



NEC3 Engineering and Construction

Short Contract (ECSC3)

A contract between Eskom Holdings SOC Ltd (Reg No. 2002/015527/30)

and

for **Construction of the Remedial Works for access to Doorplaast 470-IS**

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Documentation prepared by: Sicelo Ndlela

C1 Agreements & Contract Data

C1.1 Form of Offer and Acceptance

Offer

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

Construction of the Remedial Works for access to Doorplaast 470-IS

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

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

The offered total of the Prices exclusive of VAT is	R[•]
Value Added Tax @ 15% is	R[•]
The offered total of the Prices inclusive of VAT is	R[•]
(in words) [•]	

This Offer may be accepted by the Employer by signing the form of Acceptance overleaf 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:

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 1 Agreements and Contract Data, (which includes this Form of Offer and Acceptance)

Part 2 Pricing Data

Part 3 Scope of Work: Works Information

Part 4 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 Tender Schedules as well as any changes to the terms of the Offer agreed by the tenderer and the Employer during this process of Offer and Acceptance, are contained in the Schedule of Deviations attached to and forming part of this Form of Offer and Acceptance. No amendments to or deviations from said documents are valid unless contained in this Schedule, which must be signed by the duly authorised representative(s) for both parties.

The tenderer shall within one week 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 and signed copy of this document, including the Schedule of Deviations (if any) together with all the terms of the contract as listed above.

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 tender offers, further copies of this document may be used for that purpose, duly endorsed, 'Alternative Tender No. _____'

Schedule of Deviations

Note:

1. To be completed by the Employer prior to award of contract. This part of the Offer & Acceptance would not be required if the contract has been developed by negotiation between the Parties and is not the result of a process of competitive tendering.
2. The extent of deviations from the tender documents issued by the Employer prior to the tender closing date is limited to those permitted in terms of the Conditions of Tender.
3. A tenderer's covering letter must not be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid be the subject of agreement reached during the process of Offer and Acceptance, the outcome of such agreement shall be recorded here and the final draft of the contract documents shall be revised to incorporate the effect of it.

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 Employer

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 Contract Data

Data provided by the *Employer*

Clause	Statement	Data
General		
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 & 14.4	The <i>Employer's</i> representative to whom the <i>Employer</i> in terms of clause 14.4 delegates his actions ¹ is (Name):	TBA
	Address	
	Tel No.	
	Fax No.	
	E-mail address	
11.2(11)	The <i>works</i> are	Construction of the Remedial Works for access to Doorplaast 470-IS
11.2(13)	The Works Information is in	the document called 'Works Information' in Part 3 of this contract.
11.2(12)	The Site Information is in	the document called 'Site Information' in Part 4 of this contract.
11.2(12)	The <i>site</i> is	Majuba Rail
30.1	The <i>starting date</i> is.	01 September 2023
11.2(2)	The <i>completion date</i> is.	30 November 2023
13.2	The <i>period for reply</i> is	1 weeks
40	The <i>defects date</i> is	52 weeks after Completion
41.3	The <i>defect correction period</i> is	3 weeks
50.1	The <i>assessment day</i> is the	25th of each month.
50.5	The <i>delay damages</i> are	R2500 per day up to a maximum of 10% of the contract value
50.6	The retention is	5 (five) %
51.2	The interest rate on late payment is	0.5%

¹ Except those actions which can only be done by the *Employer* as a Party to the contract.

80.1	The <i>Contractor</i> is not liable to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property in excess of	the amount of the deductibles relevant to the event
	Does the United Kingdom Housing Grants, Construction and Regeneration Act (1996) apply?	No
93.1	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 Adjudicators by the Party intending to refer a dispute to him. (see www.ice-sa.org.za). If the Parties do not agree on an Adjudicator the Adjudicator will be appointed by the Arbitration Foundation of Southern Africa (AFSA).
	Address	TBA
	Tel No.	
	Fax No.	
	e-mail	
93.2(2)	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
93.4	The <i>tribunal</i> is:	arbitration.
	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	Johannesburg, 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
	- if the arbitration procedure does not state who selects an arbitrator, is	of the Association of Arbitrators (Southern Africa) or its successor body.

The conditions of contract are the NEC3 Engineering and Construction Short Contract (April 2013)²³ and the following additional conditions Z1 to Z15 which 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

² If June 2005 Edition applies, delete April 2013 and insert June 2005

³ State whether attached as a 'PDF' file in terms of Eskom's licence, or to be obtained from Engineering Contract Strategies Tel 011 803 3008, Fax 086 539 1902 or www.ecs.co.za.

present divisions or operations which may be converted into separate legal entities as a result of the restructuring of the Electricity Supply Industry.

Z2 Change of Broad Based Black Economic Empowerment (B-BBEE) status

- Z2.1 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.
- Z2.2 The *Contractor* is required to submit an updated verification certificate and necessary supporting documentation confirming the change in his B-BBEE status to the *Employer* within thirty days of the notification or as otherwise instructed by the *Employer*.
- Z2.3 Where, as a result, the *Contractor's* B-BBEE status has decreased since the *starting date* the *Employer* may either re-negotiate this contract or alternatively, terminate the *Contractor's* obligation to Provide the Works.
- Z2.4 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 those stated in Clause 91.1 and the amount due on termination includes amounts listed in Clause 92.1 less a deduction of the forecast additional cost to the *Employer* of completing the *works*.

Z3 Confidentiality

- Z3.1 The *Contractor* does not disclose or make any information arising from or in connection with this contract available to others except where required by this contract. 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 where required by this contract the *Contractor* ensures that the provisions of this clause are complied with by the recipient.
- Z3.2 If the *Contractor* is uncertain about whether any such information is confidential, it is to be regarded as such until notified otherwise by the *Employer*.
- Z3.3 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.
- Z3.4 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 *Employer*. All rights in and to all such images vests exclusively in the *Employer*.
- Z3.5 The *Contractor* ensures that all his subcontractors abide by the undertakings in this clause.

Z4 Waiver and estoppel: Add to clause 12.2:

- Z4.1 Any extension, concession, waiver or relaxation of any action stated in this contract by the Parties or their delegates 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.

Z5 Health, safety and the environment

- Z5.1 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.
- Z5.2 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.

Z6 Provision of a Tax Invoice and interest. Add to clause 50

- Z6.1 The *Contractor* provides the *Employer* with a tax invoice in accordance with the *Employer's* procedures stated in the Works Information, showing the correctly assessed amount due for payment.
- Z6.2 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 clause 51.2 is then calculated from the delayed date by when payment is to be made.
- Z6.3 The *Contractor* 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.

Z7 Notifying compensation events

- Z7.1 Delete from the last sentence in clause 61.1, "unless the event arises from an instruction of the *Employer*."

Z8 *Employer's* limitation of liability; Add to clause 80.1

- Z8.1 The *Employer* liability to the *Contractor* for the *Contractor's* indirect or consequential loss is limited to R0.00 (zero Rand).

Z9 Termination: Add to clause 90.2, after the words "or its equivalent":

- Z9.1 or had a business rescue order granted against it.

Z10 Addition to Clause 50.5

Z10.1 If the amount due for the *Contractor's* payment of *delay damages* reaches the limits stated in this Contract Data (if any), the *Employer* may terminate the *Contractor's* obligation to Provide the Works.

If the *Employer* terminates in terms of this clause, the procedures on termination are those stated in Clause 91.1 and the amount due on termination includes amounts listed in Clause 92.1 less a deduction of the forecast additional cost to the *Employer* of completing the *works*.

Z11 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 <i>Contractor</i> or a third party, such party's employees, agents, or Subconsultants 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 <i>Contractor</i> , or any member thereof in the case of a joint venture, or its employees, agents, or Subcontractors 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.

Z11.1 A Committing Party may not take any Prohibited Action during the course of the procurement of this contract or in execution thereof.

Z11.2 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.

Z11.3 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.

Z11.4 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.

Z12 Insurance

Z _12.1 Replace core clause 82 with the following:

Insurance cover 82

- 82.1 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.
- 82.2 The *Contractor* provides the insurances stated in the Insurance Table A, 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	Cover provided until
Loss of or damage to the works	<p>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>	The <i>Employer's</i> certificate of Completion has been issued
Loss of or damage to Equipment, Plant and Materials	<p>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>	The Defects Certificate has been issued
The <i>Contractor's</i> liability for loss of or damage to property (except the works, Plant and Materials and Equipment) and for bodily injury to or death of a person (not an employee of the <i>Contractor</i>) arising from or in connection with the <i>Contractor's</i> Providing the Works	<p><u>Loss of or damage to property</u> <u><i>Employer's</i> property</u></p> <p>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>	

	<u>Other property</u> The replacement cost <u>Bodily injury to or death of a person</u> The amount required by the applicable law	
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	

82.3 The *Employer* provides the insurances as stated in the Insurance Table B

INSURANCE TABLE B

Insurance against or name of policy	Minimum amount of cover or minimum of indemnity
Assets All Risk	Per the insurance policy document
Contract Works 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

Z13 Nuclear Liability

- Z13.1 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.
- Z13.2 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 44 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*.
- Z13.3 Subject to clause Z13.4 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*.

Z13.4 The *Employer* does not waive its rights provided for in section 30 (7) of Act 44 of 1999, or any replacement section dealing with the same subject matter.

Z13.5 The protection afforded by the provisions hereof shall be in effect until the KNPS is decommissioned.

Z14 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.

Z14.1 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.

Z14.2 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 Z14.1. Control measures conform to the requirements stipulated in the AAIA-approved asbestos work plan.

- Z14.3 The *Employer* manages asbestos and ACM according to the Standard.
- Z14.4 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.
- Z14.5 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.
- Z14.6 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.
- Z14.7 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.

Z15 Criminal record clearance certificates

- Z15.1 The *Contractor* provides, at the *Contractor's* cost, to the *Project Manager* criminal record clearance certificates for each employee of the *Contractor* before the *Project Manager* allows such employee on Site or any *Employer* premises.
- Z15.2 The *Contractor* ensures that its Subcontractors or any of those Subcontractors' subcontractors provide to it criminal record clearance certificates for each employee of the Subcontractor or relevant other subcontractor before the *Project Manager* allows such employee on Site or any *Employer* premises.
- Z15.3 The criminal record certificates are issued by a service provider accredited by the South African Police Services, are no older than four weeks and is valid until the *completion date*. If the *completion date* is extended through the operation of this contract, valid criminal record certificates are provided before their expiry.
- Z15.4 If any such criminal record certificate is cancelled, withdrawn, invalidated, amended, or expires, or a criminal conviction is noted against any employee, the *Contractor*, the *Project Manager* may instruct the *Contractor* to ensure that such employee leaves the Site and the giving of this instruction is not a compensation event.
- Z15.5 If the *Contractor* is unable to Provide the Works or a part thereof due only to the inability to provide the criminal record certificates, the *Employer* may terminate the *Contractor's* obligation to Provide the Works (R 22) and the consequences then will be the same as if the *Employer* is terminating for R1 – R15 and R18.

Data provided by the Contractor (the Contractor's Offer)

The tendering contractor is advised to read both the NEC3 Engineering and Construction Short Contract (April 2013) and the relevant parts of its Guidance Notes (ECSC3-GN)⁴ 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 page 31 of the ECSC3 April 2013 Guidance Notes.

Completion of the data in full is essential to create a complete contract.

10.1	The <i>Contractor</i> is (Name):	[•]
	Address	[•]
	Tel No.	[•]
	Fax No.	[•]
	E-mail address	[•]
63.2	The percentage for overheads and profit added to the Defined Cost for people is	[•]%
63.2	The percentage for overheads and profit added to other Defined Cost is	[•]%
11.2(9)	The Price List is in	the document called 'Price List' in Part 2 of this contract.
11.2(10)	The offered total of the Prices is [Enter the total of the Prices from the Price List]:	R[•] excluding VAT [in words] [•] excluding VAT

⁴ Available from Engineering Contract Strategies Tel 011 803 3008, Fax 086 539 1902 or www.ecs.co.za.

C2 Pricing Data

C2.1 Pricing assumptions

Entries in the first four columns in the Price List are made either by the *Employer* or the tendering contractor

If the *Contractor* is to be paid an amount for the item which is not adjusted if the quantity of work in the item changes, the tenderer enters the amount in the Price column only; the Unit, Quantity and Rate columns being left blank.

If the *Contractor* is to be paid an amount for the item of work which is the rate for the work multiplied by the quantity completed, the tenderer enters the rate which is then multiplied by the expected quantity to produce the Price, which is also entered.

All Prices are to be shown excluding VAT unless instructed otherwise by the *Employer* in Tender Data or in an instruction the *Employer* has given before the tenderer enters his Prices.

If there is insufficient space in the Price List which follows, state in which document the Price List is contained.

C2.2 Price List

The Price List is as follows

Item no.	Description	Unit	Quantity	Rate	Price
	<u>SECTION 1 - PRELIMINARIES & GENERALS</u>				
1.00	<u>FIXED CHARGE ITEMS</u>				
	Contractual Requirements	Sum	1,00		
	<u>Establishment of Facilities on Site</u>				
1.01	<u>Facilities for the Contractor</u>				
	Offices and storage sheds	Sum	1,00		
	Ablutions and latrine facilities	Sum	1,00		
	Tools	Sum	1,00		
	Water supplies, electric power and communications	Sum	1,00		
	Access	Sum	1,00		
	Equipment	Sum	1,00		
1.02	<u>Other Fixed charge obligations</u>				
	Compliance with Environmental Requirements not covered e/w	Sum	1,00		
	Permits for staff and other requirements	Sum	1,00		
	Signage for information and protection of Site	Sum	1,00		
	Compliance with Construction Regulations (2003) H&S measures	Sum	1,00		
	Accommodation	Sum	1,00		
	Transport	Sum	1,00		
1.03	<u>Removal of Site Establishment</u>				
	Remove items above, include restoration & make good to Client's satisfaction	Sum	1,00		

Item no.	Description	Unit	Quantity	Rate	Price
2.00	<u>TIME - RELATED ITEMS</u>				
	<u>Operation and Maintenance of Facilities on Site</u>				
2.01	<u>Facilities for the Contractor</u>				
	Offices and storage sheds	month	3,00		
	Ablutions and latrine facilities	month	3,00		
	Tools	month	3,00		
	Water supplies, electric power and communications	month	3,00		
	Equipment	month	3,00		
	Supervision for the duration of the Contract	month	3,00		
	Company & H/Off Overhead Costs for duration of Contract	month	3,00		
3.00	<u>SECTION 2 – SITE WORK</u>				
3.01	<u>Paving</u>				
	Rip in situ material to 300m depth and re-compact in 2 layers of 150mm each.				
	Ripping	m ²	560		
	Compacting to 90% Mod Aashto	m ³	168		
	Concrete				
	75mm blinding layer	m ²	560		
	Paving of bricks	m ²	560		
3.02	<u>Extension of existing drift</u>				
	Preparatory Work				
	Rip in situ material to 300m depth and re-compact in 2 layers of 150mm each.				
	Ripping	m ²	26		
	Compacting to 90% Mod Aashto	m ³	5,2		
	<u>Concrete</u>				
	75mm blinding layer	m ²	26		
	40 Mpa concrete	m ³	3,9		
	Mesh reinforcement	m ²	26		
	Wood Float finish top of slab	m ²	26		

3.03	Re-grade and recompact access road				
	Preparatory Work				
	Rip in situ material to 300m depth and re-compact in 2 layers of 150mm each.				
	Ripping	m ²	0,1818		
	G5 material compacted in 200mm layers and compacted to 93% Mod Aashto	m ³	0,03636		
3.04	Gate installation and road repair				
	Gate				
	Install 2 x 4.8m gate	No	1		
3.05	Roadwork repair				
	Scarify and compact road to 90% Mod Aashto	m ²	6,6		
	Spoil overburden to landfill site	m ³	1,32		
3.06	Remedial works				
	Level Crossings				
	Remove two level crossings and dispose to legal disposal site	m ³	360		
	New Ballast				
	Remove contaminated ballast	m ³	64		
	Transport and replace ballast	m ³	64		
	Rehabilitate the level crossing area				
	Rehabilitation	m ²	1200		
	Grand-Total				

C3: Scope of Work

C3.1 Works Information

1. Description of the works

1.1 Executive overview

The current coal delivery system by rail to the Majuba Power Station is constrained in terms of the required power station burn-rate of 14 Mtpa. The current rail throughput via the Palmford siding has a capacity of 8.3 Mtpa. The balance to make up the required burn-rate is delivered by road. The *Employer* has constructed a railway line to convey bulk coal to the Majuba Power Station with the use of 100 Jumbo wagon trains. The railway line was built taking off from the existing Transnet coal export line west of Ermelo to the existing Majuba railway yard/siding located near the Power station.

Majuba Rail has completed construction of the civil works with outstanding works at the overpass at KM 23,200 and widening of a drift at km 23,530. There is a need to amend the standard for the approach pavement at the area as a result of the size of the width of the overpass and the curves on both the approaches of the overpass to accommodate the turning circle for wide the farming machinery. There is also a need to widen a drift at km 21,440 by 1 metre. The standard width drift had proven to be narrow for the wide harvesting machinery to pass. The changes in the area impacted on delays in removal of the 2 No of temporary level crossings, at km 21,484 and km 23,418 that were created for the adjacent farmer to cross temporarily while the constructed is still not operational. The temporary level crossings must be removed and the area must be rehabilitated on completion of construction by the *Contractor*.

1.2 High Level Scope:

Scope of Work:

- Construct the paving on both the approaches of the overpass at km 23,200 as per the marked drawing No. 066/96550.
- Extend the width of existing drift by 1 meter towards the toe of the rail embarkment (Eastern side) to allow safe passage of the harvesters. The length is 26 meters with a depth of 200mm see details on drawing 066/96675_Sh29_C04.
- Re-grade and recompact access road (remove overgrown vegetation on the granular wearing course layer (gravel G5, previous constructed by other and re-process and compact), just north of the drift at km 21,440 and link it to existing service access road from the agricultural overpass at km 20,834.
- Install 2/4.8m gated perpendicular to the access road adjacent to km 21,240 and reinstate the rail servitude road. The total length of the roadwork inclusive of is estimated at 600m and it is 6m wide.
- Remove level crossings at km 21,484 and km 23,418.
- Replace contaminated ballast with new ballast. The ballast is available and supplied free issue by the *Employer* to be transported by the *Contractor* from km 61 and shape to suite the adjacent section.
- Rehabilitate the area where the level crossings are to be removed including necessary hydro-seeding for grass.

1.3 Location of the Works

The Majuba Rail is located between Ermelo and Eskom's Majuba Power station which is situated in Mpumalanga province (see Figure 1).

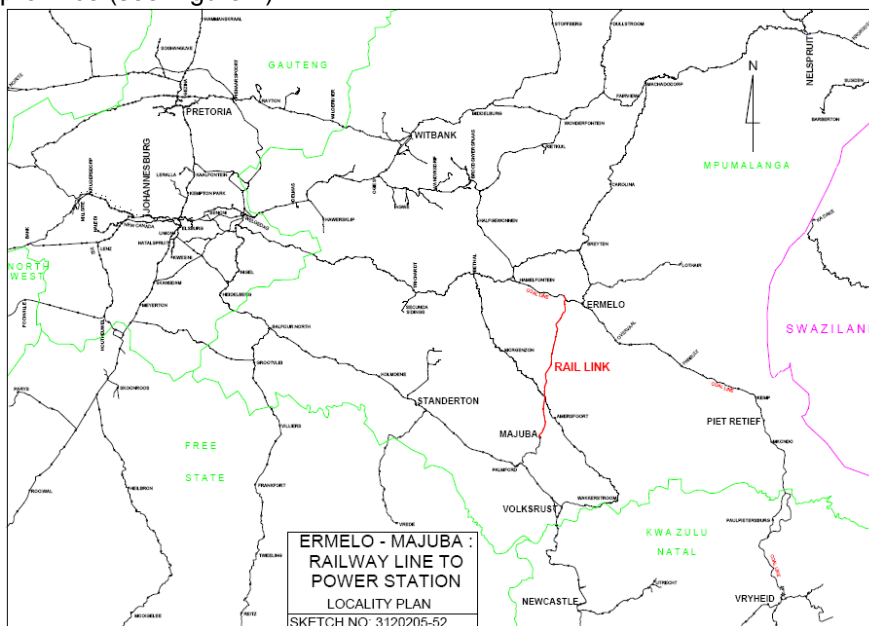


Figure 1: Site Location

1.4 Employer's objectives and purpose of the Works

The Employer's objectives are to:

- Construct the necessary works and necessary rehabilitation to prepare the area at km 23 to ensure the environment is left in a conducive state for signoff and hand over the area to the adjacent land owner.

2. Management and start up

2.1 Meetings

The Contractor arranges and proposes meetings and workshops bi-weekly/monthly for:

Meeting	Frequency	Purpose	Attendance
Progress meeting	Bi-weekly	Overall project progress and feedback	Project Manager Contractor Employer discipline managers Contractor discipline managers.
SHEQ meeting	Bi-weekly	Sharing good practices and issues on SHEQ	Project Manager Contractor Contractor site and safety manager

Meeting	Frequency	Purpose	Attendance
Technical meeting	Bi-weekly	Discussing and sharing technical related issues	Project Manager Contractor Contractor site and safety manager
Early warning/Risk reduction meeting	Weekly	Risk register and compensation related issues	Project Manager Contractor

2.2 Documentation Control

2.2.1 Documentation Management

2.2.1.1 Document identification

The documentation requirements cover the various engineering stages, from the design stage through fabrication, installation, testing and commissioning and most importantly for the operating, maintenance and training stage of the project.

The *Contractor* is responsible for the compilation and the supply of the documentation during the various project stages and to provide the documentation programme to link with the milestone dates. Documentation and drawings are programmed for delivery to meet the milestone dates and in accordance with the agreed VDSS supplied by the *Employer*.

2.2.1.2 Documents Submission

All documents and records must be submitted according to Technical Document and Record Management Work Instruction (240-76992014), and Reporting and Data Requirements Specification for Contractors (240-83561037) Gx Projects Documentation Deliverable Requirements Specification (240-65459834) and all other Engineering standards referenced in this *Works Information*. The *Employer* ensures that the *Contractor* is provided with latest revisions of all these documents. In order to portray a consistent image it is important that all documents used within the project follow the same standards of layout, style and formatting as described in the documents above. The *Employer* will set up a workflow system in the Eskom Documentation Management System (EDMS) for documentation transmittal to and from the *Contractor*. The *Contractor* will be given access rights to the EDMS for all documentation to be submitted and reviewed. Where a document can not be attachment due to size, the document must be zipped or hand delivered in USB to the *Project Manager*. The *Contractor* is required to submit final documents as electronic in .pdf format in a USB Flash Disk and hard copies must be delivered to the *Project Manager* with a transmittal note.

The *Contractor* submits the Master Document List (MDL) to the *Employer* on a monthly basis for tracking purposes irrespective of whether there are updates or not. The MDL includes list of drawings and documents and contains the following minimum information for each document:

- Date of submission
- Transmittal number
- Transmittal title
- Document description
- Document number
- Document Type
- Revision number
- Document Approval Status
- Document Authorisation Status (i.e. Accepted With Comments, Not Accepted with Comments, Accepted)

2.2.1.3 Documentation Review and Turn-around

The *Employer* has a minimum of 14 calendar days to review and consolidate review comments for documentation submitted by the *Contractor*. The *Contractor* also has a minimum of 14 calendar days to respond and / rectify comments as per the comments made by the *Employer*.

2.2.2 Drawings Format and Layout

The creation, issuing and control of all Engineering Drawings will be in accordance to the latest revision of 36-943 (Engineering Drawing Office and Engineering Documentation Standard) and 36-945 and 36-946 (associated Work Instructions) to be supplied as part of the enquiry documents. Drawings issued to the *Employer* will be a minimum of one hardcopy and an electronic copy. All *Contractors* are required to submit electronic drawings in 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 Eskom may not be "Right Protected" or encrypted. (240-86973501) The *Employer* reserves the right to use these drawings to meet its other contractual obligations.

2.3 Format of communication

The *Contractor* supplies and has available on site, at all times, three A4 size triplicate carbon copy books. In one book, site instructions are recorded. The second book is used by the *Contractor* as a site diary for recording day-by-day the state of the weather, the work done each day and full details of any circumstances which may affect the progress of the *Works*. The third book is used as the Risk Register. The original sheet of each set of three pages is removed from the books and retained by the *Employer*.

The *Contractor* may remove the second sheet but the third sheet is retained in the books on the site until completion of the *Works* when the books are handed to the *Employer* using a transmittal document as follows:

2.4 Document Submittal

- All submission of documentation to and from the *Contractor* shall be accompanied by a populated transmittal form. Only the Document Center (DC) is allowed to sign receipt and return to sender.
- Hand delivery – submitted directly to the MRP Documentation Centre.
- Email delivery – The email address CED_MAJUBA_RAIL@eskom.co.za shall always be copied.
- The format of the electronic copy will be a signed / approved Adobe PDF format. Native / Source files will be requested as required.

2.5 Communication numbering system

All communication to be numbered as follows:

- The numbering format is **AAA-BBB-CCC-00000**, use a dash to separate the numbering format.
- The numbering format for MRP Eskom generated Documents will follow the Eskom procedure – procedure will be issued

2.6 Daily records

Daily records

The *Contractor* submits proposals of his formats for Plant and Materials, Equipment-, People and progress reports for acceptance by the *Project Manager* within one month of start date.

The *Contractor* submits daily records to the *Project Manager* weekly containing copies of *Contractor* personnel site records as per the agreed format and content above.

3 Project design and construction drawings

3.1 Employer's design

3.1.1 Specifications and Returnables

Civil works, Earthworks and Necessary Rehabilitation

The *Employer* provides the construction drawings where applicable

3.2 As-built drawings

The *Contractor* provides As-built survey to the *Employer* to update the construction drawings.

4 Construction

4.1 Detailed Scope of Work

The detailed scope includes:

- Construct the paving on both the approaches of the overpass at km 23,200 as per the marked drawing No. 066/96550. The area on the LHS is approximately 320m² area on the RHS is approximately 240m².
- Extend the width of existing drift by 1 meter towards the toe of the rail embarkment (Eastern side) to allow safe passage of the harvesters. The length is 26 meters with a depth of 200mm see details on drawing 066/96675_Sh29_C04. The *Contractor* provide soft board and dowel y10 @ 400 c/c installed into holes drilled into the existing concrete bottom and top (300mm into existing Concrete) and using Epidermix 350 or similar, to bond steel with old concrete. Upon completion of casting, the *Contractor* use Sikaflex PRO-3 WF to seal construction joints on extended sections.
- Re-grade and recompact access road (remove overgrown vegetation on the granular wearing course layer (gravel G5, previous constructed by other and re-process and compact), just north of the drift at km 21,440 and link it to existing service access road from the agricultural overpass at km 20,834.
- Install 2/4.8m gated perpendicular to the access road adjacent to km 21,240 and reinstate the rail servitude road. The total length of the roadwork inclusive of is estimated at 600m and it is 6m wide.
- Remove level crossings at km 21,484 and km 23,418 estimated at 160m³ and 200m³ respectively.
- Replace contaminated ballast with new ballast. The ballast is available and supplied free issue by the *Employer* to be transported by the *Contractor* from km 61 and shape to suite the adjacent sections.
- Rehabilitate the area where the level crossings are to be removed including shaping the fill banks to tie with the fill banks especially at km 21,484, shape the road tying to the temporary level crossing to tie closely with the existing gravel road coming from a drift. Apply necessary hydro-seeding for grass in the area including the banks.

The detail is given in the construction drawings given in Table 1.

4.2 Plant & Materials provided “free issue” by the *Employer* and standards and workmanship

The *Employer* will not provide any free issue material and the *Contractor* procures and supplies all material required to execute the *Works*, and shall be tested and inspected as described in section 4.3.

4.3 Tests and inspections before delivery and on site

- The *Contractor* to provide testing certification where applicable and where asked by the Engineer for the construction material

4.4 Process control by the *Contractor*

The requirements of this Quality Control Procedure (QCP) apply in respect of the *Contractor's* obligation to institute and implement a control system for monitoring the quality of the work and materials supplied.

The *Contractor* takes immediate steps to rectify any deviation from the specified requirements indicated by his process-control system, and the *Supervisor* shall have the right to inspect and be given all details of tests and testing procedures to ensure that the Contractor is implementing an adequate process-control system.

4.5 Quality of materials and workmanship

The *Supervisor*, at regular intervals, inspects and tests materials and completed work for compliance with the specified requirements. The testing frequencies, sample and lot sizes for routine testing are at the Supervisor's discretion.

All sections of completed work are submitted to the Supervisor for acceptance inspection and testing, and the Contractor does not cover up or construct any work on top of sections of completed work before being advised by the Supervisor of the outcome of his tests and inspection. The Contractor arranges the submission of work for testing in a manner as will afford the Supervisor reasonable opportunity for inspecting and testing.

4.6 Planning and Scheduling Requirements

4.6.1 Programming Constraints

4.6.1.1 General

The *Contractor* submits a single integrated Level 3 programme that incorporates all the work to be performed including that of his *Sub-Contractors*. The interfaces between *Sub-Contractors* as well as the interfaces between *Sub-Contractors* and the *Contractor* are clearly identified. Project key dates are incorporated into the programme.

Project Key Milestones (Refer to C1.2 Contract Data Part 1 of Engineering and Construction Contract) as supplied by the *Project Manager*, are incorporated into the programme as per the NEC Core Clause 31.2.

4.6.1.1 Details of the *Employer* and Others Who Will Be Occupying the Working Areas at the Same Time

Other *Contractors* are working in the same area as the work of this contract. In this regard, the *Contractor* co-ordinates his work with the *Project Manager* to maintain harmonious working conditions on Site. During the progress of the works the *Contractor* provides access to Others who also execute work in the same area, on an as and when required basis.

The *Contractor* makes his own assessment of the problems and difficulties which may be encountered for providing access to and interfacing with Others (this includes access difficulties experienced during construction or commissioning phase).

No extra payment or claim of any kind on account of providing reasonable access is allowed.

4.6.1.2 Computerised Planning

The *Project Manager* does not intend duplicating the *Contractor's* programming and planning, however, portions or high level extractions of the Accepted Programme may be used in the *Employer's* internal master project programme for control purposes. The *Contractor* submits updated computer files on a monthly basis, or at any other time as required by the *Contractor* or as instructed by the *Project Manager*.

The updated computer file shows the logic and all filters and layouts used in the programme. The accepted programme will be in Primavera XER file (latest version) or MS

Project has been adopted by the *Employer* for all planning, progress monitoring and reporting.

The *Project Manager* requires one project programme to be used and updated during the installation process, which will remain with Eskom. This ensures that any changes, deviations to the Programme can be carried out on the agreed programme and monitored. The initial programme supplied to Eskom after Contract award must be fully resource loaded.

Any changes that are required to be made to the Project/ Programme i.e. scope changes, delays and the links, will be recorded through the Eskom change process and documentation, where all parties agree to the changes and sign.

The *Contractor* and *Project Manager* shall agree on the format of how the updates will be done i.e. PDF, XER, and the frequency of the updates i.e. such as on a weekly basis, or at any other time as required by the *Contractor*, or as instructed by the *Project Manager*.

The *Contractor* obtains this software and applies it for the planning and control of the works in line with the accepted Work Breakdown Structure which will be agreed upon contract award.

4.6.1.3 Planning and Scheduling Levels

All planning and scheduling is done based on the Critical Path Method (CPM). The *Contractor* uses activity codes to define interfaces to be agreed upon between *Project Manager* and *Contractor*. The *Contractor's* programme shows the actual critical path clearly.

The preparation of the programme contains a programme basis document (Basis of Schedule). This basis document describes the programme and planning methodology, format, project execution philosophy, resource assumptions, qualifications and any other items that may have a substantive impact on the schedule.

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.

The minimum requirements of the WBS for Majuba Power Station Remedial Works at KM23 Project are as per the Works Information.

The following levels of programmes are to be used for this project for integrated project control:

- a) Management programme (Level 1)
- b) Project programme (Level 2)
- c) Control programme (Level 3 – Sub-system level)
- d) Discipline specialty programme (Level 4)

4.6.2 Management Programme (Level 1) – Project Master Programme

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. The management level programme defines:

- Established goals or major milestones key dates,
- The duration of major operations and their relationship to one another,
- Identified Long Lead material items,

- Responsibility assignments for accomplishing project objectives.

4.6.3 Project Programme (Level 2)

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).

Control Programme (Level 3 – Sub-system level)

The project programme is prepared representing the significant work activities and deliverables associated with the works. The end product is a time scaled bar-chart schedule developed through use of a logic network. This programme is separated by Unit, by plant area, by Phase, by WBS.

The programme includes:

- a) Major milestones, interface dates, access dates and key dates (for the new plant, existing plant and between *Sub-Contractors*)
- b) The duration of major activities and their relationship to one another.
- c) Identified long-lead material items.
- d) Responsibility assignments for accomplishing project objectives end product is a time scaled bar-chart programme developed using logic network.

This programme is separated by unit, by plant 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. The programme is resource-loaded and it forms the basis for progress measurement, progress curves and histograms for each discipline within a plant area. This is used for Evaluations and for the accepted programme after contract award. This will be saved and used as the original.

The *Contractor* submits 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 is in alignment with the *Contractor's* Method Statement. The *Contractor's* Forecasted Rate of Invoicing (FRI) should also align with the resource loading on the programme.

4.6.4 Discipline Programme (Level 4)

The need for supplemental or discipline speciality programme is dependent upon the requirements and/or circumstances of the contract.

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. 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.

Resource information for manpower, plant, material and equipment and reflected in resource histograms is provided by the *Contractor*. Staffing histograms are required to be submitted based on "equivalent personnel".

4.6.5 Planning Programmes

The *Contractor* develops a contract programme which will include a bar chart conforming to 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 design, procurement, manufacture, delivery, erection, start-up and commissioning. The critical path is clearly shown.

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.

The programme makes provision for site related preparation such as site establishment, Plant Safety Regulations training duration (Responsible person/Authorised Supervisor), safety induction and medical clearance of the entire *Contractor's* staff that will be working on site.

4.6.6 Submission of Revised Programmes and Progress Reporting

The *Contractor* submits a PDF and one electronic copy in Primavera or MS Projects as well as a two weeks lookahead Dash board in excel, of each revised programme and progress report to the *Project Manager* for acceptance. All formally issued reports are to follow the progress reporting requirements as stated below;

4.6.7 Weekly Status Reports

A weekly status report is submitted by the *Contractor* to the *Project Manager*. This report is less formal than the monthly report and is used as a tool for the day-to-day management of the project. Contents of a weekly report may include the following items:

- The updated Primavera programme
- Programme summary narrative
- Progress and performance summaries
- Schedule rolling horizon
- Sectional Completion and Key Milestone status
- Monthly Progress Report

The contents of the report may vary from month to month depending upon the phase of the project and/or the items of management focus. However, the basic framework of the report consists of the following:

- Executive summary (narrative identifying major movement within the reporting period).
- Revised Programme indicating, actual progress of work against last Accepted Programme.
- A one-month look ahead work window.
- Activities completed during current reporting period per discipline, including the activities of the *Employer* and Others.
- Activities in progress during current reporting period per discipline, including the activities of the *Employer* and Others.
- Activities undertaken during next reporting period per discipline, including the activities of the *Employer* and Others.
- Status overview by unit, by plant area, by phase.
- Key issues / Items of concern and corrective actions.
- Progress curves and tabular progress reports.
- Cost and Cash flow.
- Cost curve 'S-curve'.
- Early warning log.
- Compensation event log.
- General planning report (computer generated).
- Critical activities report.
- Key event report (computer generated).
- Report selecting all of the activities of the *Employer* and Others - (computer- generated).
- Updated bar charts.
- Updated resource schedule and histogram (If changed).
- Updated activity schedule (If changed and if applicable, Option A).
- Forecast rate of payment schedule updated with actual progress.
- Statement and report on works ahead and behind progress.
- The monthly progress reporting cycle is based on a month end "cut-off".

4.6.8 Design Programme

The design programme contains a full list of documents and drawings, their submission dates and duration for review as specified by the *Contractor* in the VDSS. The programme also illustrates the sequence of work for the project and the submission of drawings, studies and reports.

The design programme meets the requirements of the *Contractor* and Others engaged on the project. The *Contractor* is required to submit the programme for review by the *Project Manager*.

The programme should include all the design reviews to be conducted as per the *Employer's Design Review Procedure*. The *Contractor* is responsible for conducting the following design reviews:

- a) Detail Design Freeze Review
- b) Integrated Design Review
- c) Construction Completion Review
- d) Acceptance Testing Review

4.6.9 Procurement and Manufacturing Programme

The *Contractor* is required to submit a procurement and manufacturing programme for review by the *Project Manager* which identifies as a minimum:

- a) Details of orders and target dates for placing subcontracts
- b) Any detailed design required within the manufacturing period
- c) Long-lead delivery items
- d) Hold-points and witness-points for inspection and tests for acceptance and release.
- e) CSI roll out plan to be incorporated.

This programme is in sufficient detail to enable the work to be adequately tracked and progressed.

4.6.10 Construction Programme

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:

- a) Full details of all civil/mechanical/electrical/C&I/Low Pressure Services terminal point release requirements
- b) Identify any erection or commissioning activities that may affect other construction activities
- c) Identify when services are required for commissioning purposes

This programme meets the requirements of the *Contractor* and Others engaged on the project. The programme shall be based on the following working hours: Where applicable

- a) Twenty four (24) hours per day
- b) Seven (7) days per week
- c) Holidays included as working days if the Contractor wishes to work during holidays (Permission to be requested from the *Project Manager*)
- d) Pay weekends to be negotiated (if working 7 day work week)

4.6.11 Commissioning Programme

During the progress of the *Works*, the *Contractor* develops a detailed commissioning programme with sufficient detail to enable the work to be adequately progressed and tracked to meet the commissioning key dates. Training programme to be incorporated into the commissioning programme. The commissioning programme is detailed to sub-system level and is fully integrated with the Construction Programme.

4.6.12 Reporting and Data Requirements for Contractors Document number 240-83561037

This specification is included as an Annexure to the Works Information. This specification lists all the data and reporting that must be submitted by the *Contractor* on a weekly / monthly basis to the *Project Manager*. The purpose of this information is to implement proper project controls on this project.

4.7 Access and Site Establishment Site Establishment

SANS 1921-1, clause 4.14 is applicable.

Facilities to be provided by the Contractor

Contrary to SANS 1921-1 clause 4.14.1, the Contractor is responsible for the location identification of his site establishment/s, provided that: -

- 1 Arrangements are in line with Construction Environmental Management Plan:

Possible locations for the Contractor's site establishment are: -

- 2 The *Employer* recommends an already disturbed area on private property around \pm km 24.

The *Contractor* controls the accesses to his establishment on a 24 hour, seven days per week i.e. on a 24/7 basis

No extra requirements other than those stated in SANS 1921-1 clause 4.14 are required.

4.8 Access to Site

All accesses to the site are into the fenced servitude from the roads as per the descriptions below, and the *Contractor* makes no other arrangements for access over private land without prior authorisation from the *Employer* and then only in terms of the requirements conforming to the Environmental legislation.

The accesses listed below are generally from the positions of permanent accesses shown on the drawings and the extent of the service roads is described within brackets.

Access from: -

- Accesses from Road D1106 between 15.0 km and 30.7 km (Transvalia Road D1106 is used as a service road from 15.0 km up to gravel road 1329 at 30.7 km).
- Road D1329/D1106 at 30.4 km. (Service road on the eastern side up to the Vaal river).

The Transnet E7/2 General Conditions and Specification for Works On, Over, Under or Adjacent to Railway Lines and Near High Voltage Equipment must also be observed for excavations in or near the existing railway formation.

4.9 Advertising rights

The *Contractor* obtains the *Project Manager's* permission for any advertisements he intends to establish on Site.

The *Contractor* obtains *Project Manager's* permission for any media advertisement or media article/statement he intends to publish.

4.10 Notice boards

Signs

Specification data in terms of SANS 1921-1 clause 4.14.6: -

- Signs for access roads, as specified in, Environmental requirements.
- The *Contractor* erects notification signs on Site at public roads adjacent to Site and public crossings intervals, warning of the hazards around the construction site and the presence of heavy vehicles on site.
- The *Contractor* provides notice boards in construction camps as per, Environmental requirements.

- The *Contractor* erects warning signs indicating that the right of way belongs to the landowner, on Site at each private road crossing, 100 m either side of such a crossing.

Permits and Way leaves

The *Contractor* obtains the following:

- Written permission to use land/roads/facilities as per EMP requirements.
- Written permission from appropriate authorities to open temporary deviations.
- Permission to use water from landowners' water sources and written proofs that these water sources are legally registered.

4.11 Water for construction purposes

- The *Contractor* adheres to all conditions as per Environmental requirements.
- The *Employer* is authorised to abstract water for construction purposes at the following points only: -
 - Majuba power station abstraction.
 - The Vaal river abstraction point at km 35.
 - The DWAF water pipeline crossing the Site at approximately 1.975 km.

The *Contractor* to provide construction abstraction facilities and equipment for all collection points and records quantity of water abstracted.

4.12 Management of the Works

The following parts of SANS 1921 and associated specification data are applicable but not limited to: -

- SANS 1921-1-2004 : Part 1 : General Project Management and construction works.
- SANS 1921-2-2004 : Part 2 : Accommodation of traffic on public roads occupied by the *Contractor*.
- SANS 1921-6-2004 : Part 6 : HIV/Aids awareness.

4.12.1 Accommodation of traffic on public roads occupied by the Contractor

SANS 1921-2-2004 is applicable and the Specification data are as follows: -

(Numbers in brackets refer to clause numbers in this specification).

- (4.6.1). No half width temporary deviations of traffic are applicable.

4.12.2 Permits and other requirements

The *Contractor* supplies all his employees with clearly identifiable clothing, clearly marked with the *Contractor's* name.

The *Contractor* supplies all his employees with an ID card containing the employee's photo and identity document ID number and statement of employment with the *Contractor*. *Employees* must carry this document at all times. The *Contractor* manages the ID cards in such a way that persons no longer employed by him do not have these ID cards in their possession.

A security investigation done by the landowners and the *Project Manager*, requires the following additional measures: -

- All prospective employees of the *Contractor* must be screened for any past criminal involvement.
- Persons with criminal convictions should not be considered for employment purposes.

- Employees must in no way be hired at the Site but rather at the allocated areas/offices in town.
- Vehicles used on the project must have the name of the company or contract marked clearly in a conspicuous position.

All employees must undergo a security briefing before they will be allowed on the servitude.

4.13 Environmental Requirements

In order to ensure that the CEMP is implemented, the following staff resources are made available by the Employer: -

- The Environmental Manager to assume responsibility for monitoring the compliance of the management measures contained in the CEMP.
- The Environmental Manager is to assume responsibility for setting up a landowner liaison committee, consulting with landowners and resolving any issues or disputes regarding aspects such as fire, theft, safety, security and complaints and who liaises with the *Project Manager* on a regular basis.

The requirements below were extracted verbatim from the Construction Environmental Management Plan (CEMP), as instructions to the *Contractor*. The complete approved CEMP document is kept in the site office.

4.14 Training and environmental awareness

The *Contractor* together with the Environmental Manager and the *Project Manager* ensures that the *Contractor's* employees receive adequate environmental training prior to the commencement of construction.

The *Project Manager* will present an induction presentation on environmental awareness. The cost, venue and logistics shall be for the *Contractor's* account. Where possible, training will be conducted in the language of the employees.

The *Project Manager* will convey the contents of this section, the conditions of the record of decision (ROD) from Mpumalanga Department of Agriculture and Land Administration (M-DALA) as well as the landowners' special conditions to the *Contractor's* site staff and discuss the contents in detail with the *Employer's* project team and *Contractor's* at a pre-construction meeting. This formal induction training shall be done with all main and sub-contractors. Record of the training date, people whom attended and discussion points shall be kept by the *Project Manager*.

4.15 Safety

Majuba Rail Project SHE specifications applicable:

Telephone numbers of emergency services, including the local fire fighting service, shall be posted conspicuously in the *Contractor's* office near the telephone.

No unauthorized firearms are permitted on site. The *Project Manager* arranges for authorization of relevant firearms to be allowed on site (e.g. the security guards protecting the *Works*).

4.16 Landowner liaison

All negotiations shall be between the *Employer*, the landowners and the *Project Manager*.

No verbal agreements shall be made. All agreements shall be recorded properly and all parties shall co-sign the documentation.

The landowners shall always be kept informed about any changes to the construction programme should they be involved.

The *Project Manager* will keep the landowners informed. The contact numbers of the *Project Manager* will be made available to the landowners, to ensure open channels of communication and prompt response to queries and claims.

All contact with the landowners shall be courteous at all times.

4.17 Emergency procedures

The *Contractor* to submit method statements covering the procedures for the following emergencies:

- **Fire**

The *Contractor* to advise the relevant authority of a fire as soon as one starts and shall not wait until he can no longer control it. The *Contractor* to ensure that his employees are aware of the procedure to be followed in the event of a fire.

- **Leaks and spillages**

The *Contractor* shall ensure that his employees are aware of the procedure to be followed for dealing with spills and leaks, which shall include notifying the *Project Manager* and the relevant authorities. The *Contractor* shall ensure that the necessary materials and equipment for dealing with spills and leaks are available on site at all times. Treatment and remediation of the spill areas shall be undertaken to the reasonable satisfaction of the *Project Manager*. In the event of a hydrocarbon spill, the source of the spillage shall be isolated, and the spillage contained. The area shall be cordoned off and secured. The *Contractor* shall ensure that there is always a supply of absorbent material readily available to absorb/break down and where possible, the area is designed to encapsulate minor hydrocarbon spillage. The quantity of the absorbent materials shall be able to handle a minimum of 200 litres of hydrocarbon liquid spill.

5 Rehabilitation

The *Contractor* is responsible for all rehabilitation of his temporary works and laydown areas to return it to original status.

6 Completion

Completion is achieved when the *Works* are complete and handed over to the *Employer*.

7 Site services procedures and title to Site materials

7.1 Other contractors on site

Other contractors also occupy sections of the Site as listed below for the duration of the contract:-
Same site

- Electrical contractor for traction sub-stations Plant.
- Signalling, Train Control and Train Communication contractors.

8 Stakeholder management and labour relations

8.1 Employment Creation

- The *Contractor* to understand the local employment procedures and processes, to ensure fair and inclusive recruitment practices.
- Local skills development programme to be done in accordance with employment procedures and processes established.
- **Priority Areas for employment:**
 - Dr. Pixley Ka Isaka Seme Municipality
 - Msukaligwa Local Municipality

• **Employment Split / Municipality:**

Core-Workers	30% Non-local Skilled Workers
	70% Skilled Workers to be sought locally
Dr. Pixley Ka Isaka Seme	40% Labour Force
Msukaligwa Local Municipality	40% Labour Force
Gert Sibande District	20% Labour Force

8.2 Corporate Social Investment

- The *Contractor* is expected to be a good corporate citizen, i.e. protect the environment, social and economic upliftment of our feeder communities
- Economic Participation of Local Business is key.
- Involvement and local entities in procurement activities.
- Implementation of SD& L Targets as agreed on the contract.

8.3 Information and Communication

- The *Contractor* will be expected to participate in established forums on an adhoc basis or when invited to make a presentation.
- External / Media communication about the project will handled by the *Employer* through approved processes.

9 Subcontracting

The *Contractor* submits to the *Employer* for its acceptance the names of proposed sub-contractors.

The *Employer* is entitled to withhold acceptance of any proposed sub-contractor or to rescind acceptance of any sub-contractor with whom it may subsequently have reason to be dissatisfied in which case the connection of such sub-contractor with the *Works* shall cease and he is bound to withdraw immediately from the *Works*.

The consent of the *Employer* to the employment of any sub-contractor does not relieve the *Contractor* of his obligations under the contract or in any way affect the *Contractor's* direct responsibility to the *Employer* nor does it render the *Employer* in any way liable to such sub-contractor.

The *Contractor* employs at least one competent representative to supervise the carrying out of the *Works*.

The *Contractor* at all times during the progress of the *Works* provides all watchmen necessary for the protection of the site materials and plant.

The *Employer* is entitled to object to any representative or employee employed by the *Contractor* who, in the *Employer's* opinion, misconducts himself or is incompetent or negligent or otherwise unsatisfactory and the *Contractor* replaces the person so objected to upon receipt from the *Employer* of notice in writing requiring him to do so.

10 Financial records and accounts

10.1 General

Payments to the *Contractor* are made in terms of the Conditions of contract.

Payments will be made for activities satisfactorily completed and for which acceptance has been received, signed by the responsible principle in the *Contractor's* organisation.

Before submission of the first invoice, the format is agreed upon with *Supervisor*. One original and two copies are required.

10.2 Forecast Rates of Invoicing

At each assessment interval, the *Contractor* submits to the *Employer* a forecast rate of invoicing that consists of all the expected payments to be made by the *Employer* to the *Contractor* on a month by month basis. Full details and back-up information is provided for the assessment.

Invoices are submitted following the agreement of the assessment by the *Supervisor*

The invoices from the *Contractor* contain the following information:

- The registered name of the company.
- The VAT registration number of the company.
- The *Employer's* contract or purchase order number.
- The invoice sequence number.
- The original contract or purchase order value.
- The amount paid to date.
- The value of the invoice split into the payments as indicated on the price list or activity schedule.

Any interest payable.

The *Contractor* submits the invoices to the *Supervisor* on or before the first working day of each month.

Financial Records and Accounts

Payment is by bank transfer within the time period specified in the Contract Data.

The *Contractor* ensures that the *Employer* has his correct banking information to make the transfer. The *Contractor* assumes the risk of incorrect bank transfers arising from changes to the *Contractor's* banking information.

Bank charges in respect of telegraphic transfers levied by *Contractor's* bank are for *Contractor's* account. Bank charges in respect of telegraphic levied by *Employer's* bank are for the *Employer's* account.

All payments are provisional and subject to audit.

The *Contractor* retains its records for such a period as the Department of Internal Revenue may require. If different periods are prescribed, the longest period applies, but in any event, records are retained for not less than five years.

The *Employer* may deduct any amount owed by the *Contractor* to the *Employer* from any amount owed by the *Employer* to the *Contractor*, subject to prior written notification.

11 List of documents

11.1 Standard and specifications

The *Contractor* will comply with documents as marked in the table below:

Specification	Year	Description
	1999	Model Preambles for trades (1999 Edition) ("Preambles")
	Nov 1997	The South African Road Traffic Signs Manual is also applicable to this part of the particular specification. SARTSM Volume 1 and Volume 4 in this particular specification refers to the Draft South African Road Traffic Signs Manual Volume 1, November 1997 and Volume 4, November 1997.
Transnet E10	1996	Specification for Railway Trackwork
PRP CIV13	2006	Specification for Fencing
S406	1998	Specification for the supply of stone
S410	2006	Specifications for Railway Earthworks (Transnet)
S413	1985	Specifications for Stabilization.
S420	1999	Specification for concrete work
S503		Specification for concrete bridges and culverts other than pipe culverts.
SANS 0100-2	1992	The structural use of concrete – Part 2: materials and execution of work.
SANS 10145		CONCRETE MASONRY CONSTRUCTION
SANS 1200 A	1986	General
SANS 1200 AB	1986	Engineer's Office
SANS 1200 C	1980	Site Clearance
SANS 1200 D	1988	Earthworks
SANS 1200 DA	1988	Earthworks (small works)
SANS 1200 DM	1988	Earthworks (roads, sub-grade)
SANS 1200 G	1982	Concrete (structural)
SANS 1200 LE	1982	Storm water drainage
SANS 1200 M	1996	Roads General
SANS 1200 ME	1981	Sub-base
SANS 1200 MF	1981	Base
SANS 1200 MJ	1984	Segmented paving
SANS 1200 MK	1983	Kerbing and channelling
SANS 1200 MM	1984	Ancillary road works
SANS 1491-1	1989	Portland cement extenders – Part 1: ground granulated blast furnace slag.
SANS 1491-2	1989	Portland cement extenders – Part 2: fly ash.
SANS 1491-3	1989	Portland cement extenders – Part 3: condensed silica fume.
SANS 1921-1:2004	2004	Part 1 : General Engineering and Construction Works

SANS 1921-2:2004	2004	Part 2 : Accommodation of traffic on public roads occupied by the <i>Contractor</i>
SANS 1921-6:2000	2000	Part 6 : HIV/Aids awareness
SANS ENV 197-1		Cement composition, specifications and conformity criteria – Part 1: common cements.
Spoornet CCE 1/62		Specification for Resilient Insulated Pads for use with Non-ballasted Track
Spoornet PWM 2/10	1995	Specification for Supply of the Traffic Signs used by Spoornet
Spoornet S406	1996	Specification for the Supply of Stone
TMH1		Standard methods of testing road construction materials.
TRH14		Guidelines for road construction materials.
TRH17		Geometric design of rural roads
TRH4		Structural design of inter-urban and rural road pavements.

11.2 List of applicable documents

NO	Document Title	Document Reference ID	Revision
1	Protekon Design Services et al., October 2006, Ermelo to Majuba PS proposed rail link for Eskom: Drainage structures. Project WSB005V2	200611	Rev 01
2	Water use licence in terms of chapter of the national water act, 1998 (Act no 36 of 98)	20023145/Licence no: 20023145	
3	Eskom GGS0462 – Quality requirements for Engineering and Construction works.	GGs0462	
4	OHS ACT1993 - Occupational Health and Safety Act		
5	Construction Environmental Management Plan		
	COLTO – Standard specification for road and bridge works for state road authorities (1998 Edition)	8100 8200 8300	1998 Edition
6	Supplier / Contractor Quality Requirements Specification	QM-58	0

12 Detailed Scope of Work: List of Drawings

DRAWING NUMBER		SHEET NUMBER	Revision	Description		Eskom Number
312020 5	C-211	5	C0 5	Line Plan and Longitudinal Section - 21,0 km to 26,0 km	0.66/96211	Issued
312020 5	C-220	4	C0 3	Servitude, Fencing and Temporary works - 16,0 km to 26,0 km	0.66/962119622 0	Issued
312020 5	C-221	4	C0 5	Fencing Phase Plan - 16,0 km to 26,0 km	0.66/96221	Revisions needed after 1st contract. To be completed in P33 (check if revision C03 and C04 was done)
312020 5	C-230	1	C0 5	Typical Earthworks Cut Profiles	0.66/96230	Issued
312020 5	C-230	2	C0 4	Typical Earthwork Fill Profiles and Layerwork Design	0.66/96230	Issued
312020 5	C-261	5	C0 3	Perway Line Plan and Longitudinal Section 21,0 km TO 26,0 km	0.66/96261 SH.5	Issued
312020 5	N-SK-01	1	C0 0	Typical Earthwork Fill Profile Without Bulk Fill Clarification Drawing		See Drawings 312025-C-230 SH.2
3120205 -C-X/GEN	BE 06-137	29	C04	Culverts – Additional Drifts General Details	0.66/9667 5	
3120205 -C-X23/1	BE 06-34	1	C02	Agricultural Overpass at 23,200 km General Arrangement	0.66/9655 0	Check that Revision C01 was done
3120205 -C-X23/1	BE 06-34	2	CZ Z	Agricultural Overpass at 23,200 km Substructure Layout	0.66/9655 0	
3120205 -C-X23/1	BE 06-34	3	CZ Z	Agricultural Overpass at 23,200 km Abutments - Geometry	0.66/9655 0	
3120205	BE	4	CZ	Agricultural	0.66/9655	

-C-X23/1	06-34		Z	Overpass at 23,200 km Abutments - Reinforcement	0	
3120205 -C-X23/1	BE 06-34	5	CZ Z	Agricultural Overpass at 23,200 km Approach Slab - Reinforcement	0.66/9655 0	
3120205 -C-X23/1	BE 06-34	6	CZ Z	Agricultural Overpass at 23,200 km Piers - Details	0.66/9655 0	
3120205 -C-X23/1	BE 06-34	7	CZ Z	Agricultural Overpass at 23,200 km Deck & Parapet - Geometry	0.66/9655 0	
3120205 -C-X23/1	BE 06-34	8	CZ Z	Agricultural Overpass at 23,200 km Deck - Reinforcement	0.66/9655 0	
3120205 -C-X23/1	BE 06-34	9	CZ Z	Agricultural Overpass at 23,200 km Bending Schedule	0.66/9655 0	
3120205 -C-X23/1	BE 06-34	A	CZ Z	Agricultural Overpass at 23,200 km Site Plan	0.66/9655 0	
3120205 -C-X23/1	BE 06-34	B	CZ Z	Agricultural Overpass at 23,200 km Site Plan	0.66/9655 0	

12 Testing Specification

During the progress of the work tests are conducted on materials and workmanship to ensure compliance with the requirements of the specifications.

All tests are conducted in accordance with the standard methods specified in SANS

C4: Site Information

C4.1: Information about the *site* at time of tender which may affect the work in this contract

1. Access limitations (refer to section 4.4.1 of the Scope of Works)

Majuba Rail is located between Ermelo and Eskom's Majuba Power station which is situated in Mpumalanga province.

All accesses to the site are into the fenced servitude from the roads as per the descriptions below, and the *Contractor* makes no other arrangements for access over private land without prior authorisation from the *Employer* and then only in terms of the requirements conforming to the Environmental legislation.

The accesses listed below are generally from the positions of permanent accesses shown on the drawings and the extent of the service roads is described within brackets.

1. Temporary accesses from Road D1106 between 15.0 km and 30.7 km (Transvalia Road D1106 is used as a service road from 15.0 km up to gravel road 1329 at 30.7 km).
2. Road D1329/D1106 at 30.4 km. (Service road on the eastern side up to the Vaal river).

2. Ground conditions in areas affected by work in this contract

The *Works* include minimal excavating as the posts are already planted in most of the sections, however the ground is generally soft for excavation.

It should be noted that not all the areas have flat conditions there may be slopes in other areas, wetlands and stream crossings etc.

3. Hidden and other services within the *site*

The *Works* in this scope does not have any underground or other hidden services which the *Contractor* may encounter whilst doing the work.

4. Details of existing buildings / facilities which *Contractor* is required to work on

There are no existing buildings or facilities to be considered in execution of the *Works*.