workplace, to airborne asbestos fibres, normalised to the baseline of a 4 hour continuous period, also applicable to short term exposures, i.e. 10-minute TWA.

- Z15.1 The *Employer* ensures that the Ambient Air in the area where the *Contractor* will Provide the Services conforms to the acceptable prescribed South African standard for asbestos, as per the regulations published in GNR 155 of 10 February 2002, under the Occupational Health and Safety Act, 1993 (Act 85 of 1993) ("Asbestos Regulations"). The OEL for asbestos is 0.2 regulated asbestos fibres per millilitre of air as a 4-hour TWA, averaged over any continuous period of four hours, and the short term exposure limit of 0.6 regulated asbestos fibres per millilitre of air as a 10-minute TWA, averaged over any 10 minutes, measured in accordance with HSG248 and monitored according to HSG173 and OESSM.
- Z15.2 Upon written request by the *Contractor*, the *Employer* certifies that these conditions prevail. All measurements and reporting are effected by an independent, competent, and certified occupational hygiene inspection body, i.e. a SANAS accredited and Department of Employment and Labour approved AAIA. The *Contractor* may perform Parallel Measurements and related control measures at the *Contractor's* expense. For the purposes of compliance the results generated from Parallel Measurements are evaluated only against South African statutory limits as detailed in clause Z15.1. Control measures conform to the requirements stipulated in the AAIA-approved asbestos work plan.
- Z15.3 The *Employer* manages asbestos and ACM according to the Standard.
- Z15.4 In the event that any asbestos is identified while Providing the Services, a risk assessment is conducted and if so required, with reference to possible exposure to an airborne concentration of above the AL for asbestos, immediate control measures are implemented and relevant air monitoring conducted in order to declare the area safe.
- Z15.5 The *Contractor's* personnel are entitled to stop working and leave the contaminated area forthwith until such time that the area of concern is declared safe by either Compliance Monitoring or an AAIA approved control measure intervention, for example, per the emergency asbestos work plan, if applicable.
- Z15.6 The *Contractor* continues to Provide the Services, without additional control measures presented, on presentation of Safe Levels. The contractually agreed dates to Provide the Services, including The Completion Date, are adjusted accordingly. The contractually agreed dates are extended by the notification periods required by regulations 3 and 21 of the Asbestos Regulations, 2001.
- Z15.7 Any removal and disposal of asbestos, asbestos containing materials and waste, is done by a registered asbestos *Contractor*, instructed by the *Employer* at the *Employer's* expense, and conducted in line with South African legislation.

Annexure A: One-in-ten-year-return weather data obtained from SA Weather Bureau for [weather station]

If any one of these *weather measurements* recorded within a calendar month, before The Completion Date for the whole of the *works* and at the place stated in this Contract Data is shown to be more adverse than the amount stated below then the *Contractor* may notify a compensation event.

Month	Cumulative rainfall (mm)	Number of days with rain more than 10mm	Number of days with min air temp < 0 deg.C	Number of days with snow lying at 08:00 CAT
January	202	7	0	2
February	158	7	0	3
March	122	5	0	2
April	115	4	2	2
May	43	3	8	4
June	29	2	22	6
July	36	2	21	7
August	36	2	11	7
September	64	3	4	6
October	148	6	2	5
November	167	8	0	2
December	177	7	0	3

Only the difference between the more adverse recorded weather and the equivalent measurement given above is taken into account in assessing a compensation event.

C1.2 Contract Data

Part two - Data provided by the Contractor

Notes to a tendering Contractor:

1. Please read both the NEC3 Engineering and Construction Contract (April 2013) and the relevant parts of its Guidance Notes (ECC3-GN)² in order to understand the implications of this Data which the tenderer is required to complete. An example of the completed Data is provided on pages 156 to 158 of the ECC3 (April 2013) Guidance Notes.
2. The number of the clause which requires the data is shown in the left hand column for each statement however Other clauses may also use the same data
3. Where a form field like this [] appears, data is required to be inserted relevant to the option selected. Click on the form field **once** and type in the data. Otherwise complete by hand and in ink.

Completion of the data in full, according to Options chosen, is essential to create a complete contract.

Clause	Statement	Data
10.1	The <i>Contractor</i> is (Name): Address Tel No. Fax No.	
11.2(8)	The <i>direct Fee percentage</i> is The <i>subcontracted Fee percentage</i> is	% %
11.2(18)	The Working Areas are The Site and	
24.1	The <i>Contractor's</i> key persons are: 1 Name: Job: Responsibilities: Qualifications: Experience: 2 Name: Job Responsibilities: Qualifications: Experience:	

² Available from Engineering Contract Strategies Tel 011 803 3008, Fax 011 803 3009 or see www.ecs.co.za

		CV's (and further key persons data including CVs) are appended to Tender Schedule entitled .		
11.2(3)	The Completion Date for the whole of the works is			
11.2(14)	The following matters will be included in the Risk Register			
11.2(19)	The Works Information for the Contractor's design is in:			
31.1	The programme identified in the Contract Data is			
A	Priced contract with activity schedule			
11.2(20)	The activity schedule is in			
11.2(30)	The tendered total of the Prices is	(in figures) (in words), excluding VAT		
	1.1. Data for Schedules of Cost Components	Note "SCC" means Schedule of Cost Components starting on page 60, and "SSCC" means Shorter Schedule of Cost Components starting on page 63 of ECC3 (April 2013).		
A	Priced contract with activity schedule	Data for the Shorter Schedule of Cost Components		
41 in SSCC	The percentage for people overheads is:	%		
21 in SSCC	The published list of Equipment is the last edition of the list published by			
	The percentage for adjustment for Equipment in the published list is	Minus %		
22 in SSCC	The rates of Other Equipment are:	Equipment	Size or capacity	Rate
61 in SSCC	The hourly rates for Defined Cost of design outside The Working Areas are Note: Hourly rates are estimated 'cost to company of the employee' and not selling rates. Please insert anOther schedule if foreign resources may also be used	Category of employee		Hourly rate

62 in SSCC	The percentage for design overheads is	%
63 in SSCC	The categories of design employees whose travelling expenses to and from The Working Areas are included in Defined Cost are:	

C1.3 Forms of Securities

Pro formas for Bonds & Guarantees

For use with the NEC3 Engineering & Construction Contract

The *conditions of contract* stated in the Contract Data Part 1 include the following Secondary Options:

Option X13: Performance Bond

Each of these secondary Options requires a bond or guarantee “in the form set out in the *Works Information*”. Pro forma documents for these bonds and guarantees are provided here for convenience but are to be treated as part of the *Works Information*.

The organisation providing the bond / guarantee does so by copying the pro forma document onto his letterhead without any change to the text or format and completing the required details. The completed document is then given to the *Employer* within the time stated in the contract.

Pro forma Performance Bond – Demand Guarantee (for use with Option X13)
(to be reproduced exactly as shown below on the letterhead of the Contractor's Parent Company)

Eskom Holdings SOC Ltd
Megawatt Park
Maxwell Drive
Sandton
Johannesburg

Date:

Dear Sirs

Reference No. [●] [Drafting Note: Bank reference number to be inserted]

Performance Bond – Demand Guarantee: [Drafting Note: Name of Contractor to be inserted]

Project [] Contract Reference: [Drafting Note: Contractor contract reference number to be inserted]

In this Guarantee the following words and expressions shall have the following meanings:-

“Bank” - means [●], [●] Branch, (Registration No. [●]); [Drafting Note: Name of Bank to be inserted]

“Bank’s Address” - means [●]; [Drafting Note: Bank’s physical address to be inserted]

“Contract” – means the written agreement relating to the Project, entered into between Eskom and the Contractor, on or about the [●] day of [●] 200[●] (Contract Reference No. [.] as amended, varied, restated, novated or substituted from time to time; [Drafting Note: Signature Date and Contract reference number to be inserted]

“Contractor” – means [●] a company registered in accordance with the laws of [●] under Registration Number [●]. [Drafting Note: Name and details of Contractor to be inserted]

“Eskom” - means Eskom Holdings SOC Ltd, a company registered in accordance with the laws of the Republic of South Africa under Registration Number 2002/015527/30].

“Expiry Date” - means the date on which the Defects Certificate is issued in terms of the Contract.

“Guaranteed Sum” - means the sum of R [●] ([●] Rand);

“Project” - means [insert if applicable.].

At the instance of the Contractor, we the undersigned _____ and _____, in our respective capacities as _____ and _____ of the Bank, and duly authorized thereto, confirm that we hold the Guaranteed Sum at the disposal of Eskom, as security for the proper performance by the Contractor of all of its obligations in terms of and arising from the Contract and hereby undertake to pay to Eskom, on written demand from Eskom received prior to the Expiry Date, any sum or sums not exceeding in total the Guaranteed Sum.

A demand for payment under this guarantee shall be made in writing at the Bank’s address and shall:

be signed on behalf of Eskom by a Group Executive, Divisional Executive, Senior General Manager, General Manager or its delegate;

state the amount claimed (“the Demand Amount”);

state that the Demand Amount is payable to Eskom in the circumstances contemplated in the Contract.

Notwithstanding the reference herein to the Contract the liability of the Bank in terms hereof is as principal and not as surety and the Bank’s obligation/s to make payment:

is and shall be absolute provided demand is made in terms of this bond in all circumstances; and

is not, and shall not be construed to be, accessory or collateral on any basis whatsoever.

The Bank's obligations in terms of this Guarantee:

shall be restricted to the payment of money only and shall be limited to the maximum of the Guaranteed Sum; and

shall not be discharged and compliance with any demand for payment received by the Bank in terms hereof shall not be delayed, by the fact that a dispute may exist between Eskom and the *Contractor*.

Eskom shall be entitled to arrange its affairs with the *Contractor* in any manner which it sees fit, without advising us and without affecting our liability under this Guarantee. This includes, without limitation, any extensions, indulgences, release or compromise granted to the *Contractor* or any variation under or to the Contract.

Should Eskom cede its rights against the *Contractor* to a third party where such cession is permitted under the Contract, then Eskom shall be entitled to cede to such third party the rights of Eskom under this Guarantee on written notification to the Bank of such cession.

This Guarantee:

shall expire on the Expiry Date until which time it is irrevocable;

is, save as provided for in 0 above, personal to Eskom and is neither negotiable nor transferable;

shall be returned to the Bank upon the earlier of payment of the full Guaranteed Sum or expiry hereof;

shall be regarded as a liquid document for the purpose of obtaining a court order; and

shall be governed by and construed in accordance with the law of the Republic of South Africa and shall be subject to the jurisdiction of the Courts of the Republic of South Africa.

Any claim which arises or demand for payment received after expiry date will be invalid and unenforceable.

The Bank chooses domicilium citandi et executandi for all purposes in connection with this Guarantee at the Bank's Address.

Signed at _____

Date _____

For and behalf of the Bank

Bank Signatory: _____

Bank Signatory: _____

Witness: _____

Witness: _____

Bank's seal or stamp

PART 2: PRICING DATA

ECC3 Option A

Document reference	Title	No of pages
C2.1	Pricing assumptions: Option A	3
C2.2	The <i>activity schedule</i>	2

C2.1 Pricing assumptions: Option A

1. How work is priced and assessed for payment

Clause 11 in NEC3 Engineering and Construction Contract, (ECC3) Option A states:

Identified and defined terms	11 11.2	(20) The Activity Schedule is the <i>activity schedule</i> unless later changed in accordance with this contract.
		(27) The Price for Work Done to Date is the total of the Prices for <ul style="list-style-type: none">• each group of completed activities and• each completed activity which is not in a group. A completed activity is one which is without Defects which would either delay or be covered by immediately following work.
		(30) The Prices are the lump sum prices for each of the activities on the Activity Schedule unless later changed in accordance with this contract.

This confirms that Option A is a lump sum form of contract where the work is broken down into activities, each of which is priced by the tendering *Contractor* as a lump sum. Only completed activities are assessed for payment at each assessment date; no part payment is made if the activity is not completed by the assessment date.

2. Function of the Activity Schedule

Clause 54.1 in Option A states: "Information in the Activity Schedule is not *Works* Information or Site Information". This confirms that specifications and descriptions of the work or any constraints on how it is to be done are not included in the Activity Schedule but in the *Works* Information. This is further confirmed by Clause 20.1 which states, "The *Contractor* Provides the *Works* in accordance with the *Works* Information". Hence the *Contractor* does **not** Provide the *Works* in accordance with the Activity Schedule. The Activity Schedule is only a pricing document.

3. Link to the programme

Clause 31.4 states that "The *Contractor* provides information which shows how each activity on the Activity Schedule relates to the operations on each programme which he submits for acceptance". Ideally the tendering *Contractor* will develop a high-level programme first then resource each activity and thus arrive at the lump sum price for that activity both of which can be entered into the *activity schedule*.

4. Preparing the activity schedule

Generally, it is the tendering *Contractor* who prepares the *activity schedule* by breaking down the work described within the *Works* Information into suitable activities which can be well defined, shown on a programme and priced as a lump sum.

The *Employer*, in his Instructions to Tenderers or in a Tender Schedule, may have listed some items that he requires the *Contractor* to include in his *activity schedule* and be priced accordingly.

It is assumed that in preparing his *activity schedule* the *Contractor*:

- Has taken account of the guidance given in the ECC3 Guidance Notes pages 19 and 20;
- Understands the function of the Activity Schedule and how work is priced and paid for;
- Is aware of the need to link the Activity Schedule to activities shown on his programme;
- Has listed and priced activities in the *activity schedule* which are inclusive of everything necessary and incidental to Providing the *Works* in accordance with the *Works* Information, as it was at the time of tender, as well as correct any Defects not caused by an *Employer's* risk;
- Has priced work he decides not to show as a separate activity within the Prices of Other listed activities in order to fulfil the obligation to complete the *works* for the tendered total of the Prices.
- Understands there is no adjustment to the lump sum Activity Schedule price if the amount, or quantity, of work within that activity later turns out to be different to that which the *Contractor* estimated at time of tender. The only basis for a change to the Prices is as a result of a compensation event.

C2.2 the *activity schedule*

Item No.	Activity description	QTY	Unit price	Total Price
1	PRELIMINARY AND GENERAL			
1.1	Site establishment			
1.2	Access control & signage			
1.3	Traffic management plan approval			
1.4	Health, Safety & Environmental (HSE) induction			
1.5	Control testing for Construction Material			
	SUBTOTAL			
2	CONTRACTOR'S YARD ROADS NETWORK			
2.1	Accommodation of traffic			
2.2	Site clearance (Surface Repair)			
2.3	Intersection construction			
2.4	Asphalt surfacing (Surface Repair)- Tack coat			
2.4	Accommodation of traffic			
2.6	Road Markings			
	SUBTOTAL			
3	RING ROAD SOUTH			
3.1	Accommodation of traffic			
3.2	Site clearance (Surface Repair)			
3.3	Base and surface repair			
3.4	Asphalt surfacing (Surface Repair)- Tack coat			
3.5	Asphalt base and surfacing -Overlaying (Prime coat)			
3.6	Tack coat			
3.7	Ancillary road <i>works</i> (Road markings)			
	SUBTOTAL			
4	ASH HAUL ROAD 1			
4.1	Accommodation of traffic			
4.2	Site clearance (Surface Repair)			
4.3	Asphalt surfacing- Prime coat			
4.4	Tack coat			
4.5	Ancillary road <i>works</i> (Road markings)			
	SUBTOTAL			

Item No.	Activity description	QTY	Unit price	Total Price
5	ASH HAUL ROAD 2			
5.1	Accommodation of traffic			
5.2	Layer <i>works</i>			
5.3	Asphalt surfacing- Prime coat			
5.4	Tack coat			
5.5	Ancillary road <i>works</i> (Road markings)			
5.6	Demobilisation and Site Clearance			
5.7	Completion and Handover			
	SUBTOTAL			
6	WASTE DISPOSAL			
6.1	Disposal of waste including disposal certificates			
	SUBTOTAL			
	GRAND TOTAL excl. VAT			

C3.1: EMPLOYER'S WORKS INFORMATION

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1 Description of the works

1.2. Executive overview

Majuba Power Station, located in Mpumalanga between Volksrust and Amersfoort, is one of Eskom’s strategic baseload generation facilities. It comprises six coal-fired units—Units 1 to 3 (657 MW each) configured as dry-cooled systems and Units 4 to 6 (713 MW each) configured as wet-cooled systems—collectively forming a high-capacity condensing thermal plant. The station’s internal logistics network is critical to sustaining continuous generation, facilitating movement of ash, raw materials, operational Equipment, maintenance vehicles, personnel, and emergency services.

The internal road network, including *Contractor’s* Yard Road, Ring Road South, Ash Haul Road 1, and Ash Haul Road 2, has exceeded its original pavement design life. Progressive material fatigue, surfacing distress, and sub-base deformation have resulted in compromised structural integrity, reduced load-bearing capacity, and significant safety hazards, particularly during peak operational cycles and adverse weather events.

The deterioration adversely affects vehicle damage risk. Consequently, a comprehensive road rehabilitation programme is required to restore structural capacity, improve functional pavement performance, and ensure compliance with statutory and internal safety standards. The *Works* include pavement reconstruction, geometric and drainage improvements, asphalt surfacing, shoulder reinstatement, and the application of compliant pavement markings.

This *Works* Information defines the technical, functional, and performance requirements of the road rehabilitation works, providing the *Contractor* with a clear basis for delivery under the NEC Engineering and Construction Contract (ECC).

Figure 1: Internal Roads that require Rehabilitation/ Reconstruction



Table 1: Road names and road lengths

Legend	Road Name	Road Length(m)
	CONTRACTOR'S YARD ROAD NETWORK	≈1663
	RING ROAD SOUTH	≈990
	ASH HAUL ROAD 1	≈1155
	ASH HAUL ROAD 2	≈1236

1.3. Employer's objectives and purpose of the works

1.3.1. Employer's objectives

- 1.3.1.1. The *Employer's* business case for undertaking this rehabilitation project is driven by the strategic necessity to ensure uninterrupted, safe, and efficient operation of Majuba Power Station. Internal road performance directly influences ash transportation cycles, maintenance workflows, and emergency response capability. Deteriorated pavement conditions contribute to vehicle damage, increased operating costs, logistic inefficiencies, and heightened safety risks, undermining plant performance and regulatory compliance.
- 1.3.1.2. Rehabilitation of the internal road network is therefore essential for:
- Sustaining baseload power generation by improving logistical reliability associated with ash removal and material supply.
 - Achieving whole-life cost efficiency through structural renewal rather than continued short-term patching.
 - Reducing operational risk exposure associated with vehicle incidents, environmental hazards (e.g., dust and runoff), and accessibility failures.
 - Complying with safety, environmental, and engineering standards, including internal policies and statutory requirements.
 - Enhancing asset resilience in alignment with long-term station integrity and security of supply mandates.
- 1.3.1.3. Upon the start date, the *Contractor* studies the *Employer's Works* Information, prepares and submits a detailed work methodology and draft Quality Control Plan (QCP) to the *Project Manager*, for each section of *works*, to obtain acceptance before each activity is started.
- 1.3.1.4. The *Contractor* liaises with all the *Employer's* project team such as engineers, quality controller/s, plant specialist/s, etc. and requests clarification from the *Project Manager* immediately if any discrepancy or vagueness is discovered in the *Works* Information, which was not clarified during the tender period. The *Contractor* identifies all such discrepancies and vague areas of scope within the first six (6) weeks of the contract and submits them for further clarification to the *Employer* who reviews and provides decisions on those issues.

1.3.2. The Purpose of the Works

1.3.2.1. The purpose of the *works* is to refurbish, reconstruct, and upgrade specified internal road segments such that the completed infrastructure is:

- a) Fit for purpose, meaning structurally sound, durable, safe, and capable of supporting continuous heavy-duty traffic associated with ash haulage trucks, maintenance fleets, operational vehicles, and emergency services.
- b) Compliant with relevant standards, including but not limited to SANRAL pavement design guidelines, TRH/TR standards, SANS specifications, and the *Employer's* internal engineering procedures.
- c) Engineered for long-term performance, with adequate bearing capacity, drainage provisions, and surfacing specifications to withstand high axle loading, cyclic thermal stresses, and operational traffic volumes.
- d) Functionally efficient, ensuring unobstructed flow of personnel, Equipment, and materials within the power-station precinct.
- e) Safe under all operating conditions, providing appropriate skid resistance, geometric consistency, traffic control devices, and pavement markings meeting best-practice road-safety requirements.
- f) Environmentally and operationally sustainable, with materials, construction methodologies, and maintenance profiles aligned to reduced lifecycle environmental footprint and risk mitigation principles.

1.3.3. Objectives of the works

1.3.3.1. The *Contractor* is required to deliver the *Works* such that the following objectives are achieved:

- a) Improve operational efficiency and reduce downtime by restoring the integrity and trafficability of all designated road sections.
- b) Enhance compliance and safety performance through improved geometry, surfacing, drainage, and road-marking standards.
- c) Reduce whole-life maintenance costs via durable pavement design, improved structural layers, and optimised material selection.
- d) Mitigate operational and environmental risks, ensuring robust access for emergency vehicles, containment of stormwater, and minimisation of fugitive dust.
- e) Support sustainability through engineered solutions that extend service life and reduce long-term resource consumption.

1.4. Interpretation and terminology

1.4.1. Definitions

Definition	Explanation
Agent	(OHS Act) means any person who acts as a representative for a client
Competent person	(OHS Act) means any person having the knowledge, training, experience, and qualifications, specific to the work or task being performed, provided that, where appropriate, qualifications and training are registered in terms of the South African Qualifications Authority Act, 1995 (Act No. 58 of 1995)
Construction work	(OHS Act) means any work in connection with: the erection, maintenance, alteration, renovation, repair, demolition or dismantling of, or addition to, a building or any similar structure. the installation, erection, dismantling, or maintenance of a fixed plant where such work includes the risk of a falling person; the construction, maintenance, demolition, or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system, or any similar civil engineering structure; or the moving of earth, the clearing of land, the making of an excavation, pilling, or any similar type of work
Contractor	Concerning this document, where the word “Contractor” is used, it will mean all or some of the following: principal Contractors, appointed Contractors, suppliers, vendors, service providers and consultants
Design	(OHS Act) concerning any structure, includes drawings, calculations, design details, and specifications
Employer	(OHS Act) means, subject to the provisions of subsection (2), any person who employs or provides work for any person and remunerates that person or expressly or tacitly undertakes to remunerate him/her, but excludes a TES (ex-labour broker) as defined in section 1(1) of the Labour Relations Act 1956 (Act No. 28 of 1956)
Environment	(32-94) means: the land, water, and atmosphere of the earth; micro-organisms and plant and animal life; and any part or combination of (a) and (b) and the interrelationships among and between them, and the physical, chemical, aesthetic, and cultural properties and conditions of the foregoing that influence human health and well-being
Environmental Management plan	A detailed plan of action prepared to ensure that recommendations for enhancing or ensuring positive impacts and limiting or preventing negative environmental impacts are implemented during the life cycle of a project. This Environmental Management Plan should preferably form part of Eskom’s Environmental Management System
Eskom requirements	Eskom requirements flowing from directives, policies, standards, procedures, specifications, work instructions, guidelines, or manuals
Fall protection plan	(OHS Act) means a documented plan of all risks relating to working from an elevated position, considering the nature of work undertaken, and setting out the procedures and methods to be applied to eliminate the risk
Hazard	(OHS Act) means a source of, or exposure to, danger
Health and safety plan	(OHS Act) means a documented plan that addresses hazards identified and includes safe work procedures to mitigate, reduce, or control hazards identified
Health and safety requirements	Means comprehensive health and safety requirements for a contract, project, Site, and scope of work. This specification is intended to ensure the health and safety of persons, both workers and the public, and the duty of care to the environment. The health and safety requirements must be specific to each contract, project, Site, and scope of work
Lifesaving Rules	(240-62196227) a rule that, if not adhered to, has the potential to cause serious harm to people

Definition	Explanation
Local	Means from within the borders of South Africa unless specified Otherwise
Method statement	(OHS Act) means a written document detailing the key activities to be performed to reduce, as reasonably as practicable, the hazards identified in any risk assessment
Near miss	A near miss is an OHS event that did not result in human injury or damage but had the potential, under different circumstances, to cause human injury or property damage. This includes the reporting of hazards or unsafe conditions.
Obsolescence	Refers to the process by which plant components, Equipment, or systems become outdated and no longer useful or efficient. This can occur due to advancements in technology, changes in regulations, or the discontinuation of parts and materials by manufacturer
Permitry	The system or process of using specialised permits to control work in hazardous work environments or process systems.
Pixley Ka Isaka Seme Municipality	The local municipality in which Majuba Power Station is situated, which includes Amersfoort, Daggakraal, Perdekop, Volksrust and Wakkerstroom
Pre-job brief or meetings	(34-227) means a meeting that is held prior to the commencement of the day's work and that is attended by all the relevant employees associated with the work task
<i>Project Manager/ Leader</i>	(32-136) means the person who has the responsibility for the successful planning and execution of a project. The <i>Project Manager</i> must satisfy the certification requirements set by the South African Council for the Project and Construction Management Professions. Note: the <i>Project Manager</i> is the duly authorised Eskom representative who acts on Eskom's behalf as the administrating officer for the contract
Risk assessment	(OHS Act) means a programme to determine any risk associated with any hazard at a Construction Site to identify the steps needed to remove, reduce, or control such hazard.
Site	(34-228) means an Eskom department, unit, complex, building, specific project, work Site, or The Site where agents, clients, principal <i>Contractors</i> , <i>Contractors</i> , suppliers, vendors, and service providers provide a service to Eskom, directly or indirectly
Stakeholder	Is considered to be anyone that has an interest in the outcome of the project.
Supplier	(32-1034) means a natural or legal person who renders a service and may include the following current or potential supplier vendor, <i>Contractor</i> , consultant
<i>Supervisor</i>	<i>The Supervisor</i> is the <i>Employer's</i> appointed person responsible for supervising the <i>works</i> as per the NEC contract.
System	An integrated set of constituent pieces that are combined in an operational or support environment to accomplish a defined objective. These pieces include people, hardware, software, firmware, information, procedures, facilities, services, and Other support facets.
Task	(34-227) a segment of work that requires a set of specific and distinct actions for its Completion
VDSS	The applicable system document exchange list between the <i>Employer</i> and the <i>Contractor</i> .
Waste	Any matter, whether liquid or solid or any combination thereof, which is a by-product, emission, residue or remainder of any process or activity carried out in connection with the <i>works</i> and which is not reused on The Site in the ordinary course of carrying out the <i>works</i> within seven days of production.

1.4.2. Abbreviations

The following abbreviations are used in this *Works* Information:

Abbreviation	The meaning given to the abbreviation
°C	Degrees Celsius
AASHTO	American Association of State Highway and Transportation Officials
AC	Alternating Current
AS	Authorised <i>Supervisor</i>
ASTM	American Society for Testing and Materials
AUTOCAD	Auto-Computer Assisted Diagnosis
B-BBEE	Broad-Based Black Economic Empowerment
BCEA	Basic Conditions of Employment Act
CAT	Central African Time
AP	Appointed Person
B-BBEE	Broad Based Black Economic Empowerment
BPLwD	Black People Living with Disability
ASTM	American Society for Testing and Materials
COVID	Coronavirus disease
CPA	Cost/Contract Price Adjustment
CV	Curriculum Vitae
DB	(Electrical) Distribution Board
ECC	Engineering Construction Contract
ECSA	Engineering Council of South Africa
EDMS	Eskom Document Management System
FAT	Factory Acceptance Test
FET	Further Education and Training
FRI	Forecast Rate of Invoicing
FSS	Finance Shared Services
GA	General Arrangement
GR	Goods Receipt
HIRA	Hazard Identification and Risk Assessment
ID	Identity Number
ISO	International Organisation for Standardisation
ITP	Inspection and Test Plan
KKS	Kraftwerk Kennzeichen System (unique identification system for plant components)
LDV	Light Delivery Vehicle
LRA	Labour Relations Act
LTI	Lost Time Injury
LV	Low Voltage
MPS	Majuba Power Station
MS	Microsoft
NCR	Non-Conformance Report (Eskom document)
NEC	New Engineering Contract
NEMA	National Environmental Management Act
NQF	National Qualification Framework
OHS	Occupational Health and Safety

Abbreviation	The meaning given to the abbreviation
OHSAS	Occupational Health and Safety Assessment Series
ORHVS	Operating Regulations High Voltage Systems
PDF	Portable Document Format
PPE	Personal Protective Equipment
PTW	Permit To Work
QC	Quality Control
QCP	Quality Control Plan
QS	Quantity Surveyor
RP	Responsible Person (for PTW)
RSA	Republic of South Africa
SANAS	South African National Accreditation System
SAMTRAC	Safety Management Training Course
SANS	South African National Standard
SANRAL	South African National Roads Agency SOC Ltd
SARS	South African Revenue Services
SDL&I	Supplier Development, Localisation and Industrialisation
SE	Service Entry
SETA	Skills Education Training Authorities
SHEQ	Safety, Health, Environmental and Quality
SMME	Small, Medium and Micro Enterprises
UIF	Unemployment Insurance Fund
VAT	Value Added Tax
VDSS	Vendor Document Submission Schedule
WBS	Work Breakdown Structure

2. Management and start up.

- a. The *Contractor* manages all contracted personnel including *SubContractors* and is responsible for ensuring compliance with the *Works* Information and all contracted terms and conditions.
- b. The *Project Manager* is the delegated *Employer's* representative and the *Contractor* reports directly to the *Project Manager* and obeys all lawful instructions given. The *Project Manager* manages the overall performance of the *Contractor* and all *SubContractors* used in Providing the *Works*. Therefore, the *Contractor* ensures that the *Project Manager* is given their full cooperation including the timeous reporting and Feedback of all matters of importance and compliance with all instructions.
- c. The *Contractor* complies with the *Works* Information and reports all matters timeously and with sufficient detail to the *Project Manager*.
- d. The *Contractor*, being the competent party for execution of the *works*, raises concerns, risks or Other matters which affect or could affect the performance of the *Contractor* or the performance of the *works* to the *Project Manager*.

2.1. Management Meetings

- a. Regular meetings may be convened and chaired by the *Project Manager* as follows:

Title and purpose	Approximate time & interval	Location	Attendance by:
Kick-off meeting purpose is to formally start the project by aligning all key stakeholders on the objectives, scope, expectations, and execution plan.	Once off- upon contract placement. Time- TBC by <i>Project Manager</i> .	Venue determined By the <i>Project Manager</i>	<i>Project Manager, Supervisor, Contractor, Safety Officer, Environmental officer, QS, Procurement Officer, Engineer.</i>
Early Warning Meeting- to discuss and manage notified early warnings collaboratively. The focus is on avoiding or mitigating risks to time, cost, or performance.	As and when needed (within 2 weeks after an early warning is raised)	Venue determined By the <i>Project Manager</i>	<i>Project Manager, Supervisor, Contractor.</i>
Risk Reduction Meeting (part of Early Warning process)- to explore ways to reduce or avoid the effects of early warning matters, with input from all parties.	As and when needed (usually triggered by an Early Warning)	Venue determined By the <i>Project Manager</i>	<i>Project Manager, Supervisor, Contractor, QS.</i>
Compensation Event Meeting- to discuss and agree on the details, quotations, and effects of Compensation Events (CEs), including time and cost implications.	As and when needed	Venue determined By the <i>Project Manager</i>	<i>Project Manager, Supervisor, Contractor, QS.</i>
Progress/Coordination Meetings- to review project progress, upcoming activities,	Weekly; Mondays. Time- 11:00am.	Venue determined By the <i>Project Manager</i>	<i>Project Manager, Supervisor, Contractor, Engineer.</i>

constraints, resources, and health & safety. Also used to address day-to-day project coordination.			
Programme Review Meeting- to assess The Accepted Programme, discuss changes, delays, and any non-compliance with programme submission requirements (per NEC3 ECC Clause 31/32).	Bi-weekly; Tuesdays Time- 10:00am	Venue determined By the <i>Project Manager</i> .	<i>Project Manager, Supervisor, Contractor, Engineer.</i>
Business Unit Contractor Safety meeting- purpose is to promote a safe working environment by ensuring that all <i>Contractors</i> and stakeholders understand, comply with, and continuously improve safety protocols and standards specific to Site.	Monthly 10:00-12:00 (First Thursday of each month)	Ben Steyn Auditorium	<i>Project Manager, Contractors, Supervisor, Safety Officers.</i>
Safety work stoppage meetings is a temporary halt to work when conditions are considered unsafe or potentially dangerous. The primary goal is to remove workers from immediate danger.	As and when needed	Ben Steyn Auditorium	<i>Contractor's staff</i>

- b. The *Project Manager* may change the frequency of meetings, convene special meetings as specified elsewhere in this *Works Information* or if not specified then as and when required by the *Project Manager* and attended by all relevant *Contractor's* personnel at the times and locations communicated by the *Project Manager*.
- c. All meetings are recorded using minutes and an attendance register prepared and circulated by the person who convened the meeting. Such minutes or register is not used for confirming actions or instructions under the contract as these are done separately by the person identified in the conditions of the contract to carry out such actions or instructions.
- d. The *Contractor* arranges and holds all necessary and mandatory meetings with his employees including daily toolbox talks, pre-job and post-job briefings, health and safety and risk assessment meetings etc. The *Contractor* informs the *Project Manager* of the dates and times of such meetings and ensures that there is minimal impact on performing the work.
- e. The use of online meetings will be preferred wherever possible and the *Contractor* utilises the application preferred by the *Employer* i.e. Microsoft Teams and ensures the availability of suitable tools e.g. laptops and internet connectivity.
- f. Meetings of a specialist nature may be convened as specified elsewhere in this *Works Information* or if not so specified by persons and at times and locations to suit The Parties, the nature and the progress of the *works*. Records of these meetings are submitted to the *Project Manager* by the person convening the meeting within five days of the meeting.

2.2. Documentation control

2.2.1. General

- 2.2.1.1. The NEC ECC contract terms and conditions, the signed contract document (agreement) and all referenced documents are the only documents, which detail the obligations of the *Employer* and *Contractor*.
- 2.2.1.2. The *Contractor* submits all documentation to the *Project Manager* and the *Project Manager* to the *Contractor's* Project/Contract Manager.
- 2.2.1.3. Electronic contract communication is restricted to electronic mail (email) only using the official/business email address/es and stating the contract number, shortened contract title (or Acronym) and relevant subject of the email in the subject line.
- 2.2.1.4. All communications are filed electronically and kept safe and accessible. These communication documents are to adhere to the ECC 3 communication requirements.
- 2.2.1.5. For contractual issues, standard NEC templates and forms are used by both parties or if unavailable, the *Employer's* templates and forms are used e.g. Non-Conformance Reports, Pre-commissioning checks or Assessment Certificates. Alternatively, the *Project Manager* instructs the *Contractor* to prepare appropriate documentation to meet contract requirements.
- 2.2.1.6. All documentation is controlled and managed following the Document and Records Management Procedure (32-6).
- 2.2.1.7. A master register of documents are to be maintained by the *Contractor*, this document register will be used to keep track of document submission dates, review comments, statuses and document/drawing numbers. The latest master register of documents is submitted to the *Project Manager* on request.
- 2.2.1.8. Documents and drawing numbers are assigned by the *Employer* as documents/drawings are developed. The *Contractor* submits a request for document numbers to the *Project Manager*. The *Contractor* allows for five (5) working days for the issuing of the document and drawing numbers in the project programme.

2.2.2. Vendor Document Submission Schedule

- 2.2.2.1. The *Contractor* may use the Eskom large file submission facility on <https://zendto.eskom.co.za/> for bulk document submission.

2.2.3. Documentation Submissions after Contract Award

- 2.2.3.1. The *Contractor* submits the following prerequisite documentation, with the appropriate motivation, before any work commences on or off Site, for acceptance by the *Project Manager*. Requirements listed at the tender stage still apply after the contract award.
 - a. A detailed project programme is submitted within two weeks of the *start date*.
 - b. The project/Site organogram indicating names and positions and CV's with certified qualifications and work experience for all key personnel and skilled workers are submitted within three weeks of the start date.
 - c. A project responsibility matrix outlining the responsibility of all key personnel and skilled workers inclusive of external or interfacing stakeholders, within 14 days of The Contract Date.

- d. Any change of the personnel nominated at the tender stage is submitted for acceptance by the *Project Manager* and the *Contractor* ensures that all the listed competencies are complied with. The *Project Manager* requests the removal of any *Contractor* personnel from the project who do not meet minimum requirements and their subsequent replacement at the *Contractor's* cost.
 - e. Quality Control Plans (QCP's) detailing activities listed as per The Accepted Programme and relating to all activities in the *works* are submitted within three weeks of the start date. No work may begin without an approved QCP. Method statements which are developed in line with the activities in the QCP's.
 - f. Safety Plan is submitted for acceptance within three weeks of the start date. Based on the acceptance of the safety plan, the *Contractor* ensures that certified identity documents, police clearance certificates and valid medical fitness certificates are provided for safety induction to be performed. Only original medical fitness certificates issued by a medical doctor or an occupational hygienist will be accepted. Access is not granted unless the safety plan is approved.
 - g. Police clearance certificates for all the *Contractor's* workers, *Supervisors* and management, including all *SubContractors* are included in the safety file.
 - h. Letters of Good Standing for COID and SARS, refer to section 2.3.1.6 for additional information.
 - i. List of proposed *SubContractors* to be used during execution of the *works*.
- 2.2.3.2. Material specifications and product data sheets are submitted, for review and acceptance, before procurement is performed. The *Project Manager* requests the removal of any *Contractor's* materials and products from the project which do not meet minimum requirements and their subsequent replacement at the *Contractor's* cost.
- 2.2.3.3. Some documents to be submitted are but not limited to
- a. Environmental Management Plan
 - b. Traffic Management Plan
- 2.2.3.4. A template of the *Contractor's* daily Site diary is submitted before access to Site.
- a. Commencing as from Site establishment and all through execution and commissioning of the *works*, the *Contractor* completes and submits a daily Site diary to the *Project Manager* or *Supervisor* daily for checking, commenting and signing-off. A hard copy is supplied which includes the following information as a minimum:
 - i. Actual start time and end times of work for the day (not generic times).
 - ii. The number of people in attendance per trade.
 - iii. Equipment used.
 - iv. Description of the programme activity and progress achieved for the day, which includes:
 - Times and activities
 - Estimated percentage Completion achieved for that activity. Site manager and *Supervisor/s* must plan work according to The Accepted Programme.
 - v. Weather data especially rainfall readings - take and record the measurements with times (as and when it occurs). Other issues such as wind or temperature should be noted if/when it affects the work.

- vi. The toolbox talk safety topic for the day, pre-job brief, post-job brief, requests, risks, issues etc.
- vii. Spaces available for names, signatures, date and comments of the *Contractor's Site/Project Manager* and *Project Manager*.
- viii. Sign-off by all the *Contractor's* employees. If the daily Site diary is not signed off by all the *Contractor's* employees in attendance then a separate daily attendance register is used and supplied. Attendance registers include full names, ID numbers, starting time, finishing time and signatures. Attendance registers are signed off by the *Contractor's* project/Site manager and submitted to the *Project Manager* daily. Diaries and attendance registers are also required for the assessment day and again at month-end with the monthly man-hours report.

2.2.4. Documentation Submissions at Contract Completion

2.2.4.1. Data pack

- a. All documentation requirements such as forms, datasheets, certificates, drawings, maintenance and operating manuals remain the responsibility of the *Contractor*. All documentation is submitted by the *Contractor* for review and acceptance by the *Project Manager* or Other *Employer's* delegates e.g. Engineer reviews and accepts the QCP's.
- b. The *Contractor* files all documents listed above in a data pack as the work progresses and QC files are reviewed regularly to check and confirm that the *Project Manager's* requirements are met. By Completion, the data pack is almost fully compiled and ready for the *Contractor* to make and submit copies and perform hand-over. The documents required in the data pack include the following:

The additional requirements for the data pack include:

- Project title, Power Station name and contract number;
 - Index page/s;
 - List of reference drawings;
 - Details of all components;
 - Properly divided into sections with numerical or labelled dividers;
 - Submitted in hardcover, loose-leaf binders in A4 size. Fixings are preferable 'D' ring and are of the snap-close type or lever arch type. The document identity appears on printed labels on both the front cover and on the spine.
- c. The data pack includes an overall Contract Quality Plan, Completion Certificate, Handover Certificate and Safety Clearance Certificate for the entirety of the *works*.
 - d. The *Contractor* submits one set of the data pack in draft for final review and acceptance by the *Project Manager*. The draft data pack is accommodated with a document index/checklist from the *Contractor*. Handover cannot be done unless the data pack is accepted.
 - e. Drawings issued to the *Employer* will be a minimum of one hardcopy and an electronic copy.
 - f. All *Contractors* are required to submit electronic drawings in both Micro Station (DGN) format, and scanned drawings in pdf format. No drawings in TIFF, AUTOCAD or any Other electronic format will be accepted. Drawings issued to The *Employer* may not be "Right Protected" or encrypted. Safety plan and entry permits.

- g. The *Contractor* submits the up-to-date Site safety plan, which includes:
 - Exit medical certificates for all staff that were issued with an entry permit
 - Access permits for all staff that were entered Site with a permit.
- i. Relevant payments may be withheld by the *Project Manager* until the data pack is submitted by the *Contractor*.

2.3. Health and safety risk management

2.3.1. General

- 2.3.1.1. The *Contractor* complies with all relevant Eskom health and safety policies and procedures, with emphasis on the health and safety requirements contained in the Majuba Safety, Health & Environmental Specification (RA/RM/STD/01).
- 2.3.1.2. The *Contractor* performs all work according to OHSAS 18001.
- 2.3.1.3. The *Contractor* complies with the following:
 - a. Eskom SHEQ Policy, 32-727.
 - b. SHE Requirements for Eskom Commercial Process, 32-726.
 - c. SHE Organisation, 240-28463367
 - d. Safety, Health and Environmental Specifications for *Contractors*, 240-30008949
 - e. OHS Act 85 of 1993.
 - f. Disaster Management Act 57 of 2002.
 - g. Eskom *Contractor* Health and Safety Requirements standards, 32-136
 - h. Employees' Right of Refusal to Work in an Unsafe Situation Procedure, 240-43848327
 - i. Outbreak, Pandemic or Epidemic Disaster Response Plan, 240-100092892.
 - j. Guidelines on the management of vulnerable employees during COVID-19 Pandemic, 240-155326818.
 - k. Majuba Power Station COVID -19 Workplace Plan, MNGT/CMPLC/PLN/01.
- 2.3.1.4. The *Contractor's* Safety Plan must be prepared and submitted to the *Employer's* Safety Risk Officer for auditing and acceptance, as per The Accepted Programme and before any work can commence. The *Contractor's* Safety Officer liaises directly with the *Employer's* Safety Risk Officers regarding the Safety Plan and it is the *Contractor's* responsibility to arrange the appointments with the Majuba Safety Risk Officers. The Safety Plan (one or more files) is the *Employer's* requirement and remains the *Project Manager's* property and is always available on Site for inspection and handed over to the *Project Manager* upon Completion. The *Contractor's* Safety Plan file/s are kept neat, clean and up to date and audited monthly for the duration of the contract.
- 2.3.1.5. All of the *Contractor's* staff attend Safety Induction, presented by the MPS Risk Management Department.
- 2.3.1.6. Compensation for Occupational Injuries and Diseases (COID) Certificate and Letter of Good Standing must be valid at all times and included in the Safety Plan and re-submitted to the *Project Manager* upon the start of the contract and when renewed. These documents are also to be submitted to the Eskom vendor database by the *Contractor* before they expire. The payment of invoices may be delayed if the *Contractor* does not adhere to the requirement.

- 2.3.1.7. The *Contractor* provides a monthly safety statistic report (man-hours worked) to the *Project Manager* on the first working day of each month for the duration of the contract. This report must indicate the *Contractor's* actual man-hours worked on Site as summed from the daily diaries and attendance registers and is not a generic extrapolation of the daily working hours multiplied by the number of people.
- 2.3.1.8. The *Contractor* is responsible for the provision of adequate and correct personal protective Equipment (PPE) for the *Contractor's* staff during the entire *works*, which includes standard PPE such as safety boots, hard-hat, overalls, hearing protectors, safety glasses etc.
- 2.3.1.9. The *Contractor* ensures that all personnel are fully conversant with the emergency procedures to be followed in case of an incident.
- 2.3.1.10. The *Contractor* ensures cleaning of work areas and disposal of any scrap and waste materials generated is done continuously during the entire *works*.
- 2.3.1.11. MPS is a national key point and therefore industrial action/strikes are not permitted. Strikes are to be managed by the *Contractor* at his/her own cost. The *Contractor* takes all necessary measures to prevent such action during the period of the contract.
- 2.3.1.12. The *Contractor* has a dedicated Safety Officer on Site on a full-time basis and present at all times when work is performed to monitor activities and ensure compliance to SHE procedures.

2.3.2. Eskom Life-Saving Rules

- 2.3.2.1. The *Contractor* Complies with the Eskom Life-Saving rules as per the Eskom Life Saving Rules Directive, 240- 62196227.
- 2.3.2.2. The *Employer* takes a "ZERO TOLERANCE" approach towards Safety. The violation of any safety rule while performing work for or on behalf of the *Employer* may result in the *Project Manager* terminating the *Contractor's* obligation to perform work in terms of the contract with the *Employer*.

2.3.3. Reporting of Incidents

- 2.3.3.1. The *Employer* follows an incident prevention policy; refer to 32-95, Environmental, Occupational Health and Safety Incident Management Procedure, which includes the investigation of all incidents involving personnel and property. This is done to introduce control measures to prevent a recurrence of the same incident. The *Contractor* is expected to co-operate fully to achieve this objective. The *Project Manager or Supervisor* must be informed immediately of any incident before the end of the shift.
- 2.3.3.2. NOTE: The reporting of the incident to the *Project Manager* does not relieve the *Contractor* of his legal obligation to report incidents to the Department of Labour, or to keep records in terms of the Occupational Health and Safety Act, and Compensation for Occupational Injuries and Diseases Act.

2.3.4. Work Stoppages

- 2.3.4.1. The *Employer* takes safety seriously and therefore, lessons learnt from Other safety lost time incidents (LTI), if and when they take place, are shared with all *Contractors* and employees on Site. These stoppages are compulsory and the *Contractor* cannot be allowed to claim additional compensation for these stoppages.

- 2.3.4.2. If the *Contractor* experiences an LTI, the *Contractor* is expected to prepare a presentation and present it at a work stoppage that is arranged by the *Employer* within three working days. The presentation template is provided by the *Project Manager*.

2.3.5. Vehicle and Driver Safety

- 2.3.5.1. All drivers, passengers and pedestrians must obey the vehicle safety requirements in terms of the National Road Traffic Act, Act No 93 of 1996, as amended, including Other relevant provincial or local requirements.
- 2.3.5.2. With effect from 31 May 2006, no Eskom employee or *Contractor* is allowed to transport passengers on the back of light delivery vehicles (LDV's). It is a legal requirement to provide safe transportation for *Contractor* employees.

2.3.6. Vehicle Standard Minimum Specifications

- 2.3.6.1. *Contractor* vehicles are to comply with the requirements specified in the Eskom Vehicle Safety Specification 32-345.

2.3.7. Confined Spaces

- 2.3.7.1. Confined Spaces are spaces such as Vessels, Mills, Culverts, Flues, Furnaces, Ducts, Pits, Sewers, Tunnels and Underground Chambers, refer to General Safety Regulation 5 of the OHS Act.
- 2.3.7.2. All work in confined spaces complies with the requirements of the OHS Act and the *Employer's* Plant Safety Regulations, 36-681.
- 2.3.7.3. The *Contractor* assesses, and allows in the rates, for any access challenges due to confined and restricted areas, existing structures and Equipment etc., which may be encountered.

2.3.8. Working at Heights

- 2.3.8.1. The *Contractor* complies with Eskom Working at Heights procedure, 32-418 and all Other relevant procedures and regulations.

2.3.9. Lifting and Rigging

- 2.3.9.1. The *Contractor* complies with MPS Lifting and Rigging procedure, MAINT/MMD 103 75 and all Other relevant procedures and regulations.
- 2.3.9.2. The *Contractor* is responsible to plan and organise all crane and lifting operations for the *works*.
- 2.3.9.3. The *Contractor* submits the following documentation before a crane (if required) is brought onto Site, for review and acceptance to the *Project Manager* and allows at least three working days for authorisation thereof:
- a. Rigger and crane driver's proof of safety induction completed with certified ID copy and valid medical fitness certificate.
 - i. Rigger and crane driver's Site access permits.
 - ii. Rigger and crane driver's competency certificates (proof of training).
 - iii. Safe work procedure(s) for the crane, which includes rigging plans.
 - iv. Detailed risk assessment specific to The Site work.

v. Valid load test certificates and monthly inspection sheets for all lifting gear.

2.3.9.4. All complex rigging is only done by a certified rigger and while a safety officer is in attendance.

2.4. Environmental constraints and management

2.4.1.1. Majuba Power Station is ISO 14001: 2015 certified. The *Contractor* is required to ensure that all *works* are carried out as per the ISO 14001 standard and must comply with all policies and procedures including the following procedures:

- a. Majuba Waste Management Procedure, ENV/GEN/WI/12.
- b. Emergency Preparedness and Response, 39-29.
- c. Eskom Smoking Policy, 32-1126.

2.4.1.2. The *Contractor* ensures that all environmental authorization obligations, applicable legislative requirements and *Employer's* specific requirements are fulfilled. This includes all national, provincial and local environmental legislation and requirements.

2.4.1.3. The *Contractor* is required to ensure that all *works* are carried out as per the ISO 14001 standard and Eskom's environmental management procedures and work instructions consistent with the SHEQ Policy and the Majuba PS Environmental Statement of Intent, ENV/GEN/STMT/01.

2.4.1.4. The following environmental requirements are always complied with:

- a. Zero liquid effluent discharge.
- b. No chemicals and hydrocarbons shall be dumped into the station drains or on the premises.
- c. Waste shall only be disposed of at an appropriate and unauthorized waste landfill Site.
- d. Asbestos will be handled and stored according to Act 15 of 1973 (hazardous substances Act) and Asbestos Abatement Regulations as amended.
- e. No materials or waste shall be burnt on Site. Hazardous substances shall be handled and stored according to the hazardous substances Act no 15 of 1973. No effluent shall be discharged into the public streams.
- f. *Contractors'* activities/ services shall be carried out as per procedure: Majuba Environmental Requirements for *Contractors* and Suppliers, ENV/GEN/SPEC/01

2.4.2. Waste Storage, transportation and disposal

2.4.2.1. The *Contractor* is responsible for the disposal of his own waste.

2.4.2.2. Storage and removal from Site of waste must be in accordance with Eskom and/ or SANS standards or in accordance with regulations governing the storage and removal of waste.

- 2.4.2.3. The *Contractor* to liaise with the *Project Manager* regarding the location of waste disposal Sites and rubbish dumps.
- 2.4.2.4. The *Contractor* disposes of all waste streams at a licenced waste disposal Site to be accepted by the *Project Manager*. The waste disposal Site is selected to suit the classification of the materials to be disposed of. Waste manifests and/or safe disposal certificates are required to be submitted to the *Employer*.

2.5. Quality assurance requirements

- a. The Contractor shall establish, document, implement, and maintain a comprehensive Quality Management System (QMS) for the execution of all Works under the Contract. The primary objectives are to ensure that all deliverables meet the specified requirements, to prevent non-conformities, and to foster continuous improvement. The Contractor shall comply with the latest Employer's Quality Requirements as outlined in Supplier Quality Management Specification 240-105658000.

2.5.1. Contractor's Quality Management

- 2.5.1.1. Compliance with an international quality management standard is a **mandatory condition** of the Contract. The Contractor's QMS shall comply to and operate in accordance with **ISO 9001:2015** (or the latest applicable version).
- 2.5.1.2. The Contractor shall submit a detailed Project Quality Plan (PQP) or Contract Quality Plan (CQP) for the Employer's acceptance within 21 days of the Contract Commencement Date. The PQP shall be a live document.
- 2.5.1.3. The Employer may at his sole discretion carry out an audit on the contractor, the supplier and sub-contractors.
- 2.5.1.4. The principal contractor to ensure that the sub-contractor(s) also comply with the same requirements.
- 2.5.1.5. All applicable requirements of ISO 9001 shall be binding and shall be referenced and integrated into the Project Quality Plan and all work procedures. The contractor must notify the Employer of any proposed changes to the Quality Management System.
- 2.5.1.6. The Employer's Representative shall review submissions within 14 days for acceptance. Work on the relevant activity shall not commence until the applicable QA documentation has been formally accepted in writing.

2.5.2. Documents to be submitted with the Tender

- 2.5.2.1. All QA documentation, including the initial PQP, ITPs, audit reports, and procedural submissions, shall be submitted electronically in [*specify format, e.g., PDF, via the project portal*] to the Employer's Representative as indicated on the tender returnables.

2.5.3. Quality Control

- 2.5.3.1. The *Contractor* performs all work according to ISO 9001. The *Contractor* complies with Eskom's quality requirements as specified in Standard 240-105658000 (previously QM58), Supplier Contract Quality Requirement's Specification and all relevant quality requirements.
- 2.5.3.2. The *Contractor* ensures that a coordinated and formally documented management system is in place for the assurance of quality as specified in ISO 9001, Quality Management Systems Requirements.
- 2.5.3.3. The *Contractor* has dedicated, full-time Quality Controllers on Site at all times when work is performed. The work may not take place unless the relevant QC is present on Site.
- 2.5.3.4. Quality control inspector to inspect and verify the *works* in compliance to the contract, specifications, approved drawings and applicable industry standards and national/international codes.
- 2.5.3.5. Pre- approved QCP to be submitted to Quality Assurance during and post execution of service/works.

2.6. Programming Constraints

- a. The *Contractor* provides an initial programme with the tender submission, which is aligned to section C2.2
- b. Within two weeks of the starting date, the *Contractor* provides a detailed, integrated programme to the *Project Manager* that incorporates all of the planned work activities to the lowest level, including activities of Sub*Contractor*/s.
- c. All documentation submissions for review and acceptance stated in the *Works* Information are also included in the programme with a time allowance of no less than one week made for review and acceptance unless stated Otherwise. All lead times for the supply of items are also included.
- d. The programme is submitted electronically in MS Project (2010 version or any Other version, which allows compatibility for viewing and editing) as well as PDF format and provides all activities and tasks with expected durations, resource allocations and start and Completion *Dates*.
- e. If the programme is suitable and agreed between The Parties, the *Project Manager* accepts the programme Otherwise changes are requested before re-submission. The first *Accepted Programme* becomes the baseline programme and subsequent, accepted changes are labelled as revisions in numerically ascending order.
- f. The Accepted Programme becomes a live document by which the *Contractor* controls all work packages and activities.
- g. The *Contractor* completes the *works* by The Completion Date specified in the *Contractor's Accepted Programme*.
- h. Thereafter, the *Contractor* updates the programme at least weekly, including updating the actual dates and durations, while optimising remaining activities to ensure that the original planned Completion *Date* is met. The programme updates are submitted each Monday morning by noon. The *Project Manager* may request more frequent programme updates, including daily if required, at any time during the *works* and it is the *Contractor's* responsibility to comply.
- i. Non-compliance to The Completion Date on the programme results in claims for X7- delay damages by the *Project Manager*.
- j. Completion of any activity on the programme is achieved only upon sign-off of the relevant hold/witness/verification point by the *Project Manager*.

2.6.1. Planning and Scheduling Levels

- a. The schedule layout takes into account the approved WBS, reflecting the manner the *works* are to be performed as per the *Contractor's* Method Statement and how activities are to be summarised, reported and monitored.
- b. The following levels of programmes are to be used for this project for integrated project control:
 - i. Management programme (Level 1)
 - ii. Project programme (Level 2)
 - iii. Control programme (Level 3 – Sub-system level)
 - iv. Discipline specialty programme (Level 4)

2.6.1.1. Management Programme (Level 1) – Project Master Programme

- a. The management programme Level 1 is the project master programme and is used to show the overall time frames for the *works*. It is a statement of project objectives recorded in graphic form.

2.6.1.2. Project Programme (Level 2)

- a. A "rolled up" programme from the control level 3 programme is produced. It will be separated by unit, plant area and by phase (engineering, procurement, construction and commissioning).

2.6.1.3. Control Programme (Level 3 – Sub-system level)

- a. The project programme is prepared representing the significant work activities and deliverables associated with the *works*.
- b. The programme includes:
 - i. Major milestones, interface dates, *access dates* and Key Dates
 - ii. The duration of major activities and their relationship to one another.
 - iii. Identified long-lead material items.
 - iv. Responsibility assignments for accomplishing project objectives end product is a time scaled bar-chart programme developed using logic network.
- c. This programme is separated by area, by phase, by WBS. The work within each plant area is broken down by engineering discipline, procurement, delivery, construction by the *Contractor*, start-up and commissioning.
- d. The programme is resource-loaded and it forms the basis for progress measurement, progress curves and histograms for each discipline within a plant area.
- e. The *Contractor* has to submit a Level 3 Programme to the *Project Manager* which breaks the *Works* Information down to a sub-system level as per the Activity Schedules. This programme has to be in line with the *Contractor's* Method Statement.
- f. The *Contractor's* Forecasted Rate of Invoicing (FRI) should also be in-line with the resource loading on the programme.

2.6.1.4. Control Programme (Level 3 – Sub-system level)

- a. The project programme is prepared representing the significant work activities and deliverables associated with the *works*.
- b. The programme includes:

- i. Major milestones, interface dates, *access dates* and Key Dates
- ii. The duration of major activities and their relationship to one another.
- iii. Identified long-lead material items.
- iv. Responsibility assignments for accomplishing project objectives end product is a time scaled bar-chart programme developed using logic network.
- c. This programme is separated by area, by phase, by WBS. The work within each plant area is broken down by engineering discipline, procurement, delivery, construction by the *Contractor*, start-up and commissioning.
- d. The programme is resource-loaded and it forms the basis for progress measurement, progress curves and histograms for each discipline within a plant area.
- e. The *Contractor* has to submit a Level 3 Programme to the *Project Manager* which breaks the *Works* Information down to a sub-system level as per the Activity Schedules. This programme has to be in line with the *Contractor's* Method Statement.
- f. The *Contractor's* Forecasted Rate of Invoicing (FRI) should also be in-line with the resource loading on the programme.

2.6.1.5. Discipline Programme (Level 4)

- a. The discipline specialty programme is developed and maintained by the *Contractor* and generated for tracking and control of various activities and deliverables for all phases of the project.
- b. This programme is formatted as a spreadsheet or database report utilizing the WBS breakdown. This programme represents the day-to-day activities which are work-unit based and are summarized in the level 3 activities.
- c. Resource information for manpower, plant, material and Equipment and reflected in resource histograms is to be provided by the *Contractor*. Staffing histograms are required to be submitted based on "equivalent personnel".
- d. Available work-hours will take into account 4 and 5 week months and statutory holidays that may occur. Staffing histograms are updated with actual data for each reporting period and re-forecasted as required should significant deviations occur.

2.6.1.6. Planning Programmes

- a. The *Contractor* develops a contract programme which will include a bar chart conforming with the project master programme dates included and sufficient detail to indicate the *Contractor's* intention for executing the *works*. This programme covers major items relating to procurement, delivery, erection, execution and commissioning. The critical path is clearly shown.
- b. Key milestones, *access dates*, interface dates and commissioning Key Dates are clearly identified in the contract programme, including *access dates* and release of terminal points that involve the *Employer* or Others.
- c. The programme makes provision for Site related preparation such as Site establishment, safety induction and medical clearance of all the *Contractor's* staff that will be working on Site.

2.6.1.7. Construction Programme

- a. The *Contractor* is required to submit a construction programme that is resource loaded for review by the *Project Manager*. This programme includes the following criteria:

- i. Full details of all civil requirements.
- ii. Identify any erection or commissioning activities that may affect Other construction activities
- iii. Identify when services are required for commissioning purposes
- b. This programme meets the requirements of the *Contractor* and Others engaged on the project.
- c. The programme is to be based on the following working hours:
 - i. 8 working hours per day
 - ii. 5 working days per week
 - iii. Holidays excluded as working days

2.7. Contractor's management, supervision and key people

Role	Minimum Qualifications	Experience	Professional Registration
Site Manager/Site Agent	BEng/BSc Degree in Civil Engineering	Minimum of five (5) years of relevant experience in road construction and rehabilitation	Currently registered professionally with ECSA as Pr Eng
SHE Officer	ND in Safety Management	Minimum 5 years of experience in road construction and rehabilitation including 3 years of experience in environmental management	Currently registered professionally with SACPCMP as a Construction Health and Safety Officer.
Engineering Surveyor	Bachelor of Geomatics/ BSc Geomatics (Surveying)	Minimum of five (5) years of relevant experience in road construction and rehabilitation	Currently registered professionally with SAGC as a Candidate as a minimum

2.8. Invoicing and Payment

- a. The *Contractor* submits a detailed Forecast Rate of Invoicing (FRI) by the assessment date and thereafter, provides an update every four weeks from the contract start date. The FRI breakdown corresponds to section C2.2 - The Activity Schedule using a detailed Excel spreadsheet and indicates the planned phasing of invoicing and assessment.
- b. The *Contractor* prepares and submits his assessment of work completed to the *Project Manager* on or before the assessment day. The *Contractor*, *Project Manager*, quantity surveyor, engineer and quality controller/s visually inspect the *works* to verify the actual progress. The *Project Manager* decides on the actual progress achieved and determines what activities may be assessed and invoiced.
- c. A payment or assessment certificate is supplied with the service entry (SE) and goods receipt (GR) number/s to the *Contractor*, which is signed by both the *Project Manager* and the *Contractor*.
- d. Within one week of receiving a payment or assessment certificate from the *Project Manager* in terms of core clause 51.1, the *Contractor* provides the *Employer* with a tax invoice showing the amount due for payment equal to that stated in the *Project Manager's* payment or assessment certificate.
- e. The *Contractor* addresses the tax invoice to Eskom Holdings SOC Ltd. and includes on each invoice the following information:
 - i. Name and address of the *Contractor* and the *Project Manager*;
 - ii. The contract number and title;
 - iii. The purchase order number
 - iv. *Contractor's* VAT registration number;
 - v. The *Employer's* VAT registration number 4740101508;
 - vi. Description of service provided for each item invoiced based on the Price List;
 - vii. The total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT; (add Other as required)
- f. The *Contractor* attaches the detailed payment or assessment certificate of the amount due to each tax invoice showing the Price for Work Done to Date for each item in the Price List for work, which he has completed.
- g. All local invoices can be submitted using emails to invoiceseskomlocal@eskom.co.za
- h. All foreign invoices can be submitted using emails to Invoiceseskomforeign@eskom.co.za
- i. To facilitate payment, the *Contractor* must ensure the following:
 - i. The Eskom contract number and order number is clearly indicated on your invoice together with the line number on the order being billed for.
 - ii. All electronic invoices must be sent in PDF format only.
 - iii. The subject line on the email should only contain the vendor number
 - iv. Each invoice in PDF should be named with the invoice number only
 - v. Each PDF file contains one invoice; or one debit note; or one credit note only as Eskom's SAP System does not support more than one PDF being linked into the workflow at a time.

- vi. The *Contractor's* e-mail may contain more than one PDF file (e.g. 2 invoices on 2 separate PDF files in one e-mail)
- vii. For foreign invoices, the *Contractor* is required to physically deliver hard copies of original documents to the respective documentation management centres even though the *Contractor* has e-mailed those invoices.
- viii. A PDF file that was created directly from a system meets the definition of the original document and is allowed (including saving documents from Excel to PDF, Word to PDF etc.)
- ix. An Invoice that was printed and then scanned to PDF by the *Contractor* is not acceptable as this is not an original tax invoice by SARS definition but a copy.
- x. The following wording needs to appear on the invoice: "Your invoice is encrypted to comply with SARS requirements that invoices and statements sent electronically are tamperproof."
- xi. The *Contractor* does not require a goods receipt (GR) number before submitting the invoices. When the GR number is however received, the *Contractor* can send the GR number to the FSS contact centre at FSS@eskom.co.za or 011 800 5060.
- xii. All queries and follow-ups on invoice payments are made by contacting the FSS Contact Centre at FSS@eskom.co.za or Tel: 011 800 5060.
- xiii. Payment is made within 30 days (depending on the payment terms of the contract) after receipt of an acceptable invoice at the address stated in the order and the acceptance of the goods by Eskom. Payments are made on Tuesdays and Thursdays only.
- xiv. If CPA is applicable, the *Project Manager* and the *Contractor* must confirm the increase/decrease with the QS department BEFORE the revised prices are stated on the invoice. The QS and *Project Manager* must confirm the escalation with the Financial Department before it may be implemented. CPA to be invoiced via a separate invoice and the base invoice number to be indicated on the CPA invoice. The CPA invoice must be sent together with the CPA calculation sheet/certificate.

2.9. Insurance provided by the *Employer*.

2.9.1. The *Employer* makes provision for the Insurances as stated on Clause Z13.3 Table B:

INSURANCE TABLE B

Insurance against or name of policy	Minimum amount of cover or minimum limit of indemnity
Assets All Risk	Per the insurance policy document
Contract <i>Works</i> insurance	Per the insurance policy document
Environmental Liability	Per the insurance policy document
General and Public Liability	Per the insurance policy document
Transportation (Marine)	Per the insurance policy document
Motor Fleet and Mobile Plant	Per the insurance policy document
Terrorism	Per the insurance policy document
Cyber Liability	Per the insurance policy document
Nuclear Material Damage and Business Interruption	Per the insurance policy document
Nuclear Material Damage Terrorism	Per the insurance policy document

2.9.1.1. Insurance Contact person: Amanda Dudula DudulaA@eskom.co.za.

2.10. Contract change management

2.10.1.1. Contract change management to be dealt with using Section 6 (Compensation event clauses) of the NEC 3 ECC.

2.11. Provision of bonds and guarantees

- a. The form in which a bond or guarantee required by the *conditions of contract* is to be provided by the *Contractor* is given in Part 1 Agreements and Contract Data, document C1.3, Sureties.
- b. The *Employer* may withhold payment of amounts due to the *Contractor* until the bond or guarantee required in terms of this contract has been received and accepted by the person notified to the *Contractor* by the *Project Manager* to receive and accept such bond or guarantee. Such withholding of payment due to the *Contractor* does not affect the *Employer's* right to termination stated in this contract.
- c. The *conditions of contract* stated in the Contract Data Part 1 includes the following Secondary Options:
 - i. Option X13: Performance Bond.
- d. This secondary Option requires a bond or guarantee "in the form set out in the *Works Information*". Pro forma document for this bond and guarantee is provided here for convenience but is to be treated as part of the *Works Information*.

- e. The organisation providing the bond / guarantee does so by copying the pro forma document onto his letterhead without any change to the text or format and completing the required details. The completed document is then given to the *Employer* within the time stated in the contract

3. Engineering and the *Contractor's* design

3.1. *Employer's* design

- a. The *Works* have been fully designed by the *Employer*. The design was prepared by Eskom-employed civil and pavement engineering specialists, operating under Eskom's internal Engineering Governance Framework. All design deliverables were developed and reviewed in accordance with:
 - i. Eskom Internal Engineering Standards for roadworks, stormwater management, safety, and construction quality requirements.
 - ii. COTO Standard Specifications for road and bridge *works*, including structural pavement rehabilitation, material classification, geometric design, and surfacing requirements.
 - iii. Relevant South African National Standards (SANS) applicable to material performance, construction tolerances, drainage, road signs, road markings, and traffic-safety devices.
- b. The *Contractor* may therefore expect a design that adheres to high technical standards, mature engineering judgment, and best-practice guidance for heavy-duty industrial road infrastructure within an operational power-station environment.
- c. The *Employer's* design defines the structural rehabilitation, reconstruction, strengthening, resurfacing, and safety enhancements required for the following internal roads:
 - i. *Contractor's* Yard Road
 - ii. Ring South Road
 - iii. Ash Haul Road 1
 - iv. Ash Haul Road 2
- d. The design scope includes:
 - i. Reconstruction and strengthening of base and subbase layers, based on pavement condition assessments, geotechnical investigations, and heavy-axle loading projections associated with ash-haul operations.
 - ii. Resurfacing *works* using asphalt or chip-seal surfacing systems as specified to deliver sufficient durability, skid resistance, and climatic resilience.
 - iii. Geometric corrections, including cross-fall reinstatement, shoulder reconstruction, verge stabilisation, and optimisation of safe stopping sight distances.
 - iv. Drainage upgrades, both surface and subsurface, to ensure compliant stormwater conveyance, erosion control, and protection of rehabilitated pavement structures.
 - v. Road markings and signage, designed and specified in accordance with SANS and the South African Road Traffic Signs Manual (SARTSM), ensuring consistent, safe navigation for operational and emergency traffic.

Roads Design Properties

Eskom No	Scope of Work Description	Drawing Title	Drawing No
1	<p><u>CONTRACTOR'S YARDS ROADS</u> Resurface the entire length of <i>Contractor's</i> yard road to its initial design condition. The existing surface of road is to be removed to the top of the base layer and The base layer must be ripped and re-compacted to a depth of 150mm @ 95% MOD AASHTO and</p>	Majuba Power Station - Roads Rehabilitation Project - Surface / Base Repair - <i>Contractor</i> Yard's Roads - CH0 - CH1663	0.66/100427 SH1

	<p>followed by a 40mm continuously graded TPA medium asphalt. Vertical Alignment to remain unchanged. * All Intersections to be surfaced with 40mm continuously graded TPA medium asphalt to a distance 10m from left and right road edges, existing in-situ material to be ripped and re-compacted to a depth of 150mm @ 93% Mod AASHTO prior to surfacing.</p> <p>Roads Markings Non-reflectorized paint applied at nominal rate of 0.42 l/m² and retro-reflective beads to be added. <i>Contractors'</i> yards roads and All Intersections to be marked with type GM1- Standard - White paint (as per SARTSM vol. 4) along the road Centrelines.</p>		
2	<p><u>RING ROAD SOUTH</u></p> <p>Resurface the entire length of the ring road south to its initial design condition.</p> <p>Surface and Base Repair: The road will have the same final road level as the existing level. The existing asphalt will be removed and spoiled. The base layer will be ripped and re-compacted to a depth of 150mm @ 95% MOD AASHTO, followed by 40mm continuously graded TPA medium asphalt. Vertical alignment to remain unchanged.</p> <p>Asphalt Overlay: 40mm continuously graded TPA medium asphalt overlay, 7.4m road width.</p> <p>Roads Markings Non-reflectorized paint applied at nominal rate of 0.42 l/m² and retro-reflective beads to be added. Ring road south (990m) to be marked with type GM1- Standard - White paint (as per SARTSM vol. 4) along the road Centrelines.</p>	Majuba Power Station - Roads Rehabilitation Project - Surface / Base Repair - Southern Ring Road - CH0 – CH990	0.66/100428 SH1
3	<p><u>ASH HAUL ROAD 1,</u> Rehabilitate the ash haul road 1 and resurface the entire length to its initial state of design.</p> <p>8.00m wide, the road will have the same final road level as the existing level. The existing asphalt will be removed and spoiled. The roadbed will be ripped and re-compacted, to a depth of 150mm @ 95% MOD AASHTO, followed by 40mm</p>	Majuba Power Station - Roads Rehabilitation Project - Surface / Base Repair -Ash Haul Road 1 - CH0 - CH1155	0.66/100429 SH1

	<p>continuously graded TPA medium asphalt.</p> <p>Roads Markings Non-reflectorized paint applied at nominal rate of 0.42 l/m² and retro-reflective beads to be added. Ash Haul Road 1 (1155m) to be marked with type GM1- Standard - White paint (as per SARTSM vol. 4) along the road Centrelines.</p>		
4	<p>ASH HAUL ROAD 2, Construct the road as per the drawings.</p> <p>8m wide road, the final road level and layer works as per the drawings.</p> <p>Roads Markings Non-reflectorized paint applied at nominal rate of 0.42 l/m² and retro-reflective beads to be added. Ash Haul Road 2 (1236m) to be marked with type GM1- Standard - White paint (as per SARTSM vol. 4) along the road Centrelines.</p>	<p>Majuba Power Station - Roads Rehabilitation Project - Plan, Profile & Typical Cross Section - Ash Haul Road 2 - CH0 - CH420</p> <p>Majuba Power Station - Roads Rehabilitation Project - Plan & Profile -Ash Haul Road 2 - CH 420 - CH840</p> <p>Majuba Power Station - Roads Rehabilitation Project - Plan & Profile -Ash Haul Road 2 - CH840 - CH1236</p> <p>Majuba Power Station - Roads Rehabilitation Project - Ash Haul Road 2 - Cross Sections - CH0 - CH150</p> <p>Majuba Power Station - Roads Rehabilitation Project - Ash Haul Road 2 - Cross Sections - CH200 - CH350</p> <p>Majuba Power Station - Roads Rehabilitation Project - Ash Haul Road 2 - Cross Sections - CH400 - CH550</p>	<p>0.66/100430 SH1</p> <p>0.66/100430 SH2</p> <p>0.66/100430 SH3</p> <p>0.66/100431 SH1</p> <p>0.66/100431 SH2</p> <p>0.66/100431 SH3</p> <p>0.66/100431 SH4</p> <p>0.66/100431 SH5</p> <p>0.66/100431 SH6</p> <p>0.66/100431 SH7</p>

		<p>Majuba Power Station - Roads Rehabilitation Project - Ash Haul Road 2 - Cross Sections - CH600 - CH750</p> <p>Majuba Power Station - Roads Rehabilitation Project - Ash Haul Road 2 - Cross Sections - CH800 - CH950</p> <p>Majuba Power Station - Roads Rehabilitation Project - Ash Haul Road 2 - Cross Sections - CH1000 - CH1100</p> <p>Majuba Power Station - Roads Rehabilitation Project - Ash Haul Road 2 - Cross Sections - CH1150 - CH1236.3</p>	
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3.1.1. Contractor’s Obligations in Respect of the Employer’s Design

3.1.1.1. The Contractor shall:

- a. Construct the *Works* strictly in accordance with the *Employer’s* design documents, drawings, specifications, and standards.
- b. Maintain the design intent, ensuring no deviation that compromises structural performance, operational safety, or functional requirements.
- c. Submit method statements and temporary-works designs demonstrating compliance with the *Employer’s* design philosophy and operational constraints.
- d. Notify the *Project Manager* of any design ambiguities, constructability concerns, or material non-conformances and propose technically justified solutions that preserve the *Employer’s* intended performance outcomes.

3.2. Parts of the works which the Contractor is to design

Not applicable as no design will be done by the *Contractor*.

3.3. Procedure for submission and acceptance of *Contractor's* design

Not applicable as no design will be done by the *Contractor*.

3.4. Other requirements of the *Contractor's* design

Not applicable as no design will be done by the *Contractor*.

3.5. Use of *Contractor's* design

Not applicable as no design will be done by the *Contractor*.

3.6. Design of Equipment

Not applicable as no design will be done by the *Contractor*.

3.7. Equipment required to be included in the *works*

- a. The *Contractor* shall provide all plant, Equipment, machinery, tools, and temporary facilities necessary to execute the *Works* safely, efficiently, and in accordance with the *Employer's* design, applicable standards, and the operational constraints of Majuba Power Station. The *Contractor* remains responsible for ensuring that all Equipment is fit for purpose, compliant with legal requirements (including OHS Act), and maintained in serviceable condition throughout the *Works*.
- b. The *Contractor's* Equipment, plant, machinery and tools must be serviced off-Site and only come back to Site when it is in a working condition.
- c. The *Contractor* provides the Equipment in accordance with the approved Method statement.
- d. The following are categories and indicative items of possible Equipment to be required for the execution of the scope The required Equipment is not limited to the below list:
 - i. **Earthworks and Material Handling Equipment**
 - These items support excavation, shaping, cut-to-fill operations, base reconstruction, and material placement and shall be provided by the *Contractor*.
 - Hydraulic excavators (various tonnages)
 - TLBs (tractor-loader-backhoes)
 - Graders with precision levelling control
 - Bulldozers (medium class) for shaping and bulk movement
 - Front-end loaders (wheel loaders)
 - Skid-steer loaders for confined or sensitive areas

- Dump trucks / tipper trucks for transporting spoil and imported materials.
 - The Contactor will be responsible for the maintenance and safety of their own Equipment while on Site.
- ii. Pavement Rehabilitation and Layer *Works* Equipment
- Required for removal of distressed pavement layers, reconstruction of subbase/base layers, and compaction to specified densities.
 - Milling machines (cold planers) for asphalt removal and surface correction
 - Reclaimers / stabilizers (if stabilisation or in-situ recycling is included)
 - Mechanical spreaders for placing aggregates or stabilising agents
 - Vibratory rollers (smooth drum) for bulk compaction
 - Pneumatic (tyre) rollers for finishing and layer densification
 - Plate compactors and pedestrian rollers for confined or edge compaction
 - Surveying and laser-guidance Equipment for grade control and quality assurance
- iii. Surfacing and Asphalt *Works* Equipment
- Required for resurfacing, asphalt placement, chip sealing (if applicable), and surface finishing.
 - Asphalt pavers with appropriate screed width
 - Chip-spreaders (if chip seal is part of the design)
 - Bitumen distributors (sprayers) with calibrated controls
 - Asphalt mixing and haulage trucks
 - Steel wheel rollers (static and vibratory) for asphalt compaction
 - Infrared thermometers for monitoring asphalt temperature
 - Cutting machines for joints and edges
- iv. Road Markings, Signage, and Traffic-Safety Equipment
- Required for ensuring compliance with SARTSM, SANS specifications, and internal safety protocols.
 - Line-marking machines (airless spray applicators)
 - Thermoplastic heating kettles (if thermoplastic markings apply)
 - Road signage installation Equipment (augers, posts, setting tools)
 - Reflectivity and thickness measurement tools
 - Traffic cones, barricades, temporary signage, and delineators
 - Portable traffic-light systems or flagging Equipment for traffic control
- v. Temporary *Works* and Site Establishment Equipment
- Required to establish, secure, and operate a compliant construction Site within a live industrial facility.
 - Site offices, ablutions, and storage facilities

- Generators or temporary power units
 - Lighting towers for early morning or low-visibility operations
 - Communication Equipment (two-way radios for confined plant environments)
 - Perimeter fencing and access-control systems
 - Spill-containment kits and environmental protection Equipment
- vi. Quality Control, Testing, and Survey Equipment
- Required to ensure adherence to specified compaction, layer thickness, material properties, and geometric tolerances.
 - Nuclear density gauges or equivalent density testing tools
 - Dynamic cone penetrometers (DCPs)
 - Soil and aggregate sampling Equipment
 - Core drilling machines for asphalt samples
 - Level instruments, total stations, GNSS survey systems
 - Straightedges, compaction meters, deflection-testing tools (if required)
- vii. Health, Safety, and Environmental (HSE) Equipment
- Essential for compliance with the power station's SHEQ requirements and statutory obligations.
 - Fire extinguishers, spill-kits, and first-aid Equipment
 - Safety barriers and protective pedestrian walkways
 - Dust-suppression units and environmental monitoring devices
 - PPE, harnesses, fall-protection Equipment, and emergency-response tools
 -

3.8. As-built drawings

3.8.1. As-built Drawings provision

- 3.8.1.1. The *Contractor* shall prepare as-built drawings reflecting the final constructed condition of all roadworks, pavement layers, geometric layouts, drainage structures, signage, and road markings.
- 3.8.1.2. As-built drawings shall:
- 3.8.1.3. Clearly identify any approved design deviations or modifications;
- 3.8.1.4. Include accurate levels, dimensions, material types, and construction details.
- 3.8.1.5. Conform to Eskom drawing standards, COTO requirements, and relevant South African National Standards (SANS).
- 3.8.1.6. The *Contractor* shall maintain marked-up drawings on Site throughout construction to track changes and shall submit final as-built drawings in both editable electronic format (e.g., DWG) and PDF format.
- 3.8.1.7. As-built drawings shall be endorsed by a competent, professionally registered person (Pr Eng or Pr Tech Eng) who supervised or verified the *works*.

4. Procurement

4.1. People

4.1.1. Minimum requirements of people employed on The Site

- 4.1.1.1. The *Contractor* provides qualified and competent personnel with the specified minimum qualifications and relevant post-qualification experience for the implementation of all *works*. All CV's with relevant qualifications and detailed experience are submitted to the *Project Manager* within two (2) weeks of the start date. All non-South African qualifications are certified by SAQA and proof of certification is supplied. The absence of SAQA certification or non-compliance to any of the *Employer's* requirements results in the *Contractor* immediately removing the affected employee/s for purposes of Providing the *Works*.
- 4.1.1.2. The *Contractor* must appoint all necessary and qualified personnel to execute the scope of work effectively and successfully.
- 4.1.1.3. The *Contractor* must appoint a *Project Manager* in addition to the key technical personnel. The *Project Manager* must have a ND in Civil Engineering and ND in Project Management and/or Contract Management and must also have 2 years of related project management and/or contract management experience in road construction and rehabilitation. The *Project Manager* must also be currently professionally registered with SACPCMP as a Professional Construction Project Manager (Pr CPM).

4.1.2. BBBEE and preferencing scheme

- a. The *Employer* requires the *Contractor* to achieve a Broad Based Black Economic Empowerment Recognition Level (B-BBEE Recognition Level) of 4 (the "Required B-BBEE Recognition Level") within six months from date of Contract Award in terms of Eskom's Directive "Implementation of Eskom's Black Economic Empowerment Strategy " and Standard "Application of the Broad Based Black Economic Empowerment Codes of Good Practice within Eskom (32-1034)".
- b. Eskom's policy is to maximise purchases from Black or Black Empowering Enterprises (BEE's) whether Black Woman-owned, small or Large Black or Black empowering suppliers. The purpose is to promote entrepreneurship in black communities and give black business access to the mainstream of business opportunity.

4.1.3. Accelerated Shared Growth Initiative – South Africa (ASGI-SA)

- a. Eskom Holding SOC Limited as a state-Owned Enterprise is supportive of the South African Government's growth, poverty eradication and job creation strategy, Supplier Development and Localisation (SD&L) as well as the New Growth Path as announced by the State President.
- b. The *Employers* contribution to this initiative is to set Local Content, Local Content to Site, Black Economic Empowerment targets to Large Black Suppliers, Small Black Enterprises (SBE) Black Woman Owned (BWO), and Black Youth Owned Enterprises (BYO), Enterprises owned by Black People Living with Disability (BPLwD) as well as Skills Development targets as key evaluation criteria in awarding of all formal tenders.

- c. The *Contractor* complies with and fulfils the *Contractor's* obligations in respect of the Supplier Development and Localisation (SD&L) in accordance with and as provided for in the *Contractor's* SD&L Compliance Schedule IT 1.2 SD&L requirements.
- d. Eskom is committed to Supplier Development and Localisation and its prime objectives of economic growth, skills development, job creation and poverty eradication. This commitment is to be achieved through leveraging Eskom's procurement spend in a manner that allows flexibility within the business in order to accommodate government local development initiatives and policies.
- e. The *Contractor* keeps accurate records and provides the *Project Manager* with reports on the *Contractor's* actual delivery against the above stated Supplier Development and Localisation criteria.
- f. The *Contractor's* failure to comply with his SD&L obligations constitutes substantial failure on the part of the *Contractor* to comply with his obligations under this contract.

4.1.4. Supplier Development, Localisation and Industrialisation (SDL&I) Requirements

4.1.4.1. Recruitment of General, Semi-Skilled, and Skilled Labour

- a. The *Contractor's* Permanent Core Team, including general, semi-skilled, and skilled labour is only allowed on Site, based on the Organogram provided to the *Project Manager* to establish the numbers before this team comes to Site. The *Contractor* provides proof of permanent employment, before contract placement, with the *Contractor* or *SubContractor* to the *Project Manager* for all Core Team staff members.
- b. The *Contractor* recruits all additional recruits, as a minimum of general labour, semi-skilled labour and where possible skilled labour from Dr Pixley Ka Seme local municipality, using the recruitment process, prescribed below:
 - Job Advertisements are submitted to the Stakeholder office for verification.
 - The *Contractor* places containers/boxes, clearly marked with the advertisement, in each of the local municipal offices:
 - i. Wakkerstroom
 - ii. Volksrust
 - iii. Daggakraal
 - iv. Perdekop
 - v. Amersfoort
 - Closing dates for submission of applications are at least 7 days after the containers/boxes are placed.
 - The *Contractor* collects the containers/boxes with applications from the local municipal offices after the closing date and delivers them to Site to a location where the CV's will be verified.
 - The *Employer* arranges for Members of the Recruitment Sub-Committee to verify CV's collected (by the *Employer*) for purposes of ensuring that applicants are indeed from the local areas.
 - The Recruitment Sub-Committee supplies a verified list to the *Project Manager* as well as to the *Contractor* with all the verified CV's, which is collected by the *Contractor*
 - The *Contractor* shortlists and interviews only verified applicants. A list of successful candidates accompanies the team for verification during Site induction. The *Contractor*, as proof that the verification process was followed, keeps shortlisted CV's.

- If new recruits could not be found after two rounds of advertising, the Stakeholder Forum has to provide approval to recruit from a wider area.
- In an event that new recruits are not from the defined Dr Pixley Ka Seme municipality, the *Contractor* needs to provide proof that the local municipality could not provide such individuals, i.e. proof of the above process being followed without placement of suitable candidates.
- The *Contractor* may not work outside of the above process.
- The *Contractor* is encouraged to use the 70/30% team composition principle (70% locals and 30% core team). These candidates must be representative of the population demographics of the Mpumalanga province.

4.1.4.2. Local procurement Content

- “Local Procurement Content” refers to value added in South Africa by South African resources. Where a single contract involves a combination of local and imported goods and/or services, the tender response must be separated into its components as per the Price Schedule included with the tender documents. Local procurement content is total spending minus the imported component.
- Tenderers are required to submit their proposals in the table below.

Local Procurement Content	Eskom target	Tenderer Proposal
	100%	

4.1.4.3. Skills development

- Tenderers are required to submit proposals in a table below for developing the skills of unemployed candidates in the country. Skills development is intended to address Eskom’s core, scarce and critical skills and the scarce and critical skills. These skills are also included in a 2020 list of occupations in high demand as stipulated in the Government Gazette 43937. Candidates shall be from all provinces in the country, and their composition shall be representative of the population demographics of South Africa.

Skill type / Occupation	Eskom target	Entry Level	Output	Tenderers Proposal
Civil technicians	2	Diploma	Civil technicians	

4.1.4.4. Supplier Development, Localisation and Initiatives Plan and Reporting

- In addition to recruiting all new recruits as per the process described in section **Error! Reference source not found.**, Recruitment of General, Semi-Skilled, and Skilled Labour above, the *Contractor* complies with the SDL&I requirements as set out in the SDL&I report (part of tender returnable).
- To comply with the SDL&I requirements, the *Contractor* is required to;

- i. Provide a high-level SDL&I implementation plan/schedule, which stretches for the duration of the contract within one month after the contract *starting date*. This will be used as a reference document for monitoring, measuring and reporting on the supplier's progress in delivering on their stated SDL&I commitments.
- ii. As part of the plan, the *Contractor* submits a Human Resource Plan indicating the number of new jobs that would be created and the number of new jobs that would be retained due to this project.
- iii. The *Contractor* provides an explanation and action plan for deviation from the proposed plan, if and when applicable.
- iv. The candidates for skills development are sourced firstly from within the Dr Pixley Ka Seme area, then Gert Sibande District, then Mpumalanga Province, before the rest of RSA is considered.
- v. The candidates are either developed directly by the *Contractor*, through the *Contractor's* supply network or the SETA accredited training providers.
- vi. Candidates are either currently unemployed graduates from FET (Further Education and Training) colleges, universities or matriculants. These candidates must also be representative of the population demographics of the Mpumalanga Province.
- vii. The *Contractor* updates the *Project Manager* as well as the Department of Labour if there is a change in the staff compliment e.g. dismissal, resignation, etc.
- viii. The *Contractor* submits on a quarterly basis a report to the *Project Manager* in accordance with the SD&L Data Collection Template on their compliance with the SDL&I obligations.
- ix. The *Project Manager* reviews the SDL&I report submitted by the *Contractor* within 30 (thirty) days of receipt of the reports and notify the *Contractor* in writing if their SDL&I obligations have not been met.
- x. Upon notification by the *Project Manager* that the *Contractor* did not meet their SDL&I obligations, the *Contractor* will be required to implement corrective measures to meet those SDL&I obligations before the commencement of the following report, failing which Retention clauses shall be invoked.

4.1.4.5. SDL&I Penalty

- a. The *Employer* will apply a penalty of 2.5% of the Contract Value for failure to meet SDL&I obligations.
- b. For the duration of the contract, the *Employer* will retain 2.5% of every invoice (excluding VAT) as security for the fulfilment of all SDL&I Obligations. The retained amounts shall only be released to the *Contractor* upon:
 - Eskom receives the SDL&I progress report/s from the *Contractor*.
 - Fulfilment of all SDL&I obligations by the *Contractor*.
 - Submission of an approved compliance report by SDL&I Department.

4.1.4.1. Transportation and Accommodation

- e. The *Contractor* complies with 32-345 - Eskom Vehicle Safety Specification, whether using company or taxi vehicles, as applicable for *Contractors*.

- f. The *Contractor* provides suitable transportation for all personnel to and from Site and also on Site, when necessary.
- g. The *Contractor* provides delivery vehicles (trucks or LDV's) to deliver/remove all Equipment and materials to/from Site. LDV's are also required to move materials on Site, when required.
- h. The *Contractor* ensures that all levels of permanently employed personnel receive accommodation at local guesthouses or lodges and that no employee is asked to source their own accommodation. No accommodation allowances are paid instead of guesthouse or lodge accommodation. Locally employed personnel neither receive accommodation nor shall the *Employer* pay for their accommodation. Monthly invoices are submitted to the *Project Manager* for assessment purposes.

4.1.4.2. Support of Local Small, Micro and Medium Enterprises (SMME)

- a. The *Contractor* supports local SMME by purchasing Equipment, tools and materials locally where such Equipment, tools and materials are available.
- b. The *Contractor* supplies a list of all suppliers used for the procurement of Equipment, tools and materials and supplies their B-BBEE certificates upon request.
- c. Where Equipment, tools and materials are not locally available, the *Contractor* provides proof thereof and the proposed alternative supplier(s).

4.2. Subcontracting

4.2.1. Preferred SubContractors

- a. The *Contractor* makes use of any supplier for sourcing of Equipment, tools and material whatever that the *Contractor* will use to execute *works* will comply with the SABS.

4.2.2. Subcontract documentation, and assessment of subcontract tenders

- a. The *Contractor* submits the proposed contract data for each subcontracting for acceptance to the *Project Manager*.
- b. The *Contractor* prepares subcontracting document as according to NEC contract.
- c. The *Contractor* must inform the *Employer's* representative when intending to subcontract some of the *works* from the contract scope.
- d. The *Contractor* only employs qualified SubContractors.

4.2.3. Limitations on subcontracting

- a. The terms and conditions of employment of *Contractor* s must be made available to the *Employer* before any work may commence.
- b. The *Contractor* shall comply with all local and statutory labour laws (LRA, BCEA UIF etc.) and agreements and shall promptly attend to any labour grievances that may arise. The *Contractor* shall not remunerate employees at less than the proclaimed statutory wage (Minimum Wages Act). Failure in this regard will result in non-performance and therefore immediate termination of the contract.
- c. The contract does not create any renewal expectations on either party as referred to in section 186"B" of the Labour Relations Act

- d. All *Contractor* personnel must have Police clearance. Certificates must be handed in to the *Project Manager* at least 2 weeks before commencement of work. The *Project Manager* reserves the right to refuse entry to all persons whose criminal records indicate that their presence on Site might create an unsafe and insecure environment to Majuba Power Station. The following webSite can be used to guide the process. http://www.saps.gov.za/services/applying_clearance_certificate.php

4.2.4. Attendance on SubContractors

- a. It is the *Contractor's* responsibility to ensure that the *SubContractor(s)* is present on Site when required and completes and supplies a daily Site diary, which includes details such as the labour resources available, starting time, ending time, Equipment and materials used, weather conditions, interruptions etc. Refer to section 2.2.3.4, for the minimum requirements for daily diaries.
- b. The *Contractor* ensures that the diary is submitted by the *SubContractor* to the *Project Manager* daily for checking, commenting and signing off and a copy is supplied. If the daily diary is not signed off by each worker, then a separate daily attendance register is supplied.

4.3. Plant and Materials

4.3.1. Quality

- 4.3.1.1. The *Contractor* ensures that all Equipment, tools and material that the *Contractor* or *SubContractor* uses to execute the *works*, complies with the SABS and Other stated standards.
- 4.3.1.2. All Plant and Materials sourced and supplied for the installation are new and are free from Defects. Reconditioned or refurbished plant and/or materials are NOT regarded as new under any circumstances and may NOT be utilised.
- 4.3.1.3. The *Contractor* does not use Plant and Materials, which are generally recognised as being unsuitable or Otherwise unsuitable for the purpose for which they are intended.
- 4.3.1.4. Only components of high reliability are utilised, with a proven operating history, to enable the plant to achieve the required reliability and availability. Plant and material design, engineering and manufacture comply with the best practice applicable to high-grade products of the type to be furnished, to ensure the efficiency and reliability of the *works* and the strength and suitability of the various parts for the *works*.
- 4.3.1.5. Plant and Materials withstand ambient conditions and the variations of temperature arising under working conditions without distortion, deterioration or undue strains in any part.
- 4.3.1.6. All parts are made accurately, and where practicable, to standard gauges to facilitate replacement and repairs. Like parts are interchangeable.
- 4.3.1.7. No repair of Defective Plant and Materials may be permitted without the *Project Manager's* acceptance and any such repair, if accepted, is carried out to the satisfaction of the *Project Manager*.

4.3.2. Plant & Materials provided "free issue" by the Employer

- 4.3.2.1. The *Contractor* shall provide all Plant and Materials required to implement the *works*.

4.3.3. Contractor's procurement of Plant and Materials

- 4.3.3.1. During transportation, packaging is done in such a way that damage is prevented. Components that are transported separately are marked accordingly and are easily identifiable.
- 4.3.3.2. Plant, Equipment and materials are procured complying with the specifications listed in the *Works Information*.

4.3.4. Delivery to Site

- 4.3.4.1. Delivery, loading, unloading, transporting, rigging, setting out and storage remain the *Contractor's* responsibility to perform safely and timeously by competent personnel.
- 4.3.4.2. The *Contractor* advises the *Project Manager* in advance of all shipments and coordinates with the *Project Manager* the arrival, off-loading and release of such. The *Contractor* promptly unloads shipments and promptly releases carrier Equipment from Site.
- 4.3.4.3. All material deliveries are to be performed via the Majuba Stores Department. Delivery notes are to be delivered with the materials to the Majuba Stores Department. Arrangements are made with the *Project Manager* at least 24 hours in advance to arrange for quality inspections of all materials. A copy of the signed delivery note is provided to the *Project Manager* upon delivery.
- 4.3.4.4. The *Contractor* safely and correctly protects, handles, secures, transports and delivers all Plant and Materials.
- 4.3.4.5. The *Contractor* marks or tags containers, crates, boxes containing Plant and Materials for the project, using the contract number and project description. Packaging materials remain the *Employer's* property and cannot be removed from Site.
- 4.3.4.6. The *Contractor* submits the relevant data sheets and material certificates for acceptance by the *Project Manager* before the Equipment delivery to Site for acceptance by the *Project Manager* or by no later than the date of delivery. Items that have not been accepted, will not be included in the *Contractor's* assessment for payment.

4.3.5. Spares and consumables provide these initially as part of his Providing the Works.

- 4.3.5.1. The *Contractor* shall provide consumables as required by him to complete the *works*.

4.3.6. Inspection and Testing on Site

- 4.3.6.1. Certificates of delivery and material composition shall be submitted to Eskom for review and approval prior to the use of any materials.
- 4.3.6.2. Tests results for materials shall be submitted to Eskom for approval.
- 4.3.6.3. Any changes made from the agreed materials and Equipment shall be approved by Eskom.

4.4. Marking Plant and Materials outside The Working Areas

- a. The *Contractor* shall mark the Plant and Materials as follows:

Stores receiving Majuba Power Station
Volksrust – Amersfoort Road
For Attention the *Project Manager*
Ms S Mbebeza

Contract Number: 46
Contract Title:
Goods description:

4.5. Contractor's Equipment (including temporary works).

- i. The *Contractor* will be responsible for the provision of all or any temporary or expendable materials required allowing for storage of material.
- ii. The *Contractor* will be responsible for the safeguarding, care and security of all items whilst in the *Contractor's* custody and control, until Completion of the whole of the *works*.
- iii. The *Contractor* will be responsible for Equipment required to complete the work.
- iv. The *Contractor* will be responsible for the repair, replacement or correction as necessary of any and all items of plant and/or materials supplied by the *Employer*, which are damaged and/or lost while in the *Contractor's* custody and control.
- v. Any electrical Equipment, or appliances, used by the *Contractor* conforms to the applicable OHS Act safety standards and is maintained in a safe and proper working condition. The *Project Manager* has the right to stop the *Contractor's* use of any electrical Equipment, or appliance, which, in the opinion of *Project Manager*, does not conform to the foregoing.
- vi. Off-loading and handling Equipment, such as cranes, is not available on Site and if required is provided by the *Contractor*.

5. Construction

5.1. Temporary works, Site services & construction constraints

5.1.1. Employer's Site entry and security control, permits, and Site regulations

- 5.1.1.1. Entry to Site is only approved once the following minimum requirements are adhered to:
- a) The *Contractor's* safety file is to be approved by the *Employer's* safety department.
 - b) Site-specific induction is to be done by all personnel.
- 5.1.1.2. The *Contractor* applies for access permits (*Contractor's* permit) at the Security gate on the start date of the contract. The *Contractor* personnel shall be required to always be in possession of an access permit.
- 5.1.1.3. In order to assist Protection Services with the issuing of permits and the identification of personnel on Site the successful *Contractor* is to supply a list of all personnel that he intends using on Site, at least 72 hours prior to entry of the Security Area.
- 5.1.1.4. This list must be delivered to Protection Services. The list, identified with the *Contractor's* name, is to contain the following information:
- a. Employee name
 - b. Employee ID Number
 - c. The *Employer's* Safety Coordinator's signature
 - d. Copy of the ID book of every employee of the *Contractor*,
- 5.1.1.5. Access permits must be returned to protection services when the worker/s leave The Site, either after Completion of the *services*, or upon earlier termination of service of a worker during the contract period.
- 5.1.1.6. To speed up the process of gaining access to The Site, the *Contractor* must compile detailed lists of all tools and Equipment (including serial numbers where applicable) to be taken on Site before arriving at the Power Station Security gate. An authorised copy of this list must be retained by the *Contractor* - to be used again when the tools and Equipment are removed from Site after the Completion of the *services*.
- 5.1.1.7. Any additional tools or Equipment brought to Site, or any tools or Equipment removed during the contract period must be reported to protection services and all lists amended likewise. Gate release permits will not be issued for the removal of any tools or Equipment not specified on the tool list.
- 5.1.1.8. The *Contractor's* visitors and all personnel shall always conform to the security arrangements in force at The Site. Application forms for visitors must be filled in by the *Contractor's* Site Manager and approved by the *Project Manager*, one day before the visit and submitted to the *Employer's* Protection Services office. Visitors will not be allowed on Site if the necessary forms are not in the possession of the security staff.
- 5.1.1.9. The Chief of Protection Services may, with valid cause, remove any, of the *Contractor's* personnel from The Site, either temporarily, or permanently. He may deny access to The Site to any person whom, in the opinion of the said Chief of Protection Services, constitutes a security risk.

- 5.1.1.10. No unauthorised vehicles will be allowed on Site. Only *Contractor's* Vehicles with displayed Contract Vehicle Permits disks will be allowed on Site. Contract Vehicle Applications should be directed to the *Project Manager*.
- 5.1.1.11. No recruiting of casual labour may be done on the *Employer's* premises, including the area outside the Power Station Security Gate.
- 5.1.1.12. Criminal clearance/checks for *Contractors*:
- a. Acceptance of this tender is subject to the condition, that both the contracting company's management and its employees will provide Eskom with a clear criminal record not older than thirty (30) days from a reputable screening company. If the principal *Contractor* appoints A *SubContractor*, the same provisions and measures will apply to its *SubContractor*. Acceptance of the tender is also subject to the condition that the *Contractor* will implement all such security measures for the safe performance of the work as required in the scope of the contract.
 - b. For the purpose of clarity, *Contractors* who was previously found guilty of offences in terms of the National Road Traffic Act 93 of 1996 and / or has paid guilt admission fines will be exempted and be allowed to access Site.
 - c. *Contractors* are to submit proof of verification record(s) (Security clearance) from SAPS or accredited supplier linked to SAPS AFIS system not older than thirty (30) days, as part of Risk Management process in order to curb any threats against the Installation. It is compulsory for these documents to be submitted to Security for verification before access to Site is granted. Only individuals with clear criminal records will be considered.
 - d. *Contractors* are required to submit the SAPS Clearance Certificate obtained by the employee along with a copy of his/her Identity Document or Passport to The Site Security Manager. The Security Manager is required to verify the authenticity of the CRC Certificate with SAPS and to cross reference the employee seeking access against known HR databases and Site databases to determine if the employee in question has in the past participated in disruptive labour actions and if the individual was dismissed from Eskom and the reason for such dismissal. Every employee applying for access must be evaluated as an individual and subsequent finding recorded. A risk analysis of the employee profile indicating whether the employee is a risk to the installation must be completed. Any risk rating allocated above a level III will be deemed unsuitable.
 - e. The process shall be repeated every 12 months for low-risk employees (Risk Rating 5, 4) and every 6 months for medium to high-risk employees (Risk Rating 3)

5.1.2. Restrictions to access on Site, roads, walkways and barricades

- 5.1.2.1. The Site is located within a fully operational power-generating facility subject to strict access control and operational safety requirements.
- 5.1.2.2. All vehicular access must use designated access gates and follow the internal traffic management plan issued by the *Employer*.
- 5.1.2.3. The *Contractor* shall maintain uninterrupted access for operational plant vehicles, including ash-haul trucks, maintenance Equipment, fuel deliveries, and emergency services.
- 5.1.2.4. Walkways, access routes and Working Areas must be demarcated and barricaded using compliant materials (e.g., reflective cones, barrier tape, temporary fencing).
- 5.1.2.5. Any temporary closure of a road or walkway requires prior approval from the *Project Manager* and Station Operations.

- 5.1.2.6. Barricades shall be monitored and maintained by the *Contractor* and removed only after approval from the *Supervisor*.

5.1.3. People restrictions on Site; hours of work, conduct and records

- 5.1.3.1. Restrictions on access, working hours, and conduct may apply at The Site due to the operational, safety, and security requirements of Majuba Power Station, which is a live power-generating facility. The *Contractor* shall comply at all times with the *Employer's* Site regulations, security procedures, and any instructions issued by the *Project Manager*, *Supervisor*, or Station Operations personnel.
- 5.1.3.2. Working hours shall be subject to approval by the *Project Manager* and may be limited by operational constraints, safety considerations, environmental requirements, or coordination with ongoing power station activities. No work outside approved hours, including night work, weekend work, or public holiday work, shall be undertaken without prior written approval from the *Project Manager*.
- 5.1.3.3. The *Contractor* shall ensure that all personnel on Site, including employees, *SubContractors*, and visitors, conduct themselves in a professional, orderly, and safe manner at all times. Any misconduct, unsafe behaviour, non-compliance with Site rules, or actions that may compromise safety, security, or operations may result in the removal of such personnel from Site at the *Employer's* discretion, without entitlement to compensation.
- 5.1.3.4. It is a fundamental requirement of this contract that the *Contractor* keeps accurate, up-to-date records of all personnel on Site at any time. These records shall include, as a minimum:
- a. Names and identification details of all personnel on Site;
 - b. *Employer* or *SubContractor* affiliation;
 - c. Trade or role performed;
 - d. Dates and times of Site access and departure; and
 - e. Records of induction, permits, and authorisations where applicable.
- 5.1.3.5. The *Contractor* shall maintain similar records for all *SubContractors* and ensure that such records are readily available for inspection by the *Project Manager* or *Supervisor* at any time. These records shall be maintained in a format acceptable to the *Project Manager*.
- 5.1.3.6. Personnel records may be used by the *Project Manager* when administering the contract, including but not limited to the assessment of compensation events, delays, disruption, access restrictions, or changes in working conditions. Failure to maintain or provide accurate personnel records may adversely affect the assessment of compensation events and shall not constitute grounds for additional payment or time.

5.1.4. Health and safety facilities on Site

- 5.1.4.1. Minor first aid requirements are provided for by the *Contractor*. Should these prove to be inadequate, for example in the event of a major injury, the *Employer's* Medical Centre and facilities are available for use. Emergency services can be reached by dialling 9222 from any Site phone. Alternatively, one of the following numbers can be dialled:
- a. Medical centre 017 799 2138
 - b. Fire and rescue 017 799 3192
 - c. Electrical Operating Desk (EOD) 017 799 3803 (all hours)

- 5.1.4.2. The *Employer* is entitled however to recover the costs incurred in respect thereof from the *Contractor* or *SubContractor*.
- 5.1.4.3. The *Employer's* Emergency Medical Services for after-hours is available for major injuries and life-threatening injuries, including ambulance transportation.

5.1.5. Title to materials from demolition and excavation

- 5.1.5.1. For this contract, no title to materials from excavation, demolition, milling, or removal of existing *works* is transferred to the *Contractor*. All materials arising from excavation and demolition, including but not limited to surplus soil, pavement layers, aggregates, asphalt, concrete, scrap metal, or any Other materials, remain the property of the *Employer* unless Otherwise instructed in writing by the *Project Manager*.
- 5.1.5.2. The *Contractor* shall not remove, sell, reuse, or Otherwise dispose of any materials arising from excavation or demolition for his own benefit. Any salvage, reuse, or relocation of such materials shall be undertaken only if expressly instructed or approved by the *Project Manager* and strictly in accordance with the *Employer's* requirements.
- 5.1.5.3. The *Contractor* shall provide and implement his own waste management arrangements for all materials generated by the *works*. This includes the collection, temporary storage, transportation, and lawful disposal of waste materials at approved and licensed disposal facilities. All waste management activities shall comply with applicable environmental legislation, Eskom environmental requirements, and the approved Environmental Management Plan.
- 5.1.5.4. The *Contractor* shall submit proof of lawful disposal, including waste disposal certificates, to the *Project Manager* when requested. The cost of waste handling, transportation, and disposal is deemed to be included in the Prices and no additional payment or compensation event shall arise from these obligations.

5.1.6. Cooperating with and obtaining acceptance of Others

- 5.1.6.1. In accordance with Clause 25.1 of the NEC3 Engineering and Construction Contract (ECC), the *Contractor* shall cooperate with the *Employer*, the *Project Manager*, the *Supervisor*, and Others as defined in Clause 11.2(10). Others may include, but are not limited to, Eskom operations personnel, maintenance teams, Other *Contractors*, service providers, statutory inspectors, and any parties authorised by the *Employer* to work within or adjacent to The Site.
- 5.1.6.2. The *Contractor* shall share The Working Areas with Others where required and shall plan, sequence, and execute the *works* in a manner that does not impede, disrupt, or compromise the activities, safety, or access requirements of Others. This includes maintaining access for ash haulage operations, operational vehicles, maintenance activities, and emergency services at all times, unless Otherwise approved by the *Project Manager*.
- 5.1.6.3. The *Contractor* shall attend coordination meetings, comply with interface requirements, and implement reasonable measures to manage interfaces with Others, including adjustments to work sequences, temporary access arrangements, and traffic accommodation measures. Any constraints arising from the need to cooperate with Others shall be taken into account in the *Contractor's* programme and method statements.
- 5.1.6.4. Where the *works* require liaison with, approval from, or acceptance by statutory authorities, regulators, or landowners (if applicable), the *Contractor* shall cooperate fully with the

Employer and comply with all reasonable requirements associated with such liaison. This may include inspections, notifications, access arrangements, and compliance with applicable legislation, permits, or approvals.

- 5.1.6.5. Unless expressly stated Otherwise in the Contract Data or *Works* Information, the *Employer* remains responsible for obtaining statutory approvals related to the overall project. The *Contractor* shall, however, provide all reasonable assistance, information, documentation, and access required to support such approvals and shall comply with any conditions attached thereto.
- 5.1.6.6. Failure by the *Contractor* to cooperate with Others or to obtain required acceptances where applicable shall be treated as a failure to comply with the *Works* Information and shall not constitute a compensation event.

5.1.7. Publicity and progress photographs

- 5.1.7.1. Majuba Power Station is declared a National Key Point and is subject to strict security, confidentiality, and access-control requirements. Accordingly, the *Contractor* shall not undertake any publicity, advertising, media engagement, or public communication relating to the *Works*, The Site, or the *Employer* without the prior written approval of the *Employer*.
- 5.1.7.2. No advertising boards, banners, flags, signage, or Other promotional material displaying the *Contractor's* name, logo, or branding shall be erected, displayed, or distributed on or adjacent to The Site without the prior written approval of the *Project Manager* and the *Employer's* authorised representative. Where approved, the content, size, location, and duration of such signage shall be strictly controlled.
- 5.1.7.3. The *Contractor*, its employees, *SubContractors*, and visitors are not permitted to take photographs, videos, audio recordings, drone footage, or any Other visual or digital recordings inside the power station or within The Site boundaries. This prohibition applies to personal devices, company Equipment, and any form of recording technology.
- 5.1.7.4. Where photographs or visual records are required for contractual purposes, progress reporting, quality records, or handover documentation, the *Contractor* shall apply in writing for permission to the *Project Manager*. Such application shall specify the purpose, locations, timing, and method of photography. Photography may only be undertaken once written permission has been granted and in accordance with any conditions imposed by the *Employer*, including security supervision and limitations on subject matter.
- 5.1.7.5. Where approved by the *Project Manager*, the *Contractor* shall provide progress photographs at intervals agreed with the *Project Manager*. Progress photographs shall:
 - 5.1.7.6. Be limited strictly to the approved locations and scope;
 - 5.1.7.7. Be clearly dated, referenced, and described;
 - 5.1.7.8. Record the condition of the *works* before commencement, during execution, and at Completion; and
 - 5.1.7.9. Be submitted in an electronic format acceptable to the *Project Manager*.
- 5.1.7.10. All photographs and visual records taken in connection with the *Works* shall remain the property of the *Employer*. The *Contractor* shall not publish, distribute, or use such material for any purpose Other than the execution of the contract without the *Employer's* prior written consent.
- 5.1.7.11. Failure to comply with these requirements shall be treated as a serious breach of Site security and the *Works* Information and may result in the removal of personnel from Site,

suspension of work, or Other corrective action, without entitlement to additional payment or a compensation event.

5.1.8. Contractor's Equipment

- 5.1.8.1. The *Contractor* shall provide all Equipment, plant, tools, vehicles, temporary *works*, and ancillary items necessary to execute the *Works* safely, efficiently, and in accordance with the Contract. All Equipment brought onto The Site shall be fit for purpose, legally compliant, properly maintained, and suitable for use within a live power-station environment.
- 5.1.8.2. The *Contractor* shall keep accurate, up-to-date records of all Equipment on Site at any time. These records shall clearly indicate, as a minimum:
 - 5.1.8.3. Description and unique identification of the Equipment;
 - 5.1.8.4. Whether the Equipment is owned or hired;
 - 5.1.8.5. Name of the hire company where applicable;
 - 5.1.8.6. Dates of arrival on and removal from Site;
 - 5.1.8.7. Certification, inspection, and maintenance status where required by legislation or Eskom procedures.
- 5.1.8.8. Such records shall be made available for inspection by the *Project Manager* or *Supervisor* at any time and may be used for contract administration, safety verification, or assessment of compensation events.
- 5.1.8.9. The use of scaffolding, rigs, cranes, heavy lifting Equipment, and similar plant shall be subject to prior approval by the *Project Manager* and shall comply with the Occupational Health and Safety Act, applicable Construction Regulations, and Eskom safety standards. All lifting Equipment and lifting operations shall be certified, planned, and supervised by competent and authorised personnel. Any heavy lifts or crane operations that may affect operations, access routes, or safety shall be coordinated in advance with the *Project Manager* and Station Operations.
- 5.1.8.10. Equipment shall be positioned, operated, and stored only within approved Working Areas. Upon Completion of the relevant activities, or when no longer required, the *Contractor* shall promptly remove Equipment from The Working Areas and reinstate affected areas to a safe and orderly condition, unless Otherwise instructed by the *Project Manager*.
- 5.1.8.11. In accordance with principles similar to Clause 4.1 of SANS 1200 A, the *Contractor* shall ensure that all Equipment is fitted with effective silencers and noise-reduction devices where applicable. Equipment generating excessive noise, vibration, fumes, or emissions shall not be operated unless appropriate mitigation measures are implemented and accepted by the *Project Manager*. The *Employer* reserves the right to prohibit the use of any Equipment that, in the opinion of the *Project Manager*, causes unacceptable noise, disturbance, or risk to personnel or operations.
- 5.1.8.12. Failure to comply with these requirements may result in the removal of Equipment from Site or suspension of its use, without entitlement to additional payment or a compensation event.

5.1.9. Equipment provided by the Employer

- 5.1.9.1. The *Employer* will not provide any Equipment, plant, tools, vehicles, machinery, temporary works, or construction facilities for the execution of the *Works*.
- 5.1.9.2. The *Contractor* shall provide all Equipment required to execute the *Works* in full, including but not limited to earthmoving plant, paving Equipment, compaction plant, lifting Equipment, traffic accommodation devices, testing Equipment, temporary works, and any ancillary tools or machinery necessary to comply with the *Works* Information and applicable standards.
- 5.1.9.3. The *Contractor* shall ensure that all Equipment provided is fit for purpose, compliant with applicable legislation, Eskom safety requirements, and suitable for operation within a live power-station environment. All costs associated with the provision, operation, maintenance, certification, fueling, security, and removal of such Equipment are deemed to be included in the Prices.
- 5.1.9.4. No reliance shall be placed by the *Contractor* on the availability of any *Employer*-owned Equipment, facilities, or resources unless expressly stated Otherwise in the Contract Data or instructed in writing by the *Project Manager*. The absence of *Employer*-provided Equipment shall not give rise to a compensation event, delay, or additional payment.

5.1.10. Site services and facilities

5.1.10.1. The *Employer* shall provide:

- a. A designated laydown area and vacant land within the power station precinct where the *Contractor* shall establish The Site, including Site offices, storage areas, and associated facilities.
- b. Basic services tap-off points, including:
 - i. A water supply point, and
 - ii. An electricity point of supply, located at positions determined by the *Employer* and communicated to the *Contractor* prior to or during Site handover.
 - iii. A point of connection for sewerage, identified by the *Employer*, to which the *Contractor* may connect permanent or semi-permanent sanitation facilities.
- c. A water source from which the *Contractor* may collect water for dust suppression purposes, subject to the water quality being deemed suitable by the *Employer*. Where such water is deemed unsuitable for use, the *Contractor* shall make alternative arrangements to source water at his own cost.
- d. Take Away Meals
 - i. The *Contractor* or any of the *Contractor's* employees or SubContractors may purchase take away meals from the fast-food outlet on Site, if available. Driving off Site to purchase meals is not preferable and it should not delay the progress of the project.

5.1.11. Facilities provided by the Contractor

- 5.1.11.1. The *Contractor* shall be fully responsible for the provision, installation, operation, maintenance, testing, and removal of all Site services and facilities not expressly provided by the *Employer*, including but not limited to:
 - a. Site offices, buildings, and accommodation, together with all auxiliary Equipment, furnishings, and services required for their operation;

- b. Electrical reticulation within the *Contractor's* offices and along the construction Site, including connection from the *Employer's* point of supply, internal distribution, protection, metering, and compliance with applicable standards;
 - c. Sewerage and sanitation installations, including connection from the *Employer's* sewerage point of connection to the *Contractor's* offices and facilities.
 - d. No mobile or chemical toilets shall be permitted on Site;
 - e. Water reticulation within The Site and along the construction areas, including hoses, tanks, pumps, or Other infrastructure required for construction activities;
 - f. Information Technology and communications infrastructure, including data, voice, and internet services. The *Employer* will not provide Eskom network access on the construction Site, and the *Contractor* shall rely on public mobile networks or Other self-provided solutions. Sufficient mobile phone reception is available on Site;
 - g. All testing facilities, laboratories, Equipment, and testing services required for quality control, inspection, and verification of the *Works*;
 - h. All lighting requirements, including temporary lighting for daylight, night work, low-visibility conditions, and safety lighting within offices, laydown areas, and Working Areas;
 - i. All off-loading facilities, including cranes, forklifts, hoists, or Other Equipment required for unloading materials, plant, and Equipment.
- 5.1.11.2. All connections to *Employer*-provided services shall be carried out only at the approved points of supply and in accordance with the *Employer's* procedures, safety requirements, and technical standards. The *Contractor* shall obtain approval from the *Project Manager* before making any connections or modifications to *Employer* services.
- 5.1.11.3. Except as expressly stated above, the *Contractor* shall provide everything else necessary for Providing the *Works*, and no failure or limitation in Site services or facilities shall entitle the *Contractor* to additional payment or a compensation event.
- 5.1.11.4. Upon Completion of the *Works* and demobilisation of the *Contractor*, all facilities provided by the *Contractor* under this contract shall remain the property of the *Employer*, unless Otherwise instructed in writing by the *Project Manager*. The *Contractor* shall hand over such facilities in a safe, clean, and serviceable condition, free from Defects, debris, and environmental contamination.
- 5.1.11.5. The *Contractor* shall not remove, dispose of, or alter these facilities after Completion without the *Employer's* written approval.
- 5.1.11.6. Telecommunications
- a. Neither a network point nor a telephone is available on Site. Should the *Contractor* require one, he is to make his own arrangements with relevant authorities. Existing premises, inspection of adjoining properties and checking work of Others

5.1.12. Survey control and setting out of the works

- 5.1.12.1. The *Employer* will make available existing survey control information and reference points, where such control has been established during the design phase of the *Works*. Any available survey control points, benchmarks, or reference data shall be identified to the *Contractor* at or prior to Site handover. The accuracy and suitability of such information shall be verified by the *Contractor* before use.

- 5.1.12.2. The *Contractor* is responsible for the survey control, setting out, alignment, levels, and dimensional accuracy of the *Works*. This includes, but is not limited to, the setting out of road centre lines, edges, cross-falls, pavement layers, drainage elements, shoulders, verges, and associated *works* in accordance with the *Employer's* drawings, specifications, and applicable standards.
- 5.1.12.3. The *Contractor* shall:
- a. Establish, maintain, and protect all survey control points, benchmarks, and reference markers required for the execution of the *Works*;
 - b. Ensure that survey control is related to the *Employer's* reference system where provided;
 - c. Carry out all setting out using competent personnel and calibrated survey Equipment;
 - d. Regularly check and verify line, level, and position during construction to ensure compliance with the *Works* Information; and
 - e. Immediately notify the *Project Manager* of any discrepancies, inconsistencies, or errors identified in the survey control or design information.
- 5.1.12.4. Survey control points and benchmarks shall be adequately protected against disturbance, damage, or loss for the duration of the *Works*. Where any control points are damaged, disturbed, or lost, the *Contractor* shall re-establish them at his own cost.
- 5.1.12.5. All survey work shall be carried out under the supervision of a suitably qualified and experienced surveyor. Survey records, check surveys, and as-built survey data shall be retained by the *Contractor* and made available to the *Project Manager* or *Supervisor* on request.
- 5.1.12.6. The *Contractor* shall allow for survey verification by the *Project Manager* or *Supervisor* and shall provide reasonable assistance to facilitate such verification. Survey control and setting out activities shall be coordinated with Site operations to avoid disruption to power station activities.
- 5.1.12.7. Compliance with these requirements is deemed to be included in the Prices, and no additional payment or compensation event shall arise from the provision, maintenance, or correction of survey control or setting out of the *Works*.

5.1.13. Excavations and associated water control

- 5.1.13.1. The *Contractor* shall be responsible for the safe execution of all excavations required for the *Works*, including excavations for pavement rehabilitation, drainage structures, culverts, services, shoulders, and any associated *works*. All excavation activities shall be planned and executed in accordance with the Occupational Health and Safety Act, applicable Construction Regulations, Eskom safety requirements, and accepted engineering practice.
- 5.1.13.2. Excavation Requirements
- a. The *Contractor* shall:
 - Carry out all excavations in a safe and stable manner, ensuring the protection of personnel, plant, adjacent *works*, existing services, and operational infrastructure;
 - Assess ground conditions prior to and during excavation and adjust excavation methods accordingly;
 - Provide adequate temporary support, shoring, benching, battering, or Other stabilisation measures where excavations are deep, unstable, or adjacent to existing structures, roads, or services;
 - Ensure that excavations do not compromise the structural integrity of existing pavements, drainage systems, or nearby facilities.

- 5.1.13.3. Any excavations classified as deep excavations (as defined by applicable legislation or where required by ground conditions) shall be designed, supported, and supervised by competent persons. Where required by law, the *Contractor* shall appoint a competent excavation *Supervisor* and ensure that all statutory inspections are carried out and recorded.
- 5.1.13.4. Water Control and Dewatering
- a. The *Contractor* shall be fully responsible for the control, diversion, removal, and management of all water encountered during excavation and construction activities. This includes, but is not limited to:
- Groundwater seepage;
 - Surface water runoff;
 - Stormwater ingress during rainfall events; and
 - Water arising from construction activities.
- 5.1.13.5. The *Contractor* shall provide all necessary temporary *works* and Equipment for water control, including pumps, sumps, drainage channels, bunds, cut-off drains, and diversion measures, to keep excavations dry and safe at all times.
- 5.1.13.6. Water removed from excavations shall be discharged in a controlled manner to prevent erosion, flooding, pollution, or damage to existing infrastructure. No water shall be discharged into stormwater systems, drains, or the environment without approval from the *Project Manager* and compliance with environmental requirements.
- 5.1.13.7. Environmental and Operational Constraints
- a. Excavation and dewatering activities shall be undertaken in a manner that:
- Prevents contamination of surrounding soils, stormwater systems, or watercourses;
 - Avoids uncontrolled discharge, sediment-laden runoff, or erosion;
 - Maintains access routes and does not interfere with ash haul roads, operational traffic, or emergency access; and
 - Minimises disruption to power station operations.
- b. The *Contractor* shall monitor excavations continuously, particularly after rainfall or changes in ground conditions, and shall take immediate corrective action where instability or unsafe conditions are identified. Any failure of excavation support or water control measures shall be rectified immediately at the *Contractor's* cost.
- c. The cost of excavation support, water control, dewatering, and associated measures is deemed to be included in the Prices. No additional payment or compensation event shall arise from compliance with these requirements.

5.1.14. Underground services, Other existing services, cable and pipe trenches and covers

- 5.1.14.1. Known Services and Reference Information
- a. The *Employer* will make available existing drawings and records indicating known underground and above-ground services within The Site. These drawings are provided for information only and may be incomplete or outdated. The *Employer* does not warrant the accuracy, completeness, or exact location of services shown on such drawings.
- b. Prior to commencement of construction, the *Contractor* shall undertake a comprehensive underground services survey to identify, verify, and confirm the location, depth, and nature of all underground and exposed services within and adjacent to The Working Areas. The results of the survey shall be recorded and submitted to the *Project Manager* for information prior to excavation *works* commencing.
- 5.1.14.2. Locating, Marking and Recording Services

- a. The *Contractor* shall be responsible for:
- Locating all underground and existing services using appropriate detection methods;
 - Clearly marking the position of all identified services on Site prior to excavation;
 - Maintaining the visibility and protection of such markings throughout the *Works*; and
 - Keeping accurate records of the confirmed locations of services, including any discrepancies between drawings and actual conditions.
- b. Service locations identified during the *Works* shall be incorporated into as-built records and submitted to the *Project Manager* at Completion.
- 5.1.14.3. Detection Equipment
- a. The *Contractor* shall provide and use suitable and calibrated detection Equipment, including but not limited to cable locators, ground-penetrating radar (GPR), sondes, or Other approved detection technologies, as necessary to safely locate underground services. Trial pits or hand excavation shall be used where required to positively identify services prior to mechanical excavation.
- 5.1.14.4. Treatment of Existing Services
- a. Unless expressly instructed Otherwise by the *Project Manager*, all existing services shall remain live and in service during the execution of the *Works*. No service shall be terminated, diverted, relocated, exposed, or altered, whether temporarily or permanently, without the prior written approval of the *Project Manager* and, where applicable, the relevant service owner or Station Operations.
- b. Where diversion, protection, or temporary support of services is required to facilitate the *Works*, the *Contractor* shall submit a method statement for acceptance prior to implementation. All such *works* shall be executed in a manner that ensures continuity of service, safety, and compliance with statutory and Eskom requirements.
- 5.1.14.5. Working in Close Proximity to Services
- a. The *Contractor* shall exercise extreme care when working in close proximity to existing services. Mechanical excavation shall not be undertaken within agreed tolerance zones around known services unless permitted by the *Project Manager* and supported by an accepted method statement. Hand excavation and protective measures shall be used where required.
- 5.1.14.6. Responsibility for Damage to Services
- a. The *Contractor* bears full responsibility for damage to all services, whether known or unknown, arising from the execution of the *Works*. Damage to services shall not constitute a compensation event.
- c. In the event of damage to any service, the *Contractor* shall:
- Immediately stop work in the affected area;
 - Secure the area and make it safe;
 - Immediately notify the *Project Manager* and relevant service owner; and
 - Promptly carry out or arrange for the repair or reinstatement of the service at the *Contractor's* cost, to the satisfaction of the *Project Manager* and service owner.
- 5.1.14.7. Reinstatement and Penalties
- a. All damaged services, trenches, and covers shall be reinstated promptly and to a standard equal to or better than the original condition. Any delays, costs, penalties, or operational

impacts arising from damage to services shall be borne by the *Contractor*. Repeated damage to services may result in additional corrective measures, removal of personnel, or Other actions as directed by the *Project Manager*, without entitlement to additional payment.

5.1.15. Control of noise, dust, water and waste

- a. The *Works* shall be executed in a manner that minimises adverse impacts related to noise, dust, water, and waste, taking into account that Majuba Power Station is a live, operational facility with strict environmental and operational controls.

5.1.15.1. Environmental Monitoring and Responsibilities

- a. The *Employer* is responsible for the monitoring and overall control of environmental parameters within the power station, including but not limited to:
 - Ambient air quality and dust levels;
 - Groundwater monitoring;
 - Dirty water and effluent monitoring; and
 - Stormwater monitoring within the Station.
- b. Notwithstanding the above, the *Contractor* is fully responsible for implementing all mitigation measures necessary to prevent, reduce, or control environmental impacts arising from the execution of the *Works*.

5.1.15.2. Noise Control

- a. The *Contractor* shall ensure that construction activities, plant, and Equipment are operated in a manner that minimises noise and vibration. All Equipments shall be properly maintained and fitted with effective silencers where applicable. Excessive or unnecessary noise that may disrupt power station operations or pose a risk to personnel shall not be permitted. The *Project Manager* may instruct the *Contractor* to modify operations or suspend noisy activities if unacceptable noise levels are generated.

5.1.15.3. Dust Control

- a. The *Contractor* shall implement effective dust suppression measures during all construction activities, including earthworks, milling, hauling, and material handling. Measures may include water spraying, covering of stockpiles, controlled vehicle speeds, and cleaning of haul routes. Dust suppression water shall be sourced in accordance with The Site Services and Facilities requirements.

5.1.15.4. Stormwater and Water Control During Construction

- a. Stormwater management during construction shall be detailed in the *Contractor's* method statements and shall be implemented to prevent flooding, erosion, sedimentation, or contamination of stormwater systems. Temporary drainage measures, bunds, cut-off drains, silt traps, and Other controls shall be provided as necessary.
- b. No dirty water, sediment-laden runoff, oils, chemicals, or contaminants shall be discharged into stormwater systems, drains, or the environment without approval. The *Contractor* shall ensure that construction activities do not adversely affect the Station's stormwater management systems.

5.1.15.5. Waste Management

- a. The *Contractor* shall provide and implement his own waste management arrangements for the *Works*. This includes the collection, segregation, storage, transportation, and lawful disposal of all waste generated by construction activities at approved and licensed disposal facilities.
- b. Waste shall not be accumulated in an uncontrolled manner, and no waste shall be burned, buried, or disposed of on Site without approval. The *Contractor* shall submit waste disposal records or certificates to the *Project Manager* upon request.
- c. All costs associated with noise control, dust suppression, water management, and waste management are deemed to be included in the Prices. Failure by the *Contractor* to implement adequate mitigation measures may result in instructions to stop work, corrective action at the

Contractor's cost, or Other measures deemed necessary by the *Project Manager*. Such actions shall not constitute a compensation event.

5.1.16. Sequences of construction

The *Contractor* shall comply with the following sequencing constraints:

a. Access for Others (Without Take Over)

The *Contractor* shall plan and execute the *Works* to ensure continuous access for Others (as defined in Clause 11.2(10)), including power station operations, maintenance teams, ash-haul traffic, emergency services, and Other authorised *Contractors*.

- At least one safe and serviceable traffic lane or approved alternative access shall be maintained at all times where roads remain operational.
- Temporary closures, partial closures, or traffic switches shall be implemented only in accordance with an accepted Traffic Management Plan and with prior approval from the *Project Manager* and Station Operations.
- The *Contractor* shall sequence *works* to avoid concurrent closures that could compromise operations or emergency access.

b. Technical and Safety Constraints

Where technical considerations require a defined sequence (e.g., pavement layer construction, drainage installation prior to surfacing, curing periods, or protection of newly constructed layers), the *Contractor* shall follow the sequence set out in the *Employer's* specifications and accepted method statements.

- *Works* shall proceed from subgrade preparation through subbase, base, surfacing, and finishing in accordance with applicable standards.
- Newly constructed layers shall not be trafficked or overlaid until acceptance criteria are met.

c. Interfaces with Existing Services and Structures

Construction shall be sequenced to protect existing underground and above-ground services.

- Service exposure, protection, diversion (if approved), and reinstatement shall be completed before progressing to subsequent *works* that could place services at risk.
- No permanent covering of services shall occur without confirmation that inspections and approvals have been completed

d. Environmental and Operational Considerations

- Sequencing shall minimise environmental impact and operational disruption, including controlling dust, noise, stormwater, and waste during each phase. Temporary drainage and protection measures shall be installed before major *earthworks* or surfacing commence.

e. Any required sequencing constraints identified by the *Project Manager* for safety, operational, or technical reasons shall be communicated in writing. Compliance with the prescribed sequences is deemed to be included in the Prices and does not constitute a compensation event. The *Contractor* remains responsible for coordinating detailed sequences within these constraints through The Accepted Programme.

5.1.17. Giving notice of work to be covered up

- 5.1.17.1. The *Contractor* shall give the *Supervisor* adequate notice before covering up, backfilling, obscuring, or making inaccessible any part of the *Works* that is required to be inspected, tested, measured, or verified.
- 5.1.17.2. The *Contractor* shall notify the *Supervisor* in writing of the intention to cover up such work, allowing sufficient time for inspection. Unless Otherwise agreed, a minimum notice period of forty-eight (48) hours shall be provided prior to covering up the work. The notice shall clearly identify:
 - a. The location and description of the work to be covered up;
 - b. The stage of Completion reached;
 - c. The proposed date and time when the work will be covered up; and
 - d. Any relevant inspection, test results, or records required for verification.
- 5.1.17.3. Work shall not be covered up until the *Supervisor* has either inspected and accepted the work or confirmed in writing that inspection is not required. Where inspections are carried out, the *Contractor* shall provide safe access and any assistance reasonably required by the *Supervisor* to facilitate inspection.
- 5.1.17.4. If the *Contractor* covers up work without giving the required notice or without allowing the *Supervisor* the opportunity to inspect, the *Supervisor* may instruct the *Contractor* to uncover or expose the work for inspection. Any such uncovering, re-exposure, reinstatement, or associated delay shall be carried out at the *Contractor's* cost and shall not constitute a compensation event.
- 5.1.17.5. Records of notices, inspections, and acceptances shall be retained by the *Contractor* and made available to the *Supervisor* or *Project Manager* on request.

5.1.18. Hook ups to existing works

- 5.1.18.1. The *Works* include interfaces with existing roads, drainage systems, services, and operational infrastructure within Majuba Power Station. All hook ups, tie-ins, connections, or interfaces to existing *works* shall be carried out in a controlled manner to ensure the continued safe and uninterrupted operation of the power station.
- 5.1.18.2. The following constraints apply:
 - a. Prior Approval and Coordination
 - i. No hook up to existing *works* shall be undertaken without the prior written approval of the *Project Manager* and, where applicable, Station Operations. The *Contractor* shall submit method statements detailing the proposed hook up, sequence of *works*, temporary arrangements, safety measures, and reinstatement for acceptance before commencing such activities.
 - b. Operational Continuity
 - i. Hook ups shall be planned and executed to avoid interruption to ash haulage routes, operational traffic, drainage functionality, utilities, or emergency access. Where temporary disruptions are unavoidable, they shall be minimised and carried out only at times approved by the *Project Manager* and Station Operations.
 - c. Temporary *Works* and Protection
 - i. The *Contractor* shall provide all temporary *works*, protection, and traffic accommodation necessary to safely execute hook ups to existing *works*. Existing pavements, structures, services, and finishes shall be protected from damage at all times.

- d. Compatibility and Quality
 - i. All hook ups shall be compatible with existing materials, dimensions, levels, gradients, and performance requirements. Transitions between new and existing *works* shall be smooth, durable, and compliant with the *Employer's* specifications and applicable standards.
- e. Inspection and Acceptance
 - i. Hook ups to existing *works* shall not be concealed or put into service until they have been inspected and accepted by the *Supervisor*. The *Contractor* shall give notice in accordance with the procedure for work to be covered up.
- f. Responsibility for Damage
 - i. Any damage to existing *works* arising from hook ups, including damage to roads, drainage systems, or services, shall be made good by the *Contractor* at his own cost and to the satisfaction of the *Project Manager*. Such damage shall not constitute a compensation event.
- g. Timing Constraints
 - i. The *Employer* may impose timing restrictions on hook ups for safety or operational reasons. Compliance with such restrictions is deemed to be included in the Prices.

5.2. Completion, testing, commissioning and correction of Defects

5.2.1. Work to be done by The Completion Date

5.2.1.1. Work to be done by The Completion Date

- a. In accordance with Clause 11.2(2) of the NEC3 Engineering and Construction Contract (ECC), Completion is achieved when the *Contractor* has done all the work which the *Works Information* states is to be done by The Completion Date.
- b. On or before The Completion Date, the *Contractor* shall have done everything required To Provide The *Works*, except for the items listed below, which may be completed after The Completion Date but in any case by the dates stated.
- c. The *Project Manager* shall not certify Completion until all work, Other than that listed below, has been completed and is free of Defects which would, in the opinion of the *Project Manager*, prevent the *Employer* from using the *works* and Others from doing their work.

5.2.1.2. Work Permitted After The Completion Date

Item of Work	To be Completed By
Removal of surplus temporary works (where not retained by <i>Employer</i>)	Within 14 days after Completion

- a. All Other *Works*, including road rehabilitation, surfacing, drainage, road markings, safety features, access reinstatement, and operational readiness, submission of data pack shall be fully completed by The Completion Date.
- b. The *Project Manager* or *Supervisor* notifies the *Contractor* when a Defect is identified.
- c. Defects can be discovered during construction or after Completion, within the Defects *correction period*.
- d. The *Supervisor* records the Defect(s) and issues the Defect Notification specifying what the Defect is, where it occurred and when it must be corrected.
- e. The *Contractor* must correct the Defect within the time stated in the notification.
- f. If correction is not done, the *Employer* can arrange for Others to fix it and deduct the cost from payments due to the *Contractor*.
- g. Upon Completion the *Supervisor* issues a Defect Certificate to the *Contractor* where all remaining Defects are listed, which the *Contractor* must correct during the Defect period (52 week).
- h. The *Supervisor* issues a revised and updated Defect Certificate to the *Contractor* after Defect period if all Defects are cleared.

5.2.2. Use of the works before Completion has been certified

- 5.2.2.1. In accordance with Clause 35.2 of the NEC3 Engineering and Construction Contract (ECC), the *Employer* may use any part of the *works* before Completion has been certified. Where the *Employer* uses any part of the *works*, that part is deemed to be taken over by the *Employer* unless the use is for a reason stated in the *Works* Information.
- 5.2.2.2. For this contract, the *Employer's* use of any part of the *works* prior to Completion may be required for the following reasons:
- a. To maintain continuous access for power station operations, including ash haulage, maintenance activities, operational vehicles, and emergency services;
 - b. To allow safe passage through or over partially completed road sections, including temporary surfacing, diversions, or traffic switches;
 - c. To accommodate operational testing, inspections, or commissioning of adjacent or interfacing facilities; and
 - d. To ensure continuity of operations within Majuba Power Station, which is a live and critical infrastructure facility.
- 5.2.2.3. Such use of the *works* by the *Employer* for the reasons stated above shall not constitute take-over of the relevant part of the *works*, shall not relieve the *Contractor* of responsibility for that part of the *works*, and shall not affect the *Contractor's* obligations in respect of quality, Defects, safety, or Completion.
- 5.2.2.4. The *Contractor* shall take due account of potential *Employer* use prior to Completion in the planning, sequencing, protection, and execution of the *Works*. The *Contractor* shall maintain the affected parts of the *works* in a safe, serviceable condition and shall provide any temporary *works*, signage, protection, or traffic accommodation required to support such use.
- 5.2.2.5. *Employer* use of the *works* prior to Completion for the reasons stated above shall not give rise to a compensation event, nor shall it entitle the *Contractor* to additional payment or an extension of time.

5.2.3. Materials facilities and samples for tests and inspections

- 5.2.3.1. In accordance with Core Clause 40.2 of the NEC3 Engineering and Construction Contract (ECC), the *Contractor* shall provide all materials facilities, samples, testing Equipment, laboratories, personnel, and services required to carry out tests and inspections necessary to demonstrate compliance of the *Works* with the *Works* Information and applicable standards.
- 5.2.3.2. *Contractor's* Responsibilities
- The *Contractor* shall:
- Provide all materials, samples, facilities, testing Equipment, laboratories (on-Site or off-Site), and competent personnel required for testing and inspection of materials and workmanship;
 - Take and prepare all samples required for testing at the specified frequencies and locations;
 - Carry out all testing at accredited laboratories where required, using approved and calibrated Equipment;

- Bear all costs associated with sampling, testing, inspection, reporting, calibration, transport of samples, and re-testing where required; and
 - Submit test results, certificates, and inspection records to the *Supervisor* and *Project Manager* within the timeframes specified in the Contract Quality Plan and Inspection and Test Plans (ITPs).
- 5.2.3.3. The *Contractor* shall ensure that all testing facilities and procedures comply with statutory requirements, Eskom standards, and accepted engineering practice.
- 5.2.3.4. *Employer's Responsibilities*
- a. The *Employer* may, at his discretion, carry out verification testing, audits, or independent inspections to confirm compliance with the *Works Information*. Such verification does not relieve the *Contractor* of any responsibility for quality or compliance with the Contract.
- 5.2.3.5. Testing Standards and Methods
- a. All tests shall be conducted in accordance with the standard methods specified below, in the following order of precedence:
- i. Standard Methods for Testing Road Construction Materials, namely:
 - SANS 3001 and TMH6 for material testing; and
 - TMH2 for calibration, compiled by the Committee of State Road Authorities (CSRA) and published by the Department of Transport as part of the Technical Methods for Highways (TMH) series.
 - ii. South African National Standards (SANS) specifications, test methods, codes of practice, and co-ordinating specifications (SANS and CKS).
 - iii. COLTO – *Standard Specifications for Road and Bridge Works for State Road Authorities* (1998 Edition), including compliance with TRH 5 standard deviation measurement requirements.
 - iv. American Society for Testing and Materials (ASTM) specifications.
 - v. American Association of State Highway and Transportation Officials (AASHTO) specifications.
- 5.2.3.6. Where no acceptable standard test methods exist, or where additional testing is required, test methods described in the *Works Information* or approved by the *Project Manager* shall be applied. Standards or test methods of Other recognised bodies may also be referenced where specifically stated in the specifications.
- 5.2.3.7. Samples and Access
- a. The *Contractor* shall provide the *Supervisor* and *Project Manager* with reasonable access to materials, sampling locations, testing facilities, and inspection points. Samples shall be clearly identified, recorded, and traceable to the relevant work sections.
- 5.2.3.8. Non-Conformance and Re-Testing
- a. Where test results indicate non-compliance, the *Contractor* shall take corrective action and carry out re-testing at his own cost. Failure to provide required facilities, samples, or compliant test results shall be treated as a failure to comply with the *Works Information* and shall not constitute a compensation event.

5.2.4. Take over procedures

- 5.2.4.1. Take over of the *Works*, or any part thereof, shall occur at or after Completion, in accordance with the Contract. Completion shall be certified by the *Project Manager* when the *Works* meet the requirements of the *Works Information* and are free of Defects which would, in the opinion of the *Project Manager*, prevent the *Employer* from using the *Works* and Others from doing their work.
- 5.2.4.2. Following Completion, the *Employer* may require the *Contractor* to provide reasonable assistance during the takeover period to facilitate a smooth transition to operational use. Such assistance may include, but is not limited to:
- Attendance by competent *Supervisory* personnel during initial operational use of the rehabilitated roads;
 - Temporary provision of safety or traffic control personnel to manage interfaces with operational traffic, ash haulage, and emergency access;
 - Assistance with familiarisation of the *Employer's* operational or maintenance personnel with the *Works*; and
 - Support during the handover of documentation, records, and as-built information.
- 5.2.4.3. The *Contractor* shall ensure that all areas handed over are clean, safe, fully accessible, and suitable for operational use. Any temporary *works* or protective measures required to support safe use during the take over period shall be maintained by the *Contractor* until they are no longer required or are removed in accordance with the *Works Information*.
- 5.2.4.4. The extent and duration of any assistance required during take over shall be as instructed by the *Project Manager*. Such assistance is deemed to be included in the Prices unless expressly stated Otherwise in the Contract Data and shall not constitute a compensation event.
- 5.2.4.5. Take over of the *Works* does not relieve the *Contractor* of responsibility for correcting Defects in accordance with the Contract, nor does it affect the *Contractor's* obligations during the Defects period

5.2.5. Access given by the *Employer* for correction of Defects

- 5.2.5.1. In accordance with Clause 43.4 of the NEC3 Engineering and Construction Contract (ECC), where a Defect is identified in a part of the *Works* that has been taken over, the *Project Manager* shall arrange for the *Employer* to allow the *Contractor* access to and use of that part of the *Works* as reasonably necessary to correct the Defect.
- 5.2.5.2. The *Contractor* shall correct Defects promptly and efficiently during approved access periods and shall confine activities strictly to the areas necessary for the Defect correction. Upon Completion of Defect correction *works*, the *Contractor* shall reinstate the affected areas to a safe, clean, and operational condition to the satisfaction of the *Project Manager*.
- 5.2.5.3. The *Contractor* shall bear all costs associated with Defect correction *works*, including mobilisation, demobilisation, temporary *works*, traffic accommodation, and compliance with Site procedures. Access granted for the correction of Defects shall not constitute a compensation event.

6. Plant and Materials standards and workmanship

6.1. Investigation, survey and Site clearance

- 6.1.1.1. The *Contractor* shall conduct a Site investigation jointly with the *Employer* to identify any constraints and existing services that may hinder the *Contractor's* ability to execute the project.
- 6.1.1.2. The Site investigation shall include verification of existing underground and above-ground services, access conditions, operational interfaces, traffic accommodation requirements, and any environmental or safety constraints within The Working Areas.
- 6.1.1.3. However, in preparation of the design by Eskom, no permanent constraints had been identified that would prevent execution of the *Works* in accordance with the *Employer's* design.
- 6.1.1.4. All road markings shall be reinstated in accordance with the latest edition of the South African Road Traffic Signs Manual. Road refurbishment *works* shall comply with Eskom's Technical Specification (Scope of Work) and the most current SANRAL/SANS/COTO standards, applying whichever provides best practice. Where SANS, COTO, or SANRAL standards have been superseded, the prevailing standard shall be adopted and communicated to the *Employer* for approval.
- 6.1.1.5. The *Contractor* is required to adhere to the latest editions of and the normative references within the following SANS standards and Other codes of practice, regulations, and standards:

6.2. Civil engineering and structural works

- 6.2.1.1. The project shall be executed in accordance with best practices derived from the latest COTO, SANS, and SANRAL standards. NB: The *Contractor* is responsible for ensuring that all *works* comply with the latest applicable road standards, including COTO, SANS, or SANRAL. The *Contractor* shall apply the most appropriate and highest standard for each specific aspect of the project.
- 6.2.1.2. The *Contractor* is required to adhere to the latest editions of and the normative references within the following SANS standards and Other codes of practice, regulations, and standards:

Code	Description
240-10565800	Eskom Supplier Quality Management: Specification.
ISO 9001:2015	Quality Management System
240-57127951	Standard for the Execution of Site investigations
240-57127953	Execution of Site Preparation and earthworks
240-85549846	Standard for Design of Drainage and Sewerage Infrastructure
SANS 10111 Series	Engineering drawings
SANS 10120	Code of Practice for use with Other SANS specifications

Code	Description
TMH and TRH Series	Technical Manuals of Highways and Technical Recommendations of Highways Series
AASHTO	American Associates of State Highways and Transport Officials
(OHASA) 85	Occupational Health and Safety act
ESK AM AAA 1	Eskom Corporate Identity Manual
240-53114186	Document and Record Management Procedure
SANS 2001 Series	Construction <i>Works</i>
SANS 36-681	Generation Plant Safety Regulations
SANS 1200	Standardized specification for civil engineering construction
240-84418186	Roads Specification Manual
SANS 1350	Guardrails for roads (W-section)
SANS 1921-1-2004	Part 1: General Project Management and construction <i>works</i>
SANS 1921-2-2004	Part 2: Accommodation of traffic on public roads occupied by the <i>Contractor</i>

7. List of drawings

7.1. Drawings issued by the *Employer*

- a. This is the list of drawings issued by the *Employer* at or before The Contract Date and which apply to this contract. The *Contractor* should note that some areas do not have any drawings.
- b. Note: Some drawings may contain both *Works* Information and Site Information.

Drawing number	Title
0.66/100427	MJP-Roads Rehab- <i>Contractor</i> Yard-Surface Base Repair-CH0-CH1663-SH1R1
0.66/100428	MJP-Roads Rehab-Southern Ring Road-Surface Base Repair-CH0-CH991-SH1R1
0.66/100429	MJP-Roads Rehab-Ash Haul Road 1-Surface Base Repair-CH0-CH1155-SH1R1
0.66/100432	MJP-Roads Rehab-Ash Haul Road 2-Cross Sections-CH0-CH420-SH1R1
0.66/100432	MJP-Roads Rehab-Ash Haul Road 2-Plan profile-CH420-CH840-SH2R1
0.66/100432	MJP-Roads Rehab-Ash Haul Road 2-Plan Profile-CH840-CH1236-SH3R1
0.66/100433	MJP-Roads Rehab-Ash Haul Road 2-Cross Section-CH0-CH150-SH1R1
0.66/100433	MJP-Roads Rehab-Ash Haul Road 2-Cross Section-CH200-CH350-SH2R2
0.66/100433	MJP-Roads Rehab-Ash Haul Road 2-Cross Section-CH400-CH550-SH3R1
0.66/100433	MJP-Roads Rehab-Ash Haul Road 2-Cross Sections-CH600-CH750-SH4R1
0.66/100433	MJP-Roads Rehab-Ash Haul Road 2-Cross Sections-CH800-CH950-SH5R1
0.66/100433	MJP-Roads Rehab-Ash Haul Road 2-Cross Sections-CH1000-CH1100-SH6R1
0.66/100433	MJP-Roads Rehab-Ash Haul Road 2-Cross Sections-CH1150-CH1236-SH7R1

PART 4: SITE INFORMATION

Document reference	Title	No of pages
C4	This cover page Site Information	1
	Total number of pages	

PART 4: SITE INFORMATION

8. SITE INFORMATION

8.1. Site description

- a. The Site is situated within the Eskom, Majuba Power Station (MPS) premises, situated on the farms Roodekoppies 67HS and Witkoppies 81HS, approximately 15 km southwest of the town of Amersfoort, along the R35 route, in in the Gert Sibande Municipal District of Mpumalanga.
- b. The approximate coordinates of the access gate for the station are as follows:

Latitude 27° 06' 12, 28" S

Longitude 29° 46' 42, 34" E

8.2. Site Geography

- a. The elevation of the Power Station Site is approximately 1 709 meters above mean sea level. The 0.00 mm datum is 1 709.400 meters above MSL, being the turbine house ground floor level.
- b. Topography may generally be described as rolling countryside interspersed with prominent hills. The natural flora consists of veld grass with very few scattered non-indigenous trees.

8.3. Plant Access

- a. The *Project Manager* grants access to the relevant section of the plant by issuing an Access Certificate.
- b. All plant is regarded as alive and in operation at all times unless the relevant isolations have been effected by the Majuba Operating Department and a Permit to Work (PTW) has been issued and accepted by the Responsible Person after verifying the isolations.
- c. The *Contractor* must have the Permit to Work, signed Risk Assessment and completed Worker's Register before beginning with any work. The hazards identified must be incorporated into the *Contractor's* risk assessment and adequate precautions taken.
- d. Plant access may be withdrawn by the *Project Manager* at any time or work may be stopped without compensation should the *Contractor* be working unsafely.

8.4. Road Access

- a. From Standerton, take the national route R23 (P4-6) to Perdekop, the P97-1 towards Amersfoort, turning off right onto the link road 12 km before Amersfoort.
- b. From Volksrust, travel north along the N11 (P26-1) towards Amersfoort, turning left onto the link road 17.5 km before Amersfoort.
- c. From Amersfoort, take the Morgenzon road west of Amersfoort, turning south-west onto the (P97-1) towards Perdekop, then turning left onto the link road 12 km.

8.5. Rail Access

- a. At present, the nearest Railway Station is Perdekop, although Transnet, prefer Standerton for heavy loads and containers. From here, Transnet performs road deliveries to Site. All transportation facilities at the stations are arranged by the *Contractor* as required.

8.6. Air Access

- a. The Site has a surfaced and licensed airstrip with a parking facility, adjacent to the Power Station guest house. The airstrip is bitumen surfaced and is 1 500 m long and 15 m wide with 25 m wide gravel shoulders on each side.
- b. The strip has been designed for a load classification number of 40 and caters for aircraft up to and including the DC3 Dakota. The airstrip has approach and landing lights, and a non-directional radio navigation beacon has been installed. The beacon frequency is 512 kHz at 29° 44' 30" E, 27° 03' 30" S, tone coding 2 K10A2a, recognition code MAJ, the radius of operation 100 nautical miles. Permission to use the airstrip facility is sought from the *Employer* at MPS.

8.7. Climate

- a. The Amersfoort area has a climate of hot summers and cold winters, which is typical for that part of the Highveld.
- b. The Weather Bureau's general description of the climate in the Highveld includes the following:
- c. The winter months are normally dry and about 85% of the annual rainfall falls in the summer months. Generally, winds are light except for short periods during thunderstorms. Very occasionally tornadoes do occur and cause tremendous damage if they happen to strike a populated area. The annual average number of thunderstorms varies from about 75 in Mpumalanga to 100 in Lesotho. These storms are often violent with severe lightning and strong (but short-lived) gusty, south-westerly winds and are sometimes accompanied by hail.

8.8. Barometric Pressure

- a. The mean barometric pressure is 82.42 kPa (Corresponding to 1 709 metres above sea level).

8.9. Temperature

Average daily maximum dry bulb	January	28.2 °C
	July	18.1 °C
Maximum dry bulb recorded	January	37.2 °C
	July	26.1 °C
Average daily minimum dry bulb	January	13.0 °C
	July	- 3.6 °C
Minimum dry bulb recorded	January	3.3 °C
	July	- 12.8 °C

8.10. Precipitation

8.10.1. Rainfall

8.10.1.1. Average Annual Rainfall of the Highveld, mainly occurring as a result of thunderstorms and showers, ranges from 900 mm in the east to 650 mm in the west and is approximately 690 in Amersfoort. The rainy season is generally from October to March with peak rains falling in December and January. Heavy rainfalls of 125 to 150 mm (or more) occasionally fall in a single day.

8.10.2. Hail

8.10.2.1. This region has about the highest frequency of hail in South Africa. About 4 to 7 occurrences (depending mainly on altitude) may be expected annually at any one spot, whilst occasionally hailstones can be the size of hen's eggs or tennis balls and can cause tremendous damage.

8.10.3. Snow

8.10.3.1. Snowfalls are experienced during most winters in the Amersfoort area. During snowfalls and immediately afterwards working conditions are extremely unpleasant and movement on The Site is difficult.

8.11. Relative humidity

- b. Average maximum 83%
- c. Average minimum 22%

8.12. Wind Velocity

- a. Basic design wind speed = 43.5 m/s
- b. Design wind pressure 0.925 kPa at 10 m above ground.

8.13. Weather data

- a. All weather data has been obtained from records developed by the nearest official weather station situated at Volksrust, the climate of which is reasonably representative of the area. Any further specific details of the local climate are obtainable from the Weather Bureau directly.
- b. Wind data has also been reviewed in consultation with the CSIR.
- c. If anyone of the weather measurements recorded by the *Contractor* within a calendar month, before The Completion Date for the whole of the *works* and at the place stated in this Contract Data is shown to be more adverse than the amount stated below, then the *Contractor* may notify a compensation event which is the difference between the weather data and the *Contractor's* weather measurement.

Table 1: Historical One-in-Ten Year *weather data*

Month	Cumulative rainfall (mm)	Number of days with rain more than 10 mm	Number of days with min air temp < 0 °C	Number of days with snow lying at 09:00 CAT
January	202	7	0	2
February	158	7	0	3
March	122	5	0	2
April	115	4	2	2
May	43	3	8	4
June	29	2	22	6
July	36	2	21	7
August	36	2	11	7
September	64	3	4	6
October	148	6	2	5
November	167	8	0	2
December	177	7	0	3