health
Department:
Health
PROVINCE OF KWAZULU-NATAL

Quotation Advert

Opening Date:	18/01/2019
Closing Date:	25/01/2019
Closing Time:	11:00

INSTITUTION DETAILS

Institution Name:	Head Office Quotations
Province:	KwaZulu-Natal
Department or Entity:	Department of Health
Division or section:	Central Supply Chain Management
Place where goods / services is required	Corporate Services
Date Submitted	17/01/2019

ITEM CATEGORY AND DETAILS

Quotation Number:	ZNQ: 694/18/19-H
Item Category:	Services
Item Description:	To supply and install Electrical Items at Natalia Building
Quantity (if supplies)	Various

COMPULSORY BRIEFING SESSION / SITE VISIT

Select Type:	Compulsory Site Visit
Date :	21/01/2019
Time:	11H00
Venue:	Natalia Building, -1 Basement Workshops
QUOTES CAN BE COLLECTED FROM:	310 Jabu Ndlovu street, Old boys Model, SCM Offices, Tender Advisory Section
QUOTES SHOULD BE DELIVERED TO:	310 Jabu Ndlovu street, Old boys Model, SCM Offices, Ground Floor Tender Box

ENQUIRIES REGARDING THE ADVERT MAY BE DIRECTED TO:

Name:	Nolwazi Mthembu
Email:	nolwazi.mthembu1@kznhealth.gov.za
Contact Number:	

033-8158407

Finance Manager Name: Mr A. Alfredson

Finance Manager Signature:

No late quotes will be considered

Submit | Save | Save As... | Close | Print Preview

Print this page

Note:

STANDARD QUOTE DOCUMENTATION OVER R30 000.00

YOU ARE HEREBY INVITED TO QUOTE FOR REQUIREMENTS AT: DEPARTMENT OF HEALTH- CENTRAL SCM
DATE ADVERTISED: 18/01/2019
PHYSICAL ADDRESS: 310 JABU NDLOVU STREET, SCM OFFICES,PIETERMARITZBURG, 3201

ZNQ NUMBER: 694/18/19-H CLOSING DATE: 25/01/2019 CLOSING TIME: 11:00

DESCRIPTION: SUPPLY, INSTALL ELECTRICAL ITEMS ON GROUND FLOOR, SOUTH TOWER

CONTRACT PERIOD: Once off VALIDITY PERIOD 60 Days

SARS PIN.....

CENTRAL SUPPLIER DATABASE REGISTRATION (CSD) NO.

UNIQUE REGISTRATION REFERENCE

DEPOSITED IN THE QUOTE BOX SITUATED AT *(STREET ADDRESS)*

310 JABU NDLOVU STREET, PIETERMARITZBURG, SCM OFFICES, TENDER ADVISORY

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

The quote box is open from 08:00 to 15:30.

ALL QUOTES MUST BE SUBMITTED ON THE OFFICIAL FORMS – (NOT TO BE RE-TYPED)

THIS QUOTE IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2011, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.

THE FOLLOWING PARTICULARS MUST BE FURNISHED
(FAILURE TO DO SO WILL RESULT IN YOUR QUOTE BEING DISQUALIFIED)

NAME OF BIDDER .....

POSTAL ADDRESS .....

STREET ADDRESS .....

TELEPHONE NUMBER CODE.....NUMBER..... FACSIMILE NUMBER CODE .....NUMBER.....

CELLPHONE NUMBER .....

E-MAIL ADDRESS .....

VAT REGISTRATION NUMBER (If VAT vendor) .....

HAS A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE BEEN SUBMITTED? (SBD 6.1) YES ☐ NO ☐

IF YES, WHO WAS THE CERTIFICATE ISSUED BY? [TICK APPLICABLE BOX]

AN ACCOUNTING OFFICER AS CONTEMPLATED IN THE CLOSE CORPORATION ACT (CCA) .....☐
A VERIFICATION AGENCY ACCREDITED BY THE SOUTH AFRICAN ACCREDITATION SYSTEM (SANAS); .....☐
A REGISTERED AUDITOR.....☐
[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/SWORN AFFIDAVIT (FOR EMEs& QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]

YES ☐ NO ☐

ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS / SERVICES / WORKS OFFERED? **[IF YES ENCLOSE PROOF]**

OFFICIAL PRICE PAGE FOR QUOTATIONS

SIGNATURE OF BIDDER ..... DATE.....
[By signing this document I hereby agree to all terms and conditions]

CAPACITY UNDER WHICH THIS QUOTE IS SIGNED.....

Item No	Quantity	Description	Brand & model	Country of manufacture	Price	
					R	c
1	Various	To supply, install Electrical items at Natalia				
		Building, South Tower, Ground Floor				
		CIDB grade ME is compulsory				
		NB: Specification attached				
		Compulsory Site Inspection				
		Venue:-1 Basement Workshop,Natalia Building				
		Date: 21/01/2019 @ 11H00				
		Responses to be delivered:310 Jabu Ndlovu				
		street,Old Boys Model quotation tender box,				
		with current CSD summary report				
		reflecting banking details, certified copy				
		of B-BBEE certificate by verified agency and				
		accredited by SANAS,				
		Tax Clearance certificate or SARS pin				
VALUE ADDED TAX (Only if VAT Vendor)						
TOTAL QUOTATION PRICE (VALIDITY PERIOD 60 Days)						

Does This Offer Comply With The Specification?		Does The Article Conform To The S.A.N.S. / S.A.B.S. Specification?	
Is The Price Firm?		State Delivery Period E.G. *E.G. 1day, 1week*	

Enquiries regarding the quote may be directed to: Contact Person: Nolwazi Mthembu Tel: 033-8158407	**Enquiries regarding technical information may be directed to:** Contact Person: Nompumelelo Nsele Tel 033-3952101

NATALIA: GROUND FLOOR SOUTH
ELECTRICAL INSTALLATION
PART 3- SCHEDULE OF QUANTITIES

Item No		Unit	Quantity	Rate	Amount
	All Quantities are Provisional and are subject to remeasurement on completion of the works				
	ELECTRICAL INSTALLATIONS				
1	**GENERAL ITEMS**				
1.1	The contractor shall allow here whatever price or costs he may consider necessary for completion of the works with exception of the items measured below	Item			
1.2	Site facilities - If required	Item			
1.3	Power Supply	Item			
1.4	Registration	Item			
1.5	Site Conditions	Item			
1.6	Building and other civil work	Item			
1.7	Testing of the installation and issuing of Certificates of Compliance	Item			
1.8	Maintenance and patent defects liability period (12 months)	Item			
1.9	As built documentation	Item			
1.10	Make safe and remove exisitng electrical installation, including socket outlets, DB, and wiring to socket outlets- Lighting Circuits to remain.	Item			
2	**OUTLET POINTS, EARTHING & BONDING**				
	Socket outlets				
2.1	16A, SSO, Standard flush mounted socket outlet suitable for mounting in a 100 x 100mm flush box	No.	5		
2.2	16A, SSO, Flush Mounted, Shaved Earth Pin with Red Cover Plate for mounting in a 100 x 100mm flush box (dedicated power)	No.	5		
2.3	16A Switched Socket outlet suitable for mounting in a power skirting as specified	No.	40		
2.4	16A Switched Socket outlet suitable for mounting in a power skirting, with shaved earth pin and red cover plate (dedicated)	No.	40		

NATALIA: GROUND FLOOR SOUTH
ELECTRICAL INSTALLATION
PART 3- SCHEDULE OF QUANTITIES

Item No		Unit	Quantity	Rate	Amount
	SUBTOTAL- CARRIED FORWARD				

NATALIA: GROUND FLOOR SOUTH
ELECTRICAL INSTALLATION
PART 3- SCHEDULE OF QUANTITIES

Item No		Unit	Quantity	Rate	Amount
	SUBTOTAL- BROUGHT FORWARD				
	Switches, and isolators				
2.5	Single lever, one way, flush mounted switch excluding box.	No.	5		
2.6	1 Phase 20A isolator, including surface mounting box	No.	3		
	Hydroboils				
	Supply and Install				
2.7	15 litre, 2.5kW Hydroboil, including wiring into Isolator	No.	1		
3	**WIREWAYS, CONDUITS AND WIRING**				
	PVC Conduit complete with cutting, bending, jointing, wastage, installation and fixing materials.				
	Supply and install				
3.1	20mm Diameter	m	200		
3.2	25mm Diameter	m	200		
3.3	25mm Diameter galvanised steel conduit installed on surface as cable protection (RATE ONLY)	m	0		
	Outlet boxes				
	Supply and install				
3.4	Flush mounted 100 x 100mm outlet box	No.	7		
3.5	Flush mounted 100 x 50mm switch box (RATE ONLY)	No.	0		
	Power Skirting				
	Supply and install				
3.6	2 Compartment, 2 Cover Steel Epoxy Powder Coated Power Skirting, complete with End caps and all ancilliaries	m	130		
3.7	Supply and Install Blank Data/Telephone cover plates for Power Skirting	no	40		

NATALIA: GROUND FLOOR SOUTH
ELECTRICAL INSTALLATION
PART 3- SCHEDULE OF QUANTITIES

Item No		Unit	Quantity	Rate	Amount
	SUBTOTAL- CARRIED FORWARD				

NATALIA: GROUND FLOOR SOUTH
ELECTRICAL INSTALLATION
PART 3- SCHEDULE OF QUANTITIES

Item No		Unit	Quantity	Rate	Amount
	SUBTOTAL- BROUGHT FORWARD				
	P2000 Channel				
	Supply and install				
3.7	Galanised Channel, with PVC cover plate equivalent to Unistrut P2000, including all fixing and ancilliaries	m	90		
	Supply and install				
3.8	Galanised Wire Basket, installed including all fixing and ancilliaries	m	90		
	PVC insulated copper wiring installed in conduit or wiring channel				
3.9	1.5mm^2	m	100		
3.10	2.5mm^2	m	1250		
4	**DISTRIBUTION BOARDS**				
	Supply and Install Distribution Boards, fitted with switchgear as measured below Prices to include for connection of exisitng cable, and all internal connections/busbars necessary. Also price for connection of existing lighting circuits into DB				
	(please price per item)				
4.1	**DB 1- To be fitted over exisitng DB tray** 1000mm (h) x 600mm (w) x 150mm (d) semi flush DB, complete with architrave and door fitted over exisitng DB tray and fitted with:	Item	1		
4.1.1	100A, 3P Isolator	no	1		
4.1.2	60A, 2P, Earth leakage unit	no	3		
4.1.3	20A, 1P Circuit Breaker	no	25		
4.1.4	10A, 1P Circuit Breaker	no	6		
4.1.5	20A, 3P Circuit Breaker	no	3		
5	**EARTHING AND BONDING**				
5.1	Provide Earthing and Bonding according to SANS 10313 for power skirting and all other bonding as required	item	1		
6	SUBTOTAL				

NATALIA: GROUND FLOOR SOUTH
ELECTRICAL INSTALLATION
PART 3- SCHEDULE OF QUANTITIES

Item No		Unit	Quantity	Rate	Amount
6.1	ADD 15% VAT				
7	TOTAL CARRIED FORWARD TO TENDER FORM				

NATALIA: GROUND FLOOR SOUTH:
ELECTRICAL INSTALLATION

PART 2,

PROJECT SPECIFICATION :

1. **SCOPE** :

This specification covers the supply, delivery and installation of the electrical installation Natalia, Ground Floor South Refurbishment. The Scope includes but is not limited to the following:

- Removal of Exiting electrical installation, including DB and small power. *Lighting Circuits to remain.*
- Supply and Install DB as measured and fit over exiting DB tray.
- Reconnect cables etc and circuits of exiting Lighting Circuits and new power circuits
- Supply and Installation of Power Skirting and Wireways.
- Supply and Install Socket outlets, Isolators and wiring to such
- Installation of a Hydroboil

This is a Direct Contract- there is no Principal Contractor

2. **DRAWINGS**:

There are no drawings issued for tender purposes, however construction drawings will be issued prior to construction.

3. **SPECIFICATIONS** :

(a) This project specification shall be read with the standard specifications in Part 1.

(i) Where reference is made to the Electrical Contract or the Contractor, it shall deem to mean the Electrical Contractor (Direct Contractor)

4. **BUILDERS AND OTHER CIVIL WORK**:

(1) Unless specifically stated otherwise all building and other civil work will not form part of this contract.

(2) All boxes and conduits shall be build into the walls and cast into the floor and ceiling slabs. Chasing will not be required.

5. **TESTING OF THE INSTALLATION**:

(1) Test reports on all manufacturer's routine tests in accordance with the relevant specifications shall be submitted to the Engineer.

(2) Tests shall include:

(a) Earth resistance tests.
(b) Insulation resistance of all equipment.
(c) All tests as required for the issue of a Certificate of Compliance.

(3) Test and Compliance Certificates for all equipment as required by SANS 10142 shall be submitted.

6. **MAINTENANCE AND DEFECTS LIABILITY PERIOD**:

(1) The maintenance and defects liability period shall be 12 months.

(2) The Contractor shall attend a final delivery inspection at the end of the defects liability period.

7. **SUPERVISION BY CONTRACTOR**:

Installation work shall be carried out under the effective supervision of an electrician qualified in terms of ruling legislation and experienced to carry out and supervise the work.

8. **INCLUDE EVERYTHING NECESSARY**

(1) The Electrical Tenderer shall include in the Rates measured in Part 3-Bills of Quantities, Everything Necessary to complete the works. If items are omitted from the BOQ, Rates measured shall include for these items.

9. **BILLS OF QUANTITIES**

The Bills of Quantities attached as Part 3 of This Document are deemed to be Re-measurable upon completion of the works. Quantities are Provisional

NATALIA: GROUND FLOOR SOUTH
PART 1

GENERAL TECHNICAL SPECIFICATION FOR ELECTRICAL INSTALLATIONS

CONTENTS **Page**

GENERAL TECHNICAL SPECIFICATION FOR ELECTRICAL INSTALLATIONS

NATALIA GROUND FLOOR SOUTH

1.1 GENERAL REQUIREMENTS

1.1.1 General information

(1) This general technical specification covers the general requirements regarding material, equipment, installation, testing and commissioning of the installation and shall be read in conjunction with the conditions of tender, conditions of subcontract and the Project Specification for the specific installation.

(2) The complete installation shall comply with the requirements of this specification. Should any differences or contradictions exist between this specification and the Project Specification for the specific installation, then the latter shall take preference.

(3) It is in the interest of the Subcontractor to notify the Engineer when the installation reaches various stages of completion so that the Engineer may inspect the installation and point out deficiencies. These inspections will be informal and under no circumstances will they partly or wholly invalidate the requirements of the documents. Any costs incurred in correcting deficiencies shall be for the Subcontractor's account.

1.1.2 Compliance with regulations

1.1.2.1 Regulations

The installation shall be erected and commissioned in compliance with the latest amendments of the following acts and regulations:

(1) The Occupational Health and Safety Act, Act No 85 of 1993.

(2) The Minerals Act, Act No 50 of 1991, which includes the Mines and Works Regulations.

(3) The local Municipal byelaws and regulations as well as the regulations of the local Supply Authority.

(4) The local Fire Regulations.

(5) The National Building Regulations and Building Standards Act including the Code of Practice for the Application of the Regulations, SABS 0400.

(6) The regulations of the Department of Posts and Telecommunication.

(7) The regulations of the local Gas Board, where applicable.

(8) The standard regulations of any Government Department or public service company, where applicable.

1.1.2.2 Notices and amendments to regulations

(1) In addition the Subcontractor shall issue all notices and pay all the required fees in respect of the installation to the local authorities and shall exempt the Employer from all losses, costs or expenditures which may arise as a result of the Subcontractor's negligence to comply with the requirements of the aforementioned regulations.

(2) It is assumed that the Subcontractor is conversant with the abovementioned requirements. Should any requirement, bye-law or regulation which contradicts the requirements of this specification, apply or become applicable during erection of the installation, such requirement, bye-law or regulation shall overrule this specification. The Subcontractor shall immediately inform the Engineer of such a contradiction. Under no circumstances shall the Subcontractor carry out any variations to the installation in terms of such contradictions without obtaining the written permission to do so from the Engineer.

1.2 QUALITY CONTROL

(1) The Subcontractor shall apply the codes of practice for quality systems as outlined in SABS ISO 9000 to SABS ISO 9004.

(2) The particular codes of practice for quality systems to be applied during all stages of design, development, production, installation and servicing to be carried out by the Subcontractor are as follows:

Quality management and quality assurance standards - Guidelines for selection and use	SABS ISO 9000
Quality systems - Model for quality assurance in design/development, production, installation and servicing	SABS ISO 9001
Quality systems - Model for quality assurance in production and installation	SABS ISO 9002
Quality systems - Model for quality assurance in final inspection and test	SABS ISO 9003
Quality management and quality system elements - Guidelines	SABS ISO 9004

1.3 COMPLIANCE OF ELECTRICAL COMPONENTS AND CIRCUITS WITH STANDARD EQUIPMENT AND MATERIAL SPECIFICATIONS

1.3.1 General Requirements

	SABS specification	Alternative specification
Standard voltages, currents and insulation levels for electricity supply	1019	
The protection of structures against lightning	03	
Installation and maintenance of electrical equipment used in explosive atmospheres	086	
The Wiring of Premises	0142	

1.3.2 Substations, transformers and transformer equipment

	SABS specification	Alternative specification
Low voltage isolating transformers	743	
Distribution transformers	780	
Miniature substations	1029	
Mini-substations	NRS 004	
Standard longitudinal miniature sub-stations of rating not exceeding 315 kVA	1030	

1.3.3 Distribution boards, terminal boxes and enclosures

	SABS specification	Alternative specification
Flameproof enclosures for electrical apparatus	314	
Enclosures for electrical apparatus for use in Class II, Divisions 1 and 2 locations (dust-ignition-proof or hose-proof or both)	969	
Electrical distribution boards	1180	Part 4 of this specification
Enclosures for electrical equipment (classified according to the degree of protection that the enclosure provides)	1222	

1.3.4 Control equipment

	SABS specification	Alternative specification
Low-voltage air-break switches, air-break disconnectors, air-break switch-disconnectors, and fuse-combination units	152	BS EN 60947
Moulded-case circuit-breakers	156	VC 8036
Surge arresters for low voltage distribution systems	171	
Cartridge type fuse-links for low voltage electric fuses	172	
Fuse-link holders for cartridge type fuse-links	173	
Earth leakage protection units	767	VC 8035
Electric light dimmers	1012	
Contactors	1092	BS EN 60947 & Part 4 of this specification

low-voltage switchgear and control gear assemblies	1473	IEC 439
Manually operated air-break switches (Schedule no. 1)		VC 8003
Specification for coding of indicating devices and actuators by colours and supplementary means		BS EN 60073
Specification for coding of indicating devices and actuators by colours and supplementary means		BS EN 60073

1.3.5 Measuring and metering equipment

	SABS specification	Alternative specification
Current transformers	IEC 185	
Voltage transformers	IEC 186	
Direct acting indicating analogue electrical measuring instruments and their accessories		BS 89 EN 60051

1.3.6 Cables, conductors and busbars

	SABS specifications	Alternative specifications
Electric cables - impregnated-paper-insulated metal-sheathed cables for rated voltages from 3,3/3,3 kV up to 19/33 kV	97	
Rubber-insulated cables and flexible cords	168	
Flexible polyvinyl chloride (PVC) compounds for electrical purposes	175	
Heat-resisting wiring cables	529	
Metal-enclosed busbar trunking systems	784	
Enamelled copper conductors	1181	
Busbars	1195	

Polymeric or rubber insulated, combined neutral/earth (CNE) cables with solid aluminium phase conductors and a con-centric copper wire waveform combined neutral/earth conductor	1268	
Materials of insulated electric cables and flexible cords	1411	
Electric cables with extruded solid dielectric insulation for fixed installations (300/500 V to 1 900/3 300 V)	1507	
Electrical cables - Flexible cords	1574	
The selection, handling and installation of electric power cables of rating not exceeding 33 kV	0198	
Flexible cords for power and lighting appliances (Schedule no. 4)		VC 8006

1.3.7 Conduit and conduit fittings

	SABS specification	Alternative specification
Unplasticized polyvinyl chloride (PVC) rigid conduit and fittings for use in electrical installations	950	
Metal conduits and fittings (screwed-end and plain-end) for electrical wiring	1065	

1.3.8 Sockets, Couplers and Connectors

	SABS specification	Alternative specification
Wall and appliance switches	163	
Plugs and socket-outlets for household and similar purposes	164	
Cover plates for wall outlet boxes	1084	
Wall outlet boxes for the enclosure of electrical accessories	1085	
Plugs, socket-outlets, couplers and connectors of rated current in the range 16-200A	1239	

Plugs and socket-outlets for household and similar purposes	1514	
Plugs, socket-outlets and socket-outlet adaptors (Schedule no. 6)		VC 8008

1.3.9 Lighting luminaires and fittings

	SABS Specification	Alternative Specification
Incandescent lamps	56	
Lamp holders	165	
Ballasts for fluorescent lamps	890	
Fluorescent lamp reference ballasts	891	
Tubular fluorescent lamps for general service	1041	
Luminaire entries and spigots	1088	
Interior luminaires for fluorescent lamps	1119	
Capacitors for use with fluorescent and other discharge lamp ballasts	1250	
Ballasts for low pressure sodium vapour and high intensity discharge lamps	1266	
Reference ballasts for low pressure sodium vapour and high intensity discharge lamps	1267	
Street lighting luminaires	1277	
Interior luminaires for low pressure sodium vapour and high intensity discharge lamps	1278	
Floodlighting luminaires	1279	
High-pressure mercury vapour lamps	1421	
Safety of luminaires	1464	
Glow-starters for tubular fluorescent lamps	1479	
High-pressure sodium vapour lamps	IEC 662	
Starting devices (other than glow starters) - General and safety requirements	IEC 926	
Starting devices (other than glow starters) - Performance requirements	IEC 927	
Bulkhead lighting fittings (surface mounted)		CKS 199

Lamp holders and lamp holder adaptors (Schedule no. 9)		VC 8011
The safety of starters for tubular fluorescent lamps		VC 8039
The safety of incandescent lamps		VC8043

1.3.10 Appliances and general equipment

	SABS Specification	Alternative Specification
Pressure-sensitive adhesive tapes for electrical purposes	122	
Fixed electric storage water heaters	151	
Low voltage porcelain insulators	161	
Porcelain cleats, bobbins and leading-in tubes	176	
Thermostats for electric storage water heaters	181	
Immersion heaters for electric storage water heaters	514	
Earth rods, couplers and clamps	1063	
Wire ways for electrical cables	1197	
Fixed electric instantaneous water heaters	1356	
Electrical terminals and connectors	1433	
General requirements for enclosures for accessories for household and similar fixed electrical installations	IEC 670	
The safety of electrical appliances (Household and similar electrical appliances (including luminaires)		VC 8001
The safety of electrical stoves and hotplates (Schedule no. 8)		VC 8010

1.3.11 Material Specification of paints and galvanised finishes

	SABS specification	Alternative specification
Red lead primers for structural steel	312	
Decorative high gloss enamel paint for interior and exterior use	630	
Decorative oil gloss paint for interior and exterior use	631	
Zinc-chromate primers for steel	679	
Epoxy tar paints (used in moist areas)	801	
Two-pack zinc-rich epoxy primer	926	
Hot-dip (galvanized) zinc coatings on steel sheet and strip	934	
Hot-dip (galvanized) zinc coatings on steel wire	935	
National colour standards for paint	1091	
Coatings applied by the powder coating process	1274	
Two-pack epoxy resin based solution and solvent-free finishing paints	1325	
Preparation of steel surfaces for coating	064	

1.3.12 Alternative Standards

(1) Material and equipment shall comply in respect of quality, manufacture, tests and performance with the aforementioned standards or alternatively also to the current specification of at least one (1) of the following standards institutes:

(a) International Standards Organisation (ISO).

(b) International Electro technical Commission (IEC)

(c) European Standards (EN)

(d) British Standards Organisation (BS).

(e) Deutsche Industrie Normen (DIN).

(2) When referring to the aforementioned specifications, the abbreviations, ISO, IEC, BS, EN and DIN will be stated. When a specific specification number is specified, the latest applicable issue and amendment shall be consulted.

(3) Should material and apparatus used comply or be in accordance with the standard of any other recognised standards institution, this shall be clearly stated at the time of tender.

(4) Upon being requested to do so by the Engineer the Subcontractor shall supply a certificate of a recognised Research Laboratory or Bureau of Standards for materials used.

(5) Imported materials shall comply with the requirements of the appropriate SABS or other specification although these materials need not necessarily bear these marks.

1.4 EQUIPMENT, MATERIAL AND APPARATUS

(1) The equipment, materials and apparatus used in the installation shall be new and of best commercial quality with a high reliability and shall be selected for ease of maintenance.

(2) All materials shall be suitable for the conditions on site. These conditions shall include weather conditions as well as conditions under which the materials are installed and used. Should the materials or components not be suitable for use under temporary site conditions, the Subcontractor shall at his own cost provide suitable protection until these unfavourable site conditions cease to exist.

(3) Samples of all equipment shall upon request of the Engineer be submitted for approval before installation is commenced. All such samples may be retained until completion of the subcontract. All such samples shall have securely attached thereto labels designating the subcontract by name and number (if any), the name of the Subcontractor and any further relevant information.

(4) Individual components or apparatus such as batteries, terminal blocks, electrical control equipment, etc, shall when used in the installation be of the same make, type or series for each item used throughout the installation. Standardisation and mutual interchangeability of parts and components are essential and the aforementioned requirements must be considered in the Subcontractor's approach to the interpretation of the specification, and may be subject to approval by the Engineer following demonstrations of the equipment capability by the Subcontractor.

(5) The aim must be to standardize component types, series and make, thus reducing the number of items to be held by the Employer as spare parts.

(6) Equipment shall also be readily available. It must be possible to have imported equipment available in South Africa on an agency basis. Upon request the Subcontractor shall guarantee that such equipment or components may be available in South Africa.

(7) Manufacture of subunits or subassemblies forming part of a system shall be jig-built if required in quantities more than five to ensure uniformity and final manufacture to close tolerances to ensure smooth operation of such systems.

(8) Notwithstanding the foregoing, and to best serve the Employer's needs and interests, tenders will only be considered for currently manufactured reliable equipment of good reputation which can properly be maintained and serviced without the necessity of the Employer carrying an extensive spares stock or

being subjected to the inconvenience of long periods of interrupted service due to the unavailability of parts.

1.5 STANDARD OF CRAFTSMANSHIP

(1) All work for this installation shall be executed according to the latest professional standards.

(2) The Subcontractor shall nominate a senior and competent member of his staff to supervise all his staff on site throughout the period of installation in order that standards of craftsmanship are maintained and safety regulations are adhered to. This nominated person shall also liaise with other contractors, where necessary, and with the Architect and Engineer on a day-to-day basis where applicable.

(3) Site staff shall be experienced and competent personnel, adequately trained to execute the various duties assigned to them.

(4) Before equipment is installed, all installed wiring shall be checked to ensure that routes are correctly followed, category segregation is maintained, in respect of electrical power circuits, electrical control circuits and communications systems, and that no accidental damage has occurred to the cables during installation. All metal conduits shall be connected by a low impedance path to earth.

(5) The Subcontractor shall liaise with the Contractor and other subcontractors such that areas where distribution boards and other finishing work is done, is clean and dry before the installation of these items commence.

(6) Material or workmanship which is not to the satisfaction of the Engineer, shall be rectified at the cost of the Subcontractor. All rejected material shall be removed from site at the cost of the Subcontractor.

(7) The Subcontractor shall be responsible for the correct and complete erection of the installation to comply with the requirements of the Project Specification for the installation.

1.6 INSPECTIONS AND TESTS

1.6.1 Routine inspections and tests

(1) The equipment and components of the installation will be inspected by the Engineer on a routine basis during the manufacture of the equipment and during installation on site. For this purpose the Engineer must be allowed access at all reasonable times to the workshops of all manufacturers of equipment and components for the installation.

(2) Such inspections shall not exempt the Subcontractor from his responsibility in respect of the control of quality of equipment and workmanship.

(3) The Subcontractor must execute all tests in the workshops of manufacturers or at any other venue or on site during or before erection of the installation in compliance with the requirements of this specification.

(4) Any additional tests, which according to the judgement of the Engineer may be necessary to determine whether the installation or equipment complies with the requirements of the specification, must be done upon instruction of the Engineer. All such tests must be done in the presence of and to the satisfaction of the Engineer at the place, date and time mutually agreed to.

(5) The Subcontractor shall provide all test equipment, test apparatus and other auxiliary equipment and must prepare test certificates as specified or as requested by the Engineer.

(6) The Subcontractor must report to the Engineer on a routine basis regarding the progress of manufacturing the equipment and the progress of installing the equipment on site, so that the Engineer may decide when progress inspections should be undertaken as necessary to inspect workmanship and quality of material.

(7) The Subcontractor must, when necessary, arrange with the local Supply Authority for tests to be done as required. The Engineer must be timeously informed of such tests to be conducted.

1.6.2 Testing on Site

(1) After the equipment has been installed on site, the Subcontractor shall undertake performance tests of the equipment to ensure that the equipment is fully operational in compliance with the requirements of this specification. These tests shall be undertaken during the commissioning of the equipment on site.

(2) Should the Subcontractor be satisfied that such tests meet all the requirements of the specification, the Engineer shall be informed thereof so that inspections and tests may be undertaken by the Engineer and representatives of the Employer to determine whether the specified requirements have been met.

(3) All equipment, instruments and test equipment, including all interconnections for executing such tests, must be supplied by the Subcontractor.

(4) The Contractor or Employer shall provide the electrical supply at the specified voltage and rating free of charge where required to test the equipment on site.

(5) Should the results of such tests prove that the equipment does not comply with the requirements of this specification, the Subcontractor shall, without delay, at his own cost undertake modifications and adjustments as required, to ensure that the installation and equipment is modified to comply with the requirements of this specification. These modifications and adjustments shall be carried out with the full knowledge and approval of the Engineer.

1.7 DISTRIBUTION BOARDS

1.7.1 General

(1) Distribution boards shall be of robust construction with a steel angle section or bent sheet steel framework and shall be equipped with sheet steel removable panels fitted to the framework.

(2) The sheet steel shall have a minimum thickness of 1,6 mm.

(3) The board shall be fully equipped with the equipment as specified in the Project Specification.

1.7.2 Construction

(1) The construction of the boards shall be such that isolators, circuit breakers, contactors and all other electrical control equipment are mounted on the framework. Upon removal of the panels the wiring and equipment shall be easily accessible.

(2) Distribution boards to be built into walls must be provided complete with flush mounted tray with fixing brackets to bolt the architrave to the tray. This tray must be built flush into the wall and conduit terminated onto the tray perimeter framework.

(3) Where distribution boards must be built flush into walls or semi-flush into walls, it must be equipped with an adjustable sheet steel architrave frame to compensate for any irregularities in the mounting plaster thickness or the distribution board tray position in the wall.

(4) All boards shall be completely vermin-proof.

1.7.3 Cable gland support brackets for floor mounted distribution boards

(1) Removable cable gland support brackets shall be installed at the bottom approximately 200 mm above the base of the board.

(2) Should cable connections be done at the upper framework, the sheet steel panels shall be suitably strengthened to allow for the connection of the glands of the cables to the top panels of the distribution board.

1.7.4 Panels

(1) Panels shall be of sheet steel, suitably stiffened with machine-punched slots to allow for flush mounting of circuit breakers and isolators, such that toggles only protrude at the front panel.

(2) Punched slots for future circuit breakers shall be fitted with blank plates securely latched or screwed to the panels.

(3) Each panel shall be provided with return edge sections to cover rebate edge sections provided in the distribution board frame when the panel is fitted on the framework. Alternatively the panels can be installed flush in the board framework covering the rebate edge sections.

(4) Panels shall be attached to the frame by means of studs and chromium plated brass hexagonal dome nuts and washers. Panels may also be fitted by means of two pins at the bottom and locks or latches at the top. The panels shall be fitted with handles for purposes of removal.

(5) The distance between the panel and the inside of door(s) shall not be less than 35 mm in cases where doors are required.

1.7.5 Doors

(1) Doors must have a smooth flat finish and shall be suitably braced to ensure stiffness. Doors must generally be manufactured similar to panels as specified.

(2) The width of single doors must not exceed 600 mm and each door must be provided with suitable hinges supplied complete with latching washers to prevent doors from opening more than 120 □ such that paintwork on adjacent doors or panels cannot be damaged.

(3) All doors shall be constructed of sheet steel with a minimum thickness of 2,0 mm.

(4) When doors are opened it must be possible to remove the doors from the hinges.

(5) The doors must be provided with a latch mounted in the door panel complete with handle, and when specified be provided with a lock and key.

1.7.6 Busbars

(1) Busbars for each phase and neutral shall be of solid copper, each with a minimum cross section of 18 x 6 mm. The busbars shall be mounted on suitable insulators or must be connected directly to the terminals of single-pole circuit breakers and must be designed to withstand the mechanical and thermal stresses under conditions of short circuit.

(2) The current density shall not exceed 1,5 A/mm².

(3) Busbars shall be mounted horizontally with the long edges of cross sections vertical and as a group, one above the other or adjacent to each other, not less than 50 mm apart and 150 mm away from the nearest equipment.

(4) Each board must be provided with an earth busbar. Should the equipment installed on the board be provided with control equipment, which must be connected to a separate insulated or technical earth, the board shall be provided with an earth bar, which is insulated from the metal framework of the board.

(5) Busbars mounted on insulators and earth and neutral busbars shall be provided with sufficient spare terminal connections of approximately 30% of the present requirement as installed.

(6) Connections to busbars shall be effected by means of lugs or ferrules as required, sweated or crimped to conductor or cable ends and bolted to the busbars or screwed to the busbar terminals by means of steel bolts, screws and nuts.

1.7.7 Conductors and wiring

(1) Conductors of the internal wiring shall be large enough to carry the current in each respective circuit. Current ratings shall comply with the regulations as specified in this Part 4 of the specification. Conductors shall be derated to comply with the regulations when bunched in trunking or bound together as installed.

(2) Wiring shall be done by means of PVC insulated conductors neatly arranged in horizontal and vertical rows, and bound by means of suitable PVC ties or installed in PVC type wiring ducts provided complete with snap-in type PVC cover plates.

(3) The colour of the insulated conductors of the internal wiring of the boards shall be done according to the phase colours and a colour code used throughout the installation and the following colours must be utilized in agreement with the regulations:

(a) Alternating voltage phase conductors: Red, white and blue

(b) Neutral conductor: Black

(c) Earth continuity conductor: Green or green/yellow

(d) Control wiring: Grey

(e) DC voltage conductors: Orange

(4) All wiring shall be kept free and away from any exposed terminals, or other insulated current carrying components. All ends of wiring connected to circuit breakers shall be soldered or must be provided with tinned lugs which are fixed and clamped to the conductor ends by means of the hydraulic or crimping method before insertion into the terminals.

(5) Looping from terminals of main switches, circuit breakers, isolators or contactors will be allowed for a maximum of two outgoing circuits only. Where there are more than two circuits, they shall be connected to busbars or be connected via terminals.

1.7.8 Terminals

(1) All external connections for control, alarm interlocking and measuring circuits must be connected to terminal strips for the control circuits.

(2) The terminals shall be of the "Klippon" type SAK series or similar, the type number depending upon the current rating as required or as recommended by the supplier for the particular conductor size connected to those particular terminals.

1.7.9 Labels

(1) Each distribution board shall be provided with an engraved label fitted to the panel, door or mainframe of the distribution board, identifying the board number.

(2) Adjacent to the board number, a sub-label shall be provided to identify the origin of the supply to this particular board.

(3) Should separate supplies be provided to the board, i.e. for main and emergency supply, the origin of each supply shall be separately identified.

(4) The engraved letters shall be approximately 20 mm high and shall be a white background with black lettering.

(5) Danger notices and the main switch labels for emergency supplies shall be engraved with red lettering on a white background.

(6) The main isolating switches shall be clearly labelled in accordance with the regulations.

(7) Main supply equipment on the distribution board shall be provided with labels indicating the function, circuit control and the rating of the equipment.

(8) A separate legend card covered by removable transparent acrylic plastic shall be installed on the inside of distribution boards and individual sub-circuits shall be designated on this legend card. The number of the sub-circuits and the destination (e.g. room number) of the equipment to which the particular sub-circuit is connected, shall be shown.

(9) The numeral identification system shall be utilized for sub-circuits.

(10) All labels shall be fixed to the panels by means of screws, or fitted in aluminium channels screwed to the steel panels.

(11) All safety warning notices to comply with the regulations shall be provided on the distribution board in the official languages.

1.7.10 Finish

(1) All metal parts shall be degreased, rinsed, pickled, rinsed, phosphated, neutralised and then thoroughly dried.

(2) Within 48 hours the metal parts shall be painted with one layer of a zinc chromate or other suitable primer utilized for an epoxy or polyester baked powder coated based paint, followed by two final coats of paint.

(3) After the boards have been installed on site, they shall be protected at all times to prevent damage to paintwork. Damage done to the paintwork shall be neatly repaired by means of the specified paint to the satisfaction of the Engineer.

(4) The general external colour of the boards or consoles shall be Light Orange (code B26) unless otherwise specified. The inside surfaces shall be cloud white code G80. Panels enclosing equipment connected to emergency

supplies shall be painted Red (code A11). Samples of all colours must be submitted to the Engineer for approval.

(5) Cable gland support brackets shall be repainted after holes have been made in these panels.

1.7.11 Balance of loads

(1) The Subcontractor shall be required to balance the loads on all distribution boards as evenly as possible across the three phases during conditions of full load.

(2) This must be done to the approval and satisfaction of the Engineer and local Supply Authority before final acceptance.

1.7.12 Drawings

(1) Drawings of all distribution boards shall be submitted to the Engineer for his approval prior to the manufacture of these boards. Upon completion of the boards, the Engineer shall be informed so that he may inspect them in the factory before despatch to site.

(2) Upon completion of the installation, final "as-built" schematic diagrams of all distribution boards, including detail of all control interconnections between boards, shall be submitted to the Engineer in agreement with the requirements of the project specification. Should no requirement be specified, three copies of such drawings shall be submitted to the Engineer.

(3) Refer to Part 5 or subsequent parts of this specification (project specification) in respect of further details of information to be submitted for use by the Employer.

1.8 ELECTRICAL AND ELECTRONIC EQUIPMENT COMPONENTS AND CIRCUITS

1.8.1 Selector switches

(1) Selector switches shall be of the cam-operated type provided with air-break type contacts. Each pole must be provided with two sliding action type contacts. The specified number of poles and the number of switching functions must be provided such that the switching functions could be done by means of one switch operating on a common shaft.

(2) Unless otherwise specified the selector switches shall be manufactured for installation flush in distribution boards.

(3) An identification label indicating the switching position and function of the selector switch for each switching position must be installed on the front face of the panel.

(4) The voltage and current rating of the selector switch must be suitable for the control functions and for the current in the particular circuits to which the selector switch will be connected.

1.8.2 Contactors

(1) Contactors shall comply with the requirements as specified in the standard equipment and material specifications for electrical components and circuits.

(2) Self-locking contactors must be provided with a tripping coil and a closing coil. The contactor must remain in the closed position when the closing coil has been switched off and must open only when the tripping coil has been activated. Self-locking contactors must be suitable such that the tripping coil could be operated at 50 per cent of the normal rated voltage.

(3) All contactors installed in groups and utilized as forward/ reversing, star/delta, main supply/emergency supply or similar control configuration, shall be provided in the control group with a mechanical interlocking system. If required, such pairs or groups of contactors shall be mounted and accurately aligned on special rigid base frames to ensure proper operation of the mechanical interlocking system.

(4) The contactors shall be fitted with nameplates. The current rating shall appear on the nameplate.

1.8.3 Relays

(1) All relays installed in the installation shall be fitted with transparent plastic or other moulded type housing. The housing shall enclose the contacts, relay mechanism and coil and shall ensure that these components are kept in a dust-free environment.

(2) Each relay shall be fitted with a plug-in type base of Bakelite or other equivalent type of insulating material. The base shall be fixed to the control board in such a fashion that the relay and its housing may be unplugged easily.

(3) When the relay is plugged into the base, the relay and housing shall be secured by means of a wire spring type clip onto the base framework such that the relay contacts would not be dislodged from the socket during abnormal vibration of the relays.

(4) The choice of contact material of the relay must be done after having considered all factors influencing the operation of the relay such as:

(a) Current, voltage, inductance and capacitance of the circuit, and the duty cycle of the relay;

(b) Environmental conditions such as temperature and humidity, and

(c) The switching and mechanical operating mechanism of the relay.

(5) The relays must be provided to allow for the switching functions as specified in the project specification. Contacts of the break-before-make and make before-break type must be inherent in the design of the relay. These contacts shall not be provided by bending contact leaves or stems.

(6) All external connections to the relay shall be soldered to the contacts on the base of the relay.

1.8.4 Pushbuttons

(1) Impulse type pushbuttons or self-locking type pushbuttons must be manufactured for the rating and the operational duty as required and must be provided with the required number of contacts for the particular circuit to which the pushbuttons are connected.

(2) The pushbuttons must be suitable for flush mounting in control boards and control consoles or in draw boxes installed in the walls. Pushbuttons must be provided with a screw type-fixing ring for mounting these on a sub framework in the equipment shroud.

(3) Red pushbuttons must generally be provided for the "TRIP", "STOP" or "OFF" control functions, whereas green pushbuttons must be provided for "ON" control functions. For other control functions the colour of the pushbuttons shall be selected to a logical format associated with the particular function to meet the requirements of the Engineer.

(4) Pushbuttons installed in walls or other non-metallic surfaces and flush mounted in the surfaces must be provided with special draw boxes such that the cover plates are installed flush in the wall.

(5) Self-locking pushbuttons must be manufactured similar to impulse type pushbuttons. When the self-locking push button is pressed a second time, the self-locking latch of the push button must be released.

(6) Where required pushbuttons must be provided with internal light emitting diodes (LED's) or key switches as specified in the project specification. If pushbuttons are provided with indicator lights, series resistors must be installed such that the voltage rating of the LED's are not exceeded.

(7) Generally switching functions of pushbuttons shall be indicated by means of symbols or figures engraved on the moulded shroud. This shall be the preferred method of identifying the pushbuttons. Details of the proposed symbols shall, however, be submitted to the Engineer for approval, prior to installation of the push button bezels.

1.8.5 Indicator lights

(1) All indicator lights on control boards, and consoles shall be provided with light emitting diodes (LED's) only. The size of the indicator light shall be approximately 18 x 24 mm suitable for the particular applications as specified in the project specification.

(2) The LED's shall consist of the multiple LED's installed in a common screw or bayonet cap lamp holder (depending upon the lamp holder type of the indicator light) and shall be provided complete with a series protective diode and series resistors suitable for the particular circuit. In general the number of LED's shall be suitable to fully illuminate the shroud of the indicator light (approximately 6 LED's).

(3) Indicator lights installed on control boards and control consoles must generally be manufactured similar to the push buttons. The LED to internally illuminate the indicator light shroud must switch on when a certain switching function must be displayed.

(4) The colour of the shroud shall be green and red for indicating an "ON" and "OFF" switching state respectively or any other colour for a particular control function as required.

(5) Indicator lights on consoles shall generally be of the rectangular type installed in logical groups for each particular control function.

(6) Where indicator lights are installed on boards or consoles connected to a common control voltage supply, a lamp test push button shall be installed and connected via diodes such that all indicator lights could be tested simultaneously for operation of these indicator lights.

(7) Generally indicator light functions shall be indicated by means of symbols or figures engraved on the moulded shroud. This shall be the preferred method of identifying the display function of indicator lights. Details of the proposed symbols shall however be submitted to the Engineer for approval prior to the installation of the indicator light bezels.

1.8.6 Time switches

Time switches shall be suitable for operation at the system voltage with silver to silver or other approved contacts rated at not less than 10A with an electrically wound clockwork or battery reserve of eight hours minimum and shall have the following features:

(1) Daily programmable with minimum 30 minute "ON" and "OFF" control segments.

(2) Weekly programmable with day omission segments of minimum 12 hours, i.e. mornings or afternoons.

(3) A clock face dial with hour and minute hands.

1.8.7 Ammeters

(1) Each Ammeter shall have a dial of 96 x 96 mm and be a flush mounted 5A instrument.

(2) The ammeter shall be a combined maximum demand registering and instantaneous indicating type including a direct reading scale with an overall full scale deflection corresponding to 120% of the rated circuit current.

(3) The ammeters shall be installed complete with the required current transformers to monitor the current as per the requirement of the project specification.

(4) Full load ratings shall be indicated with an indelible red line.

(5) The load to be measured at each selector position shall be indicated on the ammeter selector switching positions.

1.8.8 Voltmeters

(1) Voltmeters shall be similarly manufactured as specified for ammeters with a full-scale indication of up to 500V.

(2) When connected via a voltmeter selector switch, the switch shall allow for six "reading" positions including a separate "OFF" position.

(3) The voltage to be measured at each selector position shall be indicated on the voltmeter selector switch label.

1.8.9 Switches and socket outlets

(1) Watertight switches shall be of quick make and break type with boxes of robust brass, aluminium or galvanised cast iron with machined joints.

(2) All switches and switched socket outlets of the domestic or industrial type shall be rated for 250V 16A.

(3) Three phase socket outlets shall be of the CEE-17, 380V, 6h pattern with five contact tubes incorporating an interlocked switch and shall be rated as specified.

1.8.10 Luminaires

(1) All luminaires shall be complete with lamps, ballasts, chokes, control gear and all other accessories as required. All luminaires shall be equipped with an earth terminal and shall be properly earthed.

(2) Internal wiring of luminaires shall consist of heat resisting PVC insulated stranded copper conductors of not less than 0,5 mm^2.

(3) Luminaires shall be designed to prevent excessive high temperatures and components and materials shall be selected so that they are not adversely affected by the operating temperature.

(4) The voltage rating and lamp wattage shall be clearly and indelibly marked on control gear. Ballasts shall be power factor corrected to at least 0,9 lagging and shall have a minimum circuit efficiency of 0,85.

(5) Ballasts shall be silent in operation. Noise level reports, prepared by an accredited laboratory, shall on request be submitted for approval to the Engineer.

(6) The wattage and type of the lamp suitable for use in the luminaires shall be clearly marked on the base of the luminaire close to the lamp holder. For incandescent luminaires, the maximum wattage of the lamp shall be given.

1.9 CONDUIT AND TRUNKING WIRE WAYS AND THE INSTALLATION OF CONDUIT AND TRUNKING WIRE WAYS

1.9.1 General

(1) Conduit, conduit fittings and trunking wire ways for electrical cabling shall comply with the requirements as specified in the standard equipment and material specifications for electrical components and circuits.

(2) The conduit and trunking shall be installed by the Subcontractor and all wiring in the conduit and trunking shall be done by the Subcontractor.

(3) The Subcontractor shall install the conduit and trunking according to the requirements as specified in the following subparagraphs.

(4) Generally all interconnections between distribution boards, control boards and control consoles shall be done by means of PVC-insulated multi-core cables.

(5) When conductor interconnections are installed to individual equipment items and components, these conductors shall be installed in conduit and trunking wire ways.

(6) All steel conduit, conduit fittings and trunking installed surface mounted in ducts, false ceiling voids, in false floor areas or surface against walls, shall be of the steel galvanised type.

(7) Where equipment must be connected by means of flexible conduit, such flexible conduit shall comply with the requirements as specified in this Part 4 of the specification.

1.9.2 Fixing

(1) Conduit in open roof spaces or in horizontal or vertical ducts, shall be installed parallel and at right angles to the roof members or structure and shall be fixed to the structure at intervals not exceeding 1 200 mm.

(2) Where conduit is surface mounted, it shall be fixed with galvanised spacer bar saddles as specified. Where conduit is installed surface in ducts against walls or ceilings in groups of more than one in parallel, the conduit shall be fixed to the walls and ceiling by means of galvanised "O-Line" type P3300 channels. These channels shall be supplied and installed by the Subcontractor at distances not exceeding 1200 mm and shall be rigidly fixed to the walls and ceilings by means of "Rawl" bolts or a self drilling anchoring system.

(3) Trunking shall be similarly installed with proper 45° mitered corners, 45° T-section joints and end cover sections, securely joined by means of smooth connector fish plates and smooth pop rivet joints.

(4) All trunking shall be provided complete with galvanised steel cover plates, properly mitered at corners and special 45° cover plate sections at corners and T-section joints.

1.9.3 Position of connection points

(1) All connection points such as light points, sockets, switches and for auxiliary services, remote indicator lights, limit switch points, door monitor points, etc, shall be accurately positioned. It is the responsibility of the Subcontractor to ensure that all accessories are installed level and square at the correct height from the floor, ceiling or roof level as specified. It shall be the responsibility of the Subcontractor to determine the correct final floor, ceiling and roof levels in conjunction with the Engineer or Subcontractor.

(2) Draw boxes shall not be installed in positions where they will be inaccessible after completion of the installation. Draw boxes shall be installed in in-conspicuous positions to the approval of the Engineer. All installed draw boxes shall be pointed out to the Engineer. The positions of all draw boxes shall be indicated on the "as-built" drawings.

1.9.4 Wall and ceiling connection points

(1) Where more than one outlet is connected to the same circuit, the conduit shall be looped from one connection box to the following on the same circuit.

(2) Where a metal channel is used, the conduit may be installed from the channel directly to the connection box on condition that the conductors can be looped from one outlet to the next without making any joints in the conductors.

(3) Connection points installed in areas where plastered false ceilings are provided, shall be connected according to the loop principle.

(4) Where equipment is specified which may be fixed directly to the draw box, this shall be done by a minimum of two screws screwed to the box or by screws fixed directly to the concrete ceiling.

(5) The edges of flush mounted connection boxes shall not be deeper than 10 mm from the final surface. Where this is not the case, an extension box which ends flush with the surface, shall be screwed to the connection box. This method shall be used in partitions and cladded and plastered surfaces.

1.9.5 Bends and draw boxes

(1) A maximum of two 90□ bends or the equivalent displacement will be allowed between outlets and/or draw boxes. Draw boxes shall be installed at maximum intervals of 9 metres in straight conduit sections. All bends shall be made without heating the conduit or without reducing the diameter of the conduit. The inside diameter of a bend shall not be less than three times the outside diameter of the conduit.

(2) Draw boxes in ceilings and walls shall have flat cover plates. Cover plates shall overlap boxes by 12 mm on all sides and shall be painted to match surrounding finishes.

(3) Draw boxes shall as far as possible be installed near gangplanks. Socket and switch boxes will not be accepted as draw boxes in open roof spaces.

(4) All excess holes in draw boxes, distribution boxes, control boards, cable ducts or trunking, power skirting, etc, shall be securely blanked off to render the

installation vermin proof. Brass stopping plugs shall be used in conduit accessories.

1.9.6 Expansion joints

(1) All conduit crossing expansion joints shall make special provision by having connection boxes or trays in approved positions on one side of the expansion joint.

(2) Conduits crossing the expansion joint to the box, shall enter into the box freely and without being secured thereto but with a close fit. Other conduit entering the box shall be secured in the conventional way.

(3) Each metal conduit entering freely into the box, shall be earthed with a clip wired to a bolted and properly secured earth connection on the box, and in addition an earth wire shall be installed in each conduit and connected between outlets on each side of the joint.

1.9.7 Terminations

(1) Conduits shall be connected directly to draw boxes with spouted connections. Metal conduit shall be fitted tightly and screw thread shall not be visible.

(2) A female bush and two locknuts shall be installed where conduits terminate in distribution board trays and boxes, cable ducts, power skirting, etc. The conduit end shall only project far enough through the hole to accommodate the bush and locknut.

(3) A female bush and two locknuts shall be used to terminate conduits at draw boxes and connection boxes without spouts should there be sufficient room in the box. Where there is insufficient room, a coupling, male bush and locknut may be used.

(4) Holes to accommodate bushes shall be large enough to accommodate the bush with a minimum of clearance.

(5) Bush nuts for the connection of earth conductors to conduits are not acceptable.

1.9.8 Removal of debris and finish

(1) Care shall be taken to prevent any debris or moisture from entering the conduit during and after installation of the conduit.

(2) All conduit ends shall be sealed by means of a solid plug, which shall be screwed or glued to the conduit end. All conduits shall be cleaned and swabbed to remove all oil, moisture or other debris that may be present, before conductors are installed. Swabs shall not be attached to the conductors.

(3) All metal joints shall be painted with red lead to prevent corrosion in damp areas, areas within 30 km of the coast and in cases where the installation is exposed to the weather for any length of time.

(4) Where the galvanising or black paint of metal conduit has been damaged, the area shall first be cleaned and a coat of zinc base paint applied subsequently. Additional coats of paint shall only be applied after the undercoat has been completed.

1.9.9 Flexible conduits

(1) Where equipment has to be moved frequently to enable adjustment during normal operation, e.g. for the connection of stoves, motors, or connection of sensors and limit switches, or any other equipment subjected to vibration or otherwise specified in the project specification, such equipment shall generally be connected by means of cables. Should flexible conduit be installed, such flexible conduit shall be as short as possible to comply with the general requirements for the particular connection.

(2) Should connectors exceed a length of 600 mm, except where approved by the Engineer or specified in the project specification, this conduit shall be suitably supported by means of a flexible or non-rigid support bracket fixed to the stationary structural members of the building or machine frame.

(3) Flexible conduit shall preferably be connected to the fixed structural components of the installation or the building structure by means of a dust-proof draw box provided with terminals. Each draw box shall be provided complete with cover plate provided with four screws for securing the cover plate to the draw box.

(4) This draw box shall be securely fixed to the structure or walls of the building by means of suitable screws and nuts and shall be provided with a terminal box and for the connection of the conductors to be installed in the flexible conduit.

(5) Flexible conduits shall consist of metal reinforced PVC covered metal conduit or flexible metal conduit covered by a PVC shroud with a minimum internal diameter of 20 mm, unless otherwise specified. The flexible conduit shall be provided with screw type connector glands at both ends suitable for screwing to the socket or connector at the terminal box or suitable for fixing to the terminal box by means of a lock nut and bush. These connector glands shall be manufactured of brass or cadmium mild steel.

(6) Flexible conduit connections shall be provided with an internal earth wire connection such that the component or equipment shall be securely earthed to the metal work of the structure or supply earth wire terminating at the terminal box.

1.10 CONDUCTORS AND WIRING IN CONDUIT AND WIRING CHANNELS OR DUCTING

1.10.1 Type of conductors

(1) Conductors shall comply with the requirements as specified in the standard equipment and material specifications for electrical components and circuits.

(2) All wiring with the exception when cables are specified must be done with PVC insulated single-core copper conductors with a minimum section of 3-strand 1,5 mm². The earth conductor must consist of an uninsulated

single-core stranded copper conductor or a green PVC insulated copper stranded conductor.

(3) The wiring of low voltage circuits with a voltage less than 50 Volt, may be done by PVC insulated multi-stranded single conductors, or by means of PVC shrouded type cables.

(4) The colour code of the PVC insulating material for the conductors must be the following:

(a) Alternating voltage phase conductors - red, white and blue

(b) Neutral conductor - black

(c) Earth continuity conductor - green or green/yellow

(d) Control wiring - grey

(e) DC voltage conductors - orange

(5) Conductor connections between isolators and fixed or movable heating appliance terminals shall be in asbestos or heat resistant insulated conductors.

1.10.2 Wiring in conduit and wiring channels or ducting

(1) All PVC insulated conductors must be installed in galvanised sheet metal ducting supplied complete with galvanised cover plate or shall be installed in conduit.

(2) Should the conductors be bunched in cable ducting, the appropriate derating factor as specified in SABS 0142: The Wiring of Premises must be utilized for determining the size of conductors such that these conductors shall not overheat when carrying the normal calculated full load current for the particular circuit.

(3) Conductors must not be exposed and must be installed in conduit or in the sheet metal ducting along the total route of a particular circuit.

(4) PVC insulated conductors must be lubricated with high quality French chalk before they are drawn into conduit.

(5) The total sectional area of all conductors (including insulation) in cable ducting or floor ducting must not exceed 40 per cent of the total sectional area of the ducting.

1.10.3 Connections

(1) The insulation of the ends of conductors must be removed only to allow for the connection of ferrules where such conductors are connected to terminals of equipment and components. Where more than one conductor must be connected together, the strands must be securely bound together before inserting the ferrule.

(2) All conductor ends must be provided with tinned ferrules soldered to the conductor ends or must be provided with ferrules or lugs fixed to the conductor by means of a crimping method.

(3) All conductors must be installed without joints and may only be connected from terminal to terminal on distribution boards and equipment connection terminals.

(4) Not more than two circuits of a similar type will be allowed in any one conduit unless specified in the Project Specification.

(5) Circuit wiring shall be of the loop in system and not more than four conductor ends shall be allowed at any one termination point.

(6) Cutting away of wire strands of any conductor is not acceptable and no jointing of conductors in draw boxes is acceptable.

1.11 CABLES AND THE INSTALLATION OF CABLES

1.11.1 Type of cables

(1) Cables shall comply with the requirements as specified in the standard equipment and material specifications for electrical components and circuits"

(2) All power supply cables installed must be of the PVC insulated **wire armoured type unless otherwise specified**.

(3) Should unarmoured cables be specified in the project specification, the construction of the unarmoured cable must be similar as specified for armoured cables with the exception that the steel wire armouring is omitted.

(4) The individual cores of multi-core cables must be identified by means of multi-colour PVC insulating material or alternatively by means of a numbering system for the identification of the individual conductors.

(5) The size of cables installed by the Subcontractor must be determined according to the regulations for each particular application. Unless specified elsewhere in the project specification, a correction factor of 0,6 must be allowed for cables installed parallel and adjacent to each other on cable trays or in ducting.

1.11.2 Termination of PVC insulated cables

(1) All cable ends must be terminated by means of grooved glands, which shall ensure that the outer sheath of the cable and the cable gland is terminated watertight. When copper conductors provided as part of the steel wire armouring is used as earth continuity conductors, the special cable glands must be installed for such cable connections.

(2) The cable glands must be such that the steel wire armouring between the cable and the gland must be compressed between two conical sleeves and secured by means of a screwed clamp. The cable gland must be fixed to the equipment gland plate by means of a locking screw.

(3) A neoprene or PVC housing must be utilized to cover the complete cable gland to ensure a watertight seal with the outer PVC sheath of the cable.

(4) Cable cores must be connected to equipment by means of suitable cable lugs.

(5) Any steel wire armouring, which is exposed, must be thoroughly covered by means of suitable corrosion neutralising paint.

1.11.3 Flexible cables

(1) Rubber insulated flexible cables and flexible cords shall comply with the requirements as specified in the standard equipment and material specifications for electrical components and circuits"

(2) The copper conductors shall consist of individual strands with an approximate diameter of 0,2 mm.

(3) In certain cases flat PVC type flexible cable may be used in festoon systems.

(4) Samples of all cables to be used shall be submitted to the Engineer and Supply Authority for approval prior to installation thereof.

1.11.4 Installation of cables

1.11.4.1 General

(1) Cables shall be installed as specified in Part 4 of this specification or as specified in the Project Specification.

(2) All cables shall be marked by means of an identification code corresponding to a code given on the cable connection schedules.

(3) The marking shall be done by means of lettering punched into aluminium foil. The foil shall be wrapped around each respective cable and bound with aluminium tape.

(4) Alternatively a PVC type cable marker system utilizing printed numbers on PVC strips may be installed.

The cables shall be marked as follows:

(a) At both terminations.

(b) At T-section or four-way joints of cable trays.

(c) At entries to vertical ducts should cables extend up or down at the particular point of entry. The cables shall be marked directly above and below such a point of entry.

(5) All cables shall be supplied and installed without joints and individual conductors of cables may only be connected from terminal to terminal on distribution boards, control boards and consoles.

1.13 EARTHING OF THE INSTALLATION

1.13.1 General

The installation must be properly earthed to comply with the requirements of SABS 0142: The Wiring of Premises, and according to the by-laws of the local Supply Authority.

1.13.2 Earth connections

(1) All individual components such as distribution boards etc, shall be connected to the earth connection of the domestic earth supply as supplied, or according to the requirements of the Project Specification.

(2) Under no circumstances shall the latter domestic earth supply be interconnected to the earth supply utilized for electronic control equipment and installations.

(3) The ends of all earth conductors shall be tin plated and provided with lugs for the connection to earth terminals or clamps provided with bolts and nuts. Where bolts, nuts, clamps or terminals are utilized, these shall of the brass type only.

(4) If required, separate insulated earth connections shall be supplied and installed by the Subcontractor according to the requirements specified in the project specification for particular connections to electronic control components and circuits of the installation.

1.13.3 Earthing of sub-circuits and components

(1) Earth conductors of all sub-circuits shall be connected to the earth bar of the main earth connection as provided.

(2) The ends of all metal channels, cable trays, etc, containing cables and conductors, shall be earthed to the nearest distribution board by means of earth straps or conductors.

(3) The latter earth connections shall be connected to the domestic earth supply system.

(4) All metal conduit shall, where installed by the Subcontractor, be terminated at distribution boards or junction boxes. Where this cannot be done, conduit ends shall be earthed separately by means of stranded earth conductors according to the requirements of the regulations.

(5) Earth conductors shall be installed in all flexible type of conduit to interconnect the two ends of the flexible conduit.

1.13.4 Installation procedure

(1) When the earthing conductors and equipment is installed, the Subcontractor must accurately determine that all earth connections are done as specified.

(2) It is recommended that the Subcontractor utilize suitable measuring equipment and auxiliary equipment such that the earth connections of

earthing systems for electronic components and circuits can be individually monitored during installation to obviate any earth loops, which might occur.

DECLARATION OF INTEREST

1. Any legal person, including persons employed by the state[1], or persons having a kinship with persons employed by the state, including a blood relationship, may make an offer or offers in terms of this invitation to quote (includes a price quotation, advertised competitive quote, limited quote or proposal). In view of possible allegations of favouritism, should the resulting quote, or part thereof, be awarded to persons employed by the state, or to persons connected with or related to them, it is required that the bidder or his/her authorised representative declare his/her position in relation to the evaluating/adjudicating authority where-

- the bidder is employed by the state; and/or
- the legal person on whose behalf the bidding document is signed, has a relationship with persons/a person who are/is involved in the evaluation and or adjudication of the quote(s), or where it is known that such a relationship exists between the person or persons for or on whose behalf the declarant acts and persons who are involved with the evaluation and or adjudication of the quote.

2. In order to give effect to the above, the following questionnaire must be completed and submitted with the quote.

2.1. Full Name of bidder/representative.....
2.2. Identity Number: .....
2.3. Position occupied in the Company (director, trustee, shareholder[2]): .....
2.4. Company Registration Number: .....
2.5. Tax Reference Number: .....
2.6. VAT Registration Number: .....

2.7. The names of all directors / trustees / shareholders / members, their individual identity numbers, tax reference numbers and, if applicable, employee / persal numbers must be indicated in paragraph 3 below.

[TICK APPLICABLE]

2.8. Are you or any person connected with the bidder presently employed by the state? YES ☐ NO ☐

2.8.1. If so, 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: .....

2.8.2. If you are presently employed by the state, did you obtain the appropriate authority to undertake remunerative work outside employment in the public sector? YES ☐ NO ☐

2.8.2.1. If yes, did you attach proof of such authority to the quote document?

(Note: Failure to submit proof of such authority, where applicable, may result in the disqualification of the quote.)

2.8.2.2. If no, furnish reasons for non-submission of such proof: .....

2.9. Did you or your spouse, or any of the company's directors / trustees / shareholders / members or their spouses conduct business with the state in the previous twelve months? YES ☐ NO ☐

2.9.1. If so, furnish particulars: .....

2.10. Do you, or any person connected with the bidder, have any relationship (family, friend, other) with a person employed by the state and who may be involved with the evaluation and or adjudication of this quote? YES ☐ NO ☐

2.10.1. If so, furnish particulars: .....

2.11. Are you, or any person connected with the bidder, aware of any relationship (family, friend, other) between any other bidder and any person employed by the state who may be involved with the evaluation and or adjudication of this quote? YES ☐ NO ☐

2.11.1. If so, furnish particulars: .....

2.12. Do you or any of the directors / trustees / shareholders / members of the company have any interest in any other related companies whether or not they are bidding for this contract? YES ☐ NO ☐

2.12.1. If so, furnish particulars: .....

3. Full details of directors / trustees / members / shareholders.

NB: The Department Of Health will validate **details of directors / trustees / members / shareholders** on CSD. It is the suppliers' responsibility to ensure that their details are up-to-date and verified on CSD. If the Department cannot validate the **information** on CSD, the quote will not be considered and passed over as non-compliant according to National Treasury Instruction Note 4 (a) 2016/17.

4 DECLARATION

I, THE UNDERSIGNED (NAME).....CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 2.

I ACCEPT THAT THE STATE MAY REJECT THE QUOTE OR ACT AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....	.....	.....	.....
Name of bidder	Signature	Position	Date

[1]"State" means –

a) 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);
b) any municipality or municipal entity;
c) provincial legislature;
d) national Assembly or the national Council of provinces; or
e) Parliament.

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

SPECIAL CONTRACT CONDITIONS OF QUOTATIONS

1. AMENDMENT OF CONTRACT

1.1. Any amendment to or renunciation of the provisions of the contract shall at all times be done in writing and shall be signed by both parties.

2. CHANGE OF ADDRESS

2.1. Bidders must advise the Department of Health (institution where the offer was submitted) should their address (*domicilium citandi et executandi*) details change from the time of bidding to the expiry of the contract.

3. GENERAL CONDITIONS ATTACHED TO THIS QUOTATION

3.1. The institution is under no obligation to accept the lowest or any quote.
3.2. The price quoted must include VAT (if VAT vendor). However, it must be noted that the department reserves the right to evaluate all quotations excluding VAT as some bidders may not be VAT vendors.
3.3. The bidder must ensure the correctness & validity of quote:
(i) *that the price(s), rate(s) & preference quoted cover all for the work/item (s) & accept that any mistakes regarding the price (s) & calculations will be at the bidder's risk*
3.4. The bidder must accept full responsibility for the proper execution & fulfilment of all obligations conditions devolving on under this agreement, as the Principal (s) liable for the due fulfilment of this contract.
3.5. This quotation will be evaluated based on the 80/20 points system, specification & correctness of information. All required documentation must be completed in full and submitted.
3.6. Offers must comply strictly with the specification.
3.7. Only offers that meet or are greater than the specification will be considered.
3.8. Late quotes will not be considered.
3.9. Expired product/s will not be accepted. All products supplied must be valid for a minimum period of six months.
3.10. A bidder not registered on the Central Suppliers Database or verification has failed will not be considered.
3.11. All delivery costs must be included in the quote price, for delivery at the prescribed destination.
3.12. Only firm prices will be accepted. Such prices must remain firm for the contract period. Non-firm prices (including rates of exchange variations) will not be considered.
3.13. In cases where different delivery points influence the pricing, a separate pricing schedule must be submitted for each delivery point.
3.14. In the event of a bidder having multiple quotes, only the cheapest according to specification will be considered. Furthermore a verification will be done to identify if bidders have multiple companies and are quoting (cover-quoting) for this bid. In such instances only the cheapest bid according to specification will be considered.

4. SAMPLES

4.1. In the case of the quote document stipulating that samples are required, the supplier will be informed in due course when samples should be provided to the institution. (This decreases the time of safety and storage risk that may be incurred by the respective institution). The bidders sample will be retained if such bidder wins the contract.
(i) If a company/s who has not won the quote requires their samples, they must advise the institution in writing of such.
(ii) If samples are not collected within three months of close of quote the institution reserves the right to dispose of them at their discretion.

4.2. **Samples must be made available when requested in writing or if stipulated on the document.**
(i) If a Bidder fails to provide a sample of their product on offer for scrutiny against the set specification when requested, their offer will be rejected. All testing will be for the account of the bidder.

5. COMPULSORY SITE INSPECTION / BRIEFING SESSION

5.1. Bidders who fail to attend the compulsory meeting will be disqualified from the evaluation process.

(i) The institution has determined that a compulsory site meeting will take place
(ii) Date 21 / 01 / 2019 Time 11 : 00 Place -1 Basement Workshops, Natalia Building

Institution Stamp:	Institution Site Inspection / briefing session Official Full Name: ..... Signature: ..... Date: .....

6. STATEMENT OF SUPPLIES AND SERVICES

6.1. The contractor shall, when requested to do so, furnish particulars of supplies delivered or services executed. If he/she fails to do so, the Department may, without prejudice to any other rights which it may have, institute inquiries at the expense of the contractor to obtain the required particulars.

7. SUBMISSION AND COMPLETION OF SBD 6.1

7.1. Should a bidder wish to qualify for preference points they must complete a SBD 6.1 document. Failure by a bidder to provide all relevant information required, will result in such a bidder not being considered for preference point's allocation. The preferences applicable on the closing date will be utilized. Any changes after the closing date will not be considered for that particular quote.

8. TAX COMPLIANCE REQUIREMENTS

8.1. In the event that the tax compliance status has failed on CSD, ***it is the suppliers' responsibility to provide a SARS pin in order for the institution to validate the tax compliance status of the supplier.***

8.2. In the event that the institution cannot validate the suppliers' tax clearance on SARS as well as the Central Suppliers Database, ***the quote will not be considered and passed over as non-compliant according to National Treasury Instruction Note 4 (a) 2016/17.***

9. TAX INVOICE

9.1. A tax invoice shall be in the currency of the Republic of South Africa and shall contain the following particulars:

(i) the name, address and registration number of the supplier;
(ii) the name and address of the recipient;
(iii) an individual serialized number and the date upon which the tax invoice is issued;
(iv) a description and quantity or volume of the goods or services supplied;
(v) the official department order number issued to the supplier;
(vi) the value of the supply, the amount of tax charged;
(vii) the words tax invoice in a prominent place.

10. PATENT RIGHTS

10.1. The supplier shall indemnify the **KZN Department of Health** (hear after known as 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.

11. PENALTIES

11.1. 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.

12. TERMINATION FOR DEFAULT

12.1. 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:
(i) if the supplier fails to deliver any or all of the goods within the period(s) specified in the contract,
(ii) if the supplier fails to perform any other obligation(s) under the contract; or
(iii) if the supplier, in the judgment of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.

12.2. 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.

12.3. 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.

FAILURE TO COMPLY WITH ABOVE WILL RESULT IN YOUR QUOTE BEING PASSED OVER.

PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2017

This preference form must form part of all quotes invited. It contains general information and serves as a claim form for preference points for Broad-Based Black Economic Empowerment (B-BBEE) Status Level of Contribution

NB: BEFORE COMPLETING THIS FORM, BIDDERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF B-BBEE, AS PRESCRIBED IN THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017.

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1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to all quotes:

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

1.2 The value of this quote is estimated to not exceed R50 000 000 (all applicable taxes included) and therefore the 80/20 preference point system shall be applicable.

1.3 Points for this quote shall be awarded for:
(a) Price; and
(b) B-BBEE Status Level of Contributor.

1.4 The maximum points for this quote is allocated as follows:

	POINTS
PRICE	80
B-BBEE STATUS LEVEL OF CONTRIBUTOR	20
Total points for Price and B-BBEE must not exceed	**100**

1.5 Failure on the part of a bidder to submit proof of B-BBEE Status level of contributor together with the quote, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.

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

2. DEFINITIONS

(a) **"B-BBEE"** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;

(b) **"B-BBEE status level of contributor"** means the B-BBEE status of an entity in terms of a code of good practice on black economic empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;

(c) **"bid"** means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of goods or services, through price quotations, advertised competitive bidding processes or proposals;

(d) **"Broad-Based Black Economic Empowerment Act"** means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);

(e) **"EME"** means an Exempted Micro Enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;

(f) **"functionality"** means the ability of a tenderer to provide goods or services in accordance with specifications as set out in the tender documents.

(g) **"prices"** includes all applicable taxes less all unconditional discounts;

(h) **"proof of B-BBEE status level of contributor"** means:

1) B-BBEE Status level certificate issued by an authorized body or person;

2) A sworn affidavit as prescribed by the B-BBEE Codes of Good Practice;

3) Any other requirement prescribed in terms of the B-BBEE Act;

(i) **"QSE"** means a qualifying small business enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;

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

3. **POINTS AWARDED FOR PRICE**

3.1 **THE 80/20 PREFERENCE POINT SYSTEMS**

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

$$Ps = 80\left(1 - \frac{Pt - P\min}{P\min}\right)$$ Where

Ps	=	Points scored for price of bid under consideration
Pt	=	Price of bid under consideration
Pmin	=	Price of lowest acceptable bid

4. **POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTOR**

4.1 In terms of Regulation 6 (2) and 7 (2) of the Preferential Procurement Regulations, preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

B-BBEE Status Level of Contributor	Number of points (80/20 system)
1	20
2	18
3	14
4	12
5	8
6	6
7	4
8	2
Non-compliant contributor	0

5. **BID DECLARATION**

5.1 Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete the following:

6. **B-BBEE STATUS LEVEL OF CONTRIBUTOR CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 4.1**

6.1 B-BBEE Status Level of Contributor: = ...(maximum of 20 points)

(Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.

7. **SUB-CONTRACTING** **(Tick applicable box)**

7.1 Will any portion of the contract be sub-contracted? YES ☐ NO ☐

7.1.1 If yes, indicate:

i) What percentage of the contract will be subcontracted.....%
ii) The name of the sub-contractor.....
iii) The B-BBEE status level of the sub-contractor.....

8. Whether the sub-contractor is an EME or QSE (Tick applicable box)

iv) **Specify, by ticking the appropriate box, if subcontracting with an enterprise in terms of Preferential Procurement Regulations,2017:** YES ☐ NO ☐

Designated Group: An EME or QSE which is at last 51% owned by:	EME √	QSE √
Black people		
Black people who are youth		
Black people who are women		
Black people with disabilities		
Black people living in rural or underdeveloped areas or townships		
Cooperative owned by black people		
Black people who are military veterans		
OR		
Any EME		
Any QSE		

9. **DECLARATION WITH REGARD TO COMPANY/FIRM**

9.1 Name of company/firm:.....

9.2 VAT registration number:.....

9.3 Company registration number:.....

9.4 TYPE OF COMPANY/ FIRM [TICK APPLICABLE BOX]

- ☐ Partnership/Joint Venture / Consortium
- ☐ One person business/sole propriety
- ☐ Close corporation
- ☐ Company
- ☐ (Pty) Limited

9.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

.....

.....

9.6 COMPANY CLASSIFICATION [TICK APPLICABLE BOX]

- ☐ Manufacturer
- ☐ Supplier
- ☐ Professional service provider
- ☐ Other service providers, e.g. transporter, etc.

9.7 Total number of years the company/firm has been in business:.....

9.8 I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contributor indicated in paragraphs 1.4 and 6.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we 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 1.4 and 6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;

iv) If the B-BBEE status level of contributor has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have –

(a) disqualify the person from the bidding 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 bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury 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.

WITNESSES	..... SIGNATURE(S) OF BIDDERS(S)
1.	DATE: .....
2.	ADDRESS..... ....