



NEC3 Engineering and Construction

Short Contract (ECSC3)

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

and

for **Line Lift of 400kV Transmission Power line:
Kusile Zeus 400kV Line Tower 39**

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Documentation prepared by:

Lebogang Sithole – North East Grid
(Lines & Servitudes)
Raeesa Khan – Lines Engineering Services

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:

Line Lift of 400kV Transmission Power line: Kusile Zeus 400kV Line Tower 39

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:

Signature _____

Name _____

Capacity _____

On behalf of *(Insert name and address of organisation)* _____

Name & signature of witness _____

Date _____

For the Employer

Signature _____

Name _____

Capacity _____

(Insert name and address of organisation) _____

C1.2 Contract Data

Data provided by the *Employer*

[Instructions to the contract compiler: (delete these two notes in the final draft of a contract)

1. Please read the relevant clauses in the NEC3 Engineering and Construction Short Contract (April 2013) (ECSC3)¹ before you enter data. The number of the principal clause is shown for most statements however other clauses may also use the same data.
2. Where the following symbol is used “[●]” - data is required to be inserted.]

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

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</i> 's representative to whom the <i>Employer</i> in terms of clause 14.4 delegates his actions ² is (Name):	Lebogang Sithole
	Address	Eskom Simmerpan Complex Corner Power & Lake Streets, Germiston
	Tel No.	082 771 0718 / 011 800 2104
	Fax No.	[●]
	E-mail address	SitholLe@eskom.co.za
11.2(11)	The works are	Install a new 518H tower of CAH 26m, 30m away from the existing Tower 39 towards Tower 40, and remove existing Tower 39.
11.2(12)	The following matters will be included in the Risk Register	Substance related risks such as noise, vibrations, heat etc. Biological risks such as general infection, contaminated water etc. And environmental risks such as water, air and waste. Refer to general baseline risks assessment register for general overview of possible risks
11.2(13)	The boundaries of the site are	Within boundary of the Eskom line servitude, as shown on the relevant profiles and drawings.
11.2(14)	The Works Information is in	the document called 'Works Information' in Part 3 of this contract.

¹ Available from Engineering Contract Strategies Tel 011 803 3008, Fax 086 539 1902 or www.ecs.co.za

² Except those actions which can only be done by the *Employer* as a Party to the 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	Kusile Zeus 400kV line Tower 39
30.1	The <i>starting date</i> is.	TBC
11.2(2)	The <i>completion date</i> is.	TBC
13.2	The <i>period for reply</i> is	4 weeks
40	The <i>defects date</i> is	52 weeks after Completion of the whole of the works.
41.3	The <i>defect correction period</i> is	4 weeks
50.1	The <i>assessment day</i> is the	25th of each month.
50.5	The <i>delay damages</i> are	[•] per day
50.6	The <i>retention</i> is	10% 5% payable on completion 5% payable after 12 months
51.2	The <i>interest rate on late payment</i> is	0%
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 described in the applicable "Format ECSC3" policy available on http://www.eskom.co.za/Tenders/InsurancePoliciesProcedures/Pages/EIMS_Policies_From_1_April_2014_To_31_March_2015.aspx
82.1	The <i>Employer</i> provides this insurance	as stated for "Format ECSC3" available on http://www.eskom.co.za/Tenders/InsurancePoliciesProcedures/Pages/EIMS_Policies_From_1_April_2014_To_31_March_2015.aspx (See Annexure A for basic guidance)
82.1	The minimum amount of cover for the third insurance stated in the Insurance Table is:	whatever the <i>Contractor</i> deems necessary in addition to that provided by the <i>Employer</i>.
82.1	The minimum amount of cover for the fourth insurance stated in the Insurance Table is:	As prescribed by the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993 and the <i>Contractor's</i> common law liability for people falling outside the scope of the Act with a limit of Indemnity of not less than R500 000 (Five hundred thousand Rands)
	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	<input checked="" type="checkbox"/>
	Tel No.	<input checked="" type="checkbox"/>
	Fax No.	<input checked="" type="checkbox"/>
	e-mail	<input checked="" type="checkbox"/>
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	<input checked="" type="checkbox"/> South Africa
	The person or organisation who will choose an arbitrator	
	- if the Parties cannot agree a choice or - if the arbitration procedure does not state who selects an arbitrator, is	the Chairman for the time being or his nominee 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)³⁴ and the following additional conditions Z1 to Z11 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 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

³ If June 2005 Edition applies, delete April 2013 and insert June 2005

⁴ 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.

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 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 <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.

Z 11.1 A Committing Party may not take any Prohibited Action during the course of the procurement of this contract or in execution thereof.

Z 11.2 The *Employer* may terminate the *Contractor*'s obligation to Provide the Works 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 Works for this reason.

Z 11.3 If the *Employer* terminates the *Contractor*'s obligation to Provide the Works for this reason, the amounts due on termination are those intended in core clauses 92.1 and 92.2.

Z 11.4 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.

Annexure A: Insurance provided by the Employer

These notes are provided as guidance to tendering contractors and the Contractor about the insurance provided by the Employer. The Contractor must obtain its own advice. Details of the insurance itself are available from the internet web link given below.

1. For the purpose of works contracts likely to be let under this contract (low value straight forward work), insurance provided by Eskom (the *Employer*) has been arranged on the basis of "**Format ECSC3**" as described on the web link given at the foot of this page.
2. Tendering contractors should note that cover provided by the *Employer* is only per the policies available on the internet web link listed below under the **Format ECSC3** and may not be the cover required by the tendering contractor or as intended by each of the listed insurances in the left hand column of the Insurance Table in clause 82.1. In terms of clause 82.1 "The *Contractor* provides the insurances stated in the Insurance Table. The *Contractor* does not provide an insurance which the *Employer* is to provide as stated in the Contract Data". Hence the *Contractor* provides insurance which the *Employer* does not provide and in cases where the *Employer* does provide insurance the *Contractor* insures for the difference between what the Insurance Table requires and what the *Employer* provides.
3. When Marine Insurance is required the *Contractor* needs to obtain a copy of the latest edition of Eskom's Marine Policies Procedures found at internet website given below.
4. Further information and full details of all Eskom provided policies and procedures may be obtained from:
http://www.eskom.co.za/Tenders/InsurancePoliciesProcedures/Pages/EIMS_Policies_From_1_April_2014_To_31_March_2015.aspx

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)⁵ 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 Contractor is (Name):	<input checked="" type="checkbox"/>
	Address	<input checked="" type="checkbox"/>
	Tel No.	<input checked="" type="checkbox"/>
	Fax No.	<input checked="" type="checkbox"/>
	E-mail address	<input checked="" type="checkbox"/>
63.2	The percentage for overheads and profit added to the Defined Cost for people is	<input checked="" type="checkbox"/> %
63.2	The percentage for overheads and profit added to other Defined Cost is	<input checked="" type="checkbox"/> %
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<input checked="" type="checkbox"/> excluding VAT [in words] <input checked="" type="checkbox"/> excluding VAT

⁵ 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:

BOQ - Kusile Zeus 400kV - T39 Line Lift

Item	Description	Unit	Quantity	Rate	Amount
	Kusile Zeus 400kV - T39 Line Lift				
	<u>BILL 1</u>				
	Preliminary & Generals				
	Note : All the cost for the Preliminary and Generals will be identified and agreed with the Eskom Project Manager per task order.				
1	Contractual requirements (Schedule, Administration,...etc.)	sum	1		
2	Site Establishment:				
2	Name boards. (In No. 2)	sum	1		
3	Facilities for Contractor	month	3		
4	Offices and storage sheds	month	3		
6	Ablution and latrine facilities	month	3		
7	Tools and equipment	month	3		
8	Water supplies, electric power, communications, dealing with water, and access	month	3		
9	Living accomodation	month	3		
10	Complying with Eskom Health and Safety Requirements and all statutory requirements as per OHS Act.	month	3		
11	Complying with Environmental Management Programme and all other statutory environmental requirements.	month	3		
12	Security for the works duration construction.	month	3		
13	Supervision for duration of construction	month	3		
14	Company and head office overhead costs for duration of construction	month	3		
16	Rehabilitation of work areas	sum	1		
17	SD&L (Provisional)	sum	1		
19	Staff Transport	month	3		
20	Detailed "as built" records (as per works information)	sum	1		
21	Site De-establishment	sum	1		
	<u>BILL 2</u>				

	DISMANTLE				
22	dismantle existing tower 225 in sections.	no	1		
23	remove existing tower 225 foundations	no	4		
<u>BILL 3</u>					
TOWER SUPPLY					
24	Manufacture and supply of 518H tower structure	kg	8515.2		
25	Manufacture and supply of 518H 4 tower legs	kg	3468		
26	Assemble 518H Tower	no	1		
27	Erection of 518H Tower	no	1		
28	supply, assembly and erection of anti theft bolts tower shackles and anti-climbing devices as per works information	t	1		
<u>BILL 4</u>					
PHASE CONDUCTOR AND EARTHWIRE					
29	lowering 2x 19/2.65 earthwire	m	338		
30	lowering V-assembly triple dinosaur phase conductor	m	338		
31	attach V-assembly triple dinosaur phase conductor to the new 518H tower and regulate including clamping	m	338		
32	attach 2x 19/2.65 earthwire to the new 518H tower and regulate including clamping	m	338		
<u>BILL 5</u>					
MINOR WORKS					
33	backstaying	no	12		
34	Road crossings (H method if required)	no	2		
35	Supply and install tower lables	sum	1		

C3: Scope of Work

C3.1 Works Information

1. Description of the works

With the construction of the new Kusile Access road between the existing N12 and D686 roads, the Apollo-Kendal 400kV line 1 was renamed to the Kusile – Zeus 400kV line. It was found that the vertical clearances of the Kusile – Zeus 400kV line between towers 39 and 40 did not satisfy the 12m requirement stipulated for roads which will be used for heavy/ abnormal loads. The normal OSHACT requirement for 400kV lines over major roads is 9.3m, under full load of the line, but due to the fact that this road is an access road to Kusile and alternative route for the other industries in the area, a 12m vertical clearance is requested which will be used for heavy/ abnormal loads.

In order to achieve the desired 12m clearance at full load of the line, a new 518H tower of conductor attachment height of 26m will be installed to replace tower 39. The new tower will be placed 30m away from the existing tower 225, towards tower 226.

By installing this new 518H tower, we raise the clearance above the 12m level.

Existing triple Dinosaur conductor and existing 2x19/2.65 earthwire will be maintained. No new joints or conductor will be required.

The new tower will be equipped with new phase and earthwire hardware and new glass insulators.

The existing tower 39, will be removed in stages as the new 518H (new39) will be erected.

The foundations have already been installed (see picture below) and the drawings are available from the Designer.



2. Drawings

Drawing number	Revision	Title
2103	0	Self-Supporting Suspension Tower Type 518H

3. Specifications

Title	Date or revision	Tick if publicly available
<u>General Specifications:</u>		
Eskom SHEQ Policy	32-727	
Operating Regulation for High Voltage Systems	ORHVS	
SHE Requirements for the Eskom Commercial Process	32-726	
Eskom Quality Management Policy	32-7	
Occupational Health and Safety Incident Management Procedure	32-95	
Eskom's Life Saving Rules	240-62196227	
Contractor Health and Safety Requirements Standard	32-136	
OHSAS 18001:2007		
<u>Technical specifications:</u>		
TRAMSCAAC 6: The standard for the construction of overhead powerlines	240-47172520	
Kusile – Zeus 400kV T39 line lift - due to new Kusile Access road.	LES1794	

4. Constraints on how the **Contractor** Provides the Works

4.1 Employer's objectives and purpose of the works

The work entails installation of a new 518H tower of CAH 26m, 30m away from existing Kusile Zeus Tower 39 towards 40, and remove existing tower 39. This addition of a new higher suspension tower will pick up the conductor to above 12m clearance over the road at full load.

4.2 Interpretation and terminology

The following abbreviations are used in this Works Information:

Abbreviation	Meaning given to the abbreviation
CLN	Customer Load Network (Supervisor)
EA	Engineering Assistant
EMP	Environmental Management Plan
MWP	Megawatt Park
PM	Project Manager
QS	Quantity Surveyor
RP	Responsible Person
SS	Site Supervisor

5. Management and start up

5.1 Management meetings

Regular meetings of a general nature may be convened and chaired by the *Project Manager* as follows:

Title and purpose	Approximate time & interval	Location	Attendance by:
Risk register and compensation events	Weekly on Fridays at 10:00	Lines or substation referred in the scope of works	SS,RP and Contractor
Overall contract progress and feedback	Monthly on Fridays at 10:00	Lines or substation referred in the scope of works	<i>Employer, Contractor, Supervisor, and Project Manager</i>
Pre-Inaugural Meeting	After contract award	Lines or substation referred in the scope of works	PM, Contractor, Environmental Advisor, Safety advisor and SS
Compensation	When required	Lines or substation referred in the scope of works	PM, Contractor &SS

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 shall be submitted to the *Project Manager* by the person convening the meeting within five days of the meeting.

All meetings shall be recorded using minutes or a register prepared and circulated by the person who convened the meeting. Such minutes or register shall not be used for the purpose of confirming actions or instructions under the contract as these shall be done separately by the person identified in the *conditions of contract* to carry out such actions or instructions.

5.2 Documentation control

All correspondences must be addressed to the PM and all correspondence should be marked in sequential order. All internal documents will have as a reference, and the prefix will include the date and the number of correspondence in sequence

5.3 Health and safety risk management

NO WORK ON SITE WILL BE ALLOWED TO COMMENCE BEFORE ALL THE ACCESS PERMITS AND THE RELEVANT HEALTH AND SAFETY FILES ARE IN PLACE – ACCORDING TO THE ESKOM STANDARD **SHE Requirements 32-726 and 32-727** : (Occupational Health and Safety Requirements to be met by Eskom Transmission Employees, Contractors and Sub-Contractors during maintenance and construction work.)

The Contractor is to compile the complete SAFETY FILE according to Annexure 1 – Audit form in the Eskom Standard **SHE Requirements 32-726 and 32-727** Document and submit to Transmission Services Risk and Safety Department in Witbank, Eskom Park, Gauteng, and Mpumalanga Province. Contact Person: Ms Lindiwe Lamola Tel: 079 220 7482. PLEASE NOTE that only once approval for the SAFETY FILE has been granted by Transmission Services Risk and Safety Department will arrangements for an Inaugural Meeting will be made to start Construction work on Site.

The Contractor must have an Eskom Certified and Authorized ORHVS person (Valid as requested by ESKOM) available on site at all times in accordance with Eskom Transmission Standard TST0015 - Training, Assessment and Authorisation of persons for the operation and maintenance of the power system. The authorization procedure for a permit to work shall be done before the Contractor commences work on site. The Contractors Responsible person has to be Interviewed and Authorised by the relevant Regional personnel before any work can commence on Site.

The Contractor is responsible for setting out the works as shown on the drawings. Before any excavation is commenced, it will be the responsibility of the Contractor to ascertain from the “Engineering Assistant” the position of any existing services on site. Once these are indicated to the Contractor they shall be deemed “known”. Any costs incurred for repairs to any “known” services shall be for the Contractor’s account.

The Contractor shall establish a refuse control system. All waste is to be collected and disposed of as required by Eskom’s Environmental Policies and the Local Authority. All Hazardous waste to be stored separately and all waste must be disposed off at registered waste sites and certificates confirming type and amount to be submitted to Eskom. Separate bins must be provided on site for general and hazardous waste and must be clearly marked.

The Contractor shall make his own arrangements for the provision of accommodation for his employees. No accommodation or camping will be allowed on site.

The Contractor shall control his activities and processes in accordance with the Occupational Health & Safety Act No. 85 of 1993, and Eskom’s Safety Standard 32-136: Occupational Health and Safety Requirements to be met by Eskom Transmission Employees, Contractors and Sub-Contractors during maintenance and construction work. Safety meetings are to be held regularly and copies of the minutes must be maintained and submitted to Eskom at the monthly progress meetings when requested.

The Contractor shall comply with the health and safety requirements contained in Annexure A of the Eskom’s Safety Standard 32-136 to this Works Information.

5.4 Environmental constraints and management

The Contractor shall control his activities and processes in accordance with Eskom’s Environmental Policies, TST41-120 Rev2 and Eskom’s SHE Requirements 32-726 The EMP will provide the Aspects and Impacts that will require management and must be followed strictly. The Contractor shall prepare a separate mitigation plan for all environmental concerns raised through the EMP and in any other relevant forum.

Environmental meetings between Eskom and the Contractor may be held regularly and copies of the minutes may be submitted to Eskom on request. The contractor is to provide monthly environmental reports and to send a flash report for any environmental incidences on site as soon as possible or within 24 hours to the SS and PM of any impact to the environment.

The Contractor shall comply with the environmental criteria and constraints stated in the Annexure B with Eskom's Environmental Policies, 32-726.

5.5 Quality assurance requirements

The Contractor shall control his activities and processes in accordance with Eskom's Quality Standard QM 58.

The Notification period for Eskom attendance to Witness & Hold points is 48 hours. These must be clearly indicated in the work programme submitted at the commencement of the work or after every progress review meeting. The SS will be responsible for the verification and signature of the ITPs which must be maintained by the Contractor and presented for signing promptly and regularly.

5.6 Programming constraints

2.6.1 A detailed program with all the relevant Completion date will be discussed with the Contractor and approved by Eskom at the Inaugural meeting. The Contractor shall submit a comprehensive and fully detailed program within 1 week but **before** the Starting date after the program has been discussed with the contractor. The program shall be revised fortnightly and submitted to the PM for approval. If changes take place which affect the Completion date then a revised program must be submitted within 2 days. The Employer's key and milestone dates shall be indicated. **Note: Only MS Project format will be accepted.**

2.6.2 The following dates shall be clearly reflected on the programme:

Site inaugural date, starting and completion date for all activities as well as relevant key dates for hold or witness points. All relevant significant activities shall be shown in order to monitor the progress on site. The programme shall also reflect a 2 week period for inspection and correcting of Defects before the completion date.

2.6.3 Updated programmes must be available at all site meetings reflecting progress to date.

2.6.4 The contractor's trucks must have a **valid and current crane test certificate** with the truck driver and crane operator's certificate. All slings, shackles and crimping tools must have **valid and current test certificate**, which must be produced two weeks before site establishment.

2.6.5 The contractor is to have an Eskom certified and authorised **ORHVS** person available in each area where work is being performed at all times in accordance with Eskom transmission standard **32-136** for contractor safety in a high voltage environment.

5.7 Contractor's management, supervision and key people

The Contractor is to have an organisation chart on file clearly indicating all site specific key personnel, such as RP, Health and safety & Environmental reps, Site Foreman etc.

All key personnel must be appointed in writing and all appointments must be site specific, valid and kept on the site file at all times.

5.8 Invoicing and payment

Within one week of receiving a payment certificate from the *Service 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 *Service Manager*'s payment certificate.

The *Contractor* shall address the tax invoice to

Eskom Holdings SOC Limited
Transmission North East Grid - Finance
PO Box 223
Witbank
1035

Email: invoiceseskomlocal@eskom.co.za

and include on each invoice the following information:

- Name and address of the *Contractor* and the *Service Manager*;
- The contract number and title;
- *Contractor*'s VAT registration number;
- The *Employer*'s VAT registration number 4740101508;
- Description of service provided for each item invoiced based on the Price List;
- Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT;

All quantities claimed must be verified and signed by the site supervisor on the 20th of each month or within 1 week after each sectional completion and the signed BOQ must accompany the invoice which should be submitted to the PM before the 25th of each month. Late invoices will be deferred to the following month and no concessions will be made.

5.9 Insurance provided by the Employer

Refer to core clause 87.1

6. Engineering and the Contractor's design

6.1 Employer's design

All construction will be done in accordance with Eskom's policies, standards and design or drawings provided. No deviation from any design or drawing will be accepted, unless requested through the PM and approved in writing by the responsible Eskom designer.

All drawings to be used are as per the drawing register and statement of works

6.2 As-built drawings, operating manuals and maintenance schedules

As built drawings will be the responsibility of the Site Supervisor and will be submitted on a copy of the issued drawings to the designer(s) on completion of the works.

7. Procurement

7.1 People

7.1.1 Minimum requirements of people employed on the Site

All staff must be vetted through the Grid Security Manager's office according to the Grid code.

All workers will be subject to ad hoc breathalyser tests at all times when on duty

All workers must wear seat belts at all times when travelling while on Eskom business.

All workers must adhere to COVID_19 regulations and PPE requirements

7.1.2 BBBEE and CIDB level requirements are stated in the Invitation to Tender letter.

SUPPLIER DEVELOPMENT AND LOCALISATION (SD&L)

The supplier has proposed the following and these will form part of the contractual obligation.

Supplier has completed the Localisation Matrix by proposing a target of 100% for local content to South Africa,

Job Creation Matrix

Job Type	Eskom's target	Tenderer's Proposal

Note: this obligation is just for the duration of the contract. The incumbent will be sourced from the Local to Site Community. As agreed in negotiations, Witbank is included in Local to Site.

7.2 Subcontracting

None

7.3 Plant and Materials

7.3.1 Quality

The contractor shall remain responsible for the quality of all the plant used and materials supplied. If the contractor's supplier is used for the manufacturing and erection of any steel work the contractor must ensure that the quality is in line with Eskom's requirements. Any non-conformance must be rectified.

7.3.2 Plant & Materials provided "free issue" by the Employer

New hardware:

No	Item description	Quantity
1	V-assembly for triple Dinosaur configuration	3
2	Suspension Earthwire assemblies for 19/2.65	2
3	210kN standard glass discs	140

7.3.3 Contractor's procurement of Plant and Materials

Materials must be ordered in time. Delays as a result of lack of material which could have been avoided will result in delay damages being effected. Schedules must be updated and forwarded to the Project Manager as per agreement

8. Construction

8.1 Temporary works, Site services & construction constraints

8.1.1 Employer's Site entry and security control, permits, and Site regulations

The security vetting of workers, safety and environmental training of workers and Induction courses will be done at a site which will be indicated by the Project Manager and additional time should be provided to meet these requirements.

8.1.2 Restrictions to access on Site, roads, walkways and barricades

There will strictly be NO movement outside the barricaded area unless escorted by authorized Lines personnel.

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

The normal working hours shall be weekdays from 07:30 am to 04:30 pm.

The *Contractor* should keep records of his people on site including those of his sub-contractors which the *Project Manager* or *Supervisor* have access to at any time. These records may be needed when assessing compensation events

8.1.4 Health and safety facilities on Site

There are limited health and safety facilities on site. The first aid facilities should be kept at a designated site by the Site Supervisor.

8.1.5 Environmental controls, fauna & flora, dealing with objects of historical interest

The Contractor shall comply with the environmental requirements as stipulated in TST 41-120 (Environmental Requirements for the Procurement of Assets, Goods and Services). The contractor must also comply with the following environmental procedures:

- EPC32-727: Eskom SHEQ Policy
- 32-726 - SHE Requirements for the Eskom Commercial Process for additional requirements or co-operate projects
- The contractor must adhere to the attached Environmental Management Plan and draw up his method statements based on the attached Environmental Management Plan.

Waste generated during project must be disposed at a registered site and contractor shall retain records of disposal.

The illegal transporting, handling, purchasing and selling, poaching and killing of fauna and flora will not be tolerated. Offenders will be prosecuted. All fauna kills as a result of the activities of the contractor must be reported to the project leader /environmental advisor within 24 hours.

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.

The Contractor has no title to an object of value or of historical or other interest within the Site. The Contractor notifies the Project Manager when such an object is found and the Project Manager instructs the Contractor how to deal with it. The Contractor does not move the object without instructions.

8.1.6 Title to materials from demolition and excavation

All the materials from excavation and demolition must be disposed of by the Contractor except it's expressly stated by the PM or the relevant staff from Grid at the beginning of the contract.

Therefore all copper and steel will be stored at a designated area by the EA. And all rubble and other materials must be classified, weighed and transported to the dumping site.

8.1.7 Cooperating with and obtaining acceptance of others

It will be the responsibility to work mutually with all other contractors and personnel sharing the working area at any one time during the construction Phase.

8.1.8 Publicity and progress photographs

Cameras are completely prohibited from use at the Substation. Where there is need to take work progress photographs it will be the responsibility of the Contractor to seek the permission to use a camera on site.

8.1.9 Contractor's Equipment

All equipment must be registered in the equipment register as per TCT41-61. All people and vehicles entering and leaving Eskom sites will be signed in at the gates and periodically subjected to searches.

8.1.10 Equipment provided by the Employer

Any equipment provided by Eskom must be used with very reasonable care. Any breakages will be for the account of the contractor.

8.1.11 Site services and facilities

A site for the Contractor's yard will be provided adjacent to the site of the works where possible. The Contractor shall not occupy any area on site other than what's allocated to him.

The contractor shall supply all plant and materials to complete the works.

Water and electricity is normally available on site. The contractor shall provide all connections, extensions and additional supply points necessary for the works. Adequate and/or continuous supply is not guaranteed and no claims for delay or standing time as a result of insufficiencies or failures will be considered. Any measures which the contractor may require to maintain continuity and quality of supply shall be arranged by him at his own expense.

Water is used at their own risk and testing is for contractor's own account.

The contractor will supply their own office equipment, including telephones and fax machines.

8.1.12 Survey control and setting out of the works

The positions of the foundation bases will be set out using the drawings and existing equipment within the yard by the Contractor and checked by the SS before excavation work can commence. This is a Hold & witness point.

8.1.13 Excavations and associated water control

Excavations shall only be done using machinery after careful assessment of the existing underground services and with the consensus of the EA and SS.

8.1.14 Underground services, other existing services, cable and pipe trenches and covers

All known services will be pointed out to the Contractor after which extreme care will be required while working in that area. Any damage of known pipes, cables or other services must be reported to the site

supervisor and the damaged service must be restored at the cost of the Contractor under the supervision of either the EA or SS.

8.1.15 Control of noise, dust, water and waste

Reasonable care must be exercised to minimize the dust, water and waste pollution.

8.1.16 Giving notice of work to be covered up

No work shall be covered up without inspection by the Site Supervisor such as the earthing. The SS shall be given a 48 hour notice in line with the approved work program. And unless expressly approved by the PM photographs for covered work will be inadmissible if any doubt is expressed after the work has been done.

8.2 Completion, testing, commissioning and correction of Defects

On or before the Completion Date the *Contractor* shall have done everything required to Provide the Works except for the work listed below which may be done after the Completion Date but in any case before the dates stated. The *Project Manager* cannot certify Completion until all the work except that listed below has been done and is also free of Defects which would have, in his opinion, prevented the *Employer* from using the works and Others from doing their work.

	Item of work	To be completed by
	Any outstanding work as listed in the Completion & Handing Over Certificates.	Within 2 weeks after Completion or as indicated in the Completion certificate.

8.2.1 Materials facilities and samples for tests and inspections

From time to time random test cubes of the ready mix concrete used will be requested, however, for hand machine mixes a test cube will be mandatory.

8.2.2 Take over procedures

The Take Over will be done immediately the foundations have been completed .After all the outstanding work has been completed the PM will organize for a Take Over certificate to be signed with the Contractor.

8.2.3 Access given by the Employer for correction of Defects

The Project Manager will arrange for the Lines & Servitudes personnel to allow the Contractor access to part of the works which has been taken over if needed to correct a Defect. After the works have been put into operation, the Lines & Servitudes personnel may require the Contractor to undertake certain procedures before such access can be granted.

9. Requirements for the programme

State whether a programme is required and, if it is, state what form it is to be in, what information is to be shown on it, when it is to be submitted and when it is to be updated.

State what the use of the works is intended to be at their Completion as defined in Clause 11.2(1).

10. Services and other things provided by the *Employer*

Describe what the *Employer* will provide such as services (including water and electricity) and "free issue" Plant and Materials and equipment.

Item	Date by which it will be provided

C4: Site Information

The line is situated in the North East Grid in Mpumalanga near Kusile Power Station. The work area will be within the 400kV Lines. (Kusile Zeus 400kV line)

GPS Co-ordinates: -25.974100S 28.897351E

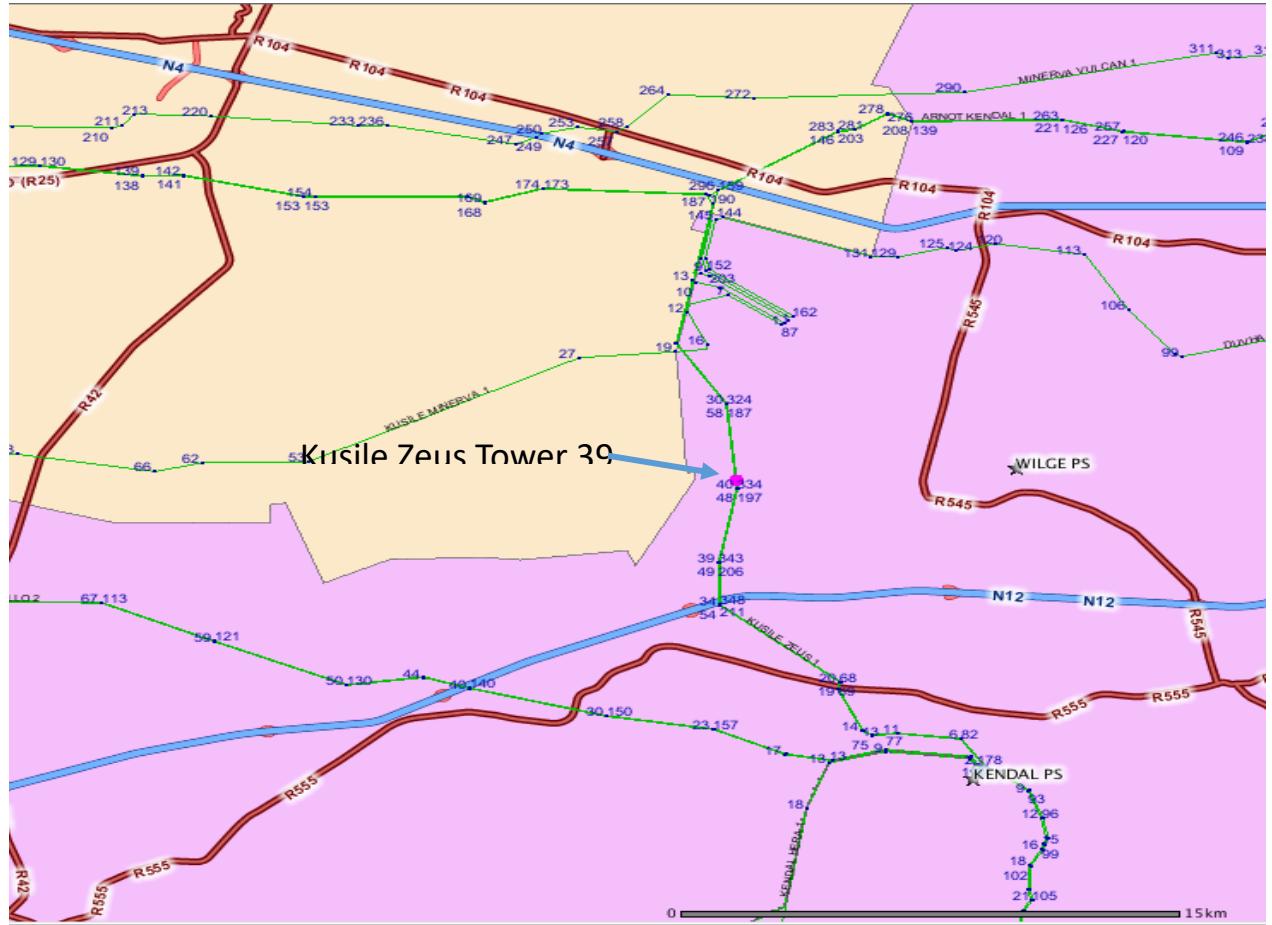


Figure 1: Depiction of site (Kusile Zeus Tower 39)

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

1. Access limitations

The site is within a farm and the Grid personnel will negotiate with the landowner for access prior to work commencing. All workers will have to adhere with the conditions set out by the landowner and by all means necessary restrict their movement and activities with the servitude boundaries.

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

If earthworks are included in the Scope of Work, provide details of the ground conditions the *Contractor* is likely to encounter when doing the work. This could vary from indicating where a test pit has been opened up for the *Contractor* to make his own observations to providing full borehole logs and associated geotechnical report.

3. Hidden and other services within the *site*

Before any work can commence, it will be the responsibility of the contractor to ascertain from the SS or EA the position of any existing services on site. Once these are indicated to the contractor they shall be deemed as “**known**” Any cost incurred for the repairs to any “**known**” services shall be for the contractors account

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

None