GEORGE MUNICIPALITY

BID DOCUMENT NUMBER: GMT029/24-25

TENDER FOR THE APPOINTMENT OF SERVICE PROVIDERS TO PERFORM ELECTRICAL CONSTRUCTION MAINTENANCE AND VEGETATION MANAGEMENT WORKS FOR A PERIOD OF THREE YEARS, FROM DATE OF APPOINTMENT.

ENQUIRIES: Mr. J Lawrence YORK STREET GEORGE (044) 801 9222	ISSUED BY: THE CITY COUNCIL MUNICIPALITY OF GEORGE P O BOX 19 GEORGE 6530

SUMMARY FOR TENDER OPENING PURPOSES

NAME OF BIDDER: ……

SUPPLIER DATABASE NO.: MAAA ……

TOTAL PRICE (INCLUDING VAT)	R
PREFERENCES CLAIMED FOR:	
B-BBEE Status Level of Contributor:	
Preference Points Claimed:	

B-BBEE certificates submitted with the tender document MUST be VALID ORIGINAL B-BBEE CERTIFICATES or VALID CERTIFIED COPIES OF THE B-BBEE CERTIFICATES

TENDER CLOSES AT 12H00 ON FRIDAY, 01 AUGUST 2025

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BIDDER CONTACT DETAILS

This information shall be used for any correspondence or contact with the bidder.

Please indicate whether you want to receive any correspondence via e-mail or send to your postal address by registered mail.

Name of Bidding Company:		**Mark choice of correspondence with X**
Postal Address:	.... Postal Code:	
E-mail Address:	.....	
Telephone Number:	.....	
Cellular Number:	.....	
Facsimile Number:	.....	

GEORGE MUNICIPALITY / GEORGE MUNISIPALITEIT
TENDER NUMBER / NOMMER: GMT029/24-25

Tenders are hereby invited for the:

APPOINTMENT OF SERVICE PROVIDERS TO PERFORM ELECTRICAL CONSTRUCTION, MAINTENANCE AND VEGETATION MANAGEMENT WORKS FOR A PERIOD OF THREE YEARS, FROM DATE OF APPOINTMENT.

Completed tenders in a sealed envelope, clearly marked:

Tender No. GMT029/24-25 must be placed in the tender box at the George Municipality on the First Floor, Directorate: Financial Services, Supply Chain Management, Civic Centre, York Street, George by no later than **12:00** on **Friday, 01 August 2025** Tenders will be opened on the same day in the Committee Room at 12:05. Late or unmarked tenders will not be considered. No posted tenders or tenders per fax or e-mail will be accepted.

Tender documents are available at a non refundable deposit of R284.05 each from the Supply Chain Management Unit, First Floor, Civic Centre, York Street, George.

A compulsory clarification meeting will be held in the Luminance Room at George Municipality's Electrical Engineer Services Department, 16 Brick Road, Industrial Area, George at 11:00 on Friday, 11 July 2025.

Non-attendance of the compulsory site meeting will disqualify your tender.

Tender documents are available on the George Municipality's website: www.george.gov.za, free of charge.

Tenders will be evaluated and awarded as follows:

Only Tenderers that meet the following pre-qualification stage 1: Eligibility conditions may respond:

PART A: To perform construction ,maintenance work and support services:

1. A Bidder must have a current and valid Electrical Contractor's registration with the Department of Labour and shall remain registered for the duration of the contract. Proof of registration must be provided.
2. Bidders must have at least one (1) suitably qualified personnel, capable of performing heat shrink-type MV joints / Terminations. Proof of qualification must be provided.
3. Bidders must have at least one (1) qualified artisan electricians in possession of a trade test certificate. Proof of qualifications must be provided.
4. Bidders must have at least one (1) suitably qualified personnel, capable of supervising personnel in accordance with the provisions of the ORHVS with the SAQA unit Standard: 242766. Proof of a valid ORHVS certificate must be provided.
5. Have a guaranteed response time of 8 hours or less to an emergency work instruction. The Bidder must provide a letter stating that the 8-hour response time will be adhered to.
6. Biddders must own or lease plant and equipment (see the tender document for more Information).
7. Only tenderers scoring a minimum of 42 out of 60 points in stage 1 for Part A, will be further considered for evaluation in stage 2.

Tenders word hiermee ingewag vir die:

AANSTELLING VAN DIENSVERSKAFFERS OM ELEKTRIESE KONSTRUKSIE ,ONDERHOUD EN PLANTE BESTUURSWERKE TE VERRIG VIR 'N TYDPERK VAN DRIE JAAR, VANAF DIE DATUM VAN AANSTELLING.

Voltooide tenders in 'n verseëlde koevert, duidelik gemerk:

Tender Nr. GMT029/24-25 moet voor **Vrydag**, **01 Augustus 2025** om **12:00** in die tender bus by die George Munisipaliteit op die Eerste Vloer, Direktoraat: Finansiële Dienste, Voorsieningskanaal Bestuurseenheid, Burgersentrum, Yorkstraat, George geplaas word. Tenders sal om 12:05 dieselfde dag in die Komiteekamer oopgemaak word. Laat of ongemerkte tenders sal nie oorweeg word nie. Geen tenders per pos, faks of e-pos sal aanvaar word nie.

Tender dokumente is verkrygbaar teen 'n R284.05 nie-terugbetaalbare deposito elk by die Voorsieningskanaal Bestuureenheid op die Eerste Vloer, Burgersentrum, Yorkstraat, George.

'n Verpligte terreinvergadering sal gehou word in die Luminance kamer by George Munisipaliteit se Elektriese Ingenieursdienste Departement, 16 Brickweg, Industriële Gebied, George om 11:00 op Vrydag, 11 Julie 2025.

Indien die verpligte inligtingsvergadering nie bygewoon word nie, sal u tender gediskwalifiseer word.

Tender dokumente is gratis op die George Munisipaliteit se webblad beskikbaar: www.george.gov.za.

Tenders sal as volg ge-evalueer en toegeken word:

Slegs Tenderaars wat aan die volgende voorkwalifikasiefase 1 voldoen: Geskiktheid voorwaardes mag reageer:

PART A: Verrigting van konstruksie, onderhoudswerk en ondersteunings dienste :

1. 'n Bieder moet 'n huidige en geldige Elektriese Kontrakteur-registrasie by die Departement van Arbeid hê en moet geregistreer bly vir die duur van die kontrak. Bewys van registrasie moet verskaf word.
2. Bieders moet ten minste een (1) toepaslik gekwalifiseerde personeel hê, in staat om krimpkous-tipe MV-verbindings / -afsluitings uit te voer. Bewys van kwalifikasie moet verskaf word.
3. Bieders moet ten minste one (1) gekwalifiseerde ambagsmanne-elektrisiëns hê wat 'n vaktoetssertifikaat besit. Bewys van kwalifikasies moet verskaf word.
4. Bieders moet ten minste een (1) toepaslik gekwalifiseerde personeel hê, in staat om toesig te hou oor personeel in ooreenstemming met die bepalings van die ORHVS met die SAQA-eenheidstandaard: 242766. Bewys van 'n geldige ORHVS-sertifikaat moet verskaf word.
5. 'n Gewaarborgde reaksietyd van 8 uur of minder op 'n noodwerkinstruksie hê. Die bieder moet 'n brief verskaf wat verklaar dat die reaksietyd van 8 uur nagekom sal word.
6. Bieders moet aanleg en toerusting besit of huur (sien die tender dokument vir meer inligting).
7. Slegs tenderaars wat 'n minimum van 42 uit 60 punte behaal in fase1 vir Part A , sal verder vir evaluering in fase 2 oorweeg word.

PART B: To perform vegetation management works and support services:

1. Bidder must have at least one (1) Chainsaw Operators with a valid certificate capable of performing tree felling using specialised techniques. Proof of qualification must be provided
2. Have a guaranteed response time of 8 hours or less to an emergency work instruction. The Bidder must provide a letter stating that the 8-hour response time will be adhered to. Have a guaranteed response time of 8 hours or less to an emergency work instruction.
3. Biddders must own or lease plant and equipment (see the tender document for more Information).
4. Only tenders scoring a minimum of 35 out of 50 points in stage 1 for Part B, will be further considered for evaluation in stage 2.

Tenderers who fail to comply with these conditions will be disqualified.

Tenders sal ge-evalueer en toegeken word in terme van die Wet op die Raamwerk vir Voorkeurverkrygingsbeleid (Wet 5 van 2000) Regulasies 2022; die George Munisipaliteit se Voorsieningskanaalbestuursbeleid sowel as die George Munisipaliteit se Voorkeurverkrygingsbeleid, waar 80 punte ten opsigte van die prys en 20 punte ten opsigte van B-BBEE status en spesifieke doelwitte toegeken sal word.

For more information, contact Mr. Jacques Lawrence at (044) 801 9222 or jllawrence@george.gov.za.

The Municipality reserves the right to withdraw any invitation to tender and/or to readvertise or to reject any tender or to accept a part of it. The Municipality is not bound to accept the lowest or any tender.

A TCS PIN for bidders' tax compliance information must be submitted with the tender document.

It will be required from the successful bidder to register on the Central Supplier Database (CSD).

G LOUW
MUNICIPAL MANAGER
GEORGE MUNICIPALITY
GEORGE
6530

PART B: Verrigting van plante bestuurswerke en ondersteunings dienste :

1. Die bieders moet ten minste one (1) kettingsaagoperateurs hê met 'n geldige sertifikaat wat in staat is om boomkap met behulp van gespesialiseerde tegnieke uit te voer. Bewys van kwalifikasie moet verskaf word.
2. 'n Gewaarborgde reaksietyd van 8 uur of minder op 'n noodwerkinstruksie hê. Die bieder moet 'n brief verskaf wat verklaar dat die 8-uur reaksietyd nagekom sal word. 'n Gewaarborgde reaksietyd van 8 uur of minder op 'n noodwerkinstruksie hê.
3. Bieders moet aanleg en toerusting besit of huur (sien die tenderdokument vir meer inligting).
4. Slegs tenderaars wat 'n minimum van 35 uit 50 punte behaal in fase1 vir kontrak B , sal verder vir evaluering in fase 2 oorweeg word.

Tenderaars wat nie aan hierdie voorwaardes voldoen nie, sal gediskwalifiseer word

Tenders will be evaluated and adjudication in terms of the Preferential Procurement Policy Framework Act (Act 5 of 2000) Regulations 2022; the George Municipality's Supply Chain Management Policy as well as the George Municipality's Preferential Procurement Policy, where 80 points will be scored for price and 20 points for B-BBEE status and specific goals.

Vir verdere inligting, kontak Mnr. Jacques Lawrence by (044) 801 9222 jllawrence@george.gov.za.

Die Munisipaliteit behou die reg voor om enige versoek vir 'n tender terug te trek en/of te her-adverteer of enige tender te verwerp of gedeeltelik te aanvaar. Die Munisipaliteit is nie daartoe gebind om die laagste of enige tender te aanvaar nie.

'n "TCS PIN" vir tenderaars se belasting nakoming inligting moet ingesluit wees by die tender dokument.

Dit sal van die suksesvolle tenderaar verwag word om op die Sentrale Verskaffersdatabasis (SVD) te registreer.

G LOUW
MUNISIPALE BESTUURDER
GEORGE MUNISIPALITEIT
GEORGE
6530

INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR TENDER FOR THE APPOINTMENT OF SERVICE PROVIDERS TO PERFORM ELECTRICAL CONSTRUCTION MAINTENANCE AND VEGETATION MANAGEMENT WORKS FOR A PERIOD OF THREE YEARS, FROM DATE OF APPOINTMENT.

BID NUMBER: **GMT029/24-25**

CLOSING DATE: **01 August 2025**

CLOSING TIME: 12:00

BID DOCUMENTS MUST BE DEPOSITED IN THE TENDER BOX SITUATED AT:
Supply Chain Management Unit The Civic Centre (1st Floor) York Street GEORGE

Bidders should ensure that bids are delivered timeously to the correct address. If the bid is late, it will not be accepted for consideration.

The bid box is open from 07:45 until 16:30, 5 days a week. Bids must be submitted on the Official Forms (NOT TO BE RE-TYPED).

B-BBEE certificates submitted with the tender documents MUST be a VALID ORIGINAL B-BBEE CERTIFICATE or VALID CERTIFIED COPY OF THE B-BBEE CERTIFICATE.

In the case of a Trust, Consortium or Joint Venture, they will qualify for points for their B-BBEE status level as a legal entity, provided that the entity submits their B-BBEE status level certificate.

This Bid is subject to the General Conditions of Contract (GCC) and, if applicable, any other Special Conditions of Contract.

This Bid will be evaluated and adjudicated according to the following criteria:

1. Relevant specifications;
2. Value for money;
3. Capacity to execute the contract;
4. PPPFA Regulations 2022.

NB: NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE, PROVINCIAL GOVERNMENT OR MUNICIPALITY.

DETAILS OF TENDERER

Name of firm / entity / enterprise	
Trading as (if different from above)	
Postal address	Postal Code _____
Physical address	
Contact Details of the **Person Signing the Tender**:	Name: _____ Telephone: (___) _____ Fax: (___) _____ Cellular Number: _____ E-mail address: _____
Contact Details of the **Senior Manager Responsible for Overseeing Contract Performance**:	Name: _____ Telephone: (___) _____ Fax: (___) _____ Cellular Number: _____ E-mail address: _____
Contact Details of **Person Responsible for Accounts / Invoices**:	Name: _____ Telephone: (___) _____ Fax: (___) _____ Cellular Number: _____ E-mail address: _____

DETAILS OF TENDERING ENTITY'S BANK

I/We hereby authorize the Employer/Client to approach all or any of the following bank/s for the purposes of obtaining a financial reference:

DESCRIPTION OF BANK DETAIL	BANK DETAILS APPLICABLE TO TENDERER'S HEAD OFFICE
Name of bank	
Branch name	
Branch code	
Name of Account Holder	
Account number	
Type of Account	

Signature of Tenderer:_____

Date: _____

THE RESOLUTION TAKEN BY THE BOARD OF DIRECTORS / MEMBERS / PARTNERS

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

_____
NAME OF TENDERER

Held at _____ on _____
(Place) (Date)

RESOLVED THAT:

1. The enterprise submits a Tender to the George Municipality in respect of the following:

TENDER NUMBER: GMT029/24-25

TENDER FOR THE APPOINTMENT OF SERVICE PROVIDERS TO PERFORM ELECTRICAL CONSTRUCTION MAINTENANCE AND VEGETATION MANAGEMENT WORKS FOR A PERIOD OF THREE YEARS, FROM DATE OF APPOINTMENT.

.

2. Mr/Mrs/Ms _____

   In his/her capacity as _____

   and who will sign as follows: _____
   (SPECIMAN SIGNATURE)

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

Note: The resolution **must be signed by all the directors or members / partners** of the bidding enterprise. Should the space provided below not be sufficient for all the directors to sign, please provide a separate sheet in the same format below.

	Name	Capacity	Signature
1			
2			
3			
4			
5			
6			

THE RESOLUTION TAKEN BY THE BOARD OF DIRECTORS OF A CONSORTIUM OR JOINT VENTURE

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

_____
NAME OF TENDERER

Held at _____ on _____
(Place) (Date)

RESOLVED THAT:

1. The enterprise submits a Tender to the George Municipality in respect of the following:

TENDER NUMBER: GMT029/24-25

TENDER FOR THE APPOINTMENT OF SERVICE PROVIDERS TO PERFORM ELECTRICAL CONSTRUCTION MAINTENANCE AND VEGETATION MANAGEMENT WORKS FOR A PERIOD OF THREE YEARS, FROM DATE OF APPOINTMENT.

.

Mr/Mrs/Ms
(list all the legally correct full names and registration numbers, if applicable, of the Enterprises forming the Consortium / Joint Venture):

_____ and

_____ and

_____

2. Mr/Mrs/Ms _____

   In his/her capacity as _____

   and who will sign as follows: _____
   (SPECIMAN SIGNATURE)

be, and is hereby, authorized to sign the Tender and any and all other documents and/or correspondence in connection with and relating to the Tender, as well as to sign any contract, and or all documentation resulting from the award of the Tender to the **Consortium / Joint Venture** enterprise mentioned above.

3. The enterprise in the form of a consortium or joint venture accept jointly and several liability with parties under item 1 above for the fulfillment of the obligations of the joint venture deriving from, and in any way connected with the contract to be entered into with the George Municipality in respect of the project described above under item 1.

4. The **Consortium / Joint Venture** enterprise chooses as its domicilium citandi et executandi for all purposes arising from this joint venture agreement and contract with the George Municipality in respect of the project under item 1:

   (Physical Address) _____

Note: The resolution **must be signed by all the directors or members / partners** of the bidding enterprise. Should the space provided below not be sufficient for all the directors to sign, please provide a separate sheet in the same format below.

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

JOINT VENTURE

Only to be completed if applicable

Name of Joint Venture:	
Names of Each Enterprise:	
(1) Name and Address of Enterprise:	
(2) Name and Address of Enterprise:	
(3) Name and Address of Enterprise:	
Has an original valid Tax Clearance Certificate been submitted for each enterprise?	YES ☐ NO ☐
CIDB Registration Number(s), if any:	

Submit your Joint Venture Agreement together with this annexure. <u>If no Joint Venture Agreement is submitted, your tender will be disqualified</u>.

SIGNED ON BEHALF OF JOINT VENTURE _____

SCHEDULE OF SUB-CONTRACTORS

The Bidder shall list below the sub-contractors he/she proposes to employ for part(s) of the works/goods/services.

If any or all of the sub-contractor/s listed hereunder are not approved subsequent to acceptance of the Tender, it shall in no way invalidate the Tender or the Contract, and the Tendered unit rates for the respective items of work shall remain final and binding even if a sub-contractor/s not listed below is approved by the Employer.

Sub-Contractor's Name	Work Activities to be undertaken by the Sub-Contractor/s	Work Recently Executed by Sub-Contractor/s

TENDER TO PERFORM ELECTRICAL CONSTRUCTION, MAINTENANCE AND VEGETATION MANAGEMENT WORKS FOR A THREE (03) YEAR PERIOD, FROM THE DATE OF APPOINTMENT

TENDER SPECIFICATIONS

Bids are invited from suitable qualified contractors to undertake work for the Electrical Distribution Department of George Municipality within the municipal area for a period of three (03) years from the date of appointment. The work is broken down into two distinct sections as follows:

Section of Works	Description
A	Perform Construction, Maintenance works, and support services for the existing MV and LV electrical reticulation networks and associated infrastructure.
B	Perform Vegetation Management works and support services for the existing electrical reticulation associated infrastructure.

Bids must only be submitted on the bid documentation that is issued.

The evaluation of this bid will be subjected to functionality scoring. Tenderers must comply with the compulsory requirements (pre-qualification criteria) in order to be eligible for functionality scoring. Furthermore, Tenderers must achieve a minimum functionality score as stipulated per section of work to be evaluated further on price and preference.

Only Tenderers who meet the pre-qualification criteria below are eligible to have their tenders further evaluated:

1. Perform Construction, Maintenance works and support services for the existing MV and LV electrical reticulation networks and associated infrastructure.		
Item No.	**Description**	**Proof provided (Bidders must indicate Yes or No)**
1.1	A Bidder must have a current and valid Electrical Contractor's registration with the Department of Labour and shall remain registered for the duration of the contract. Proof of registration must be provided.	
1.2	Bidders must have at least one (1) suitably qualified person, capable of performing heat shrink-type MV joints / Terminations. Proof of qualification must be provided.	
1.3	Bidders must have at least one (1) qualified artisan electrician in possession of a trade test certificate. Proof of qualifications must be provided.	
1.4	Bidders must have at least one (1) suitably qualified personnel, capable of supervising personnel in accordance with the provisions of the ORHVS with the SAQA unit Standard: 242766. Proof of a valid ORHVS certificate must be provided	
1.5	Bidders must own or lease at least the following plants and equipment: i. LDV ii. 5Ton Crane truck iii. Cherry Picker Aerial Platform truck with a bucket that can withstand at least 250kg persons iv. Cable Fault locator capable of testing up to 32kV v. Cable pressure tester capable of testing up to 17,5kV Vp (PILC & XLPE).	

	In order to validate the agreement and prove ownership of the aforementioned plant or equipment: • The Bidder shall attach the vehicle registration documents (eNATIS) for the LDV, Cherry Picker, and the Crane Truck. The (eNATIS) must be in the name of the bidder or rental company or owner/proxy of the rental company. • The Bidder shall submit an insurance schedule not older than twelve (12) months for the pressure tester and cable fault locator, which indicates the make, type, and description of the equipment insured by the rental company. • Alternatively, the Bidder shall provide a tax invoice indicating the make, type, and description of the equipment to prove ownership. The insurance schedule or Tax invoice shall be in the name of the bidder.	
1.6	Have a guaranteed response time of 8 hours or less to an emergency work instruction. The Bidder must provide a letter stating that the 8-hour response time will be adhered to.	
2. Perform Vegetation management works and support services for the existing electrical reticulation associated infrastructure		
2.1	Bidder must have at least one (1) Chainsaw Operator with a valid certificate capable of performing tree felling using specialised techniques. Proof of qualification must be provided	
2.2	Bidders must own or lease at least the following plants and equipment: vi. LDV vii. Cherry Picker Aerial Platform truck with a bucket that can withstand at least 250kg persons viii. Chainsaw ix. Brush cutter x. Pole Pruner extendable 4m telescopic In order to validate the agreement and prove ownership of the aforementioned plant or equipment: • The Bidder shall attach the vehicle registration documents (eNATIS) for the LDV and Cherry Picker. The (eNATIS) must be in the name of the bidder or rental company or owner/proxy of the rental company. • The Bidder shall submit an insurance schedule not older than twelve (12) months for the Chainsaw, Brush cutter, and Pole pruner, which indicates the make, type, and description of the equipment insured by the rental company. • Alternatively, the Bidder shall provide a tax invoice indicating the make, type, and description of the equipment to prove ownership of the Chainsaw, Brush cutter, and Pole pruner. The insurance schedule or Tax invoice shall be in the name of the bidder.	
2.2	Have a guaranteed response time of 8 hours or less to an emergency work instruction.	

FUNCTIONALITY

Bidders must reach the minimum points for functionality. If not, the bid will be considered non-responsive. This bid will be awarded per section, and prospective Bidders must complete the functionality for section(s) they are interested in, and the portfolio of evidence must be provided in order to claim points.

EVALUATION CRITERIA FOR SECTION A: CONSTRUCTION, MAINTENANCE WORKS MV & LV NETWORK

In order to be considered for a contract in this bid, **Bidders must achieve a minimum score of 42 out of a maximum score of 60**. Bidders who fail to achieve the minimum score for functionality will not be evaluated further on price and preference.

Similar Successfully Completed Projects (Max 20 points)

Bidders must complete the schedule on pages 9 -10, which is a list of Bidders' past work experience in terms of similar successfully completed projects. The value and scale of the projects indicated must be supplied together with the other relevant information required based upon which up to 20 points for quality will be awarded. The Bidder must provide the completion certificates of the completed projects within the last 10 years in order to obtain points.

Points for the Bidder's project experience in terms of similar successfully completed projects will be scored on the information supplied by the Bidder in the table provided below.

Table 1: Similar successfully completed projects

COMPANY RELEVANT EXPERIENCE		
Successfully completed project in MV and LV reticulation works to the value above R200 000, completion certificates should not be older than 10 years. **(Bidder to submit proof of completion certificates)**	**Points**	**Score (A)** **(To be completed by the Bidder)**
4 projects	20	
3 projects	15	
2 projects	10	
1 project	5	
None	0	
	Score (A)	

Demonstrated Experience of Key Personnel (Max 40 points)

The work required in terms of this project is considered to require considerable expertise, and suitably qualified and experienced personnel must be assigned to this project. It would be extremely advantageous of the key personnel to be directly involved with this contract to have relevant experience related to similar successfully completed projects and particular fields of specialization.

Bidders must attach CVs and qualifications of the key personnel identified for each listed position to indicate years of experience in the region of similar completed projects.

Note: Only one person to qualify for each listed position. Should any of the persons identified not be available for the position which they are indicated for, then a suitable candidate with equal or superior

tertiary qualification and/or relevant experience than that of the person which he/she replaces shall be used for every such position.

Table 2: Key Personnel and Qualification

Item No.	Function of the Key Personnel	Qualification
1.	Supervisor	ORHVS Certificate
2.	MV Cable Jointer	MV Cable Jointer Certificate
3.	Artisan Electricians	Trade Test Certificates (Red Seal)

Demonstrated experience of the Bidder's key personnel to be directly involved with this contract (if awarded) will be scored based on the information provided by the Bidder.

Supervisor – Representative, facilitate installation, repairs, accepting working permits and attend to ADHOC job request **(Detailed CV, years of experience, completed projects must be clearly indicated and a copy of the qualification must be provided)**		
Experience in years as a Supervisor in the region on successfully completed similar projects/works.	**Points**	**Score (B) (To be completed by the Bidder)**
+5 years	10	
4 years	8	
3 years	6	
2 years	4	
1 year	2	
MV Cable Jointer– In the field of MV&LV reticulation works, predominately performing MV joints and Terminations**. (Detailed CV, years of experience, completed projects must be clearly indicated, and a copy of the qualification must be provided)**		
Experience in years as a Cable Jointer in the region on completed similar projects/works.	**Points**	**Score (C) (To be completed by the Bidder)**
+5 years	10	
4 years	8	
3 years	6	
2 years	4	
1 year	2	
First Artisan Electrician – In the field of MV&LV reticulation works. **(Detailed CV, years of experience, completed projects must be clearly indicated, and a copy of the qualification must be provided)**		
Experience in years as an artisan/Electrician in the region on completed similar projects/works.	**Points**	**Score (D) (To be completed by the Bidder)**
+5 years	10	
4 years	8	
3 years	6	
2 years	4	
1 year	2	
Second Artisan Electrician – In the field of MV&LV reticulation works. **(Detailed CV, years of experience, completed projects must be clearly indicated, and a copy of the qualification must be provided)**		
Experience in years as an artisan/Electrician in the region on completed similar projects/works.	**Points**	**Score (E) (To be completed by the Bidder)**
+5 years	10	
4 years	8	
3 years	6	
2 years	4	
1 year	2	

Tenderers who fail to submit the relevant documentation as per pre-qualification conditions will be disqualified.

Total Functionality (Maximum of 60 points)

Description of quality criteria	Maximum points	Actual points scored	
Company Relevant Experience	20		= A
Key Personnel Experience	40		= B + C + D + E
Total	**60**		**= A+ B + C + D + E**

Note: The minimum score for functionality is **42 points**. The bids of Bidders that failed to achieve the minimum score for quality will not be eligible for further evaluation, and their bids will be rejected.

The municipality will verify all information submitted in terms of this bid, and any information that is incorrect or false will result in that bid being automatically disqualified and not considered further.

EVALUATION CRITERIA FOR SECTION B: PERFORM VEGETATION MANAGEMENT WORKS

In order to be considered for a contract in this bid, **Bidders must achieve a minimum score of 35 out of a maximum score of 50.** Bidders who fail to achieve the minimum score for functionality will not be evaluated further on price and preference.

Similar Successfully Completed Projects (Max 20 points)

Bidders must complete the schedule on pages 9 - 10, which is a list of Bidders' past work experience in terms of similar successfully completed projects. The value and scale of the projects indicated must be supplied together with the other relevant information required based upon which up to 20 points for quality will be awarded. The Bidder must provide the completion certificates of the completed projects within the last 10 years in order to obtain points.

Points for the Bidder's project experience in terms of similar successfully completed projects will be scored on the information supplied by the Bidder in the table provided below.

Table 1: Similar successfully completed projects

COMPANY RELEVANT EXPERIENCE		
Successfully completed project in performing vegetation management/electrical infrastructure servitudes. Completion certificates should not be older than 10 years. **(Bidder to submit proof of completion certificates)**	**Points**	**Score (A)** **(To be completed by the Bidder)**
4 projects	20	
3 projects	15	
2 projects	10	
1 project	5	
None	0	
	Score (A)	

Demonstrated Experience of Key Personnel (Max 30 points)

The work required in terms of this project is considered to require considerable expertise, and suitably qualified and experienced personnel must be assigned to this project. It would be extremely advantageous of the key personnel to be directly involved with this contract to have relevant experience related to similar successfully completed projects and particular fields of specialization.

Bidders must attach CVs and qualifications of the key personnel identified for each listed position to indicate years of experience in the region of similar completed projects.

Note: Only one person to qualify for each listed position. Should any of the persons identified not be available for the position which they are indicated for, then a suitable candidate with equal or superior tertiary qualification and/or relevant experience than that of the person which he/she replaces shall be used for every such position.

Table 2: Key Personnel and Qualification

Item No.	Function of the Key Personnel	Qualification
1.	Team Leader	NQF Level 4
2.	Chainsaw Operators	Certificates as per SAQA unit standard: 264195/117066 Chainsaw operating or tree felling course.

Demonstrated experience of the Bidder's key personnel to be directly involved with this contract (if awarded) will be scored based on the information provided by the Bidder.

Team Leader – Meet with Municipal representative, facilitate the maintenance of the electrical servitudes, planning, and submit application for Permits/approvals on behalf the municipality. **(Detailed CV, years of experience, completed projects must be clearly indicated and a copy of the qualification must be provided)**		
Experience in years as a Supervisor in the region on successfully completed similar projects/works.	**Points**	**Score (B)** **(To be completed by the Bidder)**
+5 years	10	
4 years	8	
3 years	6	
2 years	4	
1 year	2	
First Chainsaw Operator – In the field of tree felling. **(Detailed CV, years of experience, and completed projects must be clearly indicated, and a copy of the qualification must be provided)**		
Experience in years as an artisan/Electrician in the region on completed similar projects/works.	**Points**	**Score (C)** **(To be completed by the Bidder)**
+5 years	10	
4 years	8	
3 years	6	
2 years	4	
1 year	2	
Second Chainsaw Operator – In the field of tree felling. **(Detailed CV, years of experience, and completed projects must be clearly indicated, and a copy of the qualification must be provided)**		
Experience in years as an artisan/Electrician in the region on	**Points**	**Score (D)** **(To be completed by the**

completed similar projects/works.		**Bidder)**
+5 years	10	
4 years	8	
3 years	6	
2 years	4	
1 year	2	

Total Functionality (Maximum of 50 points

Description of quality criteria	**Maximum points**	**Actual points scored**	
Company Relevant Experience	20		= A
Key Personnel Experience	30		= B + C + D
Total	**50**		**= A+ B + C + D**

Note: The minimum score for functionality is 35 **points**. The bids of Bidders that fail to achieve the minimum score for quality will not be eligible for further evaluation and will be rejected.

The municipality will verify all information submitted in terms of this bid, and any information that is incorrect or false will result in that bid being automatically disqualified and not considered further.

GEORGE MUNICIPALITY				
SCHEDULE OF WORK EXPERIENCE OF THE TENDERER				
COMPLETED CONTRACTS: Following is a statement of similar work successfully executed by myself / ourselves:				
CLIENT / EMPLOYER (Name, Tel, Fax, Email)		Project Description Services Performed	Period Of Contract	Value of Work (Incl VAT)
Name				
Tel				
E-mail				
CLIENT / EMPLOYER (Name, Tel, Fax, Email)		Project Description Services Performed	Period Of Contract	Value of Work (Incl VAT)
Name				
Tel				
E-mail				
CLIENT / EMPLOYER (Name, Tel, Fax, Email)		Project Description Services Performed	Period Of Contract	Value of Work (Incl VAT)
Name				
Tel				
E-mail				

GEORGE MUNICIPALITY				
SCHEDULE OF WORK EXPERIENCE OF THE TENDERER				
COMPLETED CONTRACTS: Following is a statement of similar work successfully executed by myself / ourselves:				
CLIENT / EMPLOYER (Name, Tel, Fax, Email)		Project Description Services Performed	Period Of Contract	Value of Work (Incl VAT)
Name				
Tel				
E-mail				
CLIENT / EMPLOYER (Name, Tel, Fax, Email)		Project Description Services Performed	Period Of Contract	Value of Work (Incl VAT)
Name				
Tel				
E-mail				
CLIENT / EMPLOYER (Name, Tel, Fax, Email)		Project Description Services Performed	Period Of Contract	Value of Work (Incl VAT)
Name				
Tel				
E-mail				

Please attach a schedule with the same information to this page if the space is not sufficient. Also include a completion certificate for each project completed.

SCHEDULE OF WORKS EXPERIENCE OF THE KEY PERSONNEL

Points will be awarded for the Experience of staff applicable to the key persons within the following categories listed below and who must be available for the execution and completion of the work on each section (A&B):

- Supervisor in possession of the ORHVS Certificate
- MV Cable Jointer
- Artisan Electrician
- Team leader (applicable to section B)
- Chainsaw Operator (applicable to section B)

Key Staff experience will be evaluated on them having done contracts of similar scope in the key positions proposed. The information shall be supplied separately and attached to this schedule in the tabulated format given as examples below, for each key staff member. A CV of each key personnel must also be attached to this schedule. In the case of an association / joint venture / consortium, it should be indicated how the duties and responsibilities are to be shared.

SUPERVISOR	**NAME**: …… **YEARS RELEVANT EXPERIENCE**: ……			
Contract & client	Nature of work	Position held	Value of work	Year completed

MV CABLE JOINTER	**NAME**: …… **YEARS RELEVANT EXPERIENCE**: ……			
Contract & client	Nature of work	Position held	Value of work	Year completed

ARTISAN ELECTRICIAN	**NAME**: …… **YEARS RELEVANT EXPERIENCE**: ……			
Contract & client	Nature of work	Position held	Value of work	Year completed

ARTISAN ELECTRICIAN	**NAME**: …… **YEARS RELEVANT EXPERIENCE**: ……			
Contract & client	Nature of work	Position held	Value of work	Year completed

TEAM LEADER	**NAME**: …… **YEARS RELEVANT EXPERIENCE**: ……			
Contract & client	Nature of work	Position held	Value of work	Year completed

CHAINSAW OPERATOR	**NAME**: …… **YEARS RELEVANT EXPERIENCE**: ……			
Contract & client	Nature of work	Position held	Value of work	Year completed

CHAINSAW OPERATOR	**NAME**: …… **YEARS RELEVANT EXPERIENCE**: ……			
Contract & client	Nature of work	Position held	Value of work	Year completed

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

Signed..... Date.....

Name..... Position.....

Tenderer.....

SCHEDULE OF PLANT AND EQUIPMENT

The tenderer shall have, as a minimum. the following plant and equipment available:

- LDV
- 5 to 10-Ton Crane Truck
- Cherry Picker Aerial Platform truck with a bucket that can withstand at least 250kg persons
- Cable Fault locator capable of testing up to 32kV
- Cable pressure tester capable of testing up to 17,5kV Vp (PILC & XLPE).
- Chainsaw
- Bush cutter
- Pole Pruner

Please note the plant and equipment indicated above are not necessarily all the plant and/or equipment required to complete the work under this Contract. This is merely an estimated judgment of the minimum plant and equipment required. The listed minimum Plant and Equipment listed are only highlighted for scoring purposes, however, the tenderer shall familiarise himself with the relevant scope of work and specifications hereunder to supply all plant and equipment required for completion of the works.

The following is a list of major items of relevant equipment that I/we presently own or lease and will have available for this contract or will acquire or hire for this contract if my / our tender is accepted.

(a) Details of major equipment that is owned by ourselves and immediately available for this contract.

Quantity	Description	Size	Capacity

Attach additional pages if more space is required.

(b) Details of major equipment that will be hired or acquired for this contract if my / our tender is acceptable.

Quantity	Description	Size	Capacity

Attach additional pages if more space is required.

Signed ---------- Date ----------

Name ---------- Position ----------

Tenderer ----------

1.0 GENERAL PROJECT SPECIFICATION

2.0 LOCATION AND DESCRIPTION

3.2 HEALTH AND SAFETY

3.3 PROJECT TECHNICAL SPECIFICATIONS

1.0 GENERAL

The purpose of this tender is to procure the services of suitably qualified, capable and experienced service providers (also referred to as Supplier or Contractor) to provide the installation, vegetation management, maintenance and support services for the existing MV and LV electrical reticulation networks and associated infrastructure of George Municipality for a three-year period.

As such the project may include provisions for the outsourced services, installation thereof of various materials and equipment associated with the afore-mentioned existing electrical reticulation and as required in order to expand, maintain or otherwise upgrade same. Bidders to note that the Municipality reserves the right to issue the material, equipment or other services as a “free-issue” items during the course of the contract.

1.1 ADJUDICATION AND AWARD OF TENDERS

Qualifying tenders will be evaluated and ranked in accordance with price and preference, and the three highest ranking service providers will be shortlisted as the Preferred and Alternates.

Further to the above the following additional rules will be applied when awarding the tender:

- It is envisaged that a ‘Preferred’ Bidder and two fallback 'Alternates’ will be appointment with the distribution of work subsequent to appointment subject to the Municipality’s discretion.
- Adjudication shall be made on the basis of the best financial combination for the Employer.

1.2 GENERAL AND PARTICULAR SPECIFICATIONS

Tenderers shall take note of the requirements of all parts of the specification as far as they may be applicable and relevant to the various sections of work.

No additional compensation or claims for any items that Tenderers have been made aware of during tender stage will be entertained.

2.0 LOCATION AND DESCRIPTION

The work included under this contract will be undertaken in numerous areas within the boundaries of the George Municipality,

Attached as Annexure A to the tender document is Drawing No 1 providing a locality plan of George Municipal boundary WC 044.

3.0 SCOPE OF WORK (LABOUR RATES ONLY)

3.1 General

This is a three (03) year multi-year contract with the exact scope of work to be determined on an ad hoc basis, subject to the availability of funding and as directed by the Municipality.

All work will therefore be defined on a per project basis at a later stage once funding has been secured in this regard.

3.2 Provisional Work

It is important to note that all items and quantities included in the Bill of Quantities, hereof, are provisional only with the intention in this regard to obtain a schedule of rates for tender and comparative purposes.

These provisional quantities are therefore subject to adjustments and / or omissions, partly or in their entirety, depending on the availability of sufficient funding.

3.3 Extent of Work

The overall scope of the works includes for the supply (in certain instances), delivery, installation, testing, commissioning, maintenance and training of operators to the extent specified and shown on the drawings but shall not be limited by the documentation.

Section A: Perform Construction, Maintenance works and support services for the existing MV and LV electrical reticulation networks and associated infrastructure

It is therefore envisaged that the work required in the Bill of Quantifies above may thus include for the maintenance, expansion or otherwise upgrading of the following:

- Overhead MV (up to 22 000 Volt) and LV (usually 400V, three phase) reticulation and associated equipment, including surveying of line routes, etc.
- MV and LV underground cable reticulation including trenching, excavation, etc.
- Work inside buildings, including such things as the installation of ready boards, distribution boards, wiring, etc.
- Inspection and report back on the condition of various equipment, components and / or infrastructure related to the MV / LV electrical networks and grid.
- Tracing, fault finding, and other general troubleshooting measures required to determine the location and / or cause of faults, trips, etc on the system.
- Perform routine maintenance, servicing and testing on the existing MV / LV overhead and underground reticulation networks and identify / advise the Municipality of any technical and / or operating conditions / issues encountered.
- Undertake emergency repairs to equipment and / or other electrical infrastructure as required, and upon the direction of the Municipality.
- Assisting the Municipality and / or others undertaking field investigations, studies, etc of the existing electrical network / infrastructure at the behest of the Municipality.

Section B: Perform Vegetation management works and support services for the existing electrical reticulation associated infrastructure

The work requirements are detailed in the Bill of Quantities, but generally include for:

- Cutting or pruning and poisoning trees under the MV and LV network.
- Slashing, cutting and removal of new growth and clearing debris.
- Grass cutting, weed removal and poisoning.
- Inspection of overhead line and report on any defects (i.e, condition of the conductor, poles, insulators, etc), and trees encroaching the lines.

4.0 SITE INFORMATION

Tenderers must familiarise themselves with the local conditions.

5.0 NATURE OF CONTRACT

This is a three (03) year multi-year contract with the exact scope of work to be determined on an ad hoc basis, subject to the availability of funding and as directed by the Municipality.

6.0 LETTING OF CONTRACT

The contract will be let as a Direct Contract with George Municipality in terms of the Conditions of Contract as set out in this document.

The contract period will be for three (03) years and will automatically cease on the third anniversary of appointment, unless the Contractor receives official notification to extend the contract.

The contract may be cancelled at any stage should it be found that the requirements of the contract data and specifications have not been adhered to.

7.0 ENGINEER'S DRAWINGS

Where available, drawings of the extent and connection of the existing electrical installations and the various reticulation networks will be provided to the successful Tenderer as required.

8.0 PROGRAMME / RESPONSE TIMES

The programme for major tasks during the contract period will be agreed with the Contractor before work commences, however in general the maximum response time required to a normal work instruction will be eight (08) working days, i.e. within 48 hours of notification.

The maximum response time required to an emergency work instruction will be eight (08) hours after notification by the Municipality, the classification of an emergency and the right to utilise the alternate service provider or other service provider to meet service levels agreements and all rights reserved in favour of George Municipality.
It must be noted that should the Contractor fail to respond within the time frames required above or fail to complete a works instruction by the agreed practical completion date then penalties as stipulated under GCC shall apply.

The Municipality will in any event clearly communicate the nature of the instruction provided, and where deemed necessary the Contractor shall also provide a detailed construction programme for discussion and approval.

In severe instances such transgressions and / or repeated offences may also result in the Contractor being deemed to be in breach of contract and therefore grounds for the termination of same.

9.0 ELECTRICAL SUPPLY

The existing electrical supply voltages will differ in accordance with the installation in question, and may vary in kind between 66 000, 22 000, 11 000 or 400 / 230Volt, 50 Hz. Actual voltages may deviate by up to 10% from these values and all equipment, jointing materials, etc., shall be suitably rated for these conditions. The phase rotation is to be checked and maintained through-out the network.

10.0 SWITCHING OF SUPPLIES

10.1 General

All switching of the supplies shall be arranged in advance with the Municipality in accordance with the Engineering and Distribution services policy.

The Contractor shall establish their requirements regarding advance notice, permits to work, etc., at the beginning of the contract and shall comply with these requirements as further detailed below. If deemed necessary by the Municipality, all successful contractors shall agree to attend a compulsory training course on standard operating procedures to fully familiarise themselves with the various processes and communication channels.

10.2 Notices for Power Off

As a general rule, Consumers must receive 5 days' written notice of interruptions of electricity supply for any work on the supply system.

The day immediately following the originally proposed date of work shall also be indicated as a possible alternate date should weather conditions prevent work from being executed on the proposed date.

The Contractor shall apply to the Employer at least 5 days before the date of the required interruption, so that the latter can prepare the necessary notices for distribution by the Contractor. The Contractor will be liable for all charges incurred by the Municipality relating to the notification of power interruption should the Contractor fail to arrive for work on the advertised days.

10.3 Safety Procedure

Any switching of existing power supplies shall be arranged 5 working days beforehand with the Electro-technical Department.

The Contractor shall not perform work on any portion of a network until such portion has been isolated and earthed.

The Contractor shall request a written "Work Permit" from the appointed Responsible Person, which shall be completed in duplicate. The original "Work Permit" shall be retained by the Contractor until completion of his work. Upon completion of the work, the Contractor shall sign a statement to this effect. He shall hand this statement, as well as the used "Work Permit" to the Responsible Person, to enable the latter to re-energise the relevant portion / portions of the network.

11.0 SEQUENCE OF WORK

Bidders must take cognisance of the fact that the existing electrical system is in constant operation, and therefore the various components cannot always be fully taken out of commission during the installation of new equipment or during maintenance.

All work shall be planned in advance and as much as possible of the work done beforehand to limit the disruption / downtime of the system to a minimum. Where required various shutdown work will need to be undertaken during off-peak times, i.e. after hours or on weekends and the Contractor shall make due allowance for same where necessary.

All existing services shall firstly be verified and exposed by means of inspection trenches, etc.

12.0 COORDINATION

Due allowance shall be made by a Contractor appointed under any area / section of this tender for liaison between any / all other parties appointed under any other area / sections of this tender, as well as the Municipality and any other role players or contractors as required to ensure the smooth running of the project and to ensure that the work is completed without any delays.

No claims for additional expenses will be paid should either party be uninformed of the other’s work.

13.0 REGISTRATION OF CONTRACTOR

All Bidders must have a current and valid Electrical Contractor’s registration with the Department of Labour, and the relevant registration number in this regard shall be provided as part of the tender requirements.

The Bidder shall furthermore maintain said registration throughout the duration of the contract in accordance with the prevailing legislation in this regard.

14.0 REFERENCES

The Employer may wish to contact one or more of the Tenderer's reference clients during the detailed evaluation period. Contact names and details of the individuals who may be contacted must be provided.

All contacts with the Tenderer's reference clients may be arranged through the Tenderer, but The Employer reserves the right to conduct these information-sharing sessions without representatives from the Tenderer's company being present.

15.0 COST PRICE ADJUSTMENT

The value of the certificates issued shall be adjusted in accordance with the following formula (Expressed as a percentage %):

$$\left(\frac{CPI_n - CPI_s}{CPI_s}\right)$$

Where:
CPI_s = the indices specified in the Contract Data during the month prior to the closing of the tender.
CPI_n = the latest indices specified in the Contract Data during the month in which the anniversary of the closing date of the tender falls.
The indices are those contained in Table A of P0141 Consumer Price Index for the CPI for the Western Cape published by Statistics South Africa.
The adjustment will be done once per annum only and applied on the anniversary year.

16.0 RATES

The Bill of Quantities, hereof, shall be completed by the Tenderer for each section. Each item is deemed to include the supply (where applicable) and delivery of all items of material to site, including incidentals necessary for the completion thereof, plus profit, but excluding VAT.

The Tenderer shall note that various quantities are for comparative purposes only and do not necessarily describe the extent of the work.

16.1 FREE ISSUE ITEMS OF EQUIPMENT

As a default all material and equipment required during the course of the contract will be provided by the Municipality as a free issue item.
.
The labour rate for the specific item / s in question shall in such instance still govern, and it is therefore important to note that all labour rates provided must include handling charges for the respective material.

16.2 BASIS OF PRICING

For tendering purposes Tenderer's are to price the various line items provided in the Bill of Quantities for:

- Bill A - Preliminary & General
- Bill A 1 -Equipment Installation Normal hours: (Monday to Friday, 07:45 – 16:30)
- Bill A 2 - Primary Underground Network Normal hours: (Monday to Friday, 07:45 – 16:30)
- Bill A 3 -Primary Overhead Line Network Normal hours: (Monday to Friday, 07:45 – 16:30)
- Bill B - Vegetation Management Preliminary & General
- Bill B 1 -Vegetation Management Normal Hours: (Monday to Friday, 07:45 – 16:30)

In the Subtotal section for Bill/Bills (A1, A2, A3 and B1) a line item is provided for a total percentage Mark up for all Installation works that occur outside of business hours i.e. 16:30 onwards, including 24-hour period Saturday, Sunday, Public holidays.

For adjudication, the bid shall be awarded per a section or a combination thereof which ever makes the best financial decision for the municipality. There are two sections to this bid, section A covers the Construction and Maintenance works and section B which covers the Vegetation management works.

In order to be deemed responsive for a particular section or both sections tenderers are required to meet the minimum requirements as set out in the tender specifications.
Bidders are required to price for all items within a section, incomplete schedules will not be accepted, and all tendered rates are to be priced, if no charge for the item is offered a nil or zero must be captured in the space provided., if left blank the bid shall be considered as non-responsive.

17.0 RE-MEASUREMENT

17.1 GENERAL

All quantities in the Bills of Quantities are provisional and are subject to re-measurement on site.

When submitting claims for payment the Contractor must provide detailed job cards for each portion of work done listing the hours spent, travel, material required, etc as applicable.

As allowed for in the Bill of Quantities a fixed mark-up is also to be applied to the proven cost of unscheduled items of equipment and material, as well as other outside expertise required, and the Contractor shall also furnish the necessary invoices with any claims in this regard.

No claims for payment for work done will be entertained should the Contractor fail to furnish the necessary supporting documentation as mentioned above.

17.2 TRENCHING AND CABLE LENGTHS

The following shall be borne in mind when undertaking any re-measurement of trenching and cable work done on site:

i) All measurements for payments purposes shall be made jointly by representatives of the Contractor and Employer and shall be agreed upon by both parties. The Contractor shall be responsible for obtaining the Engineer's signed approval of such measurements.

ii) Determination of trench volume for measurement purposes shall be based on measured length and specified width and depth. No allowance shall be made where trenches have to be widened at the bottom to accommodate cables, cable joints and protection slabs.

iii) The classification of different types of ground for measurement purposes shall be as follows:
- Soft rock will be taken as broken or friable rock which can be removed by pick or mechanical excavator or paving breaker. This includes hard clay.
- Hard rock will be taken as rock which cannot be removed by a mechanical excavator and requires drilling and blasting or splitting. This includes reinforced or plain concrete.

iv) Measurements of cable length shall be made from centre to centre of cable joints and to the cable ends and will exclude any wastage due to jointing and terminating. The rate shall cover the cost of supplying the cable and the cost of handling, transporting, inspection, laying, pulling through cable ducts, spacing and all other handling during installation including the cutting and testing of cables.

17.3 DAYWORKS CLAIMS

The tenderer must include, as part of each tendered installation rate, the cost of all labour relevant to that rate as well as a pro-rata cost covering general supervision. Therefore, no claims for Dayworks Labour will be allowed for work performed which is already covered by tendered installation rates. Any item not listed in the Bill of Quantities must be claimed as a Day works Site Instruction. Each Dayworks Claim Site Instruction must be negotiated with the Engineer before installation - either as a "quotation" rate item or as a "Dayworks Labour" rate item.

The Engineer will not be obliged to pay claims for Dayworks or where advance consent is not obtained by the Contractor.

17.4 TRANSPORT CLAIMS

Transport claims shall exclusively be paid for kilometres travelled within George Municipal boundary for official work only, in accordance with transport rates submitted in the Bill of Quantities, the shortest route to a work site shall prevail for all claims. Transport claims are measured from George Electrical Engineering Services' offices, Brick Road George; no alternate measure point is permitted. Tenderers must allow in the schedule for each activity the transport of labour, equipment, and machinery from there site office or premises to George Electrical Engineering Services' offices, Brick Road George no additional Transport is permitted.

Tenderers will not be entitled to claim any kilometers travelled for transportation of labour, equipment and material, or for empty vehicle kilometers travelled outside the George Municipal boundary.

On submission of a Transport Claim tenders must submit the following information:

Type of vehicle; Vehicle Registration Number; Name of Driver; Date; Start and Stop Address; Start and Stop Time; Start and Stop Odometer reading; Reason for trip.

Please note, the use of municipal vehicles and operators will be a last resort. Bidders are encouraged to put in place, either contracts that allow for access to such vehicles 24/7 or to invest in vehicles of their own.

If municipal vehicles and operators are used, the Contractor will have to hire these at the final tender rates plus 5%. This percentage will increase each time by 5%. Also, note that this amount shall be deducted from the total invoice amount to cater for the hiring costs.

Example: 1st use is final tender rate plus 5%
2nd use is final tender rate plus 10%
3rd use is final tender rate plus 15%

This cost escalation will continue with each use of municipal vehicles and operators for the duration of the contract.

18.0 SITE STAFF

The Contractor shall have a competent person / supervisor on site at all times to oversee the execution of the work required under this contract. Such supervisor shall be fully conversant with the equipment and materials being installed.

The site supervisor shall be familiar and have undergone the necessary training to meet all the health and safety requirements stipulated in the Occupational Health and Safety Act (OHS Act) and where relevant to meet the environmental procedures and the requirements of the Municipality.

The person in charge will also ensure that the necessary quality control is applied.

The Contractor shall not replace or change the previously approved Site Supervisor during the course of the contract without first timeously notifying the Municipality of his intention to do so, in order that said alternate Site Supervisor can be further evaluated and approved by the Municipality.

19.0 CLEARANCES WITH OTHER SERVICES

When relevant, it shall be the responsibility of the Contractor to obtain all necessary drawings and information of the existing and planned future underground services from the Municipality and Telkom to ensure that there is no damage to those services during the installation of electrical services and that all necessary clearances with their existing and future plant are allowed. Where necessary, the Contractor shall first locate existing underground services before commencing with the trenching for cables or the excavation of holes for poles.

Where and whenever tar, paving, concrete, grass and / or other existing road and pavement surfaces need to be lifted and removed for the installation of electrical services, the Municipality should be consulted in advance to inspect same before any work commences. On completion of the work, the existing road and pavement surfaces shall be re-instated to its original state and to the satisfaction of the Municipality.

20.0 STANDARD SPECIFICATION

This specification shall be read in conjunction with the following standard specifications as applicable. The Standard Specifications and the Codes referred to therein shall be regarded as the Operative Code of Practice.

a) The Occupational Health and Safety Act, Act No.85 of 1993 and its amendments.

AND

b) In sequence of priority of the following applicable specifications:

- NRS
- SANS
- IEC
- BS or other acceptable international standards

Where specific reference is made in the Project Specifications to particular clauses in the aforementioned Standard Specifications, such reference shall in no way be construed as meaning that only those clauses specifically mentioned apply.

21.0 ORDERS FOR MATERIALS / EQUIPMENT

In case of emergency or required services not available for use within the Bill of Quantities, Tender's shall submit three separate quotations from reputable, qualified service providers and only apply the handling percentage fee for reimbursement as stipulated in the Bill of Quantities and installation thereof claimed in accordance to the labour rate.

The municipality reserves the right to accept or reject any offer and source alternate quotations.

22.0 CAPACITY BUILDING AND TRAINING

22.1 OTHER TRAINING

As part of the contract the Contractor may also be required to provide basic training and instruction of the municipal staff / operators in such things as familiarising personnel with new plant and equipment installed, and in the correct operation and maintenance thereof.

If required additional training may be requested and this shall be measured on a time basis with the exact number of hours in this regard agreed to with the Municipality beforehand.

As part of the contract the prospective training company must have a current and valid accreditation by SETA and remain registered for the duration of the contract.

22.2 FACILITY

George Local Municipality is situated within the Garden Route, Western Cape Province. The municipality has its own training facility, capable of accommodating 15 learners seated, and includes a projector, large whiteboard, Kitchenette and a unisex bathroom. Note: No meal preparation is

permitted within the venue. George Municipality is responsible for cleaning and facilities management of the premises.

22.3 STUDY MATERIAL

The service provider is required to supply all course material to the learners. Each learner is not equipped with a computer. The service provider must supply all tutorial literature, all material for demonstration and student practice and reference guides and course material for students to be used in the field.

22.4 TRAVEL:

Travel and accommodation is excluded from the unit module cost. Only accommodation relating to training is covered and claimed in accordance to the quantities within the Bill. Travel from the service providers premises to George Municipality and a return is claimable. Travel within the municipal boundary is excluded and must be included within the accommodation rate. i.e. Travel from Venue to accommodation and vice versa.

23.0 LOCAL LABOUR

Optimum use shall be made of local labour and the Contractor shall as far as practically possible and economically viable make use of labour-intensive methods to do the work.

The extent of local labour to be employed on a particular work instruction will be determined and agreed with the Municipality before any work commences.

23.1 EXTENDED PUBLIC WORKS PROGRAM (EPWP)

Where required by the Municipality in order to meet its growth and development objectives, certain labour-intensive aspects of the various projects may need to be included into the Municipality's overall EPWP program

This implies that Bidders should be aware of the EPWP requirements in order to implement and manage their operations accordingly. (The complete document regarding The Guidelines for the Implementation of Labour-Intensive Infrastructure Projects under the EPWP is available from the Municipality for perusal if required.)

No additional compensation or claims for any items that Bidders should have taken into account in this regard during tender stage will be entertained.

24.0 DAMAGE TO STRUCTURES

The Contractor shall be responsible for the making good of damage caused by his staff to any part of the structures. In the event of the occurrence of damage he shall arrange the repair of such damage to be carried out at his own expense to the satisfaction of the Municipality.

25.0 RESOURCES, TOOLS AND SPARE PARTS

The Contractor shall provide all the necessary manpower, tools and materials to perform all work required.

It is also expected that the Contractor will be able to rely on support from his workshop / factory whenever the need arises.

The tools needed to carry out the necessary work will be provided by the Contractor, and reliance shall not be made on the Municipality to supply or lend the necessary tools to undertake any of the work. However, should the required expertise or resources be available in house the Municipality reserves the right to assist with certain aspects of the work in order to try limit costs.

The Contractor shall work closely with the Municipality, and where required advise its store personnel regarding the standard components of equipment / materials and other consumables that should be kept in stock to avoid future supply issues.

26.0 MAINTENANCE PERFORMANCE

26.1 GENERAL

The intention of the maintenance portion of this contract is to ensure that the electrical system be kept in a 100 % functional and reliable condition at all times.

Any replacement equipment offered shall be capable of seamlessly integrating with the existing system and equipment without adversely affecting any functioning of the existing system.

Whole scale replacement of existing equipment shall not be permitted where it is possible to restore the functionality of the system by the simple replacement of any faulty components of said equipment.

All repairs and parts supplied by the Contractor shall have a minimum 12-month warranty, and a record of all manhours, job cards, etc for each particular job / instruction must be kept for scrutiny upon request if so required.

26.2 MAINTENANCE PROGRAM

Due to the unpredictable and reactionary nature of the project no formal programme of work is required in terms of maintenance, however the necessary response times indicated under Clause 8.0 above shall be adhered to at all times.

Where it is decided by the Municipality to proceed with various items of preventative maintenance work (i.e. non-critical items) said items will need to be attended to within a time period agreed to with the Municipality.

Cognisance must be taken of the fact that the existing electrical systems are in constant operation, and it is therefore imperative that as much preparation as possible be done before time in order to limit the disruption of service to a minimum.

Although it is envisaged that the majority works will be performed during normal office hours, the Contractor may also be required to work on weekends, public holidays and other Off-Peak hours as required.

26.3 PREVENTATIVE MAINTENANCE

Where instructed the successful Contractor shall undertake the necessary preventative maintenance on the existing electrical equipment / infrastructure and shall also draw the Municipality's designated representative attention to any items identified during the course of the project that it is felt may require pro-active servicing or replacement to prevent failure. The Contractor shall timeously provide the anticipated costs in this respect for formal approval before any work in this regard is undertaken.

The Contractor shall assist the Municipality when required with the drawing up of the various preventative maintenance schedules and shall also attend any feedback sessions / meetings when

requested by the Municipality. This work shall be measured be on a time basis with the exact number of hours in this regard agreed to with the Municipality beforehand.

26.4 BREAKDOWN MAINTENANCE

The Contractor shall ensure that key staff are contactable and on standby at all times in the event of an emergency breakdown situation, no standing time is applicable to this contract.

The Contractor shall provide adequate support during the entire three-year course of the contract with sufficient support staff to ensure that the existing electrical network is maintained and that it operates at optimum performance level.

The Tenderer must have at least one mobile team at all times and the support offered must also include the following:

- 24 hour per day 365 days a year standby technical support to respond to any reported problems and to resolve any technical / equipment failures encountered.
- Response times in the order as indicated under Clause 8.0 above.
- General assistance and training to Municipal personnel on the ground dealing with any problems relating to the operation of the system.

26.5 RESPONSE TIMES

Refer to Clause 8.0 above.

27.0 GUARANTEE

The Contractor shall guarantee to the Employer the material, equipment and workmanship delivered by him, for a period of 12 months. The guarantee must be valid for a period starting on the date when the Works or portion thereof are accepted by the Engineer / Municipality as complete and in working condition.

The guarantee shall further comply with the relevant clauses of the standard specification as per Part C3.4 hereof.

28.0 "AS-BUILT" DRAWINGS AND MANUALS

Before the date of the issue of the Certificate of Completion, the Contractor shall hand-over to the Employers Representative marked-up hard copies of the "As-Builts" of the work undertaken.

These drawings shall clearly show, with measurement relative to the various structures where applicable, all cable routes and positions of cable markers, final details of all circuits, etc. These drawings shall be complete in all respects, together with operational and maintenance manuals, test certificates, commissioning report, etc, where relevant. The manual shall include a description of the works, operating instructions, manufacturer's pamphlets and catalogues on all the equipment supplied and a spares list for the same equipment.

The Contract will not be considered complete until these drawings and manuals have been received.

29.0 SITE MEETINGS

If required regular site meetings will be convened soon after acceptance of tender at a time and place to be arranged.

Site meetings may be held at two-week intervals, or longer or shorter as may be necessary, at a time and day of the week to be mutually agreed, for the duration of the Contract.

30.0 Vegetation Management

Vegetation management within power line servitude has financial, social and environmental implications. Maintenance of vegetation needs to be done as economically as possible, without causing unnecessary environmental damage and without impacting on the rights and requirements of the landowner and other interested and affected parties. The objective of power line route vegetation maintenance is to ensure the safe mechanical and electrical operation of the power line and to meet George Municipality's, business social and environmental obligations.

30.1 Trees growing to a height in excess of the horizontal distance of that tree from the nearest conductor which are identified as a risk to safe operation of the power line shall be treated and prevented from growing in such a manner as to endanger the line should they fall.

30.2 All vegetation posing a risk to the line or preventing access for maintenance purposes shall be managed.

30.3 Trees growing to a height in excess of the horizontal distance of that tree from the nearest conductor which are identified as a risk to safe operation of the power line shall be treated and prevented from growing in such a manner as to endanger the line should they fall.

30.4 Trees growing to a height in excess of the horizontal distance of that tree from the nearest conductor which are identified as a risk to safe operation of the power line shall be treated and prevented from growing in such a manner as to endanger the line should they fall.

30.5 Various species of indigenous vegetation are protected by law in terms of which is necessary to obtain a permit from the relevant authority, in order to cut them. The list of "… protected tree species under the national forest act, 1998 (Act No 84 of 1998)" Gazetted by the department of Agriculture, Forestry and Fisheries from time to time: will be sourced and referenced by the contractor in lieu of the specific requirements in terms of protected species. No protected vegetation as per above act shall be cut without the required permits or licences

30.6 Alien vegetation in servitude shall be managed in terms of the Regulation GNR.1048 of 25 May 1984 (as amended) issued in terms of the Conservation of Agricultural Resources Act, Act 43 of 1983. In Terms of these regulations

30.7 Alien vegetation in servitude shall be managed in terms of the Regulation GNR.1048 of 25 May 1984 (as amended) issued in terms of the Conservation of Agricultural Resources Act, Act 43 of 1983. In Terms of these regulations

30.8 Care must be taken to ensure alien vegetation is not spread as a result of vegetation management processes through the transport of seeds or other vegetative material from one site to another

30.9 Indigenous vegetation which does not interfere with the safe operation of the power line should be left undisturbed

30.10 Vegetation should be trimmed where it is likely that it intrudes on the minimum vegetation clearance distance, (MVCD) or will intrude on this distance before the next scheduled clearance

30.11 Where the Servitude/Wayleave Agreement refers to a specific width within which no trees may be deliberately grown, then this restriction width will apply

30.12 Trees, shrubs, grass, natural features and topsoil which are not removed shall be protected from damage during operations. Scalping of the earth or any unnecessary disturbance shall not be allowed in any clearing operation

30.13 The Service Provider(s) must use the following environmental approved herbicides or alternatively provide equivalent products which conform to the tender specification:

Item No.	Description	Active Ingredient	Concentration of active ingredient (g/L) or (g/Kg)	Trade Name or Equivalent
1.	A ready-to-use water-based gel, paint-on systemic herbicide acting through cut surfaces of certain woody plants.	Picloram 50 g/kg Triclopyr 50 g/kg	g/kg	Kaput 100 Gel or Equivalent
2.	A non-selective systemic herbicide with soil persistence for the control of a wide spectrum of annual and perennial weeds on non-cropland and industrial sites.	Imazopyr (Imidazolinone) 300 g/kg Glyhosate 216 g/kg	g/kg	Tandem WSG or Equivalent
3.	A systemic water-soluble concentrate herbicide for the control of certain undesirable woody plants in forestry, pastures, conservation, and non-crop areas.	Reiclopyr (Pyridine Compound) 270 g/l Clopyralid (Pyridine Compound) 90 g/l	g/L	Astra 360 SL or Equivalent
4.	A water-soluble, non-selective foliar applied, systemic granular herbicide for the control of a wide range of annual and perennial, as well as certain woody weeds in forestry, non-crop & industrial areas.	Gyphosate 700 g/kg	g/kg	Rondo or Kilo Max or Equivalent
5.	Dye – Pigment Blue/pigment Red	Blue pigment Red pigment	litre	Blue - dye
6.	A non-selective root-absorbed granular herbicide with extended residual action for the control of undesirable vegetation on non-cropland and industrial sites	Bromacil (uracil) 50 g/kg Tebuthiuron (urea compound) 50 g/kg	g/kg	Bromuron or Equivalent

31. HEALTH AND SAFETY

31.1 GENERAL

The principal Contractor and Contractors are required to adhere to the provisions of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), as amended, and including the Construction Regulations 2014, as amended, forming part thereof. For the purposes of this part of the document, the terms principal Contractor and Contractor, and Client, shall have the meanings as defined in the abovementioned Regulations.

The principal Contractor, or Contractor, as the case may be, shall undertake all the duties and activities required of him in terms of the abovementioned regulations. These may include but not necessarily be limited to the following:

- Notification of construction work.

- Preparation, liaison with and submission to the Client, and implementation and maintenance of a suitable and sufficiently documented health and safety plan which must include and involve all Contractors under a principal Contractor's control.
- Liaison and cooperation with all other Contractors.
- Supervision of construction work, including appointment of a construction supervisor in terms of the Regulations.
- Risk assessment.
- Fall protection.
- Structures, formwork and support work, excavation work, demolition work, scaffolding and suspended platforms, hoists of any type, and explosive powered tools.
- Electrical installations and machinery on construction sites.
- Use and storage of flammable liquids, water hazards, general housekeeping and stacking and storage, as well as fire precautions.

31.2 HEALTH AND SAFETY INFORMATION

The design described in this document has taken into account the hazards to persons which may occur during construction, commissioning and subsequent use and maintenance. However, the nature of the work is such that certain hazards are unavoidable and will be prevalent during the above operations and these must be taken into account by the Contractor when preparing and implementing the health and safety plan.

In order to assist the Contractor, certain hazards and aspects of health and safety are identified in this document and on the drawings and a Hazard Identification List is provided below to inform the Contractor of any known or anticipated dangers or hazards relating to the design or construction work. The information is provided in order to assist the Contractor to analyse and evaluate the risks and does not, in any way, relieve the Contractor of his/her responsibilities in terms of health and safety.

31.3 HEALTH AND SAFETY PLAN

The Contractor shall be deemed to have read and fully understood the requirements of the above Act and Regulations and to have allowed for all costs in compliance therewith.

The Contractor shall prepare a Health and Safety Plan in respect of the Works in accordance with the Act and Regulations, which shall cover inter-alia the following details:

- Management Structure, Site Supervision and Responsible Persons including a succession plan.
- Contractor's induction training programme for employees, sub-contractors and visitors to the Site.
- Health and safety precautions and procedures to be adhered to in order to ensure compliance with the Act, Regulations and Safety Specifications. Regular monitoring procedures to be performed.
- Regular liaison, consultation and review meetings with all parties.
- Site security, welfare facilities and first aid.
- Site rules and fire and emergency procedures.

The Contractor is required to ensure that all sub-contractors or others engaged in the performance of the contract also comply with the above requirements.

31.4 HEALTH AND SAFETY CONDITIONS

The Chief Executive Officer of the Contractor shall assume the responsibility in terms of Section 16(1) of the Occupational Health and Safety Act (as amended). Should the Contractor assign any duty in terms of Section 16(2), a copy of such assignment shall immediately be provided to the representative of the Employer as defined in the Contract.

All work performed on the Employer's premises shall be performed under the supervision of the construction supervisor who understand the hazards associated with any work that the Contractor performs on the site in terms of Construction Regulations 2014.

The Contractor shall appoint a Competent Person who shall be trained on any occupational health and safety aspect pertaining to them or to the work that is to be performed.

The Contractor shall ensure that he familiarises himself with the requirements of the Occupational Health and Safety Act and that he, his employees, and any sub-contractors, comply with them.

Discipline in the interests of occupational health and safety shall be strictly enforced.

Personal protective equipment shall be issued by the Contractor as required and shall be worn at all times where necessary.

Written safe work procedures and appropriate precautionary measures shall be available and enforced, and all employees shall be made conversant with the contents of these practices.

No substandard equipment/machinery/articles or substances shall be used on the site.

All incidents referred to in terms of Section 24 of the Occupational Health and Safety Act shall be reported by the Contractor to the Department of Labour and the Employer.

The Employer hereby obtains an interest in the issue of any formal inquiry conducted in terms of Section 32 of the Occupational Health and Safety Act and into any incident involving a Contractor and/or his employees and/or his sub-contractor/s.

No use shall be made of any of the Employer's machinery / plant / equipment / substance / personal protective equipment or any other article without prior arrangement and written approval.

No alcohol or any other intoxicating substance shall be allowed on the site. Any person suspected of being under the influence of alcohol or any other intoxicating substance shall not be permitted access to, or allowed to remain on the site.

Prior to commencement of any work, verified copies of all documents mentioned in the agreement, must be presented to the Employer.

31.5 HEALTH AND SAFETY HAZARD IDENTIFICATION LIST

The following list highlights items identified as presenting a hazard or danger to persons during construction and commissioning:

ITEM	HAZARD DESCRIPTION	APPLICABLE TO THE PROJECT YES / NO / N/A	HAZARD RATING (LOW, MEDIUM, HIGH) *	COMMENT / RECOMMENDATION
1.	Are there any specific client H&S requirements for the work?	Yes	High	The work will be undertaken in close vicinity of live 22kV to 132kV overhead power lines. All regulatory requirements in this regard shall be adhered to.
2.	Have site archaeological issues been identified and evaluated (might be of historical	N/A		

	importance)			
3.	Has a geotechnical survey been carried out, and if so, do the results indicate hazards which require control measures?	N/A		
4.	Is the site adjacent to or over public transport (railways, taxi ranks, bus stops etc.)?	No		
5.	Is the site adjacent to or over water (e.g. rivers, dams, sea, canals)?	No		
6.	Is the site adjacent to, over or under any services or drains etc. (e.g. high voltage cables, municipal sewer lines)?	Yes	High	The work will be undertaken in close vicinity of live 22kV to 132kV overhead power lines.
7.	Is the site adjacent to, over or under any public buildings such as schools and hospitals?	No		
8.	Are there any other local hazards such as overhead power cables?	Yes	High	The work will be undertaken in close vicinity of live 22kV to 132kV overhead power lines.
9.	Will the ground contours present any construction problems?	Np		
10.	Is there any asbestos removal involved?	No		
11.	Will excavation be close to live electrical cables or pressure pipes?	No		
12.	Will any excavation works take place?	Yes		MV and LV pole and stay holes.
13.	Will any work be carried out close to live electrical apparatus?	Yes	High	The work will be undertaken in close vicinity of live 22kV to 132kV overhead power lines.
14.	Is there confined space or tank entry work involved?	No		
15.	Will any steel erection works be taking place?	No		
16.	Will tower cranes be used or heavy lifting operations taking place?	Yes		
17.	Will mobile work platforms, cradles or abseiling be necessary?	No		
18.	Is the access to the site adequate for vehicles and pedestrians? Are there any special arrangements and/or requirements?	Yes	Low	

19.	Will the public have access to the site?	Yes		
20.	Have arrangements been made or co-ordinated for temporary electric supplies?	N/A		
21.	Have site lighting needs been identified for all stages of the work?	N/A		
22.	Will any accommodation/ office units be located inside an existing structure?	No		
23.	Have arrangements been made or co-ordinated for temporary supplies such as water and sewage disposal?	N/A		
24.	What is the type of roof construction? Evaluate fall hazards	NA		
25.	Are there any 'Hot Works' to be undertaken?	No		
26.	Are electrical items to be installed?	Yes	Medium	New MV and LV overhead lines.
27.	Will there be any lift installation works?	No		
28.	Will there be any escalators to install?	No		
29.	Is the project a fire risk?	No		
30.	Have all environmental issues been evaluated and controlled?	N/A		
31.	Are there any specific fall protection hazards not already assessed?	N/A		
32.	Are there any additional hazards which have been identified as being site specific and which are not covered by the foregoing? If YES, note here:	No		

* The hazard rating takes into account the likely level of consequence (injury/death) to which workers are exposed, the likely number of workers exposed to the hazard, and the probability of occurrence on the site.

31.6 OHS BASELINE REPORT

Further to that detailed elsewhere in this specification, the Tenderer's attention is drawn to the official OHS specification documentation compiled by Messrs OHS Inc. applicable for this project included as Annexure B, which includes the hazard identification and baseline risk assessment, as well as other general safety information which must be taken into account by the Tenderer.

32. PROJECT TECHNICAL SPECIFICATIONS

32.1 GENERAL

This part of the specification deals with the main items of material and equipment which it will be the Contractor's responsibility to supply, install and / or maintain under the various portions of the work, as well as the responsibilities and duties expected from the Contractor in terms of the maintenance portion of the work.

Sufficient information is provided in this document to enable the tenderer to accurately price the work. Tenderers must allow for all items, whether specified in detail or not, required to complete the installation in a neat and workmanlike manner.

Tenderers shall take note of the requirements of all parts of the specification as far as they may be applicable and relevant to the various sections of work.

No additional compensation or claims for any items that Tenderers have been made aware of during tender stage will be entertained.

32.2 MAINTENANCE RESPONSIBILITY AND DUTIES

In terms of the maintenance portion of the work it is envisaged that the duties of same shall include for the following:

Attend to call-outs, within one working day, when notified by the Municipality in order to attend to / diagnose faults on the system.

The maximum response time to a normal work instruction will be forty-eight (48) hours (i.e. within two working days) and that for an emergency work instruction will be eight (08) hours after notification by the Municipality.

- Servicing and general preventative maintenance on equipment as and when required.
- Breakdown maintenance and repair on plant and equipment as and when required.
- Vegetation management within the municipal infrastructure as and when required.
- Supply and install new plant, equipment or material as required by the municipality during the course of the project, etc.
- Tracing, fault finding, and other general troubleshooting measures required to determine the location and / or cause of faults, trips, etc on the system.
- Assisting the Municipality and / or others undertaking field investigations, studies, etc of the existing electrical network / infrastructure at the behest of the Municipality.
- Assisting the Municipality in drawing up a detailed annual maintenance program for all equipment and plants as and when required.
- Maintenance inspections and reports on the status of equipment and other associated infrastructure at the request of the Municipality. Such reports may include amongst other things a list of items that require attention and the cost of each item (as per the relevant tender rates as applicable), as well as any other preventative maintenance work identified.
- Monitoring of municipal stock levels of various critical items to ensure availability.
- Attend meetings (e.g. feedback sessions, etc) together with the Municipality when required.

32.3 MATERIAL / EQUIPMENT

32.3.1 FREE ISSUE

As a default it is anticipated that the bulk of the material required for the contract will be supplied directly by the Municipality as free issue items of material.

In such instances it will required from the successful Contractor to collect said free issue material from the Municipality's stores, and to undertake the final connection and commissioning of same.

Said Contractor shall take full responsibility for the satisfactory operation of all equipment and the connection, testing and commissioning thereof. The Contractor shall perform all the usual on-site tests and calibration of ancillary equipment as required.

The issuing of material to the Contractor via the Municipality's stores shall be at fixed times to suit the Municipality, and said time, together with the quantities and type of material / equipment in question shall be confirmed timeously prior to collection to avoid unnecessary delays or confusion in this regard.

Bidders are to note that where equipment / material is to be supplied as a free issue item the labour rate as entered in the Bill of Quantities for the specific item / s in question shall in such instance shall govern. It is therefore important to note that all labour rates provided must include handling charges for the respective material.

32.4 INSTALLATION OF CABLES

32.4.1. STANDARD OF WORK

The electrical installation shall conform to the requirements of SANS Code of Practice 10142. Galvanising, where specified, shall be in accordance with SANS 763.

32.4.2 PEGGING AND SURVEYING OF THE WORKS AND FINALISE ROUTE WITH ENGINEER

A) PRE-INSTALLATION ROUTE SURVEYS

The Contractor shall within 14 days after being awarded an order, carry out a pre-installation route survey which shall include digging test holes, guided by the drawings supplied by the Employer.

Pegging and surveying of the works shall be performed by the Contractor, and if requested by the Engineer, an approved surveyor shall be appointed. The Contractor will be advised of any known buried services such as cables, pipes, etc. in the vicinity of the cable route, through the provision of a wayleave.

It will remain the responsibility of the Contractor to locate all existing services along the cable route prior to excavations commencing and determine where cables are liable to be subjected to chemical, electrolytic, mechanical or other damage. The Contractor shall submit his recommendation to protect existing services to the Engineer for approval.

B) POST INSTALLATION SURVEYS

After completion of all cable laying and jointing and before commissioning of any cable the Contractor shall carry out a final "as laid" survey of the cable routes and submit plans.

The cable route plans shall include the following information:

- Overall length, type, size and voltage of each cable.

- Accurate indication of the position of each joint from permanent structures.
- Ducts and chambers provided.

32.4.3 EXCAVATIONS

The Contractor shall execute all excavations (including backfilling, provisions of imported soil and bedding) and crossings in accordance with George Electro Technical Services Department (ETS) Specifications and as follows:

a) No excavation of any section of the cable route shall commence before the Contractor is in possession of the relevant approved construction plans (signed by the GM Electrical Planning Engineer), all wayleaves have been obtained, the works have been surveyed and pegged our as described in section 0 and the Engineer has authorised the commencement of work on the section concerned.

The Contractor is to take into consideration, plan, and liaise with others and work in strict, accordance with the requirements that are set out in the Wayleave Documentation.

b) When trenching the contractor shall take all necessary precautions to prevent damage to underground services.

c) On encountering any uncharted service, the Contractor shall promptly advise the Engineer who will give the necessary instructions.

d) Should any underground service, water mains, road pavement, drainage system, building or any other structure be damaged by the Contractor's staff, he shall arrange for the necessary repairs. The contractor shall be responsible for the cost of repairs.

e) The removal of obstructions along the cable routes shall be subject to the approval of the Engineer.

f) Excavations crossing railway lines shall not commence until an authorized representative is present on site. The Engineer shall be advised 14 days in advance when such excavations will take place.

g) Cable crossing of railway lines shall only be at right angles.

MV cable trench details shall be in accordance with AG-021, AG-022 and AG-023.

h) Trenches across roads, access ways or foot-paths shall not be left open. If trenching, cable laying and back filling cannot be done during the same shift, the portion of trench across the full width of the road, etc., must be temporarily backfilled and consolidated sufficiently to carry the traffic concerned without subsidence. Alternatively, adequately strong cover plates shall be laid across the trench.

Excavated trenches or holes for poles that are accessible to the public or that are adjacent to public roads or thoroughfares, or where the safety of persons may be endangered, shall not be left open. It shall be adequately and effectively protected by a PVC danger warning tape zigzagging between two steel wires spaced 300mm apart with the bottom wire approximately 300 mm above ground level and with realistic interval supports. The cost of the danger tape, wire and supports is for the contractor’s account. Warning illumination or any other clearly visible boundary indicators shall be provided at night or when visibility is poor.

Where a PVC danger tape will not be sufficient in protecting the public, the Project Engineer or Health and Safety Officer can instruct the contractor to clearly barricaded the trench or hole by means of a sturdy barrier or fence of at least one metre in height and as close to the excavation as is practicable. The cost for this must be agreed with the Project Engineer.

If trenching, cable laying and back filling cannot be done during the same shift, the portion of trench across the full width of the road, etc., must be temporarily backfilled and consolidate sufficiently to carry the traffic concerned without subsidence. Alternatively, adequately strong cover plates shall be laid across the trench.

i) Power driven mechanical excavators may not be used for trenching operations, unless with the written approval of the Electro-technical Department. The Municipality of George shall not be responsible for any damage to other services in close proximity when using mechanical excavators.

j) The Contractor shall provide shuttering in places where the danger exists of the trench collapsing and causing damage to formations or other nearby structures.

k) Shuttering shall be paid for at scheduled rates.

l) Trenches shall be kept as straight as possible and the radius of bends shall be tight, however never the less than minimum bending radius of the cable as specified in SANS 97 and SANS 1339. For the 3-core PILC-insulated cables, the minimum bending radius is 12x the overall diameter of the cable.

The bottom of each cable trench shall be firm and of smooth contour without sharp dips or rises which may cause tensile forces in the cable during backfilling.

m) Trenches shall have no sharp objects which may cause damage to the cable during laying or backfilling.

n) The unfinished depth of trenches unless otherwise stated shall be as follows:

i) HV & associated pilot / fibre optic cables: 900 mm
ii) LV & separate pilot / fibre optic cables : 750 mm
iii) Service & streetlight cables : 750 mm
iv) All cables across private property and public open spaces: 1 000 mm & concrete slabs

o) The width of the trench unless otherwise stated shall be:

MV Cables:

i) 1 to 2 MV cables (together with their associated fibre optic or other pilot cables) = 500mm, and
ii) Shall increase by 300mm for each additional MV cable (together with its associated fibre optic or other pilot cable).

LV Cables:

i) 1 to 3 LV cables = 450mm, and
ii) Shall increase by 150mm for each additional LV cable

p) The width of the trench at any bend or places where cable slack is required, shall be such that the bending radius of the cables shall not be less than that specified for the particular cable as per specifications SANS 150, SANS 97 and SANS 1339.

q) The material excavated from each trench shall be placed in such a manner as to prevent nuisance or damage to adjacent ditches, drains, gateways and other properties and shall not interfere with traffic.

Where the surface to be excavated will require a permanent re-instatement by a local authority or contractor the surface cut shall be made with an edged tool and shall be cut as cleanly and evenly as possible.

Where the cable route is located parallel to and under the road surface, the edge of the trench and joint bays shall be at least 200mm from the road kerbing and the depth of the cable shall be increased with 450mm.

For rail crossings, the depth of cable shall be increased with at least 750mm, or as instructed by the rail authority. It is the Contractor's responsibility to excavate correctly according to the hardness of the soil.

Where, owing to certain considerations, this is not possible the excavated materials shall be removed from site and be returned for refilling the trench on completion of laying. All surplus material, from whatever source, shall be disposed of by the Contractor.

r) Removal of accumulated water or other liquid from trenches shall be done by the Contractor at his expense. The Contractor shall provide all pumps and appliances required to carry out this operation. Water or any other liquid removed shall be disposed of without creating any nuisance or hazard.

s) The George Municipality reserves the right to alter any cable route or portion thereof prior to cable laying. Payment in respect of any additional work involved shall be at scheduled rates.

32.4.4 Cable Pipe Ducts

Cable crossing roads or railways shall be installed in PVC/PE cable conduit pipes. Pipes shall be supplied in 6m lengths, with a socket in one end and plain at the other end. Wall thickness of 110mm diameter pipes shall be 2.3mm and of 160mm diameter shall be 3.2mm.

The axial spacing of the pipe ducts shall be at least equal to the cable spacing on the direct- buried sections.
NOTE: Non-ferrous pipes must be used for single core cables to avoid the effects of magnetic induction.

Pipe ducts shall, where possible, project a minimum of 1m beyond the road kerb lines, pavement formations, or other services to completely clear the surface of the carriageway.

For dual carriageways and divided highways, the pipe ducts shall continue in an unbroken line under the central divider. For railway crossings, the pipe ducts shall project a minimum of 3m beyond the outermost rails.

With road crossings, all pipe ducts shall have a minimum surround of 75mm of concrete to prevent collapsing or deformation after backfilling. The concrete strength shall be at least 15MPA. If underground directional drilling has been used to install the pipe ducts, the concrete surround is not required.

The points of cable entry or exit of pipe ducts are susceptible to ground subsidence and therefore where cables enter or exit pipes they shall be supported on rot-proof bags containing a weak sand-cement mix (30:1) for a distance of approximately 0.5m into the trench.

Generally, 110mm diameter pipes are suitable for fibre optic cable ducts.

PVC/PE pipes may be bent in accordance with the manufacturer's instructions however the radii shall not be less than the cable maximum bending radii.

Spare pipe ducts shall be installed for road, railway, river and other service crossings. The number of spare pipe ducts shall be determined by the Project Engineer. Spare pipe ducts shall always be sealed at the ends to prevent ingress of water, vermin and backfill material.
Where spare ducts have been installed, or where ducts are not to be used immediately, each such duct shall be fitted with a 4mm diameter galvanized steel draw- wire running full-length inside the duct and fastened to a stake, visible above ground, at the mouth of the duct at each end.

All pipe ducts shall be sealed until the cable is installed.

33. CABLE LAYING

A) GENERAL

The Contractor shall collect, transport to site, off-load, store and install according to SANS 10198 and ETS Specifications. The Contractors installing cable shall be in possession of all parts of SANS 10198 and shall work according to that code of practice and George ETS Standards. Any situation not covered by SANS 10198 or George ETS Standards shall be referred to the Project Engineer for instruction.

All possible care shall be exercised in handling of the cables to ensure:

i) Cables are not over bent;
ii) Cables outer sheaths are not damaged or scratched; and
iii) Cable kinks or twists are prevented.

Cables shall be collected from George Municipality's storage facility.

Any drum of cable showing signs of damage shall not be used without the prior consent of the Electro-technical Department.

The outer covering of cables shall not be damaged in any way and cables shall not be bent at radii less than allowed for by the manufacturer.

All empty cable drums must be returned to the Electrical Engineering Department. When cable is supplied by the contractor, the drums thereof remain the property of the Contractor and shall be removed from the site and disposed of by him.

Cable shall be transported and stored in accordance with SANS 10198-6.

Cable ends on cable drums shall be sealed by cable end caps. These shall be regularly inspected for damage or cracks that may have occurred after any handling, transport, or storage. Damaged end caps shall be removed and replaced.

Drums shall be checked for damage before off-loading, with defects reported to the Project Engineer with written statement and photographs. Cable on damaged drums shall be re-drummed on a drum having a barrel diameter no smaller than the original to avoid over-bending, after written confirmation from the Project Engineer.

Drums shall be lifted by a crane or forklift of suitable size and carrying capacity. If a crane is used, the correct lifting bar (spindle) and slings shall be used, and these shall be in good condition. A spreader bar shall be used to prevent the slings from damaging the drum flanges. If a fork-lift is used, the forks shall extend to both flanges to ensure that the weight of the drum is evenly distributed on both flanges. If necessary, fork extensions shall be used. Care shall be taken to prevent the forks from damaging the cable drums (battens and flanges). The forks of the fork-lift shall not be used to push or pull the cable drum along the ground.

Cable drums shall be so arranged that they are easily identifiable, accessible and that they may be released on a 'first in – first out' basis. Drums shall be stored on a hard-surface that has an efficient draining system. Cable drums shall be rolled only in the direction indicated on the drum. Drums shall not be dropped or laid flat. Drum bolts shall be tight at all times.

Cable pulling and laying shall be done manually unless otherwise approved by the Electrical Engineering Department. No cable shall be subjected to a tension exceeding that stipulated

by the cable manufacturer. Cable drums must be mounted on jacks and cable rolled out from spinning drum.

Prior to cable pulling, the cable inner end shall be cut free from the cable drum flange.

B) IN TRENCHES

Unless otherwise instructed, cables shall be spaced as indicated in figures AG-020, AG-021 and AG-022. The following must be noted:

i) High Voltage cables shall be spaced at a minimum of 450 mm apart (centre to centre).

ii) Low Voltage cables shall be spaced at a minimum of 150 mm apart (centre to centre).

iii) Pilot cables shall be laid beside the associated power cables.

iv) High Voltage and Low voltage cables (and pilot cables not associated with High Voltage cable), shall be spaced at a minimum of 300 mm apart.

v) Pilot cables, when they are routed separately from their associated power cables, may be run next to one another.

The same type of cables shall not be buried on top of each other except where cable runs cross.

When the cable cannot be laid down at the specified depth, prior authority shall be obtained from the Engineer by the Contractor to protect the cable by means of 100 mm diameter pitch fibre ducts with 50 mm concrete slab coverings, or other approved methods.

Where cables have to be drawn around corners, well lubricated skid plates, or corner rollers, shall be used. The skid plates, or corner rollers, shall be securely fixed and constantly examined during cable laying operations.

Suitable cable rollers must be used at sufficiently frequent intervals to support and guide an HV cable whenever it is pulled along a trench floor or any other surface. It must also be used in according with the manufacturer's guidelines. The rollers shall be spaced so that there is no appreciable cable sag between rollers. A spacing of 2m is normally suitable but this distance shall be reduced if appreciable sagging is seen to occur.

Cables shall be visually inspected for damage during and after laying. Any damage shall be reported immediately to the Electro-technical Department, who will issue the necessary instructions.

C) IN CABLE DUCTS

i) All cables crossing beneath roads and pavements shall be enclosed in PVC ducts with a minimum internal diameter of 110mm. The Engineer shall be advised timorously of the location and quantity of ducts to be laid, if supplied by the Employer. Separate lengths of ducts shall be properly jointed.

Details pertaining to the installation of PVC ducts are discussed in section 0.

Before commencing to draw a cable into a pipe duct, a cylindrical wire brush followed by a mop and a close-fitting mandrel shall be drawn through to clean out any dirt and ensure that the pipe duct has not collapsed.

ii) Ducts shall maintain or exceed the specified cable spacing.

iii) Ducts shall extend at least 1 m of either side of the road- or pavement formations and shall maintain the specified cable depth. All ducts shall be graded for water drainage: the required grade is 1:400.

iv) Number of cables per duct:

HV cables: 1 per duct

LV cables: 1 per duct

Service and streetlight cables : 4 per duct

v) Prior to cable pulling, pipe ducts shall be fitted with bell mouths at both ends to prevent damage to the cable and a suitable lubricant shall be applied to the inside of the pipe.

vi) Where spare ducts have been installed, or where ducts are not to be used immediately, each such duct shall be fitted with a 4mm diameter galvanized steel draw- wire running full length inside the duct and fastened to a stake, visible above ground, at the mouth of the duct at each end.

D) UNDER BRIDGES AND IN TUNNELS

i) Where a cable route can only be against the concrete wall of a bridge or tunnel the cable shall be supported either on suitable brackets at 750 mm intervals or straining wire secured at maximum 1 200 mm intervals.

ii) Detailed design calculations shall be provided confirming that the brackets are suitable for the cable dead weight and short circuit forces.

iii) Brackets shall be of robust design and shall be galvanised and painted in accordance with specifications SANS 912, SANS 681 Type 2 and SANS 630 - Grade 1.

iv) The height of the cable route on the brackets or strain wire shall be determined and agreed upon on site.

v) The brackets or strain wire shall be supplied and installed by the contractor at the cost to be agreed upon with the Project Engineer prior to purchase.

E) SECURED TO POLES

i) Cables to be terminated at overhead lines or equipment mounted on wood, concrete or steel poles, shall be clamped onto such structures by means of stainless-steel straps applied at such a tension that the cable or cable sheath is not damaged. Straps shall be located at intervals of not more than 1,2 m.

ii) Cables shall be protected by a pipe or boxed section of galvanised steel or other approved material for a distance of 250 mm below and 3000 mm above ground level, strapped or screwed to the pole at a minimum of two points and connected to the earth connection, if of steel construction.

F) EXPOSED CONDITIONS

i) Whenever cables enter buildings or tunnels, or where excavations are not permitted down banks or cuts, the exposed portion shall be suitably protected by means of

concrete slabs, or suitable steel pipes or boxed sections which shall be galvanised in accordance with SANS 763.

These pipes or boxed sections shall be firmly secured to the bank or cut, at regular intervals.

All such material shall be supplied and installed by the Contractor at the cost to be agreed upon with the Project Engineer.

34. CABLE TERMINATIONS

***NOTE:** All bidders personnel that might perform MV jointing and terminations will have to be preassessed by the nominated municipal employee to be deemed competent to joint or terminate. Jointing and terminating on the George / Uniondale network will not be allowed unless this process has been followed and relevant jointer deemed competent.

34.1 General

i) All cables shall be terminated and connected to the respective equipment, whether provided by the Contractor or by others.

ii) Jumpers between cable end boxes and disconnectors shall either be short enough to be rigidly self-supporting or shall be supported on suitably placed pin insulators.

iii) Termination of cables on outdoor equipment shall not be done during inclement weather conditions.

iv) Both ends of each cable shall be identified by means of embossed stainless-steel strips clamped around the cables. The characters shall have a minimum height of 6 mm.

v) All materials necessary for cable termination shall be provided by the Employer.

vi) The Contractor shall ensure that correct phase rotation is maintained throughout.

vii) Glands of cables terminating on equipment provided with frame leakage protection shall be insulated from the frame by high grade non-deteriorating, non-hygroscopic insulation, at least 2 mm thick, capable of withstanding a test voltage of 4 kV DC for one minute.

viii) A thin film of approved electrical jointing compound, such as Denso paste, shall be applied between the mating faces on all connections, before tightening or crimping, to ensure sound electrical contact and to minimize electrolytic corrosion.

34.2 MV Cables

i) PILC cables shall be terminated as follows:

The armouring shall be removed to approximately 30mm below the bottom of the brass gland and the lead sheath shall protrude slightly above the top of the gland. The lead sheath shall be finger wiped to the gland and to the armouring. A ball wipe is to be made over the whole to ensure mechanical strength and a neat appearance.

ii) Where for any reason a cable cannot be joined or terminated, sufficient length of cable shall be left to reach the cable joint or end box position. The cable shall be coiled and buried or otherwise protected. The cut end of a paper insulated cable shall be capped immediately after cutting, with a plumbed lead seal.

The cut end of an XLPE or other type of cable shall be sealed immediately after cutting, with a heat-shrink cap or suitable approved tape.

iii) Outdoor cable end boxes:

MV cable end boxes for outdoor use shall be similar to the inverse cast iron type as supplied by GEC Henley and conform to the requirements of BS 542. End boxes shall be fitted with

high pollution insulation with a minimum creep age distance of 600 mm. The filling compound shall comply with the requirements of BS 1858.

iv) MV heat shrink terminations.

Terminations shall be supplied in kit form and shall be clearly marked with the type of cable and voltage grade. The material shall be resistant to ultra-violet radiation and shall comply with the requirements of VDE 0278. Outdoor terminations shall be designed to resist flash-over under wet and polluted conditions and provided with the appropriate number of skirts.

34.3 LV and Pilot cables

i) All cut ends of cables are to be sealed with suitable tape or approved means until they are ready to be terminated.

ii) Cable Glands:

Cables shall terminate in compression type glands. Cable glands shall be supplied complete with neoprene rubber shrouds. Glands shall be similar to Pratley, or Captive Cone Glands. The size and type required shall be in accordance with the type of cable, number of cores and the manufacturer's recommendations.

iii) The cable gland shall be manufactured completely of brass. The glands shall be supplied with a brass or stainless-steel locknut. Densyl paste shall be used between glands and all metal surfaces.

iv) Cable lug sleeves:

Colour coded neoprene rubber cable lug sleeves shall be installed on all LV cable lugs. The sleeves shall be similar to those supplied by Bowthorpe Hellerman. Colours of sleeves shall correspond to the appropriate phase colour. Alternatively colour coded heat shrink tubing may be used, but PVC insulation tape shall not be accepted.

v) PVC Cable end boxes for termination of cables at overhead lines: No 116 PVC cable end boxes shall be used for cables up to 16 mm^2 x 4 core and No 170 for cables from 25 mm^2 x 4 Core up to and including 50 mm^2 x 4 Core.

vi) Heat shrink LV cable terminations at overhead lines:

Cables larger than 50 mm^2 x 4 Core shall be terminated with heat shrink terminations at overhead lines. The material used for the termination shall be resistant to ultra-violet radiation.

The termination shall be applied strictly in accordance with the manufacturer's instructions and shall seal effectively around the cable cores and cable to prevent water penetration. Heat shrink terminations shall be equivalent or equal to Raychem Thermo fit.

vii) Line Taps

Line taps shall be used for the connection of cable cores to the overhead conductors. Bi-metal parallel groove line taps shall be used when connecting aluminium cables to copper conductor overhead lines or copper cables to aluminium overhead lines. Galvanised line taps shall not be used.

35. CABLE JOINTS

*NOTE: All bidders personnel that might perform MV jointing and terminations will have to be pre-assessed by the nominated municipal employee to be deemed competent to joint or terminate. Jointing and terminating on the George / Uniondale network will not be allowed unless this process has been followed and relevant jointer deemed competent.

35.1 General

i) Jointing shall be carried out strictly in accordance with the manufacturer's jointing instructions and by artisans thoroughly experienced and competent in jointing the classes of

cables used. They shall be adequately supervised to ensure the highest quality of workmanship.

ii) Jointing shall not be carried out during inclement weather.

iii) The cores of cables shall be jointed where applicable, number to number or colour to colour.

iv) The joints shall not impair the anti-electrolysis characteristics of the cables.

v) The conductor bridging the armouring shall be adequate to carry the prospective earth fault current.

vi) Conductors can be joined using soldered weak-back ferrules or crimped with an approved hydraulic crimping tool using the appropriate hexagonal compression die and crimping ferrule for that particular size of conductor and type of material.

Note that crimps of the indentation type will not be permitted. Where aluminium conductors are soldered, ALCAP solder and an approved anti-oxidant flux shall be used to ensure a proper bond.

vii) Each cable joint shall be identified by a non-corrosive label fixed securely to the top of the joint. Each label shall have stamped on it, in characters having a minimum height of 10 mm, the identification of equipment at each end of the cable concerned.

viii) The Employer reserves the right to be present during jointing operations to familiarise themselves with any special techniques.

ix) No joint shall be situated inside a cable pipe.

35.2 MV Cables

Paper insulated cables can be jointed with a standard underground cast iron through joint similar to Aberdare No's 1001, 1002 or 1003 or Scotch Cast through joint similar to 3M's 92 series splice kit or heat Shrink joints similar to Tank CMJ/CMJM series. The filling compound shall be non-hygroscopic with high dielectric strength and insulation resistance qualities similar to AEI No 57016 and shall conform to the requirements of BS 1858.

Heat Shrink through Joint: XLPE cables shall be joined with heat shrink joints. The material shall conform to the requirements of VDE 0278. The electrical continuity of the conductors, shields and armouring shall in no way be affected by the joint. Bonding of the earth continuity conductor shall be internal to the joint. No external joining of the earth continuity conductor, which may be subject to corrosion, shall be permitted. The complete joint shall be covered with a waterproof jacket as protection against corrosion.

35.3 LV Cables

LV cables joints shall be of the epoxy resin type similar to "Scotch Cast", alternatively approved heat shrink product supplied by George Municipality.

36. COVERING, BACKFILLING AND REINSTATEMENT

36.1 Civil Works Supervisor

The Municipality has appointed a Civil Works Supervisor under a separate contract who will be responsible to oversee, instruct and at times supervise the maintenance Contractor to be appointed under this contract in terms of the backfilling and reinstatement work required / undertaken.

It is envisaged that the afore-mentioned Supervisor shall largely perform the role of a “Clerk of Works” on behalf of the Municipality and will be involved in the inspection and approval of the finished quality of the backfilling / reinstatement work undertaken under this contract. The Municipality may also request that said Civil Works Supervisor assist with the evaluation of claims for work done by the Contractor appointed under this contract.

No covering, backfilling or reinstatement work shall deem to be complete, or will be considered as handed over until such time as same has been inspected, approved and signed off by the aforementioned Civil Works Supervisor.

36.2 General

The covering, backfilling and reinstatement work undertaken by the Contractor shall generally comply with the following:

i) Filling of trenches shall not commence before the Engineer or his authorised representative has inspected and approved the cables and cable joints situated in the section of trench concerned and instructed the Contractor whether to use the excavated material as backfill or whether to use imported backfill.

ii) All trenches shall be backfilled and reinstated as follows:

- Two 75 mm thick layers of soil sifted through a 6 mm mesh shall be laid directly under and over the cables respectively and consolidated by hand ramming only.
- Only soil with a thermal resistivity of 1,5 C.m/watt, or lower may be used for this purpose.
- When instructed by the Engineer or his authorised representative imported fill shall be arranged by the Contractor and paid for at scheduled rates.

iii) MV cables shall where likely to be mechanically damaged as decided by the Engineer be protected by concrete slabs to be supplied and laid by the contractor 200 mm above the cables. These slabs shall be laid close-butted, convex end to concave end, directly above each HV cable throughout the underground portion except where otherwise protected as by ducts, etc. Only unbroken cable protection slabs may be used, and only slabs actually laid will be paid for.

iv) The minimum dry densities of back filling after compaction shall be not less than 1 6 00 kg/cub.m.

v) All excavations made (whether for the purpose of cable laying, joint bays, or trial holes) shall be backfilled in 150 mm layers, the earth in each layer being well rammed and consolidated and sufficient allowance being made for settlement. The back-filling shall be completed to the satisfaction of the Engineer. If necessary, water shall be used to obtain the specified compacted density. Any cable damaged during back filling shall be replaced by the Contractor at his own expense.

vi) Backfilling at duct entries shall be such as not to stress or damage the cable during compaction from the top.

Plastic warning tape:

- Plastic warning tape shall consist of a strip of polyethylene of thickness of 150 microns and 300 mm wide. Printing shall be of good durable quality, and the following shall be printed in black on an orange background at intervals not exceeding 1 m:

  "Danger"/"Gevaar"/"Ingozi" with Skull and Crossbones danger sign
- A continuous plastic cable warning tape shall be laid directly above each HV cable, 150 mm below the normal surface level and run for the full length of the cable before completing the back filling. Warning tape shall not be laid above LV cables.

viii) The back filled trench shall be maintained in a thoroughly safe condition by the Contractor for the duration of the contract.

- All back filling of road crossings must be performed as follows:
- Fill in with moist gravel in layers of 150 mm. Import gravel from Electrical Engineer's yard if quantity on site is insufficient.
- Ram each 150 mm layer by hand or mechanically.
- Import base course material, as directed by the Engineer, for filling of top 150 mm layer. Material must be moist. Ram properly.
- Remove excess material from site.

ix) Final surfacing of roads shall be restored by others.

x) Cable route markers shall be installed at the following standard positions:

- Above all cable joints.
- Above ends of cable ducts.
- Change in direction of cable routes.
- Every 100 m along a straight section of the cable route.

xi) Concrete surfaces

- Backfilling shall be compacted to the density of the original ground. The concrete surface shall only be completed after sufficient time has elapsed to show up inadequately compacted areas.
- The edges of the concrete slab shall be cut back vertically to a straight line. Areas subject to traffic loads shall then be repaired with 20 MPa concrete and those for pedestrians with 15 MPa concrete.

xii) Paved Areas

- The Contractor shall remove paving slabs or bricks along the cable route carefully and stack them for reuse when repairing the surface. The excavation shall be backfilled and compacted to its original density.
- A dry sand and cement mixture bedding layer, with a minimum thickness of 30 mm, shall be spread evenly over the compacted backfilling. Pavers shall be replaced in their original formation and be bedded until level with the surrounding finish.
- If required by the Engineer, the joints shall be grouted and be finished off neatly.
- The Contractor shall regularly inspect and maintain the repaired surface and repair any subsidence or breaking up immediately.

xiii) Gravel and Pavement Areas:

- Shall be reinstated to the original standard, using G5 natural gravel as per any existing George Municipal tender.

37. TESTS

a) Phase Identification and Rotation

A test shall be conducted on each cable run to determine whether the connection between terminals are correct. Phase rotation on existing systems shall be determined and additions to the existing system shall be of the same phase rotation.

b) Phasing

At LV terminations where applicable, cable cores will be phased out prior to connection, not only to prove correct phase identification and rotation, but also that no vector group shift exists between the two systems. All HV Cable terminations will be done by the Electrical Engineering Department.

c) Insulation Resistance Testing on LV Cables

The resistance of the insulation of each core to earth and to each other core shall be determined. This test shall be carried out with a 1000V megger.

d) Pressure Tests on HV Cables

All HV cables of rated voltage up to 22 000V shall be tested in accordance with SANS Method 540 at the appropriated voltages given in Table D-1 of SANS 97.

The following table shall be used as reference for 11 kV earthed cables.
Test voltages shall be maintained for 15 minutes.
Note that lower test voltages may be prescribed by the Engineer for cables that have already been in service.

- Paper Insulated Cables (6,35/11kV)

Between Conductors ..... 30 kV DC
Conductor to Earth ..... 17,5 kV DC

- XLPE Cable (6,35/11kV)
  Conductors to Screen ..... 17,5 kV DC

e) Test Certificates

Test certificates, in triplicate, shall be completed during and after the tests and handed to the Engineer. Data on test certificates shall include the description of the circuit or cable run together with the following:

- Insulation Resistance (LV Cables)
- Leakage Current (MV Cables)

38. INSTALLATION OF MINI SUBSTATIONS

38.1 General

Minisubs shall be of the “B” type, with or without a MV Ring Main Uni “A” type and with a transformer size and LV distribution board, metering and streetlighting controls all as specified in the Drawings or by the Engineer.

38.2 Positioning and Access

Minisubs shall normally be placed in the road reserve or in a public open space in a position, as indicated by the Drawings and/or by the Engineer, such that the minisub can be accessed at any time for operating or maintenance. Sufficient clearance shall be left all-round the minisub so that all doors can be fully opened without obstruction from fences or walls, etc. and so that work on the minisub, such as connecting of cables, can be performed without hindrance from the surroundings.

38.3 Foundation Plinth

The minisub shall be mounted on a permanent foundation plinth, conforming to either of the following constructions, as specified on the standard drawing, which will be supplied by the Engineer, for that particular size and make of minisub:

a) Brick

Bricks below ground level shall be ROK’s bagged, and where visible above ground level shall be face bricks, pointed.

The horizontal top surface of the plinth shall be screeded with plaster to give a smooth, accurate and level finish, on which the minisub can be placed perpendicularly without gaps showing underneath.

b) Pre-Cast Concrete Plinth

The plinth shall be cast from concrete with a minimum strength of 20 MPa.

The concrete shall be suitably reinforced with steel weldmesh to prevent cracking or sagging.

The thickness of the concrete shall be a minimum of 300mm.

The cut-outs shall conform to the dimensions given on the Drawing.

The horizontal top surface of the plinth shall have a smooth, accurate and level finish, on which the minisub can be placed perpendicularly without gaps showing underneath.

c) Compaction

The ground under either of the above types of plinth shall be properly drained, compacted and levelled, before the plinth is placed to ensure that the weight of the plinth and minisub can be comfortably borne without any subsidence. Runoff from any side-slopes shall be directed away from the minisub foundation so as not to undermine it.

38.4 Mounting

A layer of 3ply “Malthoid”, cut to size, shall be placed between the horizontal cement top surface of the plinth and the minisub base, to inhibit corrosion.

38.5 MV Cable Terminations

i) Minimum bending radii shall be observed when terminating MV cables into the minisub.

ii) Cable terminations shall be either by means of compound- filled termination boxes or dry heatshrink termination boxes.

iii) Methods of termination, including glanding, earthing, cable identification tags, and RMU labelling, are dealt with separately in these Specifications.

38.6 Oil Filling and Testing

i) Where an oil-filled Ring Main Unit is installed in the minisub, it must be filled to the correct level in the sight glass with insulating oil, which has been tested for voltage withstand and certified to the satisfaction of the Engineer.

ii) The transformer insulating oil shall have been tested by the manufacturer and the voltage withstand certificate shall be available and to the Engineer’s satisfaction. iii) The transformer insulating oil shall be tested on-site prior to filling, to confirm correct di-electric strength as per SANS 555. This test shall be performed by the municipality.

38.7 Electrical Pressure Testing

i) Before livening-up, the minisub MV transformer winding and its associated ring main unit and MV cables shall be electrically pressure tested at a DC voltage, and for a duration, prescribed by the Engineer.

ii) No livening-up shall take place until the pressure testing has been successfully concluded, and the results certified in writing and in the Engineer’s possession.

38.8 LV Compartment

i) LV Circuit breakers, metering and streetlight control gear shall be supplied by the Employer, either pre-installed in the minisub or to be installed by the Contractor as per the Drawings.

ii) LV and streetlight cables shall be connected to their respective circuit breakers, as per the Drawings, by the Contractor.

iii) Termination of LV cables including glanding, earthing, identification tagging, and circuit breaker labelling are dealt with separately in these Specifications and shall be done to the satisfaction of the Engineer.

iv) Earth resistance testing, insulation resistance and phase rotation testing shall be successfully concluded, the results certified in writing and handed to the Engineer, before the Employer will liven-up the LV busbars or any LV cables from the minisub.

38.9 Backfilling and Vermin-Proofing

Upon completion of cable termination and minisub testing, the ground round the outside of the minisub shall be backfilled and properly compacted in layers of 150mm. The ground directly under the openings in the plinth shall be backfilled around the cables and brought up to a level 150mm below the floor of the minisub. The remaining space shall be backfilled with a weak sand/cement mix to floor level such that all openings are sealed against vermin.

39. INSTALLATION OF BARE CONDUCTOR OVERHEAD LINES

39.1 MV Bare Conductor Overhead Lines

a) Standards

MV bare overhead lines shall be constructed in accordance with the SANS 10280 “Code of practice for Overhead Power Lines for Conditions Prevailing in South Africa”.

b) General

MV bare overhead lines within George Municipality shall operate at 11 000V 3-Phase unless otherwise specified. Aluminium alloy conductor and hardware, suitable for coastal conditions, carried on wood poles shall be used.

c) Poles and Struts

Wood poles only, shall be used, selected from the following range:
9m, 140-160mm top diameter
10m, 160-180mm top diameter
11m, 160-180mm top diameter

Holes drilled through poles on site shall be treated with creosote throughout the length of the hole.

Poles shall be planted at a depth of 1,8m and backfilled with a mixture of soil and cement, properly compacted in layers of 150mm.

Strut poles shall be installed, where specified, at 35º to the vertical and fastened to the upright with a galvanised steel bracket designed for this purpose. The toe of the strut pole shall bear against a galvanised steel kicker plate buried at least 1,5m deep and backfilled with a mixture of soil and one bag of cement per strut hole, properly compacted in layers of 150mm. An anticlimbing device consisting of 6 turns of barbed wire, with a pitch of 150mm, shall be fastened halfway up the strut with 30mm galvanised staples at 4 staples per turn.

d) Stays, anchors and flying stays

Stays shall consist of a length of 7/No.3 galvanised stranded steel wire, a MV stay insulator, 2 - preformed guy grips and a preformed pole-top make-off.

Anchors shall be of the “Platypus 58” type, buried at a depth of at least 1,5m and backfilled with a mixture of soil and one bag of cement per anchor hole, properly compacted in 150mm layers.

Flying stays, where specified, shall consist of a length of 7/No.3 galvanised stranded steel wire, a MV stay insulator, 2 - preformed guy-grips and 2 - pole-top make-offs.

Stays shall be looped round the pole at a point where a bolt protrudes or otherwise fastened securely, to prevent slipping down.

e) Conductors

Arial conductor from the following size range shall be specified and supplied by the Employer, unless otherwise specified or instructed by Engineer

- Fir - 25mm²

- Hazel - 32mm²
- Pine - 38mm²
- Oak - 63mm²
- Mulberry - 80mm²
- Sycamore - 161mm²

f) Connectors

For all overhead line connections, the following approved products, unless otherwise specified in the Project Specification or instructed by Engineer.

- AMPACT Power Connector System
- Non tension full metal jacket mechanical joint
- Auto Line Splice.
- PG Clamps
- Line Taps
- IPC connectors
- T Piece tension full metal jacket mechanical joint

g) Insulators, ties, armouring and vibration dampers

Intermediate insulators: Post type porcelain with Preformed Twin-ties. Post insulators shall be bolted through the pole horizontally in vertical configuration, with adjacent phases on opposite sides of the pole.

Strain insulators: Long-rod type porcelain with pistol-grips shall be hooked to pig-tail bolts, bolted through the pole in vertical configuration.

Through jumpers shall be carried round the pole on pin insulators of the type described above.

Preformed armouring shall be installed at suspension points.

Spiral vibration dampers shall be installed on all spans.

h) Earth wire and bonding

No continuous aerial earth wire.

Insulator pins/bolts in contact with the wood pole shall be bonded together with bare copper wire fastened with 30mm galvanized staples to the pole.

i) Transformers

Pole transformers will be selected from the following range of sizes and mounting arrangements:

- 16 kVA 1-Phase: 1-pole mounting
- 25 kVA 1-Phase: 1-pole mounting
- 25 kVA 3-Phase: 1-pole mounting
- 50 kVA 3-Phase: 2-pole mounting
- 100kVA 3-Phase: 2-pole mounting
- 200kVA 3 Phase: 4-pole mounting

Galvanised steel pole brackets or cradles to support the transformer shall be bolted through the pole/s with 20mm bolts.

j) Fuses

Drop-out fuses shall be mounted on horizontal fuse arms bolted through the pole. Fuse cartridge sizes shall be matched to the size of transformer as follows-

- 16kVA 1-Phase: 3A
- 25kVA 1-Phase: 5A
- 16kVA 3-Phase: 2A
- 25kVA 3-Phase: 3A
- 50kVA 3-Phase: 5A
- 100kVA 3-Phase: 10A
- 200kVA 3-Phase: 20A
- 500kVA 3-Phase: 50A
- 800kVA 3-Phase: 80A

k) Surge Arresters

Pole-mounted transformers are normally fitted with their own surge arresters and arcing horns. All MV cables terminating on an overhead line shall be protected against over voltage spikes by means of a set of 3-phase surge arresters mounted immediately adjacent to the cable tails.

l) Sectionalizes

Sectionalizers shall be of the “Sector” SF6 insulated type. Operation shall be manually from ground level with the aid of a link stick. Where a recloser is specified, the sectionalizer shall be motorized with its own power supply and remote-control facility.

m) Current and Voltage Transformers

CT’s and VT’s for mounting in the line, shall be suitable for outdoor coastal conditions.

For metering purposes, 2-VT’s and 2-CT’s only are required for the 2-wattmeter method.

CT’s and VT’s shall be supported on 2-pole mounting cradle.

n) Removal of Obsolete Bare Conductor

Obsolete MV and LV Bare Conductor, required to be removed, must be lowered to the ground, measured, coiled, weighed, and supplied with a label indicating the size in mm^2, the mass in kg, and the length in metres. The redundant conductor, hardware and poles must then be returned to the Municipal Store.

40. INSTALLATION OF AERIAL BUNDLE CONDUCTOR (ABC)

40.1 Insulated Overhead MV Aerial Bundled Conductor

a) Construction of MV ABC

- The MV ABC shall be made up as follows:
- Three phase – conductors
- One carrier

b) Strain clamps for MV ABC

- Pole Clamp: Clamps shall be complete with bolts, nuts and washers of hot dip galvanised mild steel and of suitable size to fit the diameter of the pole specified. Clamps that do not require drilling of the poles are preferred.

- Strain Links: Strain links used between the pole clamp and the bundle conductor carrier shall be complete with all D-shackles, bolts, nuts, washers, extension pieces and pistol grip carrier clamps, all hot dip galvanised mild steel, shall be provided.

- Breaking Strength: The complete strain clamp system shall have the following breaking strengths:
  - For cable mass less than 3,0 kg/m - 55 kN
  - For cable mass greater than 3,0 kg/m - 70 kN

- Double Strain Clamps: Where strain clamps are required at section poles, a suitable double strain clamp assembly shall be used.

c) Intermediate Clamps for MV ABC

- Pole Clamps: Pole clamps shall comply with the requirements laid down under Clause 6.2 (a). Clamps shall be rated to the conductor mass and shall be reinforced where the mass exceeds 3 kg/m.

- Hangers: Single hangers shall be used for ABC suspension where line deviation is less than 30degrees from the straight line. Where this deviation increases to 60degrees, double hangers complete with yokes shall be used. The carrier clamp shall be nylon covered.

- For bundle conductors with a mass in excess of 5,0 kg / m a nylon covered support clamp for the phase conductors shall be provided in addition to the carrier clamp. All metal parts of the hanger and clamp shall be hot dip galvanized.

- When specified in the Project Specification, the hanger assembly shall be provided with a weak link of 10 kN breaking strength.

d) Termination of MV ABC

Termination of MV bundle conductors shall be by means of heat shrink materials supplied in kit form and of suitable size for the conductor to be terminated.

The conductor tails shall be covered in the following minimum lengths of heat shrink material:

- 11kV ..... 1 000 mm
- 22kV ..... 1 200 mm
- 33kV ..... 1 200 mm

The heat shrink shrouds and rain covers shall be designed to prevent flash-over in wet or contaminated atmospheres. Outdoor terminations shall be treated against weathering and ultraviolet corrosion.

e) Through Joints in MV ABC

Midspan through joints shall only be allowed on conductors of 95mm² or smaller. Through joints in all other cases shall be made at section poles.

Heat shrink through joints shall be provided in kit form suitable for the conductor size and shall be complete with crimpling ferrules and screen bonding strips.

Through joints for midspan joints shall also include the jointing material for the steel carrier cable. The jointing material shall be suitable to provide a joint of at least equal strength to the carrier. The complete joint shall be protected with a weatherproof sleeve treated against ultraviolet corrosion.

Where underground copper cable conductors are joined to the bundle conductors, bi-metal ferrules shall be used to join the copper and aluminium conductors.

f) Removal of Obsolete ABC

Obsolete ABC, required to be removed shall be lowered to the ground, measured, coiled on drums, marked to indicate the conductor size and length. The ABC shall be returned to the Municipal Store together with all redundant hardware and poles.

41. INSTALLATION OF POLE MOUNTED DISTRIBUTION BOXES FOR LV ABC LINES

Bundle box strapped to pole, fully wired and fitted with the following:

i) Clip tray fitted with an average of 4 (for 4 way) and an average of 8 (for 8 way) only Heineman 60 Amp Circuit breakers.

ii) Fit and terminate 1x25 mm² (for 4 way) and 3 x 25 mm² (for 8 way) UV stabilized insulated one-meter -long conductors to busbars inside bundle box and interconnect with 16 mm² PVC wire from busbars to circuit breakers.

iii) Terminate all UV - conductors to aerial bundle conductors by means of TTD connectors. Ensure a balanced load to the 3 phases throughout the system.

iv) Terminate an average of 4(for 4 way) and 8(for 8 way) x10 mm² or

v) mm² Airdac / Split concentric service connection cables into Bundle box and to circuit breakers, Neutral - and Earth bars.

vi) Strap set of 1 -8 service connection cables through 3-meter-long PVC kicker pipe at 1-meter intervals to pole.

vii) All materials will be supplied by George Municipality.

viii) Stick-on labels will be supplied to be stuck onto each individual circuit breaker to indicate the applicable erf number. Stickers will also be supplied for pole numbering onto the outside of each bundle box.

42. INSTALLATION OF STREETLIGHTS

42.1 General

Streetlights are normally mounted on steel poles supplied at 240V by 2 x 10mm² or 4 x 10mm² Cu, PVC insulated, steel wire armoured, underground cable. A continuous 16mm² Hard drawn bare copper earth is run with the supply cable and is bonded to each pole.

Some streetlights are mounted on wood poles, which can be supplied via underground cables or via overhead conductor, carried on the same poles.

42.2 Planting Depth

Tubular steel poles, used to support luminaires, shall be planted at the following depths:

LUMINAIRE OUTPUT WATTS	TYPE	ENTRY	MOUNTING HEIGHT	POLE TYPE	OUTREACH	PLANTING DEPTH METER
125	MV	Bottom	4	Post-top	-	1
250	MV	Side	8	Outreach	Single	1.5
250	MV	Side	8	Outreach	Double	1.5
400	HPS	Side	10	Outreach	Single	1.6
400	HPS	Side	10	Outreach	Double	1.6

Wooden poles, used to support luminaires only, shall be planted at 1.5m depth.

42.3 Anti-Corrosion Paint

At least 36 hours before planting, hot-dipped galvanized steel poles shall be painted as follows: -

i) Thoroughly clean the base-plate and attachment hooks as well as the portion of the pole to be buried plus an additional 400mm above ground level, with Plascon galvanized iron cleaner.

ii) Apply an undercoat coat of Sigma cover 280 Black paint to at least 80 microns thickness and allow to dry for 12 hours.

iii) Apply a final coat of Sigma cover 300 black paint to at least 80 microns thickness and allow to dry for 24 hours.

43. INSTALLATION OF EARTHING

43.1 Scope

This Specification covers the material, methods and installation requirements for the earthing of equipment and accessories normally associated with electrical distribution networks.

43.2 Applicable Standards

The latest edition of the following publications, drawings and documents are referred to herein:

SANS 10142-1: Wiring of Premises
AMEU: Code of Practice for the neutral earthing of low voltage distribution systems. SANS 1063: Earth Rods

43.3 Definitions

The meaning of certain word or terms used in this Specification:

Earth Continuity Conductor: An electrical conductor, copper or other similar approved metal of sufficient cross-sectional area to ensure the immediate safe discharge of electrical energy to the general mass of earth.

Earth Conductor, Earth Wire: Generally accepted terms for earth continuity conductor.

Earth Point: The creation of a direct bond between the mass and the earthing network of a system to be earthed. This may consist of earth spike(s) or earth mat(s) or a combination of both driven in or laid at a sufficient depth to make contact with earth formations of low resistivity in order to safely discharge electrical energy.

Earth Spike: A metal rod driven into the ground to create an earth point. An earth spike may also consist of a number of separate lengths mechanically coupled to form a unit.

Trench Earthing: A section of bare conductor buried in the ground at a minimum depth of 750 mm and of sufficient length to obtain the required resistance.

Earthing Electrode: A conductor buried or driven into the ground to make contact with the earth mass. This term includes earth spikes, mats and trench earthing.

Earth Bar: A length of copper brass bar of suitable or specified dimensions and cross-sectional area and having sufficient connection points for the mechanical connection of earth conductors by means of bolts, nuts or screws, as the case may be.

Earth Bonding: A copper to copper joint utilizing "Silbraloy" welding rods.

43.4 Abbreviations

The following abbreviations shall apply:

- EC: Earth Conductor
- EB: Earth Bar
- ES: Earth Spike
- ECC: Earth Continuity Conductor
- BCEC: Bare Copper Earth Conductor

43.5 Material

a) Conductors

Underground Distribution Networks: Only materials manufactured from, or combined with, electrolytic copper shall be used on the earthing systems of underground reticulation and internal wiring. BCEC serving as trench earthing shall be hard drawn copper.

Overhead Distribution Systems: Where earth conductors of overhead systems are required to be of materials other than copper, they shall be manufactured in accordance with the Employer's Specification. The materials may be steel reinforced aluminium alloy or galvanized steel wire.

b) Connections

Connections to the earth stud or earth bar shall be made with brass bolts, nuts and washers or alternatively with stainless steel accessories. Connections to equipment housed indoors may be made with cadmium plated accessories. However, cadmium plated accessories may not be used on equipment such as kiosks, mini substations etc.

c) Earth Spikes

Category and Type: Earth spikes shall be of the following types:

- Solid copper
- Solid stainless steel
- Solid steel core covered with copper of minimum thickness of 200 micron, similar or equal to Copper weld.

Earth spikes shall be round in cross-section and the total length shall be achieved by the joining of standard sections.

Spikes shall have a nominal diameter of 16mm, except where spikes are placed into pre-drilled holes in which case a nominal diameter of 12mm will be accepted.

Earth spikes shall comply to the requirements of SANS 1063.

Couplings: The coupling of lengths shall be achieved by means of screw-on type couplings. The couplings shall be mechanically strong enough to allow the normal driving in of coupled lengths and shall provide sound electrical connections.

Clamps: Conductor clamps shall suit the type of earth spike, conductor material and size specified.

Driving Caps of Nuts: Driving caps of nuts shall be screwed onto the spike to protect the spike end during driving.

43.6 Installation

a) General

Trench Earths: Trench earths shall consist of sections of hard drawn bare copper conductors laid in trenches with HV or LV cables or in separate trenches at a depth of 750 mm below finished ground level.

Trench earths shall be a minimum length of 25 m except where the distance between kiosks or other equipment less than 50 m in which case is the trench earth shall be installed from kiosk to kiosk. Trench earths shall be installed in the trenches nearest to the substations.

The following standard earth conductor sizes shall be used in conjunctions with LV cables:

SIZE IN mm²	**CABLES**	
EARTH CONDUCTOR	AL	CU
16	35, 50	10, 16
32	70, 95	25, 35, 50
64	120, 150, 185	70, 95, 120
80	240	150 plus

Trench earths shall be installed as earthing for the following installations:

i) For neutral earthing of transformers
ii) LV distribution boards in substations
iii) Distribution-/Meter kiosks iv) Service connections
v) All electrical equipment with metal enclosures (streetlight poles, robot poles, etc.) installed in public places.
vi) Overhead line equipment.

Spike Earth: Spike earths shall consist of a single earth spike or coupled lengths of the total length to require the specified resistance. The spike shall be driven into the ground until the top end of the spike is at a depth of 600 mm below ground level.

The conductor clamp shall be suitable for clamping conductors with a total effective cross-sectional area of up to 100 mm². All connections to earth spikes shall be clamped and then brazed. The connection shall be painted to an approved standard after all excess flux has been removed.

A marker or earthing manhole shall be placed above the earth spike if so required. The earthing manhole shall have a removable concrete lid and shall be approximately 350 mm high, 460 mm long and 460 mm wide, similar or equal to the manhole manufactured by Messrs Cape Concrete.

In addition, the Contractor shall supply and install a 110 mm outside diameter Class 4 PVC pipe, 300 mm long, over all earth spikes such that the connection to the earth spike is visible.

The earthing manhole shall be installed over this pipe, flush with finished ground level.

Should hard rock formations be encountered, it may be necessary to drill holes to position earthen spikes. The hole shall have a diameter large enough to accommodate the earth spike and coupling without the latter occupying more than 50% of the volume of the hole. The hole shall be filled with a carbon coke/soil mixture (50/50) during and after the installation of the spike. The length of spike and therefore the depth of the hole shall be as required by the Employer.

Pole Base Earths: Pole base earths shall consist of hard drawn copper earth conductor installed against the pole, with the conductor coiled not less than four times around the buried section of the pole and stapled in position. The conductor shall be protected by 50 mm diameter Class 12 PVC pipe from 300 mm below ground level to 3 m above ground level. The pipe and conductor shall be fixed to the pole by means of stainless-steel strapping spaced at 600 mm intervals.

The size of the earth conductor shall be 80 mm² for HV earth systems of 64 mm² for LV earth systems.

Ohmic Values of Earthing Resistances: The required maximum ohmic values of the resistance to earth of certain systems or points are as follows:

- Transformer neutrals - 1 to 2 ohm
- HV Switchgear (Indoor or Outdoor) - 2 ohm
- HV Pole-mounted equipment and surge arrestors - 3 ohm
- LV Distribution neutral at kiosks or on overhead lines (Start and End points) - 7,5 ohm
- Consumer installations - 7,5 ohm

43.7 Interconnection of Various Earth Systems

Surge Arrestor Earths: The earth system of surge arrestors shall at all times be separated from any other system.

HV and LV Earth Systems: These systems shall only be interconnected if the individual earth resistance is in the order of 1 ohm or less.

43.8 SUBSTATIONS

a) Transformers on Bases or Poles, HV and LV Windings (11kV / 400 V)

i) Earth Points: Separate earth points shall be created for HV and LV systems, except where individual resistance to earth are found to be 1 ohm or less in which case only one earth point may be utilized.

The earth point shall consist of two separate 64mm² trench earths, 750mm deep with a minimum length of 25m laid in opposite directions. HV and LV earth points shall be separated by a minimum distance of 6m should both earth types be necessary.

ii) Connections: All connections between equipment and earth points shall be done in 70 mm² green PVC insulated stranded copper. The connection between the transformer neutral and the neutral bar in the LV distribution box or distribution board shall be affected by means of the fourth core of the multicore cable connecting the transformer to the LV distribution system or by means of the neutral conductor where single core cables are employed.

A 70mm² copper conductor shall connect the neutral bar to the earth bar in the box or distribution board.
Connections between the earth bar in the box or distribution board and to the neutral conductor of LV overhead installations shall be affected by means of 50mm² green PVC insulated stranded copper conductors.

b) Mini Substations

The earthing of mini substations shall comply with the requirements for transformers on bases as stated above. All metal parts of the various compartments shall be bonded by means of 70mm² bare copper conductors and connected to the HV earth system.

c) Fence Earths

i) Connections Earth Conductors and Spikes: A 16mm² copper earth conductor shall be buried at a depth of 750mm and at a distance of 1m outside the fence for the full circumference of this fence. Earth spikes shall be installed at each corner and connected to the abovementioned earth conductor.

ii) Installation: Vertical earth conductors shall be installed on the fence at all corner and gate posts and at intervals of 20m. These vertical conductors shall be solidly bonded to the straining and barbed wire by means of binding wire. 16mm² Copper conductors shall be used (or Mosquito aluminium conductor aluminium fences).

iii) The vertical copper conductors shall be connected to the surrounding trench earth by coiling them 4 times around the trench earth conductor and them brazing. Aluminium conductors shall be connected by means of bi-metal clamps. Aluminium conductors shall not be buried, and copper connectors shall be used to connect underground conductors to the aluminium conductors on the fence earths.

iv) Gates: Gates shall be connected to the earth systems by means of braided copper wire, bolted to the gate frame and bonded to the vertical copper of aluminium fence earths.

d) HV Switchgear

i) Earth Bar: A tinned pre-drilled copper busbar (1000mm x 40mm x 5mm) shall be mounted on isolators against the back wall of the concrete cable trench. All earth conductors from installed equipment and from earth systems shall be connected to this bar by means of brass or stainless-steel bolts and nuts.

ii) Connections: Connections between the equipment and the earth bar shall be by means of 120mm² green PVC insulated copper connections with crimped cable lugs. A minimum of two connections to the earth bar shall be utilized per switchgear installation.

43.9 Cable Networks

a) Armouring of LV Cables

The cable armouring shall be bonded to the earth busbar or earth stud at all terminations. Where cables are terminated on gland plates, the plates shall be connected to the earth system and the cable armouring shall then be deemed to be earth.

Where cables are not terminated with glands, enough cable armouring wires shall be grouped together to fit tightly into a cable lug. After the lug has been crimped if shall be bolted to the earth system.

A cable lug of 16mm² minimum shall be used for cables up to 50mm² and 25mm² minimum for cables larger than 50mm².

At LV overhead line connections, the cable armouring shall be connected to the neutral conductor by means of a suitable clamp.

b) Meter and Distribution Kiosks:

Meter and distribution kiosks shall be supplied complete with a connection between the neutral bar and earth bar or stud. Earthing systems, whether spike or trench earths, shall be bolted to the earth stud or bar utilizing crimp lugs and stainless steel or brass nuts and washers.

43.10 Overhead Networks

a) Connectors:

The AMPACT Power Connector System, must be used for all overhead line connections, unless otherwise stated by the Directorate: Electro-technical Services or in the project or contract documentation.

b) Earthing of The Neutral Conductor on LV Overhead Systems:

The neutral conductor of LV overhead systems shall be earthed at both ends of the line. The method of earthing shall be spike, trench or pole base earthing as required.

When HV earth systems appear on the same pole, the LV earth system shall be connected to the neutral conductor by means of green PVC insulated conductors and LV and HV earth system points shall be separated by a minimum of 6m.

The connecting conductor size shall be a minimum of 50mm² for PVC insulated conductors and 32mm² the case of hard drawn copper conductors.

43.11 Earthing of HV Equipment on Overhead Networks

a) General

HV earthing shall be carried out with 64mm² bare copper. Where HV and LV earthing appear on the same pole or poles, insulated conductors shall be used and LV and HV system points shall be separated by at least 6m.

b) Surge Arrestors

Surge arrestors shall be connected to a dedicated earth system point via a 64mm² bare copper conductors. Only one conductor is required per set of surge arrestors.

c) Operator Earths

An earth mat shall be installed at the operating position of outdoor switchgear. The earth mat shall measure 1m x 1m and shall be manufactured of 20mm x 3mm copper strips to form a mesh size of 200mm. The mat shall be buried at a depth of 150mm below the operating position and connected to the operating handle by means of two 70mm² green PVC insulated conductors.

d) Earth Connections

All earth points or steel work of HV equipment, including support steel work on HV poles, shall be bonded with 64 mm² conductor (refer i) and connected to the HV earth system. Exceptions are surge arrestor earthing and operator earthing which are not connected to HV earth systems, but to the dedicated earth systems described above.

Any poles(s) bearing the following equipment or combination thereof shall be provided with a HV earth system.

- Transformer
- Instrument or measuring transformer
- Air break switches
- Single pole isolating links
- Drop out fuses HV cable ends
- oil switches, auto reclosers or sectionalizes.

e) Binding and Protection of Earth Conductors

Earth conductors shall be installed against poles in galvanised steel pipe or Class 12 PVC pipe, to SANS 966.

The pipe protection shall start 300mm below finished ground level and end 3m above ground level. The pipe with the conductor shall be strapped to the pole at intervals of 600mm using stainless steel strapping. The Contractors shall ensure that earth systems are kept separate, and that HV and LV or HV and surge arrestor earths are not short-circuited by the strapping.

43.12 Service Connections

a) Trench Earths

Hard drawn bare copper earth conductors shall be installed in cable trenches together with service connection cables. The earth conductor shall have a minimum size of 16mm² and a minimum length of 25m, the earth conductor shall be bonded to the main distributions earth conductor. All bonding must be done by means of copper to copper (Silbraloy) welding rods.

b) Connections:

Earth conductors installed with service connection cables shall be connected to the system neutral at the consumer's supply point. The Contractor shall acquaint himself with the system in use by the Supply Authority and do connections accordingly.

43.13 Measurement of Earth Resistance

a) Measurement

Earth resistance shall be measured in accordance with the four-electrode bridge method, i.e. according to the Schlumberger or Wenner principles. The Contractor shall provide the necessary test equipment and demonstrate the test methods to the Employer so that the Employer can satisfy himself that the tests are being conducted correctly.

b) Records

Resistance measurements shall be performed at all earth points, i.e. at any apparatus or equipment connected to the earthing systems. The Contractor shall record all measurements in detail and present these to the Engineer for approval. The Employer reserves the right to have any 10% of measurements repeated without additional payment, in order to establish their authenticity.

43.15 Tests

The Contractor shall measure the resistance to earth of each earth system with the earth bar or earth point as reference. The Engineer shall be notified if the specified minimum values of earth resistance are exceeded or cannot be obtained.

44. PLINTHS

All items of MV equipment shall be mounted on concrete plinths complying with the requirements of the Municipality and as further described below.

As a general rule where new plinths are to be supplied these shall be cast in situ and shall be 400 mm deep of which 200 mm shall be above ground level and shall be of appropriate dimensions to fully accommodate the relevant item of equipment to be installed on same. A 45˚ bevel shall be framed around the edge of the upper surface of each plinth and shall be between 30 and 50 mm in width. A 150 mm concrete border shall be left around the base of the equipment.

All plinths shall further comply with the following specifications as applicable:

(i) All concrete work to SANS 1200G-1982 as amended.
(ii) All reinforcing to SANS 920-1980 as amended.
(iii) Concrete strength at 28 days = 25MPa. (25/19).
(iv) Concrete cover to bases = 50mm, and to stub columns = 50mm.
(v) All new plinths shall exactly match the existing plinths of the same type.
(vi) All excavations, reinforcing, shuttering and the completed plinths shall be inspected and approved by the Engineer.

45. FENCING

Where fencing is to be supplied and / or installed this shall be similar or equal approved to the Betafence Security or type.

The fence height required shall generally be 2,4m high, with a continuous serrated saw tooth spike along the top edge as an anti-climb deterrent, and an under dig arrangement consisting of a continuous 450mm x 600mm flat mesh panel buried underground along the bottom rail of fence.

The final colour shall be confirmed before manufacture, but for the purposes of the tender same shall be Anthracite RAL 7021. All steelwork shall be PVC coated and shall carry a 10 Year corrosion proof

All material is to be removed from the Site although the Contractor shall not be deemed to have ownership of any such material.

46. LABELLING

All project labelling must be performed according to plans, and / or engineer's orders and prescriptions. All labelling materials will be supplied by the Engineer. Claims for installation of labels must be claimed under "Dayworks Labour" rates in the Bill of Quantities and must be negotiated with the Electrical Engineering Department beforehand.

47. AS BUILT PROJECT FILES

As built project files must be submitted with each final claim. Claims won't be approved without receipt of this document.

48. VEGATATION CONTROL OF POWER LINES

A minimum vegetation clearance in accordance with Columns 6 and 8, Table E1 "Minimum Clearance for Powerlines": SANS10280 will be maintained at all times.

System Nominal Voltage RMS	Minimum vertical clearances (m)	Minimum horizontal Clearances (m)
1kV up to 44 kV	3	3
66 kV	3.2	3
88 kV	3.4	3
132 kV	3.8	3

49 SITE INFORMATION

All sites are located within the George Municipal Boundaries and the prevailing site conditions are as follows:

- Altitude above sea level ± 0 to ± 700m
- Max temperature = 45ºC
- Min temperature = - 5ºC
- Max relative humidity = 95%
- Ambient atmosphere, Coastal climate with severely corrosive conditions.

PRICING SCHEDULE

PRICING INSTRUCTIONS

1.0 The tender is for a preferred bidder to perform electrical installation works and vegetation management for George Municipality WC 044, The municipality serve approximately 212 120 people from 62 722 households across 27 wards including the coastal areas of Kleinkrantz, Wilderness, Victoria Bay, Herolds Bay and Gwaing as well as the rural areas of Herold, Waboomskraal, Uniondale and Haarlem.

For tendering purposes bidder s are to price the various line items provided in the Bill of Quantities for:

- Bill A - Preliminary & General
- Bill A 1 -Equipment Installation Normal hours: (Monday to Friday, 07:45 – 16:30)
- Bill A 2 - Primary Underground Network Normal hours: (Monday to Friday, 07:45 – 16:30)
- Bill A 3 -Primary Overhead Line Network Normal hours: (Monday to Friday, 07:45 – 16:30)
- Bill B - Preliminary & General Vegetation Management
- Bill B 1 -Vegetation Management Normal Hours: (Monday to Friday, 07:45 – 16:30)

In the Subtotal section for Bill/Bills (A1, A2, A3 and B1) a line item is provided for a total percentage Mark up for all Installation works that occur outside of business hours i.e. 16:30 onwards, including 24-hour period Saturday, Sunday, Public holidays.

For adjudication, the bid shall be awarded per a section or a combination thereof which ever makes the best financial decision for the municipality. There are two sections to this bid, section A covers the Construction and Maintenance works and section B which covers the Vegetation management works.

In order to be deemed responsive for a particular section or both sections tenderers are required to meet the minimum requirements as set out in the tender specifications.

Bidders are required to price for all items within a section, incomplete schedules will not be accepted, and all tendered rates are to be priced, if no charge for the item is offered a nil or zero must be captured in the space provided., if left blank the bid shall be considered as non-responsive.

Bidders must complete the Bill of Quantities in their entirety for all Section of Works as no part, or incomplete bids will be accepted. Bids will be adjudicated and awarded in to one preferred bidder, with two alternate bidders, appointment thereof subject to George Municipality discretion.

3.0 The Bills of Quantities must be read in conjunction with the Specification. The Price Summary for Section of Work is to reflect the total price carried forward from the Bills of Quantities for that section which needs to be submitted with the tender documents.

4.0 The tender price for each Section of Works must be based on the Bills of Quantities for the respective section. The priced Bills of Quantities for each section shall be submitted with the tender documents.

It is important to note that the items and quantities included in the Bill of Quantities are provisional only with the intention in this regard to obtain a schedule of rates for tender and comparative purposes. These provisional quantities are therefore subject to adjustments and / or omissions, partly or in their entirety, depending on the availability of sufficient funding.

5.0 The completed Bills of Quantities for each Section of Works shall detail the unit rate and total amount for material and labour respectively for each Item. Tenderers are advised to check their Item extensions and total additions since no claim for arithmetical errors will be considered.

"Material Rate" shall include the supply and delivery of all items of material and equipment (plant) to the site including all incidentals necessary for the completion of each Item, plus the profit thereon. Rates shall be exclusive of VAT.

"Labour Rate" shall include the cost of all labour, both skilled and unskilled, including supervision and profit required to complete the installation of all material covered by each Item. Rates shall be exclusive of VAT.

The Municipality reserves the right to supply certain material that is available at the stage of a work instruction, as a free issue item to the Contractor for installation only. The labour rate for the specific item / s in question shall in such instance still govern. It is therefore important to note that all labour rates provided must include handling charges for the respective material.

6.0 No alteration, erasure or addition is to be made in the text of the Bills of Quantities. Should any erasure or addition be made it will not be recognised but the original wording of the Bills of Quantities will be adhered to.

7.0 The quantities in the Bills are not to be considered as limiting or extending the amount of work to be done and materials to be supplied.

8.0 The Engineer will check the completed Bills of Quantities for arithmetical errors, omissions and discrepancies in accordance with the Standard Conditions of Tender.

9.0 Only major Items have been scheduled but the Tenderer shall nevertheless include for all things he considers necessary whether specified in detail or not to complete the work to specification and in a satisfactory and workmanlike manner, in order to provide a complete and working system. No extra price will be considered for the provision of materials which should have been allowed in order to provide the completed works unless detailed by the Contractor in the space provided elsewhere in the Specification.

10.0 Where alternative prices for equipment of different manufacture are offered, the lowest alternative price for equipment to specification must be included, against the relevant Item in the Bills of Quantities. The remaining alternative prices must be furnished separately.

Where such equipment is found not to comply with the Specification, the Contractor will be required to provide equipment which does comply, without adjustment to the price in the Bills of Quantities.

11.0 All items in the Bills of Quantities are deemed to include supply, delivery, installation and commissioning where appropriate, unless specifically stated otherwise. The unit rate must include for all things necessary, whether specified in detail or not, including all components, small installation materials, allowance for off-cuts, wastage etc., erection and fixings to complete the item to Specification in a satisfactory and workmanlike manner, in order to provide a complete and working system.

12.0 All rates shall include an amount for transportation where travelling takes place within a radius of fifty (50) km from George Electro-Technical services offices.

13.0 In certain instances prices are requested for Items which may be required during the progress of the work, but which are not included in the known quantities of material / labour required. These Items are indicated by the designation "R/O" (rate only) in the "Quantity" column and the price is to be noted in the "Rate" columns only and must not be carried forward.

14.0 Where no rates are filled-in by the Tenderer, or the rate is indicated as Nil, it will be assumed that there is no charge for the particular item and that the cost thereof has been included in the other rates provided.

15.0 The Bills of Quantities shall not be used for ordering purposes. The Contractor shall check and measure the lengths of cables / conductors on site before ordering any of these materials or performing work.

16.0 The quantities and rates included for Daywork shall form part of the tender price, but Tenderers shall note that this item must be regarded as provisional and will only be payable to the Contractor if and when a written instruction to this effect has been issued.

17.0 Expenditure in connection with Provisional and Prime Cost Sums and under the Contingency Allowance (if any) shall be solely at the discretion and on the written instruction of George Municipality.

18.0 An Excel spreadsheet version of the Bill can be made available to Tenderers on request. The spreadsheet may be used for calculation purposes only. George Municipality does not take responsibility for any arithmetical or other errors that may occur due to the use of the spreadsheet. The original wording and quantities of the Bills included in the tender document will be adhered to and this Bill must be completed by hand in black ink and submitted with the tender.

Tenderer(s) may request the Excel file of this tender document from Mr Lindikhaya Williams, email address: lwilliams@george.gov.za.

19.0 In the event a work instruction is issued during normal work hours, the rates for this Bill shall prevail regardless of the period the contractor actions or completes the work instruction. In the event work an instruction is issued after normal working hours and actioned/completed on the next work shift the normal work hours rate shall prevail. Only work instructions issued after hours by a duly authorised official and completed within this period are eligible to claim the percentage markup, partial invoicing is at the discretion of the Engineer. The period for completing a task, from a work instruction is defined in the conditions of tender and shall be adhered to by Preferred Bidder and or Alternate Bidder.

BILL OF QUANTITIES

Section A: Perform Construction, Maintenance works and support services for the existing MV and LV electrical reticulation networks and associated infrastructure

BILL A: PRELIMINARY AND GENERAL ITEMS						
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**LABOUR**		
				RATE	**TOTAL**	
	Notes:					
	1. All rates must be exclusive of VAT.					
	2. The following items are for work not covered by rates in Bill A1-A3 hereafter.					
	3. All rates are material exclusive and material supplied by George Municipality as free issue unless specified elsewhere in the Bill.					
	4. All quantities are provisional and for comparative purposes only, bills hereafter is a rate based tender.					
1,0	**<u>Daywork</u>**					
1,1	Labour: Normal Time:					
1.1.1	Supervisor	Hour	100	R -	R -	
1.1.2	Skilled worker	Hour	100	R -	R -	
1.1.3	Semi-skilled worker	Hour	100	R -	R -	
1.1.4	Labourer	Hour	100	R -	R -	
1,2	Labour: Normal Overtime:					
1.2.1	Supervisor	Hour	100	R -	R -	
1.2.2	Skilled worker	Hour	100	R -	R -	
1.2.3	Semi-skilled worker	Hour	100	R -	R -	
1.2.4	Labourer	Hour	100	R -	R -	
1,3	Labour: Sundays and Public Holidays:					
1.3.1	Supervisor	Hour	100	R -	R -	
1.3.2	Skilled worker	Hour	100	R -	R -	
1.3.3	Semi-skilled worker	Hour	100	R -	R -	
1.3.4	Labourer	Hour	100	R -	R -	
1,4	Transport where travelling takes place for work not covered in the Schedule A1 - A3.					
1.4.1	Light Delivery Vehicle (LDV 1 tonne)	km	1000	R -	R -	
1.4.2	Trailer (3500 KG Braked)	km	100	R -	R -	
1.4.3	3 Ton Truck	km	1000	R -	R -	
1.4.4	5-10 Ton crane Truck travel to site	km	1000	R -	R -	
1.4.4.1	5-10 Ton Crane Truck Utilisation onsite	Hr	250	R -	R -	
1.4.5	Cherry Picker Travel to site	km	1000	R -	R -	
1.4.5.1	Cherry Picker Utilisation onsite	Hr	250	R -	R -	
1.5	Weatherproof rain shelter / covering:					
1.5.1	Pop-up type gazebo type tent (3m x 3m min) with side	Hr		R -	R -	

	panels.					
1.6	Cable / Conductor Installation Equipment					
1.6.1	Cable trailer	Hr	5	R -	R -	
1.6.2	Cable roller	Hr	5	R -	R -	
1.6.3	Bundle stringing blocks	Hr	5	R -	R -	
1.6.4	Overhead conductor stringing blocks	Hr	5	R -	R -	
1.7	Other Machinery, inclusive of fuel					
1.7.1	Compressor	Hr	5	R -	R -	
1.7.2	Generator (± 25 kVA, three phase)	Hr	5	R -	R -	
1.7.3	Water pump	Hr	5	R -	R -	
1.7.4	Plate / vibrating type compactor	Hr	5	R -	R -	
1.7.5	Generator (± 10 kVA, single phase)	Hr	5	R -	R -	
1.7.6	Concrete / tar cut machine	Hr	5	R -	R -	
1.7.7	Replacement blade for cut machine	Hr	5	R -	R -	
1.7.8	Concrete / tar cut machine	Hr	5	R -	R -	
1.7.9	Motor Grader (CAT, etc)	Hr	5	R -	R -	
1.7.10	Digger Loader (JCB, CASE, Volvo,CAT etc)	Hr	5	R -	R -	
	Note 2					
	1. Allowance for Major Task is defined as a complex task or project where further planning, co-ordination etc is required and not catered for in the schedules. This is not required for all projects or work requests and the use thereof is at Discretion of George Municipality dependent on Major Task or Complex Project.					
1.8	Allowances for Major Tasks/Projects undertaken by contractor for work.					
1.8.1	For liaison, co-ordination and attendance on Municipality, Eskom, other Contractors, etc	Sum	3	R -	R -	
1.8.2	For the preparation and submission of a construction programme to the Municipality representative as required in the documents.	Sum	3	R -	R -	
1.8.3	For traffic calming measures, placement of delineators, etc for the duration of the work.	Sum	3	R -	R -	
1.8.4	For the submission of construction drawings to the Municipality for approval in accordance with Municipal standards and policies.	Sum	3	R -	R -	
1.8.5	For three sets of electronic and hard copies of "As-built" drawings, test certificates to be submitted to Engineer on hand-over.	Sum	3	R -	R -	
1.8.6	For instructions to maintenance staff of operating and maintenance procedure.	Sum	3	R -	R -	
1.8.7	For testing, inspection and commissioning.	Sum	3	R -	R -	
1.9	Percentage mark up for services or goods to be supplied by Contractor up to a maximum of 20%.	%	….	R100 000,00	R -	
2,0	**<u>Fixed Charge Items</u>**					
	-					
2,1	Provide liability and special risks indemnification and insurances for the duration of the contract	No	1	R -	R -	

2,2	For compliance with quality control/health and safety/environmental practises and procedures for the duration of the contract in accordance with OHS Act 85 of 1993 and all applicable legislation	No	1	R -	R -	
2,3	For compliance with Compensation Commissioner for workmen's compensation purposes for three years.	No	1	R -	R -	
Sub Total					**R -**	
Total carried forward to Summary					**R -**	

BILL A1: ELECTRICAL INSTALLATION & MAINTENANCE						
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**LABOUR**		
				RATE	**TOTAL**	
	Notes:					
	1. All rates must be exclusive of VAT.					
	2. All rates are material exclusive, material to be supplied by George Municipality.					
	3. All quantities are provisional and for comparative purposes only, bills hereafter is a rate based tender					
	4. Transport to be included from contractor's office to site where work will take place.					
1.0	**Equipment Installation**					
1.1	Install only 11or 22kV Ring Main Unit (RMU), excluding cable terminations, mounted on an outdoor concrete plinth measured elsewhere					
1.1.1	T3/OF,K3, Lucy or similar non-extensible RMU	No	1	R -	R -	
1.1.2	T3/OF or K3 or similar extensible switchboard - 4 panel	No	1	R -	R -	
1.1.3	T3/OF or K3 or similar extensible switchboard - 5 panel	No	1	R -	R -	
1.1.4	T3/OF or K3 or similar extensible switchboard - 6 panel	No	1	R -	R -	
1.1.5	Safe-Plus, Safeway, RM6 or similar free-standing switchboard unit - 3 way	No	1	R -	R -	
1.1.6	Safe-Plus, Safeway, RM6 or similar free-standing switchboard unit - 4 way	No	1	R -	R -	
1.1.7	Metering unit (CTVT)					
1.2	Uninstall of 11kV or 22kV SF6/OIL/Vacuum Ring Main Unit (RMU), plinth measured elsewhere					
1.2.1	T3/OF,K3, Lucy or similar non-extensible RMU	No	1	R -	R -	
1.2.2	T3/OF or K3 or similar extensible switchboard - 4 panel	No	1	R -	R -	
1.2.3	T3/OF or K3 or similar extensible switchboard - 5 panel	No	1	R -	R -	
1.2.4	T3/OF or K3 or similar extensible switchboard - 6 panel	No	1	R -	R -	
1.2.5	Safe-Plus, Safeway, RM6 or similar free-standing switchboard unit - 3 way	No	1	R -	R -	
1.2.6	Safe-Plus, Safeway, RM6 or similar free-standing switchboard unit - 4 way	No	1	R -	R -	
1.2.7	Metering unit (CTVT)	No	1	R -	R -	
1.3	Uninstall of Concrete Plinth for:					
1.3.1	T3/OF,K3, Lucy or similar non-extensible RMU	No	1	R -	R -	
1.3.2	T3/OF or K3 or similar extensible switchboard - 4 panel	No	1	R -	R -	
1.3.3	T3/OF or K3 or similar extensible switchboard - 5 panel	No	1	R -	R -	
1.3.4	T3/OF or K3 or similar extensible switchboard - 6 panel	No	1	R -	R -	
1.3.5	Safe-Plus, Safeway, RM6 or similar free-standing switchboard unit - 3 way	No	1	R -	R -	
1.3.6	Safe-Plus, Safeway, RM6 or similar free-standing switchboard unit - 4 way	No	1	R -	R -	
1.3.7	Metering unit (CTVT)	No	1	R -	R -	
1.4	Install only Concrete plinth for 11kV or 22kV RMU	No	1	R -	R -	
1.4.1	T3/OF,K3, Lucy or similar non-extensible RMU	No	1	R -	R -	
1.4.2	T3/OF or K3 or similar extensible switchboard - 4 panel	No	1	R -	R -	
1.4.3	T3/OF or K3 or similar extensible switchboard - 5 panel	No	1	R -	R -	
1.4.4	T3/OF or K3 or similar extensible switchboard - 6 panel	No	1	R -	R -	

1.4.5	Safe-Plus, Safeway, RM6 or similar free-standing switchboard unit - 3 way	No	1	R -	R -	
1.4.6	Safe-Plus, Safeway, RM6 or similar free-standing switchboard unit - 4 way	No	1	R -	R -	
1.4.7	Metering unit (CTVT)	No	1	R -	R -	
1.5	Install/Build Brick-built plinth for 11kV or 22kV RMU					
1.5.1	T3/OF,K3, Lucy or similar non-extensible RMU	No	1	R -	R -	
1.5.2	T3/OF or K3 or similar extensible switchboard - 4 panel	No	1	R -	R -	
1.5.3	T3/OF or K3 or similar extensible switchboard - 5 panel	No	1	R -	R -	
1.5.4	T3/OF or K3 or similar extensible switchboard - 6 panel	No	1	R -	R -	
1.5.5	Safe-Plus, Safeway, RM6 or similar free-standing switchboard unit - 3 way	No	1	R -	R -	
1.5.6	Safe-Plus, Safeway, RM6 or similar free-standing switchboard unit - 4 way	No	1	R -	R -	
1.5.7	Metering unit (CTVT)	No	1	R -	R -	
1.6	Main earth for RMU including 70mm² Cu bare conductor, earth spikes and clamps, etc. (refer to the municipal drawings)	No	1	R -	R -	
1.7	Concrete marker to mark position of earth spikes	No	1	R -	R -	
1.8	Install only Miniature Substation TYPE B on plinth measured elsewhere. Item to include loading and off-loading, excluding transport from municipal store to site.					
1.8.1	315kVA	No	1	R -	R -	
1.8.2	500kVA	No	1	R -	R -	
1.8.3	501-1000kV	No	1	R -	R -	
1.9	Install/Build only Brick-built plinth for Miniature Substation TYPE B					
1.9.1	315kVA	No	1	R -	R -	
1.9.2	500kVA	No	1	R -	R -	
1.9.3	501-1000kVA	No	1	R -	R -	
1.10	Install only transformer on concrete plinth measured elsewhere. Item to include loading and off-loading, excluding transport from municipal store to site.					
1.10.1	100 to 200kVA rating	No	1	R -	R -	
1.10.2	315 to 500kVA rating	No	1	R -	R -	
1.10.3	501 to 1000kVA rating	No	1	R -	R -	
1.11	Uninstall only transformer on concrete plinth Item to include loading and off-loading, excluding transport from undefined location to municipal stores					
1.11.1	100 to 200kVA rating	No	1	R -	R -	
1.11.2	315 to 500kVA rating	No	1	R -	R -	
1.11.3	501 to 1000kVA rating	No	1	R -	R -	
1.12	Install only Concrete plinth for ground mounted transformer:					
1.12.1	100 to 200kVA rating	No	1	R -	R -	
1.12.2	315 to 500kVA rating	No	1	R -	R -	

1.12.3	501 to 1000kVA rating	No	1	R	-	R	-	
1.13	Main earth for Miniature Substation or transformer including 70mm² Cu bare conductor, earth spikes and clamps	No	1	R	-	R	-	
1.14	Concrete maker to mark position of earth spike	No	1	R	-	R	-	
1.15	Uninstall of Concrete plinth for ground mounted transformer:							
1.15.1	100 to 200kVA rating	No	1	R	-	R	-	
1.15.2	315 to 500kVA rating	No	1	R	-	R	-	
1.15.3	501 to 1000kVA rating	No	1	R	-	R	-	
1.16	Install only transformer on existing overhead line pole structure measured elsewhere. Item to include loading and off-loading, excluding transport from municipal stores to undefined location.							
1.16.1	16 to 25kVA (Dual Phase)	No	1	R	-	R	-	
1.16.2	25 to 50kVA (Three Phase)	No	1	R	-	R	-	
1.16.3	51 to 100kVA (Three Phase)	No	1	R	-	R	-	
1.16.4	101 to 315kVA (Three Phase)	No	1	R	-	R	-	
1.17	Uninstall only transformer on existing overhead line pole structure including the disconnection or MV clamps/connections and LV connections. Item to include loading and offloading, excluding transport to municipal stores							
1.17.1	16 to 25kVA (Dual Phase)	No	1	R	-	R	-	
1.17.2	25 to 50kVA (Three Phase)	No	1	R	-	R	-	
1.17.3	50 to 100kVA (Three Phase)	No	1	R	-	R	-	
1.17.4	100 to 315kVA (Three Phase)	No	1	R	-	R	-	
1.18	Install only Steelwork complete with bolts, nuts, washers etc. to support transformer on overhead line pole structure with the following ratings:							
1.18.1	16 to 50kVA - 1 pole construction	No	1	R	-	R	-	
1.18.2	50 to 100kVA - 2 pole construction	No	1	R	-	R	-	
1.18.3	100 to 200kVA - 2 pole construction	No	1	R	-	R	-	
1.18.4	100 to 200kVA - 3 pole construction	No	1	R	-	R	-	
1.18.5	100 to 315kVA - 4 pole construction	No	1	R	-	R	-	
1.19	Uninstall only Steelwork complete with bolts, nuts, washers etc. to support transformer on overhead line pole structure with the following ratings:							
1.19.1	16 to 50kVA - 1 pole construction	No	1	R	-	R	-	
1.19.2	50 to 100kVA - 2 pole construction	No	1	R	-	R	-	
1.19.3	100 to 200kVA - 2 pole construction	No	1	R	-	R	-	
1.19.4	100 to 200kVA - 3 pole construction	No	1	R	-	R	-	
1.19.5	100 to 315kVA - 4 pole construction	No	1	R	-	R	-	
1.20	Install only 22kV lightning arrestors mounted on a							

	transformer					
1.20.1	Set of 2 on a Dual phase transformer	No	1	R -	R -	
1.20.2	Set of 3 on a three phase transformer	No	1	R -	R -	
1.20.3	Uninstall only 22kV lightning arrestors mounted on a transformer					
1.20.4	Set of 2 on a single phase transformer	No	1	R -	R -	
1.20.5	Set of 3 on a three phase transformer	No	1	R -	R -	
1.21	Install only 11kV lightning arrestors mounted on a transformer					
1.21.1	Set of 2 on a single phase transformer	No	1	R -	R -	
1.21.2	Set of 3 on a three phase transformer	No	1	R -	R -	
	-					
1.22	Uninstall only 11kV lightning arrestors mounted on a transformer					
1.22.1	Set of 2 on a single phase transformer	No	1	R -	R -	
1.22.2	Set of 3 on a three phase transformer	No	1	R -	R -	
1.23	Install only Vermon Proofing/Heat Shrink: 22 kV conductor (Oak, Fox, Cu, etc) connections between overhead line expulsion fuses, transformer and lightning arrestors:					
1.23.1	Set of two conductors	No	1	R -	R -	
1.23.2	Set of three conductors	No	1	R -	R -	
1.24	Vermon Proofing/Heat Shrink 11 kV conductor (Oak, Fox, Cu) connections between overhead line expulsion fuses, transformer and lightning arrestors:					
1.24.1	Set of two conductors	No	1	R -	R -	
1.24.2	Set of three conductors	No	1	R -	R -	
1.25	70mm² Cu bare conductors, clamps, etc. to earth equipment at Pole Mounted Transformer (PMT)					
1.25.1	16kVA to 50kVA - 1 pole construction	No	1	R -	R -	
1.25.2	50kVA to 315kVA - 2 pole construction	No	1	R -	R -	
1.26	Barbed wire anti-climb device and danger notices on Pole Mounted Transformer structure:					
1.26.1	16kVA to 50kVA - 1 pole construction	No	1	R -	R -	
1.26.2	50kVA to 315kVA - 2 pole construction	No	1	R -	R -	
1.26.3	100 to 200kVA - 3 pole construction	No	1	R -	R -	
1.26.4	100 to 315kVA - 4 pole construction	No	1	R -	R -	
1.27	Install only 22/11 kV expulsion type fuse with bracket					
1.27.1	Set of 2 on a dual phase transformer	No	1	R -	R -	
1.27.2	Set of 3 on a three phase transformer	No	1	R -	R -	
	-					
1.28	Uninstall only 22/11 kV expulsion type fuse with bracket					
1.28.1	Set of 2 on a dual phase transformer	No	1	R -	R -	
1.28.2	Set of 3 on a three phase transformer	No	1	R -	R -	

	-					
1.29	Install only 22/11 kV combination unit with lightning arrestors.					
1.29.1	Set of 3 on a three phase transformer	No	1	R -	R -	
	-					
1.30	Uninstall only 22/11 kV combination unit with lightning arrestors.					
1.30.1	Set of 3 on a three phase transformer	No	1	R -	R -	
Sub Total					**R -**	
NORMAL HOURS BILL A (1.0 - 1.30) TO BE CARRIED FORWARD TO PRICE SUMMARY					**R -**	
TOTAL PERCENTAGE MARK UP AFTERHOURS WORK BILL (1.0 - 1.30)					**%**	
TOTAL MARK UP AFTERHOURS WORK BILL (1.0 -1. 30) TO BE CARRIED FORWARD TO PRICE SUMMARY					**R -**	

	BILL A2: ELECTRICAL INSTALLATION & MAINTENANCE					
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**LABOUR**		
				RATE	**TOTAL**	
2.0	**Primary Underground Cable Network**					
	-					
	-					
	Notes:					
	1. Trenching calculated by Volume (Width x Depth x Length), combination thereof utilised within the BOQ for multiple cable layouts dependent on volumetric size required.					
2.1	Trenching by hand for cable, including backfilling and compaction, removal of rubble and re-instatement to municipal standard.					
2.1.1	Earth:					
2.1.1.1	400mm wide x 700mm deep	Per M	1	R -	R -	
2.1.1.2	600mm wide x 700mm deep	Per M	1	R -	R -	
2.1.1.3	400mm wide x 1000mm deep	Per M	1	R -	R -	
2.1.1.4	600mm wide x 1000mm deep	Per M	1	R -	R -	
2.1.1.5	800mm wide x 1000mm deep	Per M	1	R -	R -	
2.1.2	Soft Rock:	Per M				
2.1.2.1	400mm wide x 700mm deep	Per M	1	R -	R -	
2.1.2.2	600mm wide x 700mm deep	Per M	1	R -	R -	
2.1.2.3	400mm wide x 1000mm deep	Per M	1	R -	R -	
2.1.2.4	600mm wide x 1000mm deep	Per M	1	R -	R -	
2.1.2.5	800mm wide x 1000mm deep	Per M	1	R -	R -	
2.1.3	Hard Rock:					
2.1.3.1	400mm wide x 700mm deep	Per M	1	R -	R -	
2.1.3.2	600mm wide x 700mm deep	Per M	1	R -	R -	
2.1.3.3	400mm wide x 1000mm deep	Per M	1	R -	R -	
2.1.3.4	600mm wide x 1000mm deep	Per M	1	R -	R -	
2.1.3.5	800mm wide x 1000mm deep	Per M	1	R -	R -	
2,2	Trenching by machine for cable, including backfilling and compaction and re-instatement to municipal standard.					
2.2.1	Earth:					
2.2.1.1	400mm wide x 700mm deep	Per M	1	R -	R -	
2.2.1.2	600mm wide x 700mm deep	Per M	1	R -	R -	
2.2.1.3	400mm wide x 1000mm deep	Per M	1	R -	R -	
2.2.1.4	600mm wide x 1000mm deep	Per M	1	R -	R -	
2.2.1.5	800mm wide x 1000mm deep	Per M	1	R -	R -	
2.2.2	Soft Rock					

2.2.2.1	400mm wide x 700mm deep	Per M	1	R -	R -	
2.2.2.2	600mm wide x 700mm deep	Per M	1	R -	R -	
2.2.2.3	400mm wide x 1000mm deep	Per M	1	R -	R -	
2.2.2.4	600mm wide x 1000mm deep	Per M	1	R -	R -	
2.2.2.5	800mm wide x 1000mm deep	Per M	1	R -	R -	
2,3	Breaking up of surface cover by hand for trenching including backfilling, compaction and re-instatement of the surface to original condition:					
2.3.1	400mm Wide:					
2.3.1.1	Tar	Per M	1	R -	R -	
2.3.1.2	Concrete	Per M	1	R -	R -	
2.3.1.3	Paving	Per M	1	R -	R -	
2.3.1.4	Grass	Per M	1	R -	R -	
2.3.2	600mm Wide:					
2.3.2.1	Tar	Per M	1	R -	R -	
2.3.2.2	Concrete	Per M	1	R -	R -	
2.3.2.3	Paving	Per M	1	R -	R -	
2.3.2.4	Grass	Per M	1	R -	R -	
2.3.3	800mm Wide:					
2.3.3.1	Tar	Per M	1	R -	R -	
2.3.3.2	Concrete	Per M	1	R -	R -	
2.3.3.3	Paving	Per M	1	R -	R -	
2.3.3.4	Grass	Per M	1	R -	R -	
	1000mm Wide:					
2.3.3.5	Tar	Per M	1	R -	R -	
2.3.3.6	Concrete	Per M	1	R -	R -	
2.3.3.7	Paving	Per M	1	R -	R -	
2.3.3.8	Grass	Per M	1	R -	R -	
2,4	Provide					
2.4.1	Shoring at trenches to prevent the fall-in of ground	Per M	1	R -	R -	
2.4.2	Barricading of Trenches	Per M	1	R -	R -	
2,5	Locate existing sleeve ends	No	1	R -	R -	
2,6	PVC sleeves laid in trench measured elsewhere:					
2.6.1	160mm diameter	m	1	R -	R -	
2.6.2	110mm diameter	m	1	R -	R -	
2,7	Seal PVC sleeve end after installation of cable:					
2.7.1	160mm diameter	No	1	R -	R -	
2.7.2	110mm diameter	No	1	R -	R -	
2,8	Disposal of surplus or unsuitable material from trenches including haulage up to 40km from site	m²	1	R -	R -	

2,9	Selected soft sand bedding in trench (sand to be recovered from trenches)	m³	1	R -	R -	
2.10	Imported sand bedding in trench. Price to include collection from municipal stores delivery to site, loading and off loading	m³	1	R -	R -	
2.11	MV Cable in trenches measured elsewhere					
2.11.1	Install only 22kV / 12,7kV Table 18 PILCA, 3 core cable:					
2.11.1.1	50mm² Cu x 3 core	Per M	1	R -	R -	
2.11.1.2	70mm² Cu x 3 core	Per M	1	R -	R -	
2.11.1.3	95mm² Cu x 3 core	Per M	1	R -	R -	
2.11.1.4	120mm² Cu x 3 core	Per M	1	R -	R -	
2.11.1.5	150mm² Cu x 3 core	Per M	1	R -	R -	
2.11.1.6	185mm² Cu x 3 core	Per M	1	R -	R -	
2.11.1.7	240mm² Cu x 3 core	Per M	1	R -	R -	
2.11.1.8	300mm² Cu x 3 core	Per M	1	R -	R -	
	Alternate					
2.11.1.9	185mm² Al x 3 core	Per M	1	R -	R -	
2.11.1.10	240mm² Al x 3 core	Per M	1	R -	R -	
2.11.1.11	300mm² Al x 3 core	Per M	1	R -	R -	
2.11.2	Concrete slabs laid above 22 kV cable	Per M	1	R -	R -	
2.11.3	PVC Marker strip over cable	Per M	1	R -	R -	
2.11.4	Installation of Municipal Cable Markers	Per M	1	R -	R -	
2.11.4	Install only 11kV Table 18, 3 core cable:					
2.11.4.1	25mm² Cu x 3 core	Per M	1	R -	R -	
2.11.4.2	35mm² Cu x 3 core	Per M	1	R -	R -	
2.11.4.3	50mm² Cu x 3 core	Per M	1	R -	R -	
2.11.4.4	70mm² Cu x 3 core	Per M	1	R -	R -	
2.11.4.5	120mm² Cu x 3 core	Per M	1	R -	R -	
2.11.4.6	150mm² Cu x 3 core	Per M	1	R -	R -	
2.11.4.7	185mm² Cu x 3 core	Per M	1	R -	R -	
2.11.4.8	240mm² Cu x 3 core	Per M	1	R -	R -	
2.11.4.9	300mm² Cu x 3 core	Per M	1	R -	R -	
	Alternate					
2.11.4.10	50mm² Al x 3 core	Per M	1	R -	R -	
2.11.4.11	70mm² Al x 3 core	Per M	1	R -	R -	
2.11.4.12	95mm² Al x 3 core	Per M	1	R -	R -	
2.11.4.13	120mm² Al x 3 core	Per M	1	R -	R -	
2.11.4.14	185mm² Al x 3 core	Per M	1	R -	R -	
2.11.4.15	240mm² Al x 3 core	Per M	1	R -	R -	
2.11.4.16	300mm² Al x 3 core	Per M	1	R -	R -	
2.11.4.14	Concrete slabs laid above 11kV Cable	Per M	1	R -	R -	

2.11.5	PVC Marker strip over cable	Per M	1	R -	R -	
	Heat Shrink through joints in:					
2.12.1	Install only 22kV / 12,7kV Table 20 PILC, 3 core cable:					
2.12.1.1	50mm² Cu x 3 core	No	1	R -	R -	
2.12.1.2	95mm² Cu x 3 core	No	1	R -	R -	
2.12.1.3	120mm² Cu x 3 core	No	1	R -	R -	
2.12.1.4	150mm² Cu x 3 core	No	1	R -	R -	
2.12.1.5	185mm² Cu x 3 core	No	1	R -	R -	
2.12.1.6	240mm² Cu x 3 core	No	1	R -	R -	
2.12.1.7	300mm² Cu x 3 core	No	1	R -	R -	
	Alternative:					
2.12.1.8	185mm² Al x 3 core	No	1	R -	R -	
2.12.1.9	240mm² Alx 3 core	No	1	R -	R -	
2.12.1.10	300mm² Al x 3 core	No	1	R -	R -	
	Heat Shrink through joints in:					
2.12.2	Install only 11kV / 11kV Table 18,3 core cable:					
2.12.2.1	25mm² Cu x 3 core	No	1	R -	R -	
2.12.2.2	35mm² Cu x 3 core	No	1	R -	R -	
2.12.2.3	50mm² Cu x 3 core	No	1	R -	R -	
2.12.2.4	70mm² Cu x 3 core	No	1	R -	R -	
2.12.2.5	95mm² Cu x 3 core	No	1	R -	R -	
2.12.2.6	120mm² Cu x 3 core	No	1	R -	R -	
2.12.2.7	150mm² Cu x 3 core	No	1	R -	R -	
2.12.2.8	185mm² Cu x 3 core	No	1	R -	R -	
2.12.2.9	240mm² Cu x 3 core	No	1	R -	R -	
2.12.2.10	300mm² Cu x 3 core	No	1	R -	R -	
	Alternative:					
2.12.2.11	50mm² Al x 3 core	No	1	R -	R -	
2.12.2.12	70mm² Al x 3 core	No	1	R -	R -	
2.12.2.13	95mm² Al x 3 core	No	1	R -	R -	
2.12.2.14	120mm² Al x 3 core	No	1	R -	R -	
2.12.2.15	185mm² Al x 3 core	No	1	R -	R -	
2.12.2.16	240mm² Al x 3 core	No	1	R -	R -	
2.12.2.17	300mm² Al x 3 core	No	1	R -	R -	
	MV cable strapped to a pole, measured elsewhere, including stainless steel bandit strapping:					
2,13	Install only 22kV / 12,7kV Table 20 PILCA, 3 core cable					
2.13.1.1	50mm² Cu x 3 core	m	1	R -	R -	
2.13.1.2	95mm² Cu x 3 core	m	1	R -	R -	
2.13.1.3	120mm² Cu x 3 core	m	1	R -	R -	
2.13.1.4	150mm² Cu x 3 core	m	1	R -	R -	
2.13.1.5	185mm² Cu x 3 core	m	1	R -	R -	
2.13.1.6	240mm² Cu x 3 core	m	1	R -	R -	
2.13.1.7	300mm² Cu x 3 core	m	1	R -	R -	

	Alternative:					
2.13.1.8	185mm² Al x 3 core	m	1	R -	R -	
2.13.1.9	240mm² Al x 3 core	m	1	R -	R -	
2.13.1.10	300mm² Al x 3 core	m	1	R -	R -	
2.13.2	Install only 11kV / 11kV Table 18, 3 core cable:					
2.13.2.1	25mm² Cu x 3 core	m	1	R -	R -	
2.13.2.2	35mm² Cu x 3 core	m	1	R -	R -	
2.13.2.3	50mm² Cu x 3 core	m	1	R -	R -	
2.13.2.4	70mm² Cu x 3 core	m	1	R -	R -	
2.13.2.5	120mm² Cu x 3 core	m	1	R -	R -	
2.13.2.6	150mm² Cu x 3 core	m	1	R -	R -	
2.13.2.7	185mm² Cu x 3 core	m	1	R -	R -	
2.13.2.8	240mm² Cu x 3 core	m	1	R -	R -	
2.13.2.9	300mm² Cu x 3 core	m	1	R -	R -	
	Alternative:					
2.13.2.10	50mm² Al x 3 core	m	1	R -	R -	
2.13.2.11	70mm² Al x 3 core	m	1	R -	R -	
2.13.2.12	95mm² Al x 3 core	m	1	R -	R -	
2.13.2.13	120mm² Al x 3 core	m	1	R -	R -	
2.13.2.14	185mm² Al x 3 core	m	1	R -	R -	
2.13.2.15	240mm² Al x 3 core	m	1	R -	R -	
2.13.2.16	300mm² Al x 3 core	m	1	R -	R -	
2,14	Galvanised steel kicker pipe, 4,5m long, for cable secured to pole, measured elsewhere, including wooden cleat at termination					
2.14.1	100mm Diam	No	1	R -	R -	
2.14.2	80mm Diam	No	1	R -	R -	
2.14.3	60mm Diam	No	1	R -	R -	
2.14.4	25mm Diam	No	1	R -	R -	
2,15	Indoor termination and connection of MV cable with heat shrink kit to ground mounted equipment:					
	Install only 22kV / 12,7kV Table 20 PILCA, 3 core cable:					
2.15.1	95mm² Cu x 3 core	No	1	R -	R -	
2.15.1.1	120mm² Cu x 3 core	No	1	R -	R -	
2.15.1.2	150mm² Cu x 3 core	No	1	R -	R -	
2.15.1.3	150mm² Cu x 3 core	No	1	R -	R -	
2.15.1.4	185mm² Cu x 3 core	No	1	R -	R -	
2.15.1.5	240mm² Cu x 3 core	No	1	R -	R -	
2.15.1.6	300mm² Cu x 3 core	No	1	R -	R -	
	Alternative:					
2.15.1.7	185mm² Al x 3 core	No	1	R -	R -	
2.15.1.8	240mm² Al x 3 core	No	1	R -	R -	
2.15.1.9	300mm² Al x 3 core	No	1	R -	R -	
	Indoor termination and connection of MV cable with heat shrink kit to ground mounted equipment:					
2.15.2	Install only 11kV / 11kV Table 18, 3 core cable:					
2.15.2.1	25mm² Cu x 3 core	No	1	R -	R -	

2.15.2.2	35mm² Cu x 3 core	No	1	R	-	R	-	
2.15.2.3	50mm² Cu x 3 core	No	1	R	-	R	-	
2.15.2.4	70mm² Cu x 3 core	No	1	R	-	R	-	
2.15.2.5	95mm² Cu x 3 core	No	1	R	-	R	-	
2.15.2.6	120mm² Cu x 3 core	No	1	R	-	R	-	
2.15.2.7	150mm² Cu x 3 core	No	1	R	-	R	-	
2.15.2.8	185mm² Cu x 3 core	No	1	R	-	R	-	
2.15.2.9	240mm² Cu x 3 core	No	1	R	-	R	-	
2.15.2.10	300mm² Cu x 3 core	No	1	R	-	R	-	
	Alternative:							
2.15.2.11	50mm² Al x 3 core	No	1	R	-	R	-	
2.15.2.12	70mm² Al x 3 core	No	1	R	-	R	-	
2.15.2.13	95mm² Al x 3 core	No	1	R	-	R	-	
2.15.2.14	120mm² Al x 3 core	No	1	R	-	R	-	
2.15.2.15	185mm² Al x 3 core	No	1	R	-	R	-	
2.15.2.16	240mm² Al x 3 core	No	1	R	-	R	-	
2.15.2.17	300mm² Al x 3 core	No	1	R	-	R	-	
	Outdoor pole mounting termination and connection of MV cable with heat shrink kit:							
2.16.1	Install only 22kV / 12,7kV Table 20 PILC, 3 core cable:							
	-							
2.16.1.1	50mm² Cu x 3 core	No	1	R	-	R	-	
2.16.1.2	95mm² Cu x 3 core	No	1	R	-	R	-	
2.16.1.3	120mm² Cu x 3 core	No	1	R	-	R	-	
2.16.1.4	150mm² Cu x 3 core	No	1	R	-	R	-	
2.16.1.5	185mm² Cu x 3 core	No	1	R	-	R	-	
2.16.1.6	240mm² Cu x 3 core	No	1	R	-	R	-	
2.16.1.7	300mm² Cu x 3 core	No	1	R	-	R	-	
	Alternative:							
2.16.1.8	185mm² Al x 3 core	No	1	R	-	R	-	
2.16.1.9	240mm² Al x 3 core	No	1	R	-	R	-	
2.16.1.10	200mm² Al x 3 core	No	1	R	-	R	-	
2.16.2	Install only11kV / 11kV Table 18, 3 core cable:							
2.16.2.1	25mm² Cu x 3 core	No	1	R	-	R	-	
2.16.2.2	35mm² Cu x 3 core	No	1	R	-	R	-	
2.16.2.3	50mm² Cu x 3 core	No	1	R	-	R	-	
2.16.2.4	70mm² Cu x 3 core	No	1	R	-	R	-	
2.16.2.5	95mm² Cu x 3 core	No	1	R	-	R	-	
2.16.2.6	120mm² Cu x 3 core	No	1	R	-	R	-	
2.16.2.7	150mm² Cu x 3 core	No	1	R	-	R	-	
2.16.2.8	185mm² Cu x 3 core	No	1	R	-	R	-	
2.16.2.9	240mm² Cu x 3 core	No	1	R	-	R	-	
2.16.2.10	300mm² Cu x 3 core	No	1	R	-	R	-	
	Alternative:							
2.16.2.11	50mm² Al x 3 core	No	1	R	-	R	-	
2.16.2.12	70mm² Al x 3 core	No	1	R	-	R	-	
2.16.2.13	95mm² Al x 3 core	No	1	R	-	R	-	

2.16.2.14	120mm² Al x 3 core	No	1	R	-	R	-	
2.16.2.15	185mm² Al x 3 core	No	1	R	-	R	-	
2.16.2.16	240mm² Al x 3 core	No	1	R	-	R	-	
2.16.2.17	300mm² Al x 3 core	No	1	R	-	R	-	
2.17	Testing of MV cable and provide Electro Technical Directorate with test certificate:							
2.17.1	Insulation Test 22 kV Table 20 3 Core cable (Cu /Al)	No	1	R	-	R	-	
2.17.2	Insulation Test 11 kV Table 18 3 Core cable (Cu /Al)	No	1	R	-	R	-	
2.18	Locate cable faults on							
2.18.1	22 kV Table 20 3 Core cable (Cu /Al)	No	1	R	-	R	-	
2.18.2	11 kV Table 18 3 Core cable (Cu /Al)	No	1	R	-	R	-	
2.18.3	Low Voltage PVCAS cable (Cu/Al)	No	1	R	-	R	-	
2,19	Install only LV PVCAS cable in trenches or sleeves measured elsewhere:							
2.19.1	240mm² Cu x 4 core	m	1	R	-	R	-	
2.19.2	185mm² Cu x 4 core	m	1	R	-	R	-	
2.19.3	120mm² Cu x 4 core	m	1	R	-	R	-	
2.19.4	95mm² Cu x 4 core	m	1	R	-	R	-	
2.19.5	70mm² Cu x 4 core	m	1	R	-	R	-	
2.19.6	50mm² Cu x 4 core	m	1	R	-	R	-	
2.19.7	35mm² Cu x 4 core	m	1	R	-	R	-	
2.19.8	25mm² Cu x 4 core	m	1	R	-	R	-	
2.19.9	16mm² Cu x 4 core	m	1	R	-	R	-	
2.19.10	10mm² Cu x 4 core	m	1	R	-	R	-	
2.19.11	25mm² Cu x 2 core	m	1	R	-	R	-	
2.19.12	16mm² Cu x 2 core	m	1	R	-	R	-	
2.19.13	10mm² Cu x 2 core	m	1	R	-	R	-	
2.19.14	6mm² Cu x 2 core	m	1	R	-	R	-	
	Alternative:							
2.19.15	300mm² Al x 4 core	m	1	R	-	R	-	
2.19.16	240mm² Al x 4 core	m	1	R	-	R	-	
2.19.17	185mm² Al x 4 core	m	1	R	-	R	-	
2.19.18	120mm² Al x 4 core	m	1	R	-	R	-	
2.19.19	90mm² Al x 4 core	m	1	R	-	R	-	
2.19.20	70mm² Al x 4 core	m	1	R	-	R	-	
2.19.21	50mm² Al x 4 core	m	1	R	-	R	-	
2.20	Install only through joints in LV PVCAS cables:							
2.20.1	240mm² Cu x 4 core	No	1	R	-	R	-	
2.20.2	185mm² Cu x 4 core	No	1	R	-	R	-	
2.20.3	120mm² Cu x 4 core	No	1	R	-	R	-	
2.20.4	95mm² Cu x 4 core	No	1	R	-	R	-	
2.20.5	70mm² Cu x 4 core	No	1	R	-	R	-	

2.20.6	50mm² Cu x 4 core	No	1	R	-	R	-	
2.20.7	35mm² Cu x 4 core	No	1	R	-	R	-	
2.20.8	25mm² Cu x 4 core	No	1	R	-	R	-	
2.20.9	16mm² Cu x 4 core	No	1	R	-	R	-	
2.20.10	10mm² Cu x 4 core	No	1	R	-	R	-	
2.20.11	25mm² Cu x 2 core	No	1	R	-	R	-	
2.20.12	16mm² Cu x 2 core	No	1	R	-	R	-	
2.20.13	10mm² Cu x 2 core	No	1	R	-	R	-	
2.20.14	6mm² Cu x 2 core	No	1	R	-	R	-	
	Alternative:							
2.20.15	300mm² Al x 4 core	No	1	R	-	R	-	
2.20.16	240mm² Al x 4 core	No	1	R	-	R	-	
2.20.17	185mm² Al x 4 core	No	1	R	-	R	-	
2.20.18	120mm² Al x 4 core	No	1	R	-	R	-	
2.20.19	90mm² Al x 4 core	No	1	R	-	R	-	
2.20.20	70mm² Al x 4 core	No	1	R	-	R	-	
2.20.21	50mm² Al x 4 core	No	1	R	-	R	-	
2.21	Install only LV PVCAS cable strapped to pole, measured elsewhere, including stainless steel bandit strapping:							
2.21.1	240mm² Cu x 4 core	m	1	R	-	R	-	
2.21.2	185mm² Cu x 4 core	m	1	R	-	R	-	
2.21.3	120mm² Cu x 4 core	m	1	R	-	R	-	
2.21.4	95mm² Cu x 4 core	m	1	R	-	R	-	
2.21.5	70mm² Cu x 4 core	m	1	R	-	R	-	
2.21.6	50mm² Cu x 4 core	m	1	R	-	R	-	
2.21.7	35mm² Cu x 4 core	m	1	R	-	R	-	
2.21.8	25mm² Cu x 4 core	m	1	R	-	R	-	
2.21.9	16mm² Cu x 4 core	m	1	R	-	R	-	
2.21.10	10mm² Cu x 4 core	m	1	R	-	R	-	
2.21.11	25mm² Cu x 2 core	m	1	R	-	R	-	
2.21.12	16mm² Cu x 2 core	m	1	R	-	R	-	
2.21.13	10mm² Cu x 2 core	m	1	R	-	R	-	
2.21.14	6mm² Cu x 2 core	m	1	R	-	R	-	
	Alternative:							
2.21.15	300mm² Al x 4 core	m	1	R	-	R	-	
2.21.16	240mm² Al x 4 core	m	1	R	-	R	-	
2.21.17	185mm² Al x 4 core	m	1	R	-	R	-	
2.21.18	120mm² Al x 4 core	m	1	R	-	R	-	
2.21.19	90mm² Al x 4 core	m	1	R	-	R	-	
2.21.20	70mm² Al x 4 core	m	1	R	-	R	-	
2.21.21	50mm² Al x 4 core	m	1	R	-	R	-	
2,22	Install only LV PVCAS cable terminated and connected at transformer, substation or kiosk using glands and crimp lugs							
	-							
2.22.1	240mm² Cu x 4 core	No	1	R	-	R	-	

2.22.2	185mm² Cu x 4 core	No	1	R	-	R	-	
2.22.3	120mm² Cu x 4 core	No	1	R	-	R	-	
2.22.4	95mm² Cu x 4 core	No	1	R	-	R	-	
2.22.5	70mm² Cu x 4 core	No	1	R	-	R	-	
2.22.6	50mm² Cu x 4 core	No	1	R	-	R	-	
2.22.7	35mm² Cu x 4 core	No	1	R	-	R	-	
2.22.8	25mm² Cu x 4 core	No	1	R	-	R	-	
2.22.9	16mm² Cu x 4 core	No	1	R	-	R	-	
2.22.10	10mm² Cu x 4 core	No	1	R	-	R	-	
2.22.11	25mm² Cu x 2 core	No	1	R	-	R	-	
2.22.12	16mm² Cu x 2 core	No	1	R	-	R	-	
2.22.13	10mm² Cu x 2 core	No	1	R	-	R	-	
2.22.14	6mm² Cu x 2 core	No	1	R	-	R	-	
	Alternative:							
2.22.15	300mm² Al x 4 core	No	1	R	-	R	-	
2.22.16	240mm² Al x 4 core	No	1	R	-	R	-	
2.22.17	185mm² Al x 4 core	No	1	R	-	R	-	
2.22.18	120mm² Al x 4 core	No	1	R	-	R	-	
2.22.19	90mm² Al x 4 core	No	1	R	-	R	-	
2.22.20	70mm² Al x 4 core	No	1	R	-	R	-	
2.22.21	50mm² Al x 4 core	No	1	R	-	R	-	
2.23	Install only LV PVCAS cable terminated and connected at overhead line or aerial bundle conductor							
	-							
2.23.1	240mm² Cu x 4 core	No	1	R	-	R	-	
2.23.2	185mm² Cu x 4 core	No	1	R	-	R	-	
2.23.3	120mm² Cu x 4 core	No	1	R	-	R	-	
2.23.4	95mm² Cu x 4 core	No	1	R	-	R	-	
2.23.5	70mm² Cu x 4 core	No	1	R	-	R	-	
2.23.6	50mm² Cu x 4 core	No	1	R	-	R	-	
2.23.7	35mm² Cu x 4 core	No	1	R	-	R	-	
2.23.8	25mm² Cu x 4 core	No	1	R	-	R	-	
2.23.9	16mm² Cu x 4 core	No	1	R	-	R	-	
2.23.10	10mm² Cu x 4 core	No	1	R	-	R	-	
2.23.11	25mm² Cu x 2 core	No	1	R	-	R	-	
2.23.12	16mm² Cu x 2 core	No	1	R	-	R	-	
2.23.13	10mm² Cu x 2 core	No	1	R	-	R	-	
2.23.14	6mm² Cu x 2 core	No	1	R	-	R	-	
	Alternative:							
2.23.15	300mm² Al x 4 core	No	1	R	-	R	-	
2.23.16	240mm² Al x 4 core	No	1	R	-	R	-	
2.23.17	185mm² Al x 4 core	No	1	R	-	R	-	
2.23.18	120mm² Al x 4 core	No	1	R	-	R	-	
2.23.19	90mm² Al x 4 core	No	1	R	-	R	-	
2.23.20	70mm² Al x 4 core	No	1	R	-	R	-	
2.23.21	50mm² Al x 4 core	No	1	R	-	R	-	
2.23.22	95mm² Cu x 4 core	No	1	R	-	R	-	
2,24	Install only HD copper earth wire laid in trench for kiosk earth:							
2.24.1	63mm² Cu (7/3,35mm)	m	1	R	-	R	-	

2.24.2	40mm² Cu (7/2,65mm)	m	1	R	-	R	-	
2.24.3	25mm² Cu (7/3,12mm)	m	1	R	-	R	-	
2.24.4	16mm² Cu (3/2,65mm)	m	1	R	-	R	-	
2.25	HD Copper earth wire terminated at kiosk or substation							
2.25.1	63mm² Cu (7/3,35mm)	No	1	R	-	R	-	
2.25.2	40mm² Cu (7/2,65mm)	No	1	R	-	R	-	
2.25.3	25mm² Cu (7/3,12mm)	No	1	R	-	R	-	
2.25.4	16mm² Cu (3/2,65mm)	No	1	R	-	R	-	
2.26.1	Install only glass fibre distribution kiosk, double door including root, but excluding circuit breakers and meters							
2.26.1.1	6 Way	No	1	R	-	R	-	
2.26.1.2	9 Way	No	1	R	-	R	-	
2.26.1.3	12 Way	No	1	R	-	R	-	
2.26.2	Uninstall only glass fibre or 3 CR12 distribution kiosk with all associated components.							
2.26.2.1	6 Way	No	1	R	-	R	-	
2.26.2.2	9 Way	No	1	R	-	R	-	
2.26.2.3	12 Way	No	1	R	-	R	-	
2.27	Install only 3CR12 (sheet steel) distribution kiosk, double door including root, but excluding circuit breakers and meters							
2.27.1	6 Way	No	1	R	-	R	-	
2.27.2	9 Way	No	1	R	-	R	-	
2.27.3	12 Way	No	1	R	-	R	-	
2.28	Install only MCB in kiosk, LV encloser or transformer							
2.28.1	20 - 40 A , CBI Type MCB	No	1	R	-	R	-	
2.28.2	60 - 100 A, CBI Type MCB	No	1	R	-	R	-	
2.29	Label circuit breakers, meters and service cables ends at transformer, LV kiosk panel	No	1	R	-	R	-	
2.30.	Install only service connections, terminate and connect to MCB inside kiosk, transformer or LV encloser, including lugs and glands							
2.30.1	10 - 25 mm Cu 2 core LV PVCAS	No	1	R	-	R	-	
2.30.2	25 -95 mm Cu 4 core LV PVCAS	No	1	R	-	R	-	
	-							
2.31	Install only bus-bar connections terminate and connect to MCB inside kiosk, transformer or LV encloser, including lugs and glands							
2.31.1	10 - 25 mm Cu 2 core LV PVCAS	No	1	R	-	R	-	
2.31.2	25 -95 mm Cu 4 core LV PVCAS	No	1	R	-	R	-	
	-							
2.32	Install only (Manufacturer approved) locking device to doors, or openings with nuts, bolts and washers.							
2.32.1	Lv Kiosk	No	1	R	-	R	-	
2.32.2	Mini Substation	No	1	R	-	R	-	
2.32.3	Metering Kioks	No	1	R	-	R	-	

Sub Total					**R**	**-**
NORMAL HOURS BILL (2.0 - 2.32) TO BE CARRIED FORWARD TO PRICE SUMMARY					**R**	**-**
TOTAL PERCENTAGE MARK UP AFTERHOURS WORK BILL (2.0 - 2.32)					**%**	
TOTAL MARK UP AFTERHOURS WORK BILL (2.0-2.32) TO BE CARRIED FORWARD TO PRICE SUMMARY					**R**	**-**

	BILL A3: ELECTRICAL INSTALLATION & MAINTENANCE					
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**LABOUR RATE**	**TOTAL**	
	Primary Overhead Line Network					
3.0	Excavating, backfilling and compaction of hole for a pole, single stay, flying stay or strut/prop structure					
	-					
	Earth					
3.1.1	1,5 metres deep	No	1	R -	R -	
3.1.2	1,8 metres deep	No	1	R -	R -	
	Soft Rock					
3.2.1	1,5 metres deep	No	1	R -	R -	
3.2.2	1,8 metres deep	No	1	R -	R -	
	Hard Rock					
3.2.3	1,5 metres deep	No	1	R -	R -	
3.2.4	1,8 metres deep	No	1	R -	R -	
3.3	Install only of wooden pole with a top diameter of 160/180mm with pole cap and drilled for hardware, but excluding hardware and pole hole measured elsewhere					
3.3.1.1	13 m pole	No	1	R -	R -	
3.3.1.2	12m pole	No	1	R -	R -	
3.3.1.3	11m pole	No	1	R -	R -	
3.3.1.4	9m pole	No	1	R -	R -	
3.3.1.5	8m pole	No	1	R -	R -	
3.3.2	Uninstall only wooden pole , but excluding hardware measured elsewhere					
3.3.2.1	13 m pole	No	1	R -	R -	
3.3.2.2	12m pole	No	1	R -	R -	
3.3.2.3	11m pole	No	1	R -	R -	
3.3.2.4	9m pole	No	1	R -	R -	
3.3.2.5	8m pole	No	1	R -	R -	
3.4	Installation only Stay wires and components to pole and installed with hole measured elsewhere					
3.4.1.1	Inline Single stay complete with insulator	No	1	R -	R -	
3.4.1.2	Bisecting Single stay complete with insulator	No	1	R -	R -	
3.4.1.3	20°Short stay complete with insulator	No	1	R -	R -	
3.4.1.4	45° Long stay complete with insulator	No	1	R -	R -	
3.4.1.5	Flying stay complete with insulator	No	1	R -	R -	
3.4.1.6	Stay guard fixed to stay wire	No	1	R -	R -	
3.4.2	Uninstall Stay wires and components to pole, stay plate removal measured elsewhere					
3.4.2.1	Inline Single stay complete with insulator	No	1	R -	R -	
3.4.2.2	Bisecting Single stay complete with insulator	No	1	R -	R -	
3.4.2.3	20°Short stay complete with insulator	No	1	R -	R -	

3.4.2.4	45° Long stay complete with insulator	No	1	R	-	R	-	
3.4.2.5	Flying stay complete with insulator	No	1	R	-	R	-	
3.4.2.6	Stay guard fixed to stay wire	No	1	R	-	R	-	
3.5	Install Prop/Strut structure complete with danger notice and barbed wire, excluding hole measured elsewhere	No	1	R	-	R	-	
3.6	Install only hard drawn copper conductors strung between poles measured elsewhere							
3.6.1.1	16mm² (3/2,65)	m	1	R	-	R	-	
3.6.1.2	25mm² (7/3,12)	m	1	R	-	R	-	
3.6.1.3	40mm² (7/2,65)	m	1	R	-	R	-	
3.6.1.4	63mm² (7/3,35)	m	1	R	-	R	-	
3.6.1.5	80mm² (7/3,75)	m	1	R	-	R	-	
3.6.2	Uninstall od hard drawn copper conductors strung between poles.							
3.6.2.1	16mm² : 80mm²	m	1	R	-	R	-	
3.7	Install only All Aluminium Alloy conductors strung between poles measured elsewhere							
3.7.1.1	Fir - (7/2,95)	m	1	R	-	R	-	
3.7.1.2	Hazel - (7/3,30)	m	1	R	-	R	-	
3.7.1.3	Pine - (7/3,61)	m	1	R	-	R	-	
3.7.1.4	Oak - (7/4,65)	m	1	R	-	R	-	
3.7.1.5	Mulberry - (19/3,18)	m	1	R	-	R	-	
3.7.1.6	Sycamore - (37/3,23)	m	1	R	-	R	-	
3.7.2	Uninstall All Aluminium Alloy conductors strung between poles measured elsewhere							
3.7.2.1	Fir - (7/2,95): Sycamore - (37/3,23)	m	1	R	-	R	-	
3.8	Install only ASCR conductors strung between poles measured elsewhere							
3.8.1.1	squirel - (6/2.11)	m	1	R	-	R	-	
3.8.1.2	Fox - (6/2.79)	m	1	R	-	R	-	
3.8.1.3	Hare - (6/4.72)	m	1	R	-	R	-	
3.8.2	Uninstall only ASCR conductors strung between poles measured elsewhere							
3.8.2.1	squirel - (6/2.11) : Hare - (6/4.72)	m	1	R	-	R	-	
3.9	Install only set of three (3) strain insulators complete with thimble clevis, pins, pistol grip, etc.							
	22kV							
3.9.1.1	UB 70 BL Reinforced Glass 2-3 disks	No	1	R	-	R	-	
3.9.1.2	Ht 1010 Porcelain 2-3 disks	No	1	R	-	R	-	
3.9.1.3	31 mm/kV Long Rod silicon rubber type	No	1	R	-	R	-	

3.9.2	Uninstall set of three (3) strain insulators complete with thimble clevis, pins, pistol grip, etc.					
3.9.2.1	UB 70 BL Reinforced Glass 2-3 disks	No	1	R -	R -	
3.9.2.2	Ht 1010 Porcelain 2-3 disks	No	1	R -	R -	
3.9.2.3	31 mm/kV Long Rod silicon rubber type	No	1	R -	R -	
3.9.3	Install only set of three (3) strain insulators complete with thimble clevis, pins, pistol grip, etc.					
3.9.3.1	UB 70 BL Reinforced Glass 1-2 disks	No	1	R -	R -	
3.9.3.2	Ht 1010 Porcelain 1-2 disks	No	1	R -	R -	
3.9.3.3	31 mm/kV Long Rod silicon rubber type	No	1	R -	R -	
3.9.4	Uninstall only set of three (3) strain insulators complete with thimble clevis, pins, pistol grip, etc.					
3.9.4.1	UB 70 BL Reinforced Glass 1-2 disks	No	1	R -	R -	
3.9.4.2	Ht 1010 Porcelain 1-2 disks	No	1	R -	R -	
3.9.4.3	31 mm/kV Long Rod silicon rubber type	No	1	R -	R -	
3,10	Install only set of three (3) line post or (3) Stand off insulators complete with bolts, nuts & washers etc.					
	-					
	22kV					
3.10.1	EP472 brown glazed porcelain (Silicone Post Insulator, Tie Top with M20 Pin)	No	1	R -	R -	
3.10.2	EP84713 brown glazed porcelain (Silicone Stand-Off Insulator)					
	11kV					
3.10.2	EP472 brown glazed porcelain (Silicone Post Insulator, Tie Top with M20 Pin)	No	1	R -	R -	
3.10.3	EP84713 brown glazed porcelain (Silicone Stand-Off Insulator)	No	1	R -	R -	
3,11	Install only MV lightning arrestors mounted on strain poles / expulsion fuse steelwork, excluding earthing and steelwork measured elsewhere					
	-					
	22kV					
3.11.1	Set of two	No	1	R -	R -	
3.11.2	Set of three	No	1	R -	R -	
	11kV					
3.11.3	Set of two	No	1	R -	R -	
3.11.4	Set of three	No	1	R -	R -	
3.12	Install only MV expulsion fuses mounted on steelwork					
	22kV					
3.12.1	Set of two	No	1	R -	R -	
3.12.2	Set of three	No	1	R -	R -	
	11kV					
3.12.3	Set of two	No	1	R -	R -	
3.12.4	Set of three	No	1	R -	R -	

3.13	Two - way phase on-load switch					
3.13.1	Install only 2 way phase on-load switch on steelwork (Gas Load Break) inclusive of all electrical connections.	No	1	R -	R -	
3.13.2	Uninstall 2 way phase on-load switch from the steelwork (Gas Load Break) inclusive of all electrical connections.	No	1	R -	R -	
3.14	Three - way phase on-load switch					
3.14.1	Install only 3 way phase on-load switch on steelwork (Gas Load Break) inclusive of all electrical connections.	No	1	R -	R -	
3.14.2	Uninstall only 3 way phase on-load switch on steelwork (Gas Load Break) inclusive of all electrical connections.	No	1	R -	R -	
3,15	Install only combination unit (Fuse/Solid) with lightning arrestors on strain structure, earthing and structure measured elsewhere	No	1	R -	R -	
3.16	Uninstall only combination unit (Fuse/Solid) with lightning arrestors on strain structure	No	1	R -	R -	
3.17	Install Conductor connections between overhead line, expulsion fuses, solid cut outs and auxiliary electrical equipment inclusive of fixing, lugs.					
3.17.1	Cu (16-25 mm)	M	1	R -	R -	
3.17.2	Cu (40-63 mm)	M	1	R -	R -	
3.17.3	Pine - (7/3,61)	M	1	R -	R -	
3.17.4	Oak - (7/4,65)	M	1	R -	R -	
	Heat Shrink of bare conductor, follow up item 3.17					
3.17.5	Cu (16-25 mm)	M	1	R -	R -	
3.17.6	Cu (40-63 mm)	M	1	R -	R -	
3.17.7	Pine - (7/3,61)	M	1	R -	R -	
3.17.8	Oak - (7/4,65)	M	1	R -	R -	
3,18	Install only Auto Recloser Pole mounted support bracket to structure, structure measured elsewhere					
3.18.1	Single Pole	No	1	R -	R -	
3.18.2	Two Pole (H Pole, structure)	No	1	R -	R -	
3.18.3	Uninstall only Auto Recloser Pole mounted support bracket to structure, structure measured elsewhere					
3.18.3.1	Single Pole	No	1	R -	R -	
3.18.3.2	Two Pole (H Pole, structure)	No	1	R -	R -	
3.19	Install only Auto Recloser to support bracket					
3.19.1	Single Pole	No	1	R -	R -	
3.19.2	Two Pole	No	1	R -	R -	
	Uninstall only Auto Recloser to support bracket					
3.19.3	Single Pole	No	1	R -	R -	
3.19.4	Two Pole	No	1	R -	R -	
3,20	Install only auto recloser or Pole mounted switchgear control box to pole with support bracket and all bolts, washers and support accessories inclusive of umbilical	No	1	R -	R -	

	cord connection between control box and switchgear.					
	-					
3,21	Strain A-frame (MV line)					
3.21.1	Install only strain A-frame (MV line) complete with fixing bolts etc. but excluding insulators measured elsewhere	No	1	R -	R -	
3.21.2	Uninstall only strain A-frame (MV line) complete with fixing bolts etc. but excluding insulators measured elsewhere	No	1	R -	R -	
3.22	Steel cross-arm					
3.22.1	Install only steel cross-arm drilled for hardware for T-off and right angle turns for MV lines	No	1	R -	R -	
3.22.2	Uninstall steel cross-arm drilled for hardware for T-off and right angle turns for MV lines	No	1	R -	R -	
3.23	Intermediate A-frame					
3.23.1	Install only intermediate A-frame complete with fixing bolts, etc, but excluding insulators measured elsewhere	No	1	R -	R -	
3.23.2	Uninstall intermediate A-frame complete with fixing bolts, etc, but excluding insulators measured elsewhere	No	1	R -	R -	
3,24	Straight cross-arm (100x50 mm steel channel)					
3.24.1	Install only straight cross-arm (100 x 50mm steel channel) for MV lightning arrestors or drop out fuses	No	1	R -	R -	
3.24.2	Uninstall straight cross-arm (100 x 50mm steel channel) for MV lightning arrestors or drop out fuses	No	1	R -	R -	
	-					
3.25	Stand-off (500mm) cross-arm (100 x 50mm steel channel)					
3.25.1	Install only stand-off (500mm) cross-arm (100 x 50mm steel channel) for MV lightning arrestors or drop out fuses	No	1	R -	R -	
3.25.2	Uninstall stand-off (500mm) cross-arm (100 x 50mm steel channel) for MV lightning arrestors or drop out fuses	No	1	R -	R -	
3.26	Install only main earth for lightning arrestors on MV line.					
3.26.1	Install only main earth for lightning arrestors on MV line. This item shall include the 63mm² Cu black PVC insulated down conductor, a 4,5m long kicker pipe, 4,5m long earth spike and all connections	No	1	R -	R -	
3.26.2	Uninstall main earth for lightning arrestors on MV line, including the 63mm² Cu black PVC insulated down conductor and a 4,5m long kicker pipe	No	1	R -	R -	
	-					
3,27	Install only terminate HD Cu conductors at strain insulators using "Pistol Grip or Preformed " dead ends	No	1	R -	R -	
	-					
3.27.1	Set of Two - for Dual Ph line					
3.27.1.1	16mm² to 40mm²	No	1	R -	R -	
3.27.1.2	63mm² to 80mm²	No	1	R -	R -	
3.27.2	Set of Three - for 3Ph line					
3.27.2.1	16mm² to 40mm²	No	1	R -	R -	
3.27.2.2	50mm² to 80mm²	No	1	R -	R -	

3.28	Install only terminate All Aluminium Alloy conductors at strain insulators using "Preformed or Pistol Grip" dead ends					
	-					
	Set of Two					
3.28.1	Fir, Hazel, Pine and Oak	No	1	R -	R -	
3.28.2	Mulberry or Sycamore	No	1	R -	R -	
	Set of Three					
3.28.3	Fir, Hazel, Pine and Oak	No	1	R -	R -	
3.28.4	Mulberry or Sycamore	No	1	R -	R -	
3.29	Install only bind-in HD Cu conductors at line post insulators using "preformed" twin-ties or wrap lock ties					
	Set of Two					
3.29.1	16mm² to 40mm²	No	1	R -	R -	
3.29.2	63mm² to 80mm²	No	1	R -	R -	
	Set of Three					
3.29.3	16mm² to 40mm²	No	1	R -	R -	
3.29.4	63mm² to 80mm²	No	1	R -	R -	
3.30	Install only bind-in All Aluminium Alloy conductors at line post insulators using "preformed" twin ties or wrap lock ties					
	-					
	Set of Two					
3.30.1	Fir, Hazel, Pine and Oak	No	1	R -	R -	
3.30.2	Mulberry or Sycamore	No	1	R -	R -	
	Set of Three					
3.30.3	Fir, Hazel, Pine and Oak	No	1	R -	R -	
3.30.4	Mulberry or Sycamore	No	1	R -	R -	
3.23.1	Install only Medium Voltage (ABC) 11 kV/6.6 Type A or Type B Bundle strung and suspended between poles. Poles and clamps measured elsewhere					
3.23.1.1	35mm²-55 mm²	m	1	R -	R -	
3.23.1.2	56mm²-95mm²	m	1	R -	R -	
3.23.1.3	96mm²-120mm²	m	1	R -	R -	
3.23.2	Uninstall Medium Voltage (ABC) 11 kV/6.6 Type A or Type B Bundle strung and suspended between poles. Poles and clamps measured elsewhere					
3.23.2.1	35mm²-120 mm²	m	1	R -	R -	
3.,24	Install only Medium Voltage (ABC) 11 kV/6.6 Type A or Type B suspension clamp or strain clamp to pol including eyebolt, pigtail bolt, nuts, washers etc.					
3.24.1	35mm²-55 mm²	No	1	R -	R -	
3.24.2	56mm²-95mm²	No	1	R -	R -	

3.24.3	96mm²-120mm²	No	1	R -	R -	
3,25	Install only Medium Voltage (ABC) 11 kV/6.6 Type A or Type B Heat Shrink XLPE single core termination to ABC					
3.25.1	35mm²-55 mm²	No	1	R -	R -	
3.25.2	56mm²-95mm²	No	1	R -	R -	
3.25.3	96mm²-120mm²	No	1	R -	R -	
3.26	Install only Medium Voltage (ABC) 11 kV/6.6 Type A or Type B Heat Shrink XLPE through joint.					
3.26.1	35mm²-55 mm²	No	1	R -	R -	
3.26.2	56mm²-95mm²	No	1	R -	R -	
3.26.3	96mm²-120mm²	No	1	R -	R -	
3.27	Install only connect and terminate Medium Voltage (ABC) 11 kV/6.6 Type A or Type B termination to: inclusive of bolts, washers.					
	-					
3.27.1	Three phase expulsion type fuse, installation measured elsewhere	No	1	R -	R -	
3.27.2	Three phase gas load break switch,Sectionaliser or Auto recloser, installation measured elsewhere	No	1	R -	R -	
3.27.3	Solid cutout,installation measured elsewhere	No	1	R -	R -	
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**LABOUR**		
				RATE	**TOTAL**	
	-					
3,28.1	Install only LV ABC strung and suspended between poles. Poles and clamps measured elsewhere					
3.28.1.1	35mm² x 4c + 25mm² + streetlight	m	1	R -	R -	
3.28.1.2	50mm² x 4c + 25mm² + streetlight	m	1	R -	R -	
3.28.1.3	70mm² x 4c + 25mm² + streetlight	m	1	R -	R -	
3.28.1.4	95mm² x 4c + 25mm² + streetlight	m	1	R -	R -	
3.28.2	Uninstall LV ABC strung and suspended between poles. Poles and clamps measured elsewhere					
	-					
3.28.2.1	35mm² x 4c - 95mm² including 25mm² + streetlight	m	1	R -	R -	
3.29	Install only strain clamp for LV ABC including eyebolt, pigtail bolt, nuts, washers, etc.	No	1	R -	R -	
3.30	Install only suspension clamp for LV ABC including eyebolt, pigtail bolt, nuts, washers etc.	No	1	R -	R -	
3.31	Strap and seal end of LV ABC at terminal pole.	No	1	R -	R -	
3.32	Install only earth at remote pole of LV ABC line. This item shall include the 50mm² Cu black PVC insulated down conductor and 1m long earth spike and all connections	No	1	R -	R -	

3.33	Install only Terminate and connect LV bundled conductor at to UV stabilised conductors 2 Insulation piercing connectors shall be used on neutral connection connections and wiring of Pole top Box (CCSB) measured else where.					
3.33.1	35mm² x 4c + 25mm² + streetlight	No	1	R -	R -	
3.33.2	50mm² x 4c + 25mm² + streetlight	No	1	R -	R -	
3.33.3	70mm² x 4c + 25mm² + streetlight	No	1	R -	R -	
3.33.4	95mm² x 4c + 25mm² + streetlight	No	1	R -	R -	
3.34	Strap LV bundled conductor to pole, including black UV stable PVC pipe and stainless steel straps, pole measured else where					
3.34.1	35mm² x 4c + 25mm² + streetlight	No	1	R -	R -	
3.34.2	50mm² x 4c + 25mm² + streetlight	No	1	R -	R -	
3.34.3	70mm² x 4c + 25mm² + streetlight	No	1	R -	R -	
3.34.4	95mm² x 4c + 25mm² + streetlight	No	1	R -	R -	
3.35	Connect one LV bundled conductor to another using insulation piecing connectors. 2 Insulation piercing connectors shall be used on neutral connection.					
3.35.1	35mm² x 4c + 25mm² + streetlight	No	1	R -	R -	
3.35.2	50mm² x 4c + 25mm² + streetlight	No	1	R -	R -	
3.35.3	70mm² x 4c + 25mm² + streetlight	No	1	R -	R -	
3.35.4	95mm² x 4c + 25mm² + streetlight	No	1	R -	R -	
3.36.1	Install Pole Top Box (CSCB) strapped to pole prewired for quantity of circuit breakers and equipped with 3 off surge arrestors, four 2,5m long UV stable colour coded conductors for connection to bundled conductor, UV stable compression glands, din rails.					
3.31.1.1	3 X 63 A CBI Circuit Breaker	No	1	R -	R -	
3.31.1.2	6 X 63 A CBI Circuit Breaker	No	1	R -	R -	
3.31.1.3	9 X 63 A CBI Circuit Breaker	No	1	R -	R -	
3.36.2	Uninstall Pole Top Box (CSCB) strapped to pole prewired for quantity of circuit breakers and equipped with 3 off surge arrestors, four 2,5m long UV stable colour coded conductors for connection to bundled conductor,	No	1	R -	R -	
3.37	Terminate and connect new 10mm² Cu Airdac service cable at Pole Top box (CSCB) measured elsewhere, including UV stable compression gland.	No	1	R -	R -	
	Miscellaneous					
Sub Total					**R -**	
NORMAL HOURS BILL (3.0 - 3.37) TO BE CARRIED FORWARD TO PRICE SUMMARY					**R -**	
TOTAL PERCENTAGE MARK UP AFTERHOURS WORK BILL (3.0 - 3.37)					**%**	
TOTAL MARK UP AFTERHOURS WORK BILL (3.0- 3.37) TO BE CARRIED FORWARD TO PRICE SUMMARY					**R -**	

PRICE SUMMARY	
SUB TOTAL PRILIMANARY & GENERAL BILL A	**R**
SUB TOTAL NORMAL HOURS BILL A1 (1.0 - 1.30)	**R**
SUB TOTAL AFTER HOURS BILL A1 (1.0 - 1.30)	**R**
SUB TOTAL NORMAL HOURS BILL A2 (2.0 - 2.32)	**R**
SUB TOTAL AFTER HOURS BILL A2 (2.0 - 2.32)	**R**
SUB TOTAL NORMAL HOURS BILL A3 (3.0 - 3.37)	**R**
SUB TOTAL AFTER HOURS BILL A3 (3.0 - 3.37)	**R**
TOTAL	**R**
15%VAT	**R**
TOTAL PRICE TO BE CARRIED OVER TO FORM OF OFFER AND ACCEPTANCE	**R**

Name of Tenderer……..

Signature of Tenderer……Date……..

Address:……

……

……

……

……

Tel No:……

E-mail Address:……

Section B: Perform Vegetation management works and support services for the existing electrical reticulation associated infrastructure

BILL B: VEGETATION MANAGEMENT					
BILL B: PRELIMINARY AND GENERAL ITEMS VEGETATION MANAGEMENT					
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**LABOUR**	
				RATE	**TOTAL**
	Notes:				
	1. All rates must be exclusive of VAT.				
	2. The following items are for work not covered by rates in Bill B1 hereafter.				
	3. All rates are material exclusive and material supplied by George Municipality as free issue unless specified elsewhere in the Bill.				
	4. All quantities are provisional and for comparative purposes only, bills hereafter is a rate based tender.				
	5. Provision for Goods/Material Part C 3-Clause 21				
1.	**Daywork**				
1,1	Labour: Normal Time:				
1.1.1	Supervisor	Hour	1	R	R
1.1.2	Skilled worker	Hour	1	R	R
1.1.3	Semi-skilled worker	Hour	1	R	R
1.1.4	Labourer	Hour	1	R	R
1,2	Labour: Normal Overtime:				
1.2.1	Supervisor	Hour	1	R	R
1.2.2	Skilled worker	Hour	1	R	R
1.2.3	Semi-skilled worker	Hour	1	R	R
1.2.4	Labourer	Hour	1	R	R
1,3	Labour: Sundays and Public Holidays:				
1.3.1	Supervisor	Hour	1	R	R
1.3.2	Skilled worker	Hour	1	R	R
1.3.3	Semi-skilled worker	Hour	1	R	R
1.3.4	Labourer	Hour	1	R	R
1,4	Transport where travelling takes place for work not covered in Bill B1.				
1.4.1	LDV or Bakkie	km	1	R	R
1.4.2	Trailer (3500kg braked)	Hr	1	R	R
1.4.3	3 Ton Truck	km	1	R	R
1.4.4	5 -10 Ton Truck	km	1	R	R
1.4.5	Spider Cherrypicker 6 to 12m	Hr	1	R	R
1.4.6	Wood chepper 15" Capacity	Hr	1	R	R

1.4.7	Cherry picker 12 m	km	1	R	R
1.4.8	Chainsaw > 40 cc	Hr	1	R	R
1.4.9	Brush cutter engine displacement > 40 cc	Hr	1	R	R
1.5.0	Pole pruner 4m telescopic extendable	Hr	1	R	R
2.	**Fixed Charge Items**				
2,1	Apply for a permit by DFFE for the provision of cutting/pruning of protected or indigenous trees	No	1	R	R
2.2	Apply for OSCA for the provision of cutting/pruning of protected, fynbos or indigenous trees	No	1	R	R
2.3	Apply for permit by property owner for wayleave servitudes or for the provision of cutting trees for the provision of electrical infrastructure	No	1	R	R
2.4	Arrange permit to work with Electro-technical Department of Municipality	No	1	R	R
2.5	Provide liability and special risks indemnification for year.	No	3	R	R
2.6	For compliance with Compensation Commissioner for workmen's compensation purposes for year.	No	3	R	R
3.	**Training**				
3.1	Conduct pruning activities according to industry standards SAQA Unit Satandard 262157 NQF level 3	No	10	R	R
3.2	Tree felling with a chainsaw using specialised techniques, Unit Standard 117066 NQF level 3	No	10	R	R
3.3	Identify types and `basic characteristics of tree families, Unit Standards 262185, NQF level 3	No	10	R	R
3.4	Certificate prices includes postage and delivery to George Municipality Electro Technical Offices				
3.4.1	Electronic Course Certificate for each successful module completed.	No	10	R	R
3.4.2	Hard Copy Course Certificate for each successful module completed.	No	10	R	R
3.5	Course Facilitator				
3.5.1	Accommodation	Day	10	R	R
3.5.2	Travel	Km	1000	R	R
3.5.3	Additional services	Hour	10	R	R
	Totals to Price Summary Item 1.0 - 3.5.3				R

	BILL B1: VEGETATION MANAGEMENT				
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**LABOUR**	
				RATE	**TOTAL**
	Notes:				
	1. All rates must be exclusive of VAT.				
	2. All rates shall include an amount for transportation where travelling takes place within a radius of fifty (50) km from George Electro-Technical services.				
	3. All rates shall include the cost of sundries, bags, small plant fuel and transportation to approved refuse site for vegetation.				
1.0	**Within overhead line servitude**				
1.1	5 Metres Wide:				
1.1.1	Tree cutting, removal of debris and poisoning.	100m	1	R	R
1.1.2	Slashing and cutting back and removal of new growth and removal of debris.	100m	1	R	R
1.2	15 Metres Wide:				
1.2.1	Tree cutting, removal of debris and poisoning.	100m	1	R	R
1.2.2	Slashing and cutting back and removal of new growth and removal of debris.	100m	1	R	R
1.3	20 Meters Wide:				
1.3.1	Tree cutting, removal of debris and poisoning.	100m	1	R	R
1.3.2	Slashing and cutting back and removal of new growth and removal of debris.	100m	1	R	R
2.0	Grass cutting and weed removal and clearing of area for a distance of 2 metres from base of high mast light.	No	1	R	R
3.0	Grass cutting and weed removal and clearing of area for a distance of 1,5 metres around base of pillar boxes or kiosks.	No	1	R	R
4.0	**Substations:**				
4.1	Grass cutting at Substations and removal debris from substation inclusive of transport to waste site.	m²	1	R	R
4.2	Removal of weeds and poisoning of yard stone and removal of debris from substation inclusive of transport to waste site.	m²	1	R	R

5.0	**Tree cutting:**				
5.1	Removal of tree stump	m^2	1	R	R
5.2	Tree Felling	m^3	1	R	R
Sub Total					
NORMAL HOURS BILL A (1.0 - 5.0) TO BE CARRIED FORWARD TO PRICE SUMMARY					R
TOTAL PERCENTAGE MARK UP AFTERHOURS WORK BILL (1.0 - 5.0)					%
TOTAL MARK UP AFTERHOURS WORK BILL (1.0 -1. 50) TO BE CARRIED FORWARD TO PRICE SUMMARY					R

PRICE SUMMARY	
SUB TOTAL PRILIMANARY & GENERAL BILL B	**R**
SUB TOTAL NORMAL HOURS BILL B1 (1.0 – 5.0)	**R**
SUB TOTAL AFTER HOURS BILL B1 (1.0 – 5.0)	**R**
TOTAL	**R**
15% VAT	**R**
TOTAL PRICE TO BE CARRIED OVER TO FORM OF OFFER	**R**

Name of Tenderer……..

Signature of Tenderer……Date……..

Address:……

……

……

……

……

Tel No:……

E-mail Address:……

PAST EXPERIENCE

This schedule is compulsory to complete!

Bidders must furnish hereunder details of similar works / services, which they have satisfactorily completed in the past. The information shall include a description of the Works / Services, the Contract value and name of Employer.

Employer	Nature of Work	Value of Work	Duration and Completion Date	Employer Contact Number

_____ _____

Date Signature of Tenderer

THE TENDER OFFER

I/We Mr/Mrs/Messrs _____
duly assigned to represent the service provider for the purpose of this tender, hereby tender to supply all or any of the goods and/or render all or any of the services described in the attached documents to the George Municipality on terms and conditions stipulated in this tender and in accordance with the specifications stipulated in the tender documents (which shall be taken as part of, and incorporated into this tender) **at the price/s reflected in the Pricing Schedule/s.**

I/we agree that this offer shall remain valid for a period of **180 days** commencing from the closing date and time of this tender.

I/we further agree that:

This tender and its acceptance shall be subject to the terms and conditions contained in the George Municipality's Supply Chain Management Policy;

If I/we withdraw my/our tender within the period for which I/we have agreed that the tender shall remain open for acceptance, or fail to fulfill the contract when called upon to do so, the George Municipality may, without prejudice to its other rights, agree to the withdrawal of my/our tender or cancel the contract that may have been entered into between me/us and the George Municipality and I/we will then pay to the George Municipality any additional expense incurred by the George Municipality having either to accept any less favorable tender or, if fresh tenders have to be invited, the additional expenditure incurred by the invitation by the invitation of fresh tenders and by the subsequent acceptance of any less favorable tender; the George Municipality shall also have the right to recover such additional expenditure by set-off against moneys which may be due or become due to me/us under this or any other tender or contract or against any guarantee or deposit that may have been furnished by me/us or on my/our behalf for the due fulfillment of this or any other tender or contract and pending the ascertainment of the amount of such additional expenditure or retain such moneys, guarantee or deposit as security for any loss the George Municipality may sustain by reason of my/our default;

If my/our tender is accepted the acceptance may be communicated to me/us by letter or order by certified mail or registered mail. Such posting shall be deemed to be proper service of such notice with effect from the date of posting/dispatch of such notice;

The law of the Republic of South Africa shall govern the contract created by the acceptance of my/our tender and that I/we choose domicilium citandi et executandi in the Republic of South Africa, where any and all legal notices may be served at (full street address on this place):

Physical Address: _____

_____

_____

_____

I/we furthermore confirm that I/we have satisfied myself/ourselves as to the correctness and validity of my/our tender; that the price(s) and rate(s) tendered cover all the work/item(s) specified in the tender documents and that the price(s) and rate(s) cover all my/our obligations under a resulting contract and that I/we accept that any mistakes regarding price(s) and calculations will be at my/our own risk.

I/we hereby accept full responsibility for the proper execution and fulfillment of all obligations and conditions devolving on me/us under this agreement as the Principal(s) liable for the due fulfillment of this contract.

I/we agree that any action arising from this contract may in all respects be instituted against me/us and I/we hereby undertake to satisfy fully any sentence or judgement which may be pronounced against me/us as a result of such action.

I/we declare that I/we have participation / no participation in the submission of any other offer for the supplies/services described in the attached documents. If in the affirmative, state name(s) of tenders involved.

Name: _____

Signature: _____

Date: _____

This form must be completed and signed to be considered provisionally responsive.

ACCEPTANCE

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

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

Name: **MR MICHEAL J RHODE**

Signature: _____

Capacity: **DIRECTOR:ELECTRICAL ENGINEER SERVICES**

Date: _____

For the Employer: **GEORGE MUNICIPALITY**
CIVIC CENTRE
YORK STREET
GEORGE

MBD 1

TAX COMPLIANCE INFORMATION

PART A

Tax Compliance Status	TCS Pin:		**or**	CSD No:	
B-BBEE Status Level Verification Certificate [Tick Applicable Box]	☐ Yes ☐ No		B-BBEE Status Level Sworn Affidavit	☐ Yes ☐ No	
[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE / SWORN AFFIDAVIT (FORM EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]					
Are You The Accredited Representative **In South Africa For The Goods / Services / Works Offered?**	☐ Yes ☐ No [If Yes, Enclose Proof]		Are You A Foreign Based Supplier For **The Goods / Services / Works Offered?**	☐ Yes ☐ No [If Yes, Answer Part 2.]	
Signature of Bidder	……..…		Date	……..	

PART B
TERMS AND CONDITIONS FOR BIDDING

1. TAX COMPLIANCE REQUIREMENTS

1.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.

1.2 BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VIEW THE TAXPAYER'S PROFILE AND TAX STATUS.

1.3 APPLICATION FOR THE TAX COMPLIANCE STATUS (TCS) CERTIFICATE OR PIN MAY ALSO BE MADE VIA E-FILING. IN ORDER TO USE THIS PROVISION, TAXPAYERS WILL NEED TO REGISTER WITH SARS AS E-FILERS THROUGH THE WEBSITE WWW.SARS.GOV.ZA.

1.4 FOREIGN SUPPLIERS MUST COMPLETE THE PRE-AWARD QUESTIONNAIRE IN PART B2.

1.5 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.

1.6 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED; EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.

1.7 WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL CUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.

2. QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS [Tick Applicable Box]

2.1 Is the entity a resident of the Republic of South Africa (RSA)?	YES	NO
2.2 Does the entity have a branch in the RSA?	YES	NO
2.3 Does the entity have a permanent establishment in the RSA?	YES	NO
2.4 Does the entity have any source of income in the RSA?	YES	NO
2.5 Is the entity liable in the RSA for any form of taxation?	YES	NO

IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 1.3 ABOVE.

NB: FAILURE TO PROVIDE ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID. NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE.

Signature of Bidder: ……..

Capacity Under Which This Bid Is Signed: ……..

Date: ……

MBD 4

DECLARATION OF INTEREST

1.	No bid will be accepted from persons in the service of the state*.	
2.	Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in the service of the state, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority.	
3.	In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.	
3.1	Full Name of bidder or his / her representative: ……..	
3.2	Identity number: ……	
3.3	Position occupied in the Company (director, trustee, shareholder[2]): ……..	
3.4	Company Registration Number: …….	
3.5	Tax Reference Number: ……..	
3.6	VAT Registration Number: ……	
3.7	The names of all directors / trustees / shareholders / members, their individual identity numbers and state employee numbers (where applicable) must be indicated in paragraph 4 below.	
3.8	Are you presently in the service of the state?*	**YES / NO**
3.8.1	If yes, furnish the following particulars: Name of person / director / trustee / shareholder member: …….. Name of state institution at which you or the person connected to the bidder is employed: …….. Position occupied in the state institution: …….. Any other particulars: …… ……..	

3.9 3.9.1	Have you been in the service of the state for the past twelve months? If so, furnish particulars. …….. …….	**YES / NO**
3.10 3.10.1	Do you have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid? If yes, furnish the following particulars: Name of person: ……. Name of state institution at which you or the person connected to the bidder is employed: …….. Position occupied in the state institution: …….. Any other particulars: ……. ……..	**YES / NO**
3.11 3.11.1	Are you aware of any relationship (family, friend, other) between the bidder and any person in the service of the state who may be involved with the evaluation and or adjudication of this bid? If yes, furnish the following particulars: Name of person: ……. Name of state institution at which you or the person connected to the bidder is employed: …….. Position occupied in the state institution: …… Any other particulars: ……. …….....	**YES / NO**
3.12 3.12.1	Are any of the company's directors, managers, principal shareholders or stakeholders in the service of the state? If yes, furnish the following particulars:	**YES / NO**

	Name of person / director / trustee / shareholder / member: …… Name of state institution at which you or the person connected to the bidder is employed: …….. Position occupied in the state institution: …… Any other particulars: …… ……..……..	
3.13 3.13.1	Is any spouse, child or parent of the company's directors, trustees, managers, principle shareholders or stakeholders in the service of the state? If yes, furnish the following particulars: Name of person / director / trustee / shareholder / member: …… Name of state institution at which you or the person connected to the bidder is employed: …….. Position occupied in the state institution: …… Any other particulars: …… ……..	**YES / NO**
3.14 3.14.1	Do you or any of the directors, trustees, managers, principle shareholders, or stakeholders of this company have any interest in any other related companies or business whether or not they are bidding for this contract? If yes, furnish particulars: …….. ……..	**YES / NO**

4. Full details of directors / trustees / members / shareholders:

THE FOLLOWING INFORMATION IS COMPULSORY TO COMPLETE:

Full Name	Identity Number	Individual Tax Number for each Director	State Employee Number (where applicable)

5.	**The contract will be automatically cancelled if there is a conflict of interest which is not disclosed by the bidder.**

Protection of Personal Information Act, 2013 (Act no.4 of 2013) (POPIA)

All parties agree that they will comply with Protection of Personal Information Act, 2013 (Act no.4 of 2013) (POPIA) and process all the information and/or personal data in respect of the goods and/or services being rendered in accordance with the said act and only for the purpose of providing the goods and/or services set out in the agreement to provide such goods and/or services.

The contract between the municipality and the service provider must ensure compliance with the Protection of Personal Information Act, 2013 (Act no.4 of 2013) (POPIA), in that the service provider establishes and maintains security measures to safeguard personal information being processed on behalf of the municipality. The service provider must notify the municipality immediately in an event where there are reasonable grounds to believe personal information has been accessed by an unauthorised person.

The contract with a service provider must ensure confidentiality of personal information processed on behalf of the municipality. A supply contract with a service provider must include standard clauses outlining joint responsibility in terms of the protection of personal information.

…….. ……..
Signature Date

…… ……
Capacity Name of Bidder

[1]MSCM Regulations: "in the service of the state" means to be -

(a) a member of –
  (i) any municipal council;
  (ii) any provincial legislature; or
  (iii) the National Assembly or the National Council of Provinces;
(b) a member of the board of directors of any municipal entity;
(c) an official or any Municipality or municipal entity;
(d) an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No. 1 of 1999);
(e) a member of the accounting authority of any national or provincial entity; or
(f) an employee of Parliament or a provincial legislature.

[2]"Shareholder" means a person who owns shares in the company and is actively involved in the management of the company or business and exercise control over the company.

MBD 6.1

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

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

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

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1. GENERAL CONDITIONS

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

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2 To be completed by the organ of state

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

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

(a) Price;
(b) BBBEE; and
(c) Specific Goals.

1.4 To be completed by the organ of state:

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	80
BBBEE	10
SPECIFIC GOALS	10
Total points for PRICE and SPECIFIC GOALS	**100**

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

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

2. DEFINITIONS

(a) **"tender"** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;

(b) **"price"** means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;

(c) **"rand value"** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

(d) **"tender for income-generating contracts"** means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and

(e) **"the Act"** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

3.1.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

A maximum of 80 or 90 points is allocated for price on the following basis:

80/20 **or** **90/10**

$$Ps = 80\left(1 - \frac{Pt - P\,min}{P\,min}\right) \text{ or } \quad Ps = 90\left(1 - \frac{Pt - P\,min}{P\,min}\right)$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

3.2. FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME GENERATING PROCUREMENT

3.2.1. POINTS AWARDED FOR PRICE

A maximum of 80 or 90 points is allocated for price on the following basis:

80/20 **or** **90/10**

$$Ps = 80\left(1 + \frac{Pt - P\,max}{P\,max}\right) \quad \text{or} \quad Ps = 90\left(1 + \frac{Pt - P\,max}{Pmax}\right)$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmax = Price of highest acceptable tender

4. POINTS AWARDED FOR BBBEE AND SPECIFIC GOALS

4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:

4.1.1 Points awarded for B-BBEE Level of Contributor

In terms of the Specific Goals as per the George Municipality Preferential Procurement Policy, preference points must be awarded to a tenderer for attaining the B-BBEE status level of contribution in accordance with the table below:

B-BBEE Status Level of Contributor	Number of Points for Preference (80/20)	Number of Points for Preference (90/10)
1	10	5
2	9	4.5
3	7	3
4	6	2.5
5	4	2
6	3	1.5
7	2	1
8	1	0.5
Non-compliant contributor	0	0

Bidder MUST submit a valid BBBEE certificate, failure to attach no points will be awarded for BBBEE points.

4.1.2 Points awarded for Specific Goals

In terms of the Specific Goals as per the George Municipality Preferential Procurement Policy, preference points must be awarded to a Tenderer for Locality in accordance with the table below:

Locality of Tenderer's Office	Number of points (80/20 system)	Number of points (90/10 system)
Within the boundaries of George Municipality	10	5
Within the boundaries of the Garden Route District Municipality	6	3
Within the borders of the Western Cape	4	2
Outside the borders of the Western Cape	2	1

Bidder's MUST submit proof of address (e. g. municipal account, rental/lease agreement, or affidavit) not older than three (3) months. Failure to attach proof will result in no points awarded for Specific Goals.

George Municipality will reserve the right to use any and all available information at its disposal, including conducting site visits and inspections to verify a bidder's claim of having a local office within the George Municipal area.

The principle of substance over legal form, as defined in the Standards of Generally Recognised Accounting Practice (GRAP), will be applied in such assessments. (This means that even though a bidder may present a rental agreement, the claim of having a local office will be assessed in its actual substance and not by only accepting the legal documentation.)

The purpose of the locality points is to promote local economic development within the George Municipal area and any bidder attempting to circumvent the substance of this initiative through any means, including by means of fronting, will be reported to the National Treasury for blacklisting on the Central Supplier Database (CSD).

4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—

(a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or

(b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,

then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

5. BID DECLARATION

Tenderers who claim points in respect of BBBEE must complete the following:

B-BBEE STATUS LEVEL OF CONTRIBUTOR CLAIMED IN TERMS OF PARAGRAPHS 4.1 AND 4.1.1

5.1.	**Contribution to BBBEE: ..... = ...……(maximum of 5 or 10 points)**

(Points claimed in respect of paragraph 5.1 must be in accordance with the table reflected in paragraph 4.1.1 and **must be substantiated by relevant proof of B-BBEE status level of contributor.**)

LOCALITY OF TENDERERS OFFICE CLAIMED IN TERMS OF PARAGRAPHS 4.1 AND 4.1.2

5.2.	**Contribution to specific Goals: ..... = ...……(maximum of 5 or 10 points)**

(Points claimed in respect of paragraph 5.2 must be in accordance with the table reflected in paragraph 4.1.2 and **must be substantiated by relevant proof of address of a company office.)**

DECLARATION WITH REGARD TO COMPANY/FIRM

5.3. Name of company/firm…….

5.4. Company registration number: ……...

5.5. TYPE OF COMPANY/ FIRM

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

[TICK APPLICABLE BOX]

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

i) The information furnished is true and correct;
ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 5.1 and 5.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that

the claims are correct;

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

…… SIGNATURE(S) OF TENDERER(S)
SURNAME AND NAME: ……
DATE: ……
ADDRESS: ……

MBD 6.1(a)

SWORN AFFIDAVIT – BBBEE EXEMPTED MICRO ENTERPRISE

SWORN AFFIDAVIT – B-BBEE EXEMPTED MICRO ENTERPRISE

I, the undersigned,

Full name & Surname	
Identity number	

Hereby declare under oath as follows:

1. The contents of this statement are to the best of my knowledge a true reflection of the facts.

2. I am a member / director / owner of the following enterprise and am duly authorised to act on its behalf:

Enterprise Name	
Trading Name	
Registration Number	
Enterprise Address	

3. I hereby declare under oath that:

- The enterprise is _____% black owned;
- The enterprise is _____% black woman owned;
- Based on the management accounts and other information available on the _____ financial year, the income did not exceed R10,000,000.00 (ten million rands);
- Please confirm on the table below the B-BBEE level contributor, **by ticking the applicable box.**

100% black owned	**Level One** (135% B-BBEE procurement recognition)	
More than 51% black owned	**Level Two** (125% B-BBEE procurement recognition)	
Less than 51% black owned	**Level Four** (100% B-BBEE procurement recognition)	

4. The entity is an empowering supplier in terms of **the dti** Codes of Good Practice.

5. I know and understand the contents of this affidavit and I have no objection to take the prescribed oath and consider the oath binding on my conscience and on the owners of the enterprise which I represent in this matter.

6. The sworn affidavit will be valid for a period of 12 months from the date signed by commissioner.

Deponent Signature: _____

Date: _____

_____

Commissioner of Oaths
Signature & stamp

MBD8

DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

1 This Municipal Bidding Document must form part of all bids invited.

2 It serves as a declaration to be used by municipalities and municipal entities in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.

3 The bid of any bidder may be rejected if that bidder, or any of its directors have:

a. abused the municipality's / municipal entity's supply chain management system or committed any improper conduct in relation to such system;
b. been convicted for fraud or corruption during the past five years;
c. willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or
d. been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004).

4 In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

Item	Question	Yes	No
4.1	Is the bidder or any of its directors listed on the National Treasury's database as a company or person prohibited from doing business with the public sector? (Companies or persons who are listed on this database were informed in writing of this restriction by the National Treasury after the *audi alteram partem* rule was applied). **The Database of Restricted Suppliers now resides on the National Treasury's webiste (www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.**	Yes ☐	No ☐
4.1.1	If so, furnish particulars:		
4.2	Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)? **The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.**	Yes ☐	No ☐

4.2.1	If so, furnish particulars:		
4.3	Was the bidder or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?	Yes ☐	No ☐
4.3.1	If so, furnish particulars:		

Item	Question	Yes	No
4.4	Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?	Yes ☐	No ☐
4.4.1	If so, furnish particulars:		
4.5	Was any contract between the bidder and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes ☐	No ☐
4.5.1	If so, furnish particulars:		

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME) ……..……

CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS TRUE AND CORRECT.

I ACCEPT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MAY BE TAKEN AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

…….. **……..……**

Signature **Date**

…… **……..…..**

Position **Name of Bidder**

MBD 9

CERTIFICATE OF INDEPENDENT BID DETERMINATION

1 This Municipal Bidding Document (MBD) must form part of all bids[1] invited.

2 Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).[2] Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.

3 Municipal Supply Regulation 38(1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:

a. take all reasonable steps to prevent such abuse;

b. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and

c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.

4 This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.

5 In order to give effect to the above, the attached Certificate of Bid Determination (MBD9) must be completed and submitted with the bid:

[1] **Includes price quotations, advertised competitive bids, limited bids and proposals.**

[2] **Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.**

MBD 9

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

TENDER NUMBER: GMT029/24-25

TENDER FOR THE APPOINTMENT OF SERVICE PROVIDERS TO PERFORM ELECTRICAL CONSTRUCTION MAINTENANCE AND VEGETATION MANAGEMENT WORKS FOR A PERIOD OF THREE YEARS, FROM DATE OF APPOINTMENT.

Mr/Mrs/Ms

in response to the invitation for the bid made by:

GEORGE MUNICIPALITY

do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of:_____that:
(Name of Bidder)

1. I have read and I understand the contents of this Certificate;

2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;

3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;

4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;

5. For the purposes of this Certificate and the accompanying bid, I understand that the word “competitor” shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:

   (a) has been requested to submit a bid in response to this bid invitation;
   (b) could potentially submit a bid in response to this bid invitation, based on
   their qualifications, abilities or experience; and
   (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder.

MBD9

6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium[3] will not be construed as collusive bidding.

7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:

   (a) prices;
   (b) geographical area where product or service will be rendered (market allocation)
   (c) methods, factors or formulas used to calculate prices;
   (d) the intention or decision to submit or not to submit, a bid;
   (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
   (f) bidding with the intention not to win the bid.

8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.

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

10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No. 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No. 12 of 2004 or any other applicable legislation.

…… ……
Signature Date

…… ……
Position Name of Bidder

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

CERTIFICATE FOR MUNICIPAL SERVICES (COMPULSORY TO COMPLETE)

Information required in terms of the Supply Chain Management Regulations, Regulation 28 (1) (c).

Tender Number: GMT029/24-25

Name of the Bidder: _____

DETAILS OF THE BIDDER/S: Owner / Proprietor / Director(s) / Partner(s), etc:

Physical Business address of the Bidder	Municipal Account Number(s)

If there is not enough space for all the names, please attach the additional details to the Tender document.

Name of Director / Member / Partner	Identity Number	Physical **residential** address of Director / Member / Partner	Municipal Account number(s)

I, _____, the undersigned,

(full name in block letters)

certify that the information furnished on this declaration form is correct and that I/we have no undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment if overdue for more than 30 days.

_____

Signature

THUS DONE AND SIGNED for and on behalf of the Bidder / Contractor

at _____ on the _____ day of _____ 2025

PLEASE NOTE:

MUNICIPAL ACCOUNTS FOR ALL PROPERTIES OWNED BY BIDDER/S MUST BE ATTACHED TO THE TENDER DOCUMENT!

Even if the requested information is not applicable to the Bidder, the table above should be endorsed NOT APPLICABLE with a reason and THIS DECLARATION MUST STILL BE COMPLETED AND SIGNED. In the event of leasing, a lease agreement MUST be attached to the tender document.

GEORGE MUNICIPALITY PROCUREMENT

GENERAL CONDITIONS OF CONTRACT

TABLE OF CLAUSES

General Conditions of Contract

1. Definitions:

1. The following terms shall be interpreted as indicated:

1.1 “Closing time” means the date and hour specified in the bidding documents for the receipt of bids.
1.2 “Contract” means the written agreement entered into between the purchaser and the supplier, as recorded in the contract form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.
1.3 “Contract price” means the price payable to the supplier under the contract for the full and proper performance of his contractual obligations.
1.4 “Corrupt practice” means the offering, giving, receiving, or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution.
1.5 "Countervailing duties" are imposed in cases where an enterprise abroad is subsidized by its government and encouraged to market its products internationally.
1.6 “Country of origin” means the place where the goods were mined, grown or produced or from which the services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembly of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.
1.7 “Day” means calendar day.
1.8 “Delivery” means delivery in compliance of the conditions of the contract or order.
1.9 “Delivery ex stock” means immediate delivery directly from stock actually on hand.
1.10 “Delivery into consignees store or to his site” means delivered and unloaded in the specified store or depot or on the specified site in compliance with the conditions of the contract or order, the supplier bearing all risks and charges involved until the goods are so delivered and a valid receipt is obtained.
1.11 "Dumping" occurs when a private enterprise abroad market its goods on own initiative in the RSA at lower prices than that of the country of origin and which have the potential to harm the local industries in the RSA.
1.12 ”Force majeure” means an event beyond the control of the supplier and not involving the supplier’s fault or negligence and not foreseeable. Such events may include, but is not restricted to, acts of the purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
1.13 “Fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any bidder, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the bidder of the benefits of free and open competition.
1.14 “GCC” means the General Conditions of Contract.
1.15 “Goods” means all of the equipment, machinery, and/or other materials that the supplier is required to supply to the purchaser under the contract.
1.16 “Imported content” means that portion of the bidding price represented by the cost of components, parts or materials which have been or are still to be

imported (whether by the supplier or his subcontractors) and which costs are inclusive of the costs abroad, plus freight and other direct importation costs such as landing costs, dock dues, import duty, sales duty or other similar tax or duty at the South African place of entry as well as transportation and handling charges to the factory in the Republic where the goods covered by the bid will be manufactured.

1.17 "Local content" means that portion of the bidding price which is not included in the imported content provided that local manufacture does take place.

1.18 "Manufacture" means the production of products in a factory using labour, materials, components and machinery and includes other related value-adding activities.

1.19 "Order" means an official written order issued for the supply of goods or works or the rendering of a service.

1.20 "Project site," where applicable, means the place indicated in bidding documents.

1.21 "Purchaser" means the organization purchasing the goods.

1.22 "Republic" means the Republic of South Africa.

1.23 "SCC" means the Special Conditions of Contract.

1.24 "Services" means those functional services ancillary to the supply of the goods, such as transportation and any other incidental services, such as installation, commissioning, provision of technical assistance, training, catering, gardening, security, maintenance and other such obligations of the supplier covered under the contract.

1.25 "Supplier" means the successful bidder who is awarded the contract to maintain and administer the required and specified service(s) to the State.

1.26 "Tort" means in breach of contract.

1.27 "Turnkey" means a procurement process where one service provider assumes total responsibility for all aspects of the project and delivers the full end product / service required by the contract.

1.28 "Written" or "in writing" means hand-written in ink or any form of electronic or mechanical writing.

2. Application:

2.1 These general conditions are applicable to all bids, contracts and orders including bids for functional and professional services (excluding professional services related to the building and construction industry), sales, hiring, letting and the granting or acquiring of rights, but excluding immovable property, unless otherwise indicated in the bidding documents.

2.2 Where applicable, special conditions of contract are also laid down to cover specific supplies, services or works.

2.3 Where such special conditions of contract are in conflict with these general conditions, the special conditions shall apply.

3. General:

3.1 Unless otherwise indicated in the bidding documents, the purchaser shall not be liable for any expense incurred in the preparation and submission of a bid. Where applicable a non-refundable fee for documents may be charged.

3.2 Invitations to bid are usually published in locally distributed news media and on the municipality/municipal entity website.

4. Standards:

4.1 The goods supplied shall conform to the standards mentioned in the bidding documents and specifications.

5. Use of contract documents and information inspection:

5.1 The supplier shall not, without the purchaser's prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the purchaser in connection therewith, to any person other than a person employed by the provider in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.

5.2 The supplier shall not, without the purchaser's prior written consent, make use of any document or information mentioned in GCC clause 5.1 except for purposes of performing the contract.

5.3 Any document, other than the contract itself mentioned in GCC clause 5.1 shall remain the property of the purchaser and shall be returned (all copies) to the purchaser on completion of the provider's performance under the contract if so required by the purchaser.

5.4 The supplier shall permit the purchaser to inspect the supplier's records relating to the performance of the supplier and to have them audited by auditors appointed by the purchaser, if so required by the purchaser.

6. Patent rights:

6.1 The provider shall indemnify the purchaser against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the goods or any part thereof by the purchaser.

6.2 When a supplier developed documentation / projects for the municipality or municipal entity, the intellectual, copy and patent rights or ownership of such documents or projects will vest in the municipality or municipal entity.

7. Performance security:

7.1 Within thirty (30) days of receipt of the notification of contract award, the successful bidder shall furnish to the purchaser the performance security of the amount specified in SCC.

7.2 The proceeds of the performance security shall be payable to the purchaser as compensation for any loss resulting from the supplier's failure to complete his obligations under the contract.

7.3 The performance security shall be denominated in the currency of the contract, or in a freely convertible currency acceptable to the purchaser and shall be in one of the following forms:

(a) a bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the purchaser's country or abroad, acceptable to the purchaser, in the form provided in the bidding documents or another form acceptable to the purchaser; or

(b) a cashier's or certified cheque.

7.4 The performance security will be discharged by the purchaser and returned to the provider not later than thirty (30) days following the date of completion of the supplier's performance obligations under the contract, including any warranty obligations, unless otherwise specified.

8. Inspections, tests and analyses:

8.1 All pre-bidding testing will be for the account of the bidder.

8.2 If it is a bid condition that goods to be produced or services to be rendered should at any stage be subject to inspections, test and analyses, the bidder or contractor's premises shall be open, at all reasonable hours, for inspection by a representative of the purchaser or an organization acting on behalf of the purchaser.

8.3 If there are no inspection requirements indicated in the bidding documents and no mention is made in the contract, but during the contract period it is decided that inspections shall be carried out, the purchaser shall itself make the necessary arrangements, including payment arrangements with the testing authority concerned.

8.4 If the inspections, tests and analyses referred to in clauses 8.2 and 8.3 show the goods to be in accordance with the contract requirements, the cost of the inspections, tests and analyses shall be defrayed by the purchaser.

8.5 Where the goods or services referred to in clauses 8.2 and 8.3 do not comply with the contract requirements, irrespective of whether such goods or services are accepted or not, the cost in connection with these inspections, tests or analyses shall be defrayed by the supplier.

8.6 Goods and services which are referred to in clauses 8.2 and 8.3 and which do not comply with the contract requirements may be rejected.

8.7 Any contract goods may on or after delivery be inspected, tested or analysed and may be rejected if found not to comply with the requirements of the contract. Such rejected goods shall be held at the cost and risk of the supplier who shall, when called upon, remove them immediately at his own cost and forthwith substitute them with goods which do comply with the requirements of the contract. Failing such removal the rejected goods shall be returned at the suppliers cost and risk. Should the supplier fail to provide the substitute goods forthwith, the purchaser may, without giving the supplier further opportunity to substitute the rejected goods, purchase such goods as may be necessary at the expense of the supplier.

8.8 The provisions of clauses 8.4 to 8.7 shall not prejudice the right of the purchaser to cancel the contract on account of a breach of the conditions thereof, or to act in terms of Clause 23 of GCC.

9. Packing:

9.1 The supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing, case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.

9.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the contract, including additional requirements, if any, and in any subsequent instructions ordered by the purchaser.

10. Delivery and documents:

10.1 Delivery of the goods and arrangements for shipping and clearance obligations shall be made by the supplier in accordance with the terms specified in the contract.

11. Insurance:

11.1 The goods supplied under the contract shall be fully insured in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified.

12. Transportation:

12.1 Should a price other than an all-inclusive delivered price be required, this shall be specified.

13. Incidental services:

13.1 The supplier may be required to provide any or all of the following services, including additional services, if any:

(a) performance or supervision of on-site assembly and/or commissioning of the supplied goods;
(b) furnishing of tools required for assembly and/or maintenance of the supplied goods;
(c) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied goods;
(d) performance or supervision or maintenance and/or repair of the supplied goods, for a period of time agreed by the parties, provided that this service shall not relieve the supplier of any warranty obligations under this contract; and
(e) training of the purchaser's personnel, at the supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied goods.

13.2 Prices charged by the supplier for incidental services, if not included in the contract price for the goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the provider for similar services.

14. Spare parts:

14.1 As specified, the supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the supplier:

(a) such spare parts as the purchaser may elect to purchase from the supplier, provided that this election shall not relieve the supplier of any warranty obligations under the contract; and
(b) in the event of termination of production of the spare parts:
    (i) advance notification to the purchaser of the pending termination, in sufficient time to permit the purchaser to procure needed requirements; and
    (ii) following such termination, furnishing at no cost to the purchaser, the blueprints, drawings, and specifications of the spare parts, if requested.

15. Warranty:

15.1 The supplier warrants that the goods supplied under the contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the contract. The supplier further warrants that all goods supplied under this

contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the purchaser's specifications) or from any act or omission of the supplier, that may develop under normal use of the supplied goods in the conditions prevailing in the country of final destination.

15.2 This warranty shall remain valid for twelve (12) months after the goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the contract, or for eighteen (18) months after the date of shipment from the port or place of loading in the source country, whichever period concludes earlier, unless specified otherwise.

15.3 The purchaser shall promptly notify the supplier in writing of any claims arising under this warranty.

15.4 Upon receipt of such notice, the supplier shall, within the period specified and with all reasonable speed, repair or replace the defective goods or parts thereof, without costs to the purchaser.

15.5 If the supplier, having been notified, fails to remedy the defect(s) within the period specified, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expense and without prejudice to any other rights which the purchaser may have against the supplier under the contract.

16. Payment:

16.1 The method and conditions of payment to be made to the supplier under this contract shall be specified.

16.2 The supplier shall furnish the purchaser with an invoice accompanied by a copy of the delivery note and upon fulfillment of other obligations stipulated in the contract.

16.3 Payments shall be made promptly by the purchaser, but in no case later than thirty (30) days after submission of an invoice or claim by the supplier.

16.4 Payment will be made in Rand unless otherwise stipulated.

17. Prices:

17.1 Prices charged by the supplier for goods delivered and services performed under the contract shall not vary from the prices quoted by the provider in his bid, with the exception of any price adjustments authorized or in the purchaser's request for bid validity extension, as the case may be.

18. Variation orders:

18.1 In cases where the estimated value of the envisaged changes in purchase does not exceed 15% of the total value of the original contract, the contractor may be instructed to deliver the goods or render the services as such. In cases of measurable quantities, the contractor may be approached to reduce the unit price, and such offers may be accepted provided that there is no escalation in price.

19. Assignment:

19.1 The supplier shall not assign, in whole or in part, its obligations to perform under the contract, except with the purchaser's prior written consent.

20. Subcontracts:

20.1 The supplier shall notify the purchaser in writing of all subcontracts awarded under these contracts if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the supplier from any liability or obligation under the contract.

21. Delays in the Supplier's Performance:

21.1 Delivery of the goods and performance of services shall be made by the supplier in accordance with the time schedule prescribed by the purchaser in the contract.

21.2 If at any time during performance of the contract, the supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the goods and performance of services, the supplier shall promptly notify the purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the supplier's notice, the purchaser shall evaluate the situation and may at his discretion extend the supplier's time for performance, with or without the imposition of penalties, in which case the extension shall be ratified by the parties by amendment of contract.

21.3 The right is reserved to procure outside of the contract small quantities or to have minor essential services executed if an emergency arises, the supplier's point of supply is not situated at or near the place where the goods are required, or the supplier's services are not readily available.

21.4 Except as provided under GCC Clause 25, a delay by the supplier in the performance of its delivery obligations shall render the supplier liable to the imposition of penalties, pursuant to GCC Clause 22, unless an extension of time is agreed upon pursuant to GCC Clause 22.2 without the application of penalties.

21.5 Upon any delay beyond the delivery period in the case of a goods contract, the purchaser shall, without cancelling the contract, be entitled to purchase supplies of a similar quality and up to the same quantity in substitution of the goods not supplied in conformity with the contract and to return any goods delivered later at the supplier's expense and risk, or to cancel the contract and buy such goods as may be required to complete the contract and without prejudice to his other rights, be entitled to claim damages from the supplier.

22. Penalties:

22.1 Subject to GCC Clause 25, if the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed goods or unperformed services using the current prime interest rate calculated for each day of the delay until actual delivery or performance. The purchaser may also consider termination of the contract pursuant to GCC Clause 23.

23. Termination for default:

23.1 The purchaser, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, may terminate this contract in whole or in part:

(a) if the supplier fails to deliver any or all of the goods within the period(s) specified in the contract, or within any extension thereof granted by the purchaser pursuant to GCC Clause 21.2;

(b) if the supplier fails to perform any other obligation(s) under the contract; or

(c) if the supplier, in the judgement of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.

23.2 In the event the purchaser terminates the contract in whole or in part, the purchaser may procure, upon such terms and in such manner as it deems appropriate, goods, works or services similar to those undelivered, and the supplier shall be liable to the purchaser for any excess costs for such similar goods, works or services. However, the supplier shall continue performance of the contract to the extent not terminated.

23.3 Where the purchaser terminates the contract in whole or in part, the purchaser may decide to impose a restriction penalty on the supplier by prohibiting such supplier from doing business with the public sector for a period not exceeding 10 years.

23.4 If a purchaser intends imposing a restriction on a supplier or any person associated with the supplier, the supplier will be allowed a time period of not more than fourteen (14) days to provide reasons why the envisaged restriction should not be imposed. Should the supplier fail to respond within the stipulated fourteen (14) days the purchaser may regard the supplier as having no objection and proceed with the restriction.

23.5 Any restriction imposed on any person by the purchaser will, at the discretion of the purchaser, also be applicable to any other enterprise or any partner, manager, director or other person who wholly or partly exercises or exercised or may exercise control over the enterprise of the first-mentioned person, and with which enterprise or person the first-mentioned person, is or was in the opinion of the purchaser actively associated.

23.6 If a restriction is imposed, the purchaser must, within five (5) working days of such imposition, furnish the National Treasury, with the following information:

(i) the name and address of the supplier and / or person restricted by the purchaser;

(ii) the date of commencement of the restriction;

(iii) the period of restriction; and

(iv) the reasons for the restriction.

These details will be loaded in the National Treasury's central database of suppliers or persons prohibited from doing business with the public sector.

23.7 If a court of law convicts a person of an offence as contemplated in sections 12 or 13 of the Prevention and Combating of Corrupt Activities Act, No 12 of 2004, the court may also rule that such person's name be endorsed on the Register for Tender Defaulters. When a person's name has been endorsed on the Register, the person will be prohibited from doing business with the public sector for a period not less than five years and not more than 10 years. The National Treasury is empowered to determine the period of restriction and each case will be dealt with on its own merits. According to section 32 of the Act the Register must be open to the public. The Register can be perused on the National Treasury website.

24. <u>Anti-Dumping and Counter-Vailing duties and rights</u>:

24.1 When, after the date of bid, provisional payments are required, or anti-dumping or countervailing duties are imposed, or the amount of a provisional payment or anti-dumping or countervailing right is increased in respect of any dumped or subsidized import, the State is not liable for any amount so required or imposed, or for the amount of any such increase. When, after the said date, such a provisional payment is no longer required or any such anti-

dumping or countervailing right is abolished, or where the amount of such provisional payment or any such right is reduced, any such favourable difference shall on demand be paid forthwith by the supplier to the purchaser or the purchaser may deduct such amounts from moneys (if any) which may otherwise be due to the supplier in regard to supplies or services which he delivered or rendered, or is to deliver or render in terms of the contract or any other contract or any other amount which may be due to him.

25. Force Majeure:

25.1 Notwithstanding the provisions of GCC Clauses 22 and 23, the supplier shall not be liable for forfeiture of its performance security, damages, or termination for default if and to the extent that his delay in performance or other failure to perform his obligations under the contract is the result of an event of force majeure.

25.2 If a force majeure situation arises, the supplier shall promptly notify the purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the force majeure event.

26. Termination for insolvency:

26.1 The purchaser may at any time terminate the contract by giving written notice to the supplier if the supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the purchaser.

27. Settlement of disputes:

27.1 If any dispute or difference of any kind whatsoever arises between the purchaser and the supplier in connection with or arising out of the contract, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.

27.2 If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the purchaser or the supplier may give notice to the other party of his intention to commence with mediation. No mediation in respect of this matter may be commenced unless such notice is given to the other party.

27.3 Should it not be possible to settle a dispute by means of mediation, it may be settled in a South African court of law.

27.4 Notwithstanding any reference to mediation and/or court proceedings herein,

(a) the parties shall continue to perform their respective obligations under the contract unless they otherwise agree; and

(b) the purchaser shall pay the supplier any monies due to the supplier for goods delivered and / or services rendered according to the prescripts of the contract.

28. Limitation of liability:

28.1 Except in cases of criminal negligence or willful misconduct, and in the case of infringement pursuant to Clause 6;

(a) the supplier shall not be liable to the purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the supplier to pay penalties and/or damages to the purchaser; and
(b) the aggregate liability of the supplier to the purchaser, whether under the contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

29. Governing language:

29.1 The contract shall be written in English. All correspondence and other documents pertaining to the contract that is exchanged by the parties shall also be written in English.

30. Applicable law:

30.1 The contract shall be interpreted in accordance with South African laws, unless otherwise specified.

31. Notices:

31.1 Every written acceptance of a bid shall be posted to the supplier concerned by registered or certified mail and any other notice to him shall be posted by ordinary mail to the address furnished in his bid or to the address notified later by him in writing and such posting shall be deemed to be proper service of such notice.
31.2 The time mentioned in the contract documents for performing any act after such aforesaid notice has been given, shall be reckoned from the date of posting of such notice.

32. Taxes and duties:

32.1 A foreign supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the purchaser's country.
32.2 A local supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted goods to the purchaser.
32.3 No contract shall be concluded with any bidder whose tax matters are not in order. Prior to the award of a bid SARS must have certified that the tax matters of the preferred bidder are in order.
32.4 No contract shall be concluded with any bidder whose municipal rates and taxes and municipal services charges are in arrears.

33. Transfer of contracts:

33.1 The contractor shall not abandon, transfer, cede assign or sublet a contract or part thereof without the written permission of the purchaser.

34. Amendment of contracts:

34.1 No agreement to amend or vary a contract or order or the conditions, stipulations or provisions thereof shall be valid and of any force unless such agreement to amend or vary is entered into in writing and signed by the

contracting parties. Any waiver of the requirement that the agreement to amend or vary shall be in writing, shall also be in writing.

35. Prohibition of restrictive practices:

35.1 In terms of section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, an agreement between, or concerted practice by, firms, or a decision by an association of firms, is prohibited if it is between parties in a horizontal relationship and if a bidder(s) is / are or a contractor(s) was / were involved in collusive bidding.

35.2 If a bidder(s) or contractor(s) based on reasonable grounds or evidence obtained by the purchaser has / have engaged in the restrictive practice referred to above, the purchaser may refer the matter to the Competition Commission for investigation and possible imposition of administrative penalties are contemplated in section 59 of the Competition Act No 89 of 1998.

35.3 If a bidder(s) or contractor(s) has / have been found guilty by the Competition Commission of the restrictive practice referred to above, the purchaser may, in addition and without prejudice to any other remedy provided for, invalidate the bid(s) for such item(s) offered, and / or terminate the contract in whole or part, and / or restrict the bidder(s) or contractor(s) from conducting business with the public sector for a period not exceeding ten (10) years and / or claim damages from the bidder(s) or contractor(s) concerned.