



CITY OF TSHWANE METROPOLITAN MUNICIPALITY

TENDER NUMBER:

RTD 13-2023/24

TENDER DESCRIPTION:	Tender to appoint service providers for supply, delivery & offloading of traffic signals to City of Tshwane for a period of three years on an as an when required basis
----------------------------	---

NAME OF BIDDER:

CSD NUMBER:

VENDOR NUMBER (WHERE APPLICABLE)

Prepared by:
City of Tshwane Metropolitan Municipality
Tshwane House
320 Madiba Street
Pretoria CBD
0002
Tel: 012 358 9999

BID CLOSING DATE

11 JUNE 2024

Only bidders registered on the central supplier database (CSD) and with a CSD number will be considered for this tender, as this is a requirement from the National Treasury.

“Note: Bidders are required to submit electronic copies of the bid either by memory stick/USB flash drive/CD/DVD together with the hard copy of the Bid/Proposals”



CITY OF TSHWANE METROPOLITAN MUNICIPALITY

DEPARTMENT: ROADS AND TRANSPORT

Bids are hereby invited from suppliers for the following bid:

Bid number	Description	Department	Contact person	Compulsory briefing session	Closing date
RTD 13- 2023/24	Tender to appoint service providers for supply, delivery & offloading of traffic signals to City of Tshwane for a period of three years on an as an when required basis	Roads and transport	Technical enquiries: Oineeleng Lekana (oineelengi@tshwane.gov.za)	Venue: Sammy Marks Council Chamber, 1st Floor, Sammy Marks Square, cnr Lilian Ngoyi and Madiba Street, Pretoria Date: 20 May 2024 Time:10:00	11 June 2024 at 10:00am

THE DOCUMENT IS DOWNLOADABLE ON THE TSHWANE WEBSITE (www.tshwane.gov.za) and on the E-tender portal.

Each tender shall be enclosed in a sealed envelope that bears the correct identification details and shall be placed in the tender box located at:

“Note: Bidders are required to submit electronic copies of the bid either by memory stick/USB flash drive/CD/DVD together with the hard copy of the Bid/Proposals”

**Tshwane House
320 Madiba Street
Pretoria CBD
0002**

Documents must be deposited in the bid box not later than **10:00 on 11 June 2024**

Bidders must contact the following officials for any enquiries:

- Technical enquiries: Oineeleng Lekana (oineelengi@tshwane.gov.za or 012 358 4613)

- Supply chain enquiries: Lukkie Thobejane-Selowe (012 358 6282 or lukkiet3@tshwane.gov.za)

Bids will remain valid for a period of 90 days after the closing date.

Bids received after the closing date and time will not be considered. The City of Tshwane does not bind itself to accept the lowest or any other bid in whole or in part.

INDEX

Number	Details	Document	Page
1.	Very important notice on disqualifications		
2.	Certificate of authority for signatory		
3.	Scope of work		
4.	Pricing schedule		
5.	Invitation to bid	MBD 1	
6.	Pricing schedule: Firm prices (purchases)	MBD 3.1	
7.	Pricing schedule: Non-firm prices (purchases)	MBD 3.2	
8.	Declaration of interest	MBD 4	
9.	Preference points claim form in terms of the preferential procurement regulations 2022	MBD 6.1	
10.	Contract form: Rendering of services	MBD 7.2	
11.	Declaration of past supply chain management practice	MBD 8	
12.	Certificate of independent bid determination	MBD 9	
13.	General conditions of contract		
14.	Service-level agreement(SLA)		
15.	CoT Traffic signals drawings		
LIST OF RETURNABLE DOCUMENTS THAT SHOULD FORM PART OF BID DOCUMENT			
16.	Company registration certificate		
17.	Rates and taxes or lease agreement		
18.	Unique PIN		
19.	CSD summary report		

VERY IMPORTANT NOTICE ON DISQUALIFICATIONS

A bid that does not comply with the peremptory requirements stated hereunder will be regarded as not being an “acceptable bid”, and such a bid will be rejected. An “acceptable bid” means any bid which, in all respects, complies with the conditions of the bid and the specifications as set out in the bid documents, including the conditions as specified in the Preferential Procurement Policy Framework Act, 2000 (Act 5 of 2000) and related legislation as published in *Government Gazette 22549*, dated 10 August 2001, in terms of which provision is made for this policy.

1. If any pages have been removed from the bid document and have therefore not been submitted or if a copy of the original bid document has been submitted.
2. If the bid document is completed using a pencil or Tippex corrections were made, or any other colour ink. Only black ink must be used to complete the bid document.
3. The bidder attempts to influence or has in fact influenced the evaluation and/or awarding of the contract.
4. The bid has been submitted after the relevant closing date and time.
5. If any bidder who, during the last five years, has failed to perform satisfactorily on a previous contract with the municipality, municipal entity or any other organ of state after written notice was given to that bidder that performance was unsatisfactory.
6. The accounting officer must ensure that, irrespective of the procurement process followed, no award may be given to a person –
 - (a) who is in the service of the state;
 - i. if that person is not a natural person, of which any director, manager, principal shareholder or stakeholder is a person in the service of the state; or
 - ii. who is an advisor or consultant contracted to the municipality in respect of a contract that would cause a conflict of interest.
7. Bid offers will be rejected if the bidder or any of his/her directors are listed on the Register of Bid Defaulters in terms of the Prevention and Combating of Corrupt Activities Act, 2004 (Act 12 of 2004) as a person prohibited from doing business with the public sector.
8. Bid offers will be rejected if the bidder has abused the City of Tshwane supply chain management system.
9. Failure to complete and sign the certificate of independent determination or disclosure of wrong information.
10. Duly Signed and completed MBD forms (MBD 1, 4, 5, 8 and 9) The person signing the bid documentation must be authorised to sign on behalf of the bidder. Where the signatory is not a Director / Member / Owner / Shareholder of the company, an official letter of authorization or delegation of authority should be submitted with the bid document.
11. All MBD documents fully completed (i.e. no blank spaces) and fully signed? By the authorized personnel.
12. False or incorrect declarations on any of the MBD documents will result in the rejection of the bidder.

- 13 It is the responsibility of the bidder to disclose in MBD4 any interest in any other related companies or business whether they are bidding for this contract. Failure to disclose this interest will result in the rejection of the bid.
- 14 Joint Ventures (JV) – (Only applicable when the bidder tender as a joint venture)
- i. Where the bidder bid as a Joint Ventures (JV), the required or relevant documents under administrative requirements must be provided/submitted for all JV parties. (These include MBD4, MBD5, MBD8, MBD 9, CSD and/ or SARS pin, Confirmation that the bidder’s municipal rates and taxes are up to date.)
 - ii. In addition to the above the bidder must submit a Joint Venture (JV) agreement signed by the relevant parties.
 - iii. It is a condition of this bid that the successful bidder will continue with same Joint Venture (JV) for the duration of the contract, unless prior approval is obtained from City of Johannesburg.
 - iv. JV agreement must be complete, relevant and signed by all parties.

Failure to comply with the above will lead to immediate disqualification.

Bidder

CERTIFICATE OF AUTHORITY FOR SIGNATORY

Status of concern submitting tender (delete whichever is not applicable):

COMPANY/PARTNERSHIP/ONE-PERSON BUSINESS/CLOSE CORPORATION/JOINT VENTURE

A. COMPANY

If the bidder is a company, a certified copy of the resolution of the board of directors that is personally signed by the chairperson of the board, authorising the person who signs this bid to do so and to sign any contract resulting from this bid, and any other documents and correspondence in connection with this bid or contract on behalf of the company, must be submitted with this bid.

An example is shown below:

By resolution of the board of directors on 20.....,
Mr/Ms has been duly
authorised to sign all documents in connection with
Bid Number

SIGNED ON BEHALF OF THE COMPANY:

IN HIS/HER CAPACITY AS

DATE:

SIGNATURE OF SIGNATORY:

WITNESSES: 1.

2.

B. PARTNERSHIP

The following particulars in respect of every partner must be furnished and signed by every partner:

Full name of partner	Residential address	Signature
.....
.....
.....

We, the undersigned partners in the business trading as, hereby authorise to sign this bid as well as any contract resulting from the bid and any other documents and correspondence in connection with this bid or contract on our behalf.

.....
Signature **Signature** **Signature**

.....
Date **Date** **Date**

C. ONE-PERSON BUSINESS

I, the undersigned,, hereby confirm that I am the sole owner of the business trading as

.....
Signature **Date**

D. CLOSE CORPORATION

In the case of a close corporation submitting a bid, a certified copy of the founding statement of such corporation shall be included with the bid with a resolution by its members, authorising a member or other official of the corporation to sign the documents and correspondence in connection with this bid or contract on behalf of the company.

An example is shown below:

By resolution of the members at the meeting on 20..... at , Mr/Ms , whose signature appears below, has been duly authorised to sign all documents in connection with Bid Number

SIGNED ON BEHALF OF THE CLOSE CORPORATION:

IN HIS/HER CAPACITY AS:

DATE:

SIGNATURE OF SIGNATORY:

WITNESSES: 1.

 2.

E. CERTIFICATE OF AUTHORITY FOR JOINT VENTURES

This returnable schedule is to be completed by joint ventures.

We, the undersigned, are submitting this bid offer in joint venture and hereby authorise Mr/Ms , authorised signatory of the company..... , acting in the capacity of the lead partner, to sign all documents in connection with the bid offer and any contract resulting from it on our behalf.

NAME OF FIRM	ADDRESS	DULY AUTHORISED SIGNATORY
Lead partner		Signature: Name: Designation:
		Signature: Name: Designation:
		Signature: Name: Designation:
		Signature: Name: Designation:

ROADS AND TRANSPORT DEPARTMENT
RTD 13 2023/24

**TENDER TO APPOINT SERVICE PROVIDERS FOR SUPPLY, DELIVERY &
OFFLOADING OF TRAFFIC SIGNALS EQUIPMENT TO CITY OF
TSHWANE FOR A PERIOD OF THREE YEARS ON AN AS AN WHEN
REQUIRED BASIS**

1. INTRODUCTION AND PURPOSE

BACKGROUND

**APPOINTMENT OF A SERVICE PROVIDERS FOR SUPPLY, DELIVERY &
OFFLOADING OF TRAFFIC SIGNALS EQUIPMENT TO CITY OF TSHWANE
FOR A PERIOD OF THREE YEARS ON AN AS AN WHEN REQUIRED BASIS.**

- a) The project involves the provisioning of stock items to the City of Tshwane for the erection and maintenance of traffic signals. Elements that must be provided include signal heads, poles, push buttons and related items.
- b) Material will be requested to be delivered to City of Tshwane dedicated stores, **OR** to a dedicated intersection onsite as per employer request.
- c) Preference will be given to traffic lights equipment of a similar aesthetic design to those currently used by the City of Tshwane.
- d) Preference will be given to traffic lights equipment manufactured or assembled locally.

1.PROJECT SCOPE

1.1.1 Delivery and offloading

- a) The delivery cost shall be the cost to the suppliers.
- b) The supplier shall deliver the equipment/material at the allocated depot's discussed below:

<u>Pretoria Roads and Stormwater:</u>	and/or <u>Centurion Roads and</u>
<u>Stormwater:</u>	
Belle Ombre Depot	Centurion Roads and Stormwater
Depot	
Bosman Street extension	Cnr. Kruger Ave and Piet Brahman Str
Pretoria	Centurion

- c) The supplier shall be responsible for the offloading of equipment/material.
- d) The supplier shall deliver the equipment/material from Monday to Friday, 07:30 to 15:30, except public holidays.

- e) The cost of supplied products to be market related.
- f) The supplier shall supply correct equipment/material as stated in the specification below.

1.1.2 Samples

- a) Samples shall be required to be tested during the tender evaluation process before acceptance of the product.
- b) Samples shall be delivered to the user/customer within seven (7) days from the date of notice.
- c) Sample to be collected 7days after days of notice.
- d) Picture of each stock item must be supplied with the product been tendered for only for purpose of the document.

1.1.3 Warranties

- a) All equipment shall carry a manufacturer's warranty of 3 years from the date equipment is being delivered to the CoT Stores.
- b) Any replacement to be carried must be conducted during CoT official normal working hours.

1.1.4 Penalties

- c) The supplier shall replace, within twenty-one working (21) days, the faulty equipment/material with a new equipment of the same specification and standard at the cost to the supplier.
- d) Failure to replace the faulty equipment within 7 days after being formally notified, will result in R500 daily penalty being deducted from the Service Provider.
- e) The R500 daily penalty will be ducted from the next Invoice payable to the Service Provider.

1.2 DELIVERABLES

GENERAL ON ELECTRONIC EQUIPMENT

The following applies to all electronic equipment:

1.2.1 Training

- a) Formal training on equipment use or system use shall be arranged by the supplier and the cost shall be the responsibility of the supplier.
- b) Suppliers are expected to provide training at least on each 6months basis, to a CoT traffic signals team of 20 personnel on each training session.
- c) Training to be supported by Equipment/ System User Manuals, all to be

- provided by Service Provider(s)
- d) This includes all upgraded equipment as well. This will be done according to Tshwane Learnership Management & Academy standards.
 - e) Training should cover the following products :Traffic Controller, In-station, Traffic management tools, Traffic Cams, Any new traffic Detection Technology, Key & Lock Software Technology, UPS systems, None Destructive Box Keys & Systems, Cables Testing Equipment, Electronics Communication equipment & technologies.

1.2.2 Factory fault on equipment under guarantee

- a) The user/customer shall be responsible to notify the supplier of faulty equipment.
- b) The supplier shall replace the faulty equipment at their cost.

1.2.3 Fault on equipment after guarantee

- a) The user/customer shall be responsible to notify the supplier of faulty equipment.
- b) The supplier shall replace/repair the faulty equipment at user/customer cost.

2.1 LIGHT EMITTING DIODE TYPE TRAFFIC LIGHT (LED)

2.1.1 Construction

The construction of the traffic light shall comply with **SANS 1459:2004** and shall be of modular design. The aspect housings shall be fixed together by means of stainless steel screws to facilitate maintenance. Each detachable aspect housing shall be dust proof, water tight and the traffic light shall be of a composite design utilizing the following materials:

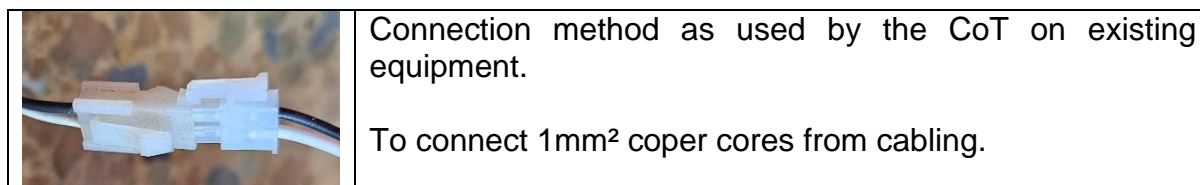
- a) UV stabilized Nylon with a 30 % glass fill for rigidity.
- b) High-silicone aluminium where mechanical strength is required.
- c) Grade 304 stainless steel for clips, catches and screws or similar.

The LED traffic light shall be weather proof and the LED compartment easily accessible for maintenance by means of two quick-release catches. The LED module, fixed within the reinforced nylon bezzel shall form a rigid compartment door to ensure the aspect remains waterproof over extended periods. Aluminium mounting bosses on both the top and bottom of the traffic light shall be required for fixing to the pole. The weight of a single aspect shall not exceed 1.7 kg, which includes the LED module, & visors. The traffic light shall not corrode, crack or distort after prolonged exposure to the harsh outdoor conditions experienced in Southern Africa.

The Unit must allow possible retrofitting of signal aspect from other manufactures, provided that this signals aspects retrofitted fits the required dimension as stipulated in this tender specification.

2.1.2 LED Module

LED modules shall be of a robust, sealed beam design. All internal circuitry shall be protected from dust, moisture and physical damage by a secondary housing manufactured from heat resistant, high impact nylon. The lenses of the module shall be designed to minimize the collection of dust on the outer lenses surface. The LED module must have a pluggable 2-pin-electrical connection similar to one provided below.



Where male or female socket requires replacement the same 2-pins connector as shown shall be used. Where both male or female a socket of the similar type can be used.

The LED module housing shall comply to both IP65 and **SANS 1459:2004** or latest.

2.1.3 LED Optics

The LED signal shall be of a single source LED type. The lenses shall provide light diffusion without reducing the light intensity on the beam axis. The diffuser-lenses/reflector combination shall be transparent/colour spec defined under **SANS 1459:2004** and designed to eliminate sun-phantom. The light intensity shall be uniform throughout the surface of the lenses and the optics must display a full 200 mm diameter disc. The design must be such that if a single LED fails, must not affect the group of LEDs. LED signals must comply with SANS 1459:2004 or latest. (for LED traffic signals).

2.1.4 LED module Power Supply

The LED power supply should be of a switch mode design, fused and protected from line surges. The operational voltage ranges should as in the table below;

Input Voltage Range	Low cut-off Voltage (LED to be completely off below...)	Operational Voltage band for Constant Intensity.
150 V _{AC} to 280 V _{AC}	150 V _{AC}	280 V _{AC}

The supply must provide the LEDs with a constant current. The power supply must

ensure that the signal is completely off below 150 V_{AC}. The light intensity must also remain constant from switch-on up to 280 V_{AC}. The switch-on and switch-off time must not exceed 100ms.

Where the LED module is found to be unstable due to residual Voltage on cables, then affected suppliers must ensure that the supplied LED modules include active loading as part of the power supply. The purpose of this active load is to clamp unwanted residual voltage on cable cores. The active load must consume minimal power or dissipate minimal heat when the LED module is switched on. For this reason, a passive resistive clamp is unacceptable.

2.1.5 Marking and Design Life

Each LED module shall be legibly and durably marked with the following information:

- a) The manufacturer's name and product model.
- b) The maximum power consumption.
- c) The input voltage range.
- d) The signal color.
- e) A Serial Number.
- f) The date of manufacture.
- g) Date of installation (to be completed by user)

The complete LED module shall be guaranteed for a period of five years, physical and lighting damage excluded, from the date of installation.

2.1.6 Visors

A suitable black pigmented, polyethylene visor projecting 160mm from the signal face shall be fitted to each aspect. The visor may not obscure the lenses.

2.1.7 Cable Entry and Wiring

Cable entry shall be at the bottom of the upper aspect's housing by means of a heavy-duty, reinforced PVC hose. The hose diameter shall be 20 mm and length shall be as follows:

- a) 1 and 2 aspect traffic lights: 1250mm
- b) 3 and 4 aspect traffic lights: 1000mm

Wire color coding shall be as follows:

- a) Red Signal – Red wire
- b) Amber Signal – White wire
- c) Green Signal – Blue wire
- d) Additional Signal – Grey wire
- e) Neutral – Black wire

2.1.8 External Finish

The signal head shall be pigmented matt black and any aluminum parts shall be chemically etched and coated in matt black enamel.

2.1.9 Critical Dimension on aspects

The critical dimensions for the 3 and 2 aspects signal heads are contained in Item 4, LIST OF DRAWINGS, as supplied below:

a	Three aspect signal head	(Page2 of 34: CoT Traffic Signals Drawing)
b	Two aspects signal head	(Page2 of 34: CoT Traffic Signals Drawing)

2.1.10 Mounting

Each traffic light shall have a thread at the top and bottom of the assembly to facilitate mounting. Two 10 mm set screws must be provided with each traffic light assembly. A stud with nut leaving thread exposed to the outdoor elements is not acceptable.

Two right angle brackets including universal pole mounting straps designed to fit poles from 100 mm to 170 mm diameter shall be available to fix traffic lights to the poles. Pole straps must be tensioned with a set screw and nut, crimping or band-it strapping is not acceptable.

2.1.11 Configuration

- a) 3 aspects: S1,S2,S3,S4 and S1B(BUS)
- b) 5 aspects: S8,S9,S8B (BUS) and S9B(BUS)
- c) 2 aspect:S10,S11 (pedestrian),S12,S10B(BUS)

All the above configuration shall be available for the left and right movements. All LED signal aspects must have been successfully tested and approved by (SABS / SANS) for compliance with SANS 1459:2004. Documentation of compliance must be submitted.

2.1.12 Measurement and Payment

The measurements and payment of LED traffic light shall be per number per type of LED traffic light supplied. The tendered rate shall include the full compensation for the manufacturing and supply of the LED traffic light.

A complete signal head shall consist of the following items:

- a) Head
- b) Visors
- c) 2 x pole straps
- d) 2 x mounting brackets
- e) Screws for background screens(backing board).
- f) Backing board

The heads and relevant backing board must be from the same manufacturer. Grouping signals are being grouped to maintain the functional configuration on intersections.

ITEM	DESCRIPTION	UNIT	Grouping
2.1.12.1	3 aspects (S1) LED traffic light (includes, head, Visors, 2 x pole straps, 2 x mounting brackets, screws and backing board)	Each	A
2.1.12.2	2 aspects pedestrian (S11) LED traffic light (includes, head, Visors, 2 x pole straps, 2 x mounting brackets and screws)	Each	A
2.1.12.3	2 aspect (S10) LED traffic light (includes, head, Visors, 2 x pole straps, 2 x mounting brackets, screws and backing board)	Each	A
The following shall be for only specific items of the signal head as specified (according to the specifications provided above):			
2.1.12.4	Flexible P.V.C. tubing 1000mm in length and no more than 20mm in diameter	Each	none
2.1.12.5	L shape (right angle) brackets	Each	none
2.1.12.6	Visors (check item 2.3)	Each	A

2.1.13 Statutory Approval


The traffic lights must have been successfully tested by the South African Bureau of Standards (SABS) for compliance with SANS 1459:2004 (for LED traffic signals). Documentary proof of compliance must be submitted.

2.2 LIGHT EMITTING DIODE TYPE TRAFFIC LIGHT MODULES

2.2.1 General

LED modules shall be of a robust, sealed beam design. All internal circuitry shall be protected from dust, moisture and physical damage by a housing manufactured from heat resistant, high impact nylon. The lenses of the module shall be designed to minimize the collection of dust on the outer lenses surface.

The LED module must have a 2-pin pluggable electrical connection as shown.

	<p>Connection method as used by the CoT on existing equipment.</p> <p>To connect 1mm² copper cores from cabling.</p>
---	---

Where male or female socket requires replacement the same 2 pin connector as shown shall be used. Where both male or female a socket of the similar type can be used.

The 2 pins-connection method as used by existing equipment. Both the male and female side must be supplied and the male side must have a 200 mm long pigtail for

retrofitting purposes.

The modules must be able to be retro fitted into existing traffic light housings without using screws or connecting equipment. The fit must be tight with a rubber seal to prevent movement.

OR

To be supplied with a front bezel (door) which is designed to fit on existing traffic signals housings. To be fastened in the door with a weather tight seal.

2.2.2 Optics

The signal shall be of a single source LED type. The lenses shall provide light diffusion without reducing the light intensity on the beam axis. The diffuser-lenses/reflector combination shall be transparent and designed to eliminate sun-phantom. The light intensity shall be uniform throughout the surface of the lenses and the optics must display a full 200 mm diameter disc. The design must be such that if a single LED fails, no more than 6 % of the total light output is lost. LED signals must comply with SANS 1459:2004 (for LED traffic signals).

2.2.3 Power Supply

The LED power supply should be of a switch mode design, fused and protected from line surges. The operational voltage ranges should as in the table below;

Input Voltage Range	Low cut-off Voltage (LED to be completely off below...)	Operational Voltage band for Constant Intensity.
150 V _{AC} to 280 V _{AC}	150 V _{AC}	280 V _{AC}

the supply must provide the LEDs with a constant current. The power supply must ensure that the signal is completely off below 150 V_{AC}. The light intensity must also remain constant from switch-on up to 280 V_{AC}. The switch-on and switch-off time must not exceed 100ms.

Where the LED module is found to be unstable due to residual Voltage on cables, then affected suppliers must ensure that the supplied LED modules include active loading as part of the power supply. The purpose of this active load is to clamp unwanted residual voltage on cable cores. The active load may not consume power or dissipate heat when the LED module is switched on. For this reason, a passive resistive clamp is unacceptable.

2.2.4 Measurement and Payment

The measurements and payment of Lenses shall be per number per type of Lenses supplied. The tendered rate shall include the full compensation for the manufacturing

and supply of the LED inserts. Relevant inserts must be from the same manufacturer .e.g. pedestrian (inserts), arrow (inserts) and 3 aspects (inserts).(To be supplied with related male & female connectors)

ITEM	DESCRIPTION	UNIT	GROUPING
2.2.4.1	red, full disc	Each	B
2.2.4.2	amber, full disc	Each	B
2.2.4.3	green, full disc	Each	B
2.2.4.4	amber arrow (left, right or vertical)	Each	C
2.2.4.5	green arrow (left, right or vertical)	Each	C
2.2.4.6	red standing man	Each	D
2.2.4.7	green walking man	Each	D
2.2.4.8	BUS Red	Each	E
2.2.4.9	BUS Amber	Each	E
2.2.4.10	BUS green	Each	E

2.2.5 Marking and Design Life

Each LED module shall be legibly and durably marked with the following information:

- a) The manufacturer's name and product model.
- b) The maximum power consumption.
- c) The input voltage range.
- d) The signal color.
- e) A Serial Number.
- f) The date of manufacture.
- g) Date of installation (to be completed by user)

The complete LED module shall be guaranteed for a period of five years. Hail and lightning damage excluded, from the date of installation.

2.2.6 Statutory Approval

The traffic lights must have been successfully tested by the South African Bureau of Standards (SABS) for compliance with SANS 1459:2004 (for LED traffic signals). Documentary proof of compliance must be submitted.

2.2.7 8-Circuit Active load-spec (for information use)

LEDs consume very little power. Problems are often experienced with traffic lights controllers when LED signals are installed. Induced voltages along cabling on LED signal heads used to be suppressed in the past using 75W bulbs. These voltages can render controllers unstable or completely non-operational.

The active load shall consume minimal power or dissipate minimum heat when driven under normal conditions (230Vac). For this reason a passive resistive clamp is not

acceptable.

For voltages running below and up to a drive voltage of 90 Vac, a sufficient resistive load must be introduced across the controller's lamp drive output.

For voltages running above 90Vac, the load must be completely removed.

The active load shall consist of 8 separate circuit which all share a common neutral. The circuitry shall be housed in a dust-proof plastic housing. The 8-circuit active load must be supplied with 8-protruding connection wires and 1-black neutral for connection to the controller outputs. The wires must be at least 400mm long to facilitate installation in a controller.

ITEM	DESCRIPTION	UNIT	GROUPING
2.2.7.1	8-Circuit Active Load	Each	None

2.3 LONG VISORS 30° ACUTE ANGLE

The traffic light signal head unit must be designed to allow fitting of a visor over each lens. The visors shall not be affected by prolonged exposure to wet and dry weather, sunlight and atmospheric conditions as currently is in the CoT area.

2.3.1 Measurement and Payment

The measurement and payment for the long visors 30 Acute angle, shall be per number specified. The long visor shall include all components and fasteners necessary to assemble the visor on the signal head unit.

ITEM	DESCRIPTION	UNIT	Grouping
2.3.1.1	Long Visors 30° acute angle	Each	A

2.4 BACKGROUND SCREENS FOR TRAFFIC SIGNALS,(Backboards).

2.4.1 Scope

This section includes the specification for background screens. The backing boards will be manufactured as specified and can consist of backing boards for two or three aspect signal heads.

2.4.2 Construction

The background screens shall be 500mm wide with a full radius on the top and bottom. Dimensions of the background screens shall comply with Volume 4, Part 3 of the South African Road Signs Manual and the technical requirements of SANS 1459:2004

Background screens shall be without joints but shall be supplied as a fully assembled

unit for ease of installation. The unit shall fit directly onto the traffic light without the use of brackets, straps or clamps. Background screens shall be shaped in such a manner that maximum strength is achieved with a lightweight construction.

The screens shall be fitted to the traffic light with a sufficient number of screws to spread the windage load, thus preventing breaking of the screens over extended periods. Screens shall be supplied complete with stainless steel mounting screws and brackets.

No visible daylight is allowed to pass between the head and the background screen.

Background screens for Directional Arrows type:

Must be supplied without a directional arrow mounted on a screen. The arrow must be supplied separately. The screen must be manufactured from 1mm galvanized steel plate. The arrow must be of retro-reflective vinyl and provision must be made to fasten the relevant arrow to the screen.

2.4.3 Critical Dimension on aspects

Dimensions for the background screens are contained in **ITEM 4, LIST OF DRAWING**, as the supplied below:

a	dimensions for three aspect backboard	<i>(Page4 of 34: CoT Traffic Signals Drawing)</i>
b	dimensions for two aspect backboard	<i>(Page6 of 34: CoT Traffic Signals Drawing)</i>
c	alignment for three and two aspects to form five aspects	<i>(Page5 of 34: CoT Traffic Signals Drawing)</i>

2.4.4 Material

The background screens shall be manufactured from a suitable, UV stabilised, reinforced polymer compound OR a 1.2mm epoxy covered chromadek sheet.

2.4.5 Finish and border

The background screens shall be machine moulded and pigmented black. All background screens shall be supplied with a 50mm wide white border, as shown in (Page 4 of 34) & (Page 6 of 34) of supplied Traffic Signals Drawings.

2.4.6 Configuration

The following standard background screen (backboard) configurations shall be

available:

- a) Two aspect **backboard** – for S10 and S12
- b) Three aspect **backboard** –for S1, S2, S3 and S4
- c) Directional Arrows –for ST1,ST2,ST3,ST4,ST5,BUS

2.4.7 Measurement and Payment

The measurement and payment for the background screens shall be per number specified, per type of signal head for which the background screen is provided. The background screen shall include all components and fasteners necessary to assemble the background screen.

ITEM	DESCRIPTION	UNIT	Grouping
2.4.7.1	Two aspect (backboard for S10 & S12)	Each	A
2.4.7.2	Three aspect (backboard for S1, S2, S3 & S4)	Each	A
2.4.7.3	Directional backing board (for ST1, ST2,ST3,ST4,ST5)	Each	F*
2.4.7.4	Directional backing board (for BUS)	Each	F*

2.5 OVERHEAD TRAFFIC SIGNAL POLES

2.5.1 Scope

This section covers the specification for overhead (or cantilever) traffic signal poles, as described in the south African Road Traffic Signs Manual.

2.5.2 Construction

The pole shall be designed to support fixed bracket 6.4 metres above road level, overhanging 5.2 metres from the vertical pole. Traffic signal heads and background screens with a total mass of 50 kilograms and a projected windage area of 1.3 square metres will be fixed to the bracket. The pole shall be supplied in two sections, base, vertical pole and horizontal arm. Vertical not exceeding five metres (5m from the base) in length to facilitate transport, storage and installation.

The pole shall typically consist of the following components:

- a) Foundation frames complete with cable ducts.
- b) Overhead cantilevers arms complete with fixed overhead suspension brackets.
- c) Vertical pole section only.
- d) All fixing accessories.

The fixed bracket at the end of the cantilever shall be designed to accommodate any of the following signal configurations complete with background screens:

- a) 1 x 3 Aspects (S1 to S4).

- b) 1 x 5 Aspect (left or right turn) (S1 + S10L or S10R).
- c) 1 x 6 Aspect (2 x 3 Aspect side by side) (2 x S1)

It shall also be possible to mount the above overhead signals back to back on the cantilever. The gross weight of the overhead arm is 30kg to handle a weight of ±50kg

The minimum clearance of the overhang arm shall not be less than 5.1 metres measured at a point one metre from the centre of the vertical pole. The clearance between the highest point on the road and the lowest point on the overhead signal (normally the bottom of the backboard) must exceed 5.1 Metres.

The cantilever shall be pivoted at the mast to facilitate installation and maintenance. The pole shall be supplied complete with a foundation frame, mounting bolts and levelling washers (conventional hook bolts are not acceptable). Fixing bolts for the pole and overhead suspension bracket as well as a 90mm diameter x 300mm long cable duct must also be supplied. An 8mm diameter hole must be drilled 50mm from the top of the pole for earthing purposes.

2.5.3 Critical Dimension on aspects

The critical dimensions for the overhead traffic signal poles are contained in **ITEM 4, LIST OF DRAWINGS**, as the supplied below:

a	Overhead traffic signal pole layout drawing	<i>Page7 of 34: CoT Traffic Signals Drawing</i>
b	Base plate	<i>Page8 of 34: CoT Traffic Signals Drawing</i>
c	Mid pole	?
d	Base pole	<i>Page8 of 34: CoT Traffic Signals Drawing</i>
e	Hinge plate or pole	<i>Page9 of 34: CoT Traffic Signals Drawing</i>
f	Support rod	<i>Page14 of 34: CoT Traffic Signals Drawing</i>
g	Cantilever plate	<i>Page10 of 34: CoT Traffic Signals Drawing</i>
h	Foundation frame	<i>Page12 of 34: CoT Traffic Signals Drawing</i>

2.5.4 Material

The poles shall be manufactured of first grade steel tubing adequately rated for the maximum loading due to the fixed mass and wind load. No butt or longitudinal welds

will be permitted. If sectional poles used, must be lap-welded. If continuous poles also acceptable. Certification of a structural engineer that the pole can withstand the necessary loads shall be submitted when supplying the poles.

- a) Frame
- b) Cantilever upright pole with 3x yellow reflector strips mounted between 1.2m and 2m from the base of the pole. The reflector tape must be of a diamond grade Fluorescent Yellow 983-21 ES 101.6mm x 45.72m
- c) Cantilever outreach arm
- d) Base Bolts and Nuts
- e) Outreach arm bolt and nuts
- f) Outreach bolt or nut and pedestrian bracket assembly.

2.5.5 Finish

Fillet welds shall be neat and thoroughly cleaned before painting.

Pole must be painted with 2 x coat of paint specified below:

Primer specification

• solvent based type
• with high adhesion characteristic
• have excellent etching to improve adhesion to metal
• heat resistant up to 200 degrees Celsius
• must be acid resistant
• must be alkaline resistant after application.

- a) Paint enamel golden-yellow (HG926 SABS-630 T2) OR
- b) Golden Yellow Paint of the following spec designed per 1 litre medium base mix;

G = 1, R = 13.5, S = 1, K = 4.5, N = 6.

2.5.6 Measurement and Payment

The measurement and payment for the overhead poles shall be per number of poles supplied. The tendered rate shall include the full compensation for the manufacturing and supply of the overhead poles.

ITEM	DESCRIPTION	UNIT	Grouping
2.5.6.1	Supply of Complete overhead poles (including base frame)	Each	G
2.5.6.2	Supply of Complete overhead pole (excluding base frame)	Each	G
2.5.6.3	Supply of overhead pole (without arm & base frame)	Each	G
2.5.6.4	Supply of overhead arm alone (without pole & base frame)	Each	G
2.5.6.5	Supply Base Frame (for over head pole)	Each	G

2.6 STANDARD TRAFFIC SIGNAL POLES

2.6.1 Scope

This section covers the specification for standard height traffic signal poles, as described in the South African Road Traffic Signs Manual.

2.6.2 Construction

The steel pole shall be 114mm outside diameter by 3.3m long, coated with red oxide primer that conforms to the following spec;

(Must be solvent based type with high adhesion characteristic, have excellent etching to improve adhesion to metal, heat resistant up to 220 Degrees Celsius, must be resistant to both acid and alkali after application)

AND

supplied as stated under item "finishing" at **2.6.4**. Provision shall be made to earth the top of the pole with an 8mm diameter hole, drilled 50mm from the top of the pole for earthing purposes, see

Standard Pole	<i>Page 17 of 34: CoT Traffic Signals Drawing</i>
---------------	---

20 from supplied drawings for details.

2.6.3 Material

The poles shall be manufactured of first grade steel tubing adequately rated for the maximum loading due to the fixed mass and wind load. No butt or longitudinal welds will be permitted. The pole shall be of adequate strength to carry four signal faces with the wind load applicable to three aspects traffic signal heads and their backing boards. A structural engineer must verify that the poles are of adequate strength. The items below should be supplied with the pole:

- a) One (1) frame
- b) Pole with, 3x yellow reflector strips mounted between 1.2m and 2m from the base of the pole. The reflector tape must be of a Diamond Grade Fluorescent Yellow 983-21 ES 101.6mm x 45.72m
- c) Four (4) nuts
- d) Four (4) bolts
- e) Four (4) washers per nut and bolt

2.6.4 Finishing

Fillet welds shall be neat and thoroughly cleaned before painting. Pole must be painted

with 2 x coat of paint specified below:

Primer specification

• solvent based type
• with high adhesion characteristic
• have excellent etching to improve adhesion to metal
• heat resistant up to 200 degrees Celsius
• must be acid resistant
• must be alkaline resistant after application.

- a) Paint enamel golden-yellow (HG926 SABS-630 T2) OR
- b) Golden Yellow Paint of the following spec designed per 1 litre medium base mix;

G = 1, R = 13.5, S = 1, K = 4.5, N = 6.

2.6.5 Measurement and Payment

The measurement and payment for the standard poles shall be per number of poles supplied. The tendered rate shall include the full compensation for the manufacturing, painting and supply of the overhead poles.

ITEM	DESCRIPTION	UNIT	Group
2.6.5.1	Supply of standard poles (Including Base frame)	Each	H
2.6.5.2	Supply of standard pole (excluding Base frame)	Each	H
2.6.5.3	Supply of Base Frame (for Standard Pole)	Each	H

2.7 TOTEM TRAFFIC SIGNAL POLES “EXTENDED POLES

2.7.1 Scope

This section covers the specification for totem or extended traffic signal poles, as described in the South African Road Traffic Signs Manual.

2.7.2 Construction

The pole shall be designed to support signals at standard height, as well as supplementary signals at the top of the extended pole. When signal heads are mounted on the pole the minimum distance between the red signal mounted at standard height and the green signal mounted at extended height must not be less than one metre even when three aspect signal heads are used. When installed the pole shall be not less than 6.2 Metres from pavement level to the top of the pole.

Traffic signal heads and background screens with a total mass of 100kg and projected windage area of 2.6 square metres will be fixed to the pole. A structural engineer must verify that the pole will be able to withstand these loads.

The pole shall be supplied complete with a foundation frame, mounting bolts and levelling washers (conventional hook bolts are not acceptable). Fixing bolts for the pole as well as a 90mm diameter x 300mm long cable duct must also be supplied. The pole shall be able to support 100kg. An 8mm diameter hole must be drilled 50mm from the top of the pole for earthing purposes, see drawing for details.

Traffic Signals Totem Pole	<i>Page 18 of 34: CoT Traffic Signals Drawing</i>
----------------------------	---

2.7.3 Material

The poles shall be manufactured of first grade steel tubing adequately rated for the maximum loading due to the fixed mass and wind load. No butt or longitudinal welds will be permitted. If sectional poles used, must be lap-welded

Must be delivered with, 3x yellow reflector strips mounted between 1.2m and 2m from the base of the pole. The reflector tape must be of a Diamond Grade Fluorescent Yellow 983-21 ES 101.6mm x 45.72m

2.7.4 Finish

Fillet welds shall be neat and thoroughly cleaned before painting. Pole must be painted with 2 x coat of paint specified below:

Primer specification

• solvent based type
• with high adhesion characteristic
• have excellent etching to improve adhesion to metal
• heat resistant up to 200 degrees Celsius
• must be acid resistant
• must be alkaline resistant after application.

- a) Paint enamel golden-yellow (HG926 SABS-630 T2) OR
- b) Golden Yellow Paint of the following spec designed per 1 litre medium base mix;

$$G = 1, R = 13.5, S = 1, K = 4.5, N = 6.$$

2.7.5 Measurement and Payment

The measurement and payment for the totem poles shall be per number of poles supplied. The tendered rate shall include the full compensation for the manufacturing, painting and supply of the totem poles.

ITEM	DESCRIPTION	UNIT	Grouping
2.7.5.1	Supply of totem poles (Including base frame)	Each	1
2.7.5.2	Supply of totem pole excluding frame (excluding base frame)	Each	1
2.7.5.3	Base frame for the totem pole	Each	1

2.8 PEDESTRIAN PUSHBUTTONS

2.8.1 Scope

This section covers the supply of pedestrian push buttons.

2.8.2 Construction

Pedestrian pushbutton stations shall have an adequately rated green pushbutton with one normally open contact housed in a robust reinforced nylon enclosure. The enclosure shall have an indented walk man emblem and shall be tamper proof, i.e.:

- a) Screws shall have Allen key drive to deter vandals.
- b) Buttons with threaded locating ring, which can be loosened from the front of the housing, will not be permitted
- c) The enclosure shall not be easily bend or broken by hand
- d) 24 X Hexagon "Allen" key to be provided by supplier on the first order.

2.8.3 Material

- a) The enclosure shall be made from UV stabilised nylon with 30% glass fill for rigidity
- b) Screws and nuts shall be made from grade 304 stainless steel
- c) The indented emblem shall be a seven years, retro-reflective vinyl sticker

2.8.4 Mounting

Each pedestrian push button station shall be supplied with a universal pole-mounting strap suitable for poles from a 100mm to 170mm in diameter. The enclosure must be designed in such a way that it does not distort when the pole strap is tightened.

2.4.5 Cable Entry

A cable entry at the back of the push button housing shall be provided. Twin core 1mm cab tire wires 3m long shall be provided to connect in the pole top Terminal box with each unit . Push button side must be connected.

2.4.6 Finish

The pedestrian push button station shall be pigmented matt black not coated or similar to what is currently used by CoT. The indented emblem shall be yellow, retro-reflective vinyl sticker.

2.8.7 Measurement and payment

The measurement and payment for the pedestrian push buttons shall be per number of push buttons supplied. The tendered rate shall include the full compensation for the manufacturing and supply of the push buttons.

ITEM	DESCRIPTION	UNIT	GROUPING
2.8.7.1	Supply of pedestrian push buttons	Each	none

2.9 POLE TOP TERMINAL BOXES

2.9.1 Scope

This section covers the supply of dome shaped pole top terminal boxes.

2.9.2 Construction

The base of the pole top terminal box must be made of UV stabilised nylon with 30% glass fill and shall not distort or corrode after prolonged exposure to outdoor conditions. It shall be designed to fit into a 114mm Output Diameter pole with a wall thickness varying from 2mm to 6mm and shall be supplied complete with an adequate number of 6 ways, 15A or 20A terminal strips. Six tapered knock-outs of 20mm diameter shall be provided in the base to accommodate the PVC conduit for each traffic light mounted on the pole. The cover of the terminal box shall also be manufactured from UV stabilised nylon with a 30% glass fill and be held in position with two quick-release catches. Provision shall be made for fastening of cables to the base of the terminal box.

Provision shall be made to earth the terminal box base to the pole. The cover of the terminal box shall be held in position with a quick release clip with spring harden brass and lid with nylon 66 catch.

2.9.3 Finish

All parts being corrosion proof shall be left uncoated and shall be pigmented matt black.

2.9.4 Measurement and Payment

The measurement and payment for the pole top terminal boxes shall be per number of boxes supplied. The tendered rate shall include the full compensation for the manufacturing and supply of the terminal boxes.(including 12 connectors of 15Amps or 20Amps terminal strips)

ITEM	DESCRIPTION	UNIT	GROUPING
2.9.4.1	Supply of pole top terminal boxes	Each	none

2.10 AUDIBLE TRAFFIC SIGNAL DEVICES

2.10.1 Audible Pedestrian Pushbutton

The audible pedestrian button is an electronic device to be used on signalized intersections. This electronic equipment must produce an audible tone within audible frequency range. Must produce frequency of 500Hz with a rate of 5.8Hz of rapid thumb sound, signals a pedestrian walk movement, and must have an option of producing a user recorded sounds to signal pedestrian to cross the intersection. This device must be integrated with the following to allow and signal pedestrians to cross.

- a) A push button to request a pedestrian walking stage on any type of controller used
- b) A vibrating arrow when signalling pedestrian to cross.
- c) An automatic gain control circuitry to raise the volume when surrounding volumes causes walking signal not to be heard.
- d) A high contrast arrow to show pedestrian direction of movement.

This device must be mountable on standard signal pole and shall fit within the technical requirement sated below:

- a) Dimensions (not more than): 300mm (height) x 200mm (width) x 200mm (depth);
- b) Operational voltages : 220V (AC), 50Hz.
- c) Operational temperature (between): -5 Degrees Celsius to 47 Degrees Celsius.
- d) Operational on heavy rain and high humid conditions.

2.10.2 Audible Pedestrian Speaker

The audible pedestrian speaker is an electronic device to be used on signalized intersections. This electronic equipment must produce an audible tone of a frequency of between 500Hz to 2kHz to signals a walking green man, and a flashing Redman. Must also have an option of producing a user recorded sounds to signal pedestrian to cross the intersection. This device must be integrated with the following to allow and signal pedestrians to cross or finalize crossing when signalled.

- a) A cable connection to connect to the pedestrian Greenman signal head
- b) A cable connection to connect to the pedestrian Redman signal head
- c) Mounting units to mount the device on traffic signal poles

This device must be mountable on standard signal pole and shall fit within the technical requirement sated below:

- a) Dimensions (not more than): 300mm (height) x 200mm (width) x 200mm (depth);

- b) Operational voltages : 220V (AC), 50Hz.
- c) Operational temperature (between): -5 Degrees Celsius to 47 Degrees Celsius.
- d) Operational on heavy rain and high humid conditions.
- e) To have automatic gain control to auto adjust the produced sound against the ambient sound.

2.10.3 Measurements and payment

The measurement and payment for the audible pedestrian button shall be per number specified.

ITEM	DESCRIPTION	UNIT	GROUPING
2.10.1	Audible Pedestrian Button	Each	None
2.10.2	Audible Pedestrian Speaker	Each	None

2.11 TRAFFIC SIGNALS VIDEO DETECTION SYSTEM

The video lane detection system consist of three components working together to produce a logic switched output when a vehicle or motorcycle or cyclist or a pedestrian is detected on the intersection.

The logic output must be in the following form during states of detection.

Detection State	NONE-Detection State
Closed Switch	Normally Open Switch
12V(DC) or 24V(DC)	0V(DC)

The Three-components of the video detection system for signalized intersection must consist of the following;

- a) Traffic Detector Camera.
- b) Base Receiver / interface Device.
- c) Bundled Software.

2.11.1 Traffic Detector Camera

The camera must meet the following minimum specification:

- a) 640 X 480 pixels resolution or more;
- b) 6 frames per second to 33 frames per second video stream, user selectable.
- c) Black & White OR Colour type;
- d) CMOS type video processing chip.
- e) Night detection capable.
- f) Capable of detection against vehicle head lights.
- g) Must have a detection coverage that can be defined by a user in a form of the following:
 - i. A block drawn by a user manual to indicate boundaries of activation.

- ii. A user defined percentage of an image in block drawn to confirm detection.
- iii. Must be able to detect images from on wide angle view range 0m to 25m, and also on narrow angle view range of 15m to 75m.
- h) Must be integrated with mounting tube mounting clamps to allow mounting on an over head pole of a signalized intersection.
- i) Must be integrated with a wireless transmitter using a license free band to transmit video images to a base receiver closer to the intersection.
- j) Must be able to operate on between -10 Degrees Celsius and +80 Degrees Celsius.
- k) The camera mass shall be NOT more than 1kg.
- l) The camera unit shall be functional during heavy rain and high humid conditions.
- m) Shall be housed in a waterproof and weather proof housing;
- n) Camera housing material shall be of Ultra Violet radiation resistance.
- o) To be accompanied by a bundled application software. This software must under Operate under Windows Operating System used by the client.

ITEM	DESCRIPTION	UNIT	GROUPING
2.11.1.1	Traffic detector Camera	Each	J

2.11.2 Wireless traffic detector camera

The camera must meet the following minimum standards

- a) Traffic camera Wireless 868MHz 1/3" 3mm and 8mm (103° and 39°)
 - i. Traffic camera wireless with wide angle and narrow angle
 - ii. Mounting bracket (mounting device, 4 tube clamps, 8 bolt/screw combinations, tube)
 - iii. Hexagonal screw drivers (2 pieces)
 - iv. Bootlace ferrules (25x)
 - v. CD-ROM (with manual, Traffic camera detection firmware and Traffic camera PC Tool)
 - vi. To be accompanied by a bundled application software. This software must operate under Windows Operating System used by the client.

ITEM	DESCRIPTION	UNIT	GROUPING
2.11.2.1	Wireless traffic detector camera 868MHz 1/3" 3mm (103°) – Wide angle	Each	J
2.11.2.2	Wireless traffic detector camera 868MHz 1/3" 8mm (39°) – Narrow angle	Each	J

2.11.3 Base Receiver.

The base receiver must be able to receive images sent from one or two or three or four transmitting camera within a radius of 100meters, and produce a switched output signal for one or four detections when detection is confirmed. The base receiver shall have the following serial interface;

- a) Universal Serial Bus Interface to view images detected as vehicles pass through a detection boundary.
- b) RS232 for additional link to any hardware that might need to read the streaming information.
- c) RS485 for additional link to any hardware that might need to read the streaming information.
- d) The streaming protocol shall be made available on request to a user at any time when the user requests it for any development on the system.

The detector output must be interpretable by any input component of any traffic management system including the following;

- a) Traffic Controller inputs component,
- b) Remote monitoring input components,
- c) Real-time traffic control input components,

ITEM	DESCRIPTION	UNIT	GROUPING
2.11.3.1	Video Detector Base Receiver (4ch) for wired camera.	Each	J
2.11.3.2	Video Detection Base Transceiver (4ch) for wireless camera.	Each	J

2.11.4 Bundled Software... (To be supplied free of charge to the client)

The bundled software shall be a windows OS system based application. The supplier must be able to update same application to an OS system application desired by the user during the period of operating system change. The software licence used must not be of the subscription type. The application must have the following functionalities;

- a) Must be able to select the frame rate of video streamed from the camera on the application.
- b) Specify a boundary of detection on the transmitted image.
- c) Specify a direction of detection on the boundary of detection.
- d) Specify the image size to confirm a required detection.
- e) Imaged viewed must be able to toggle between number cameras connected to the base receiver and show all images simultaneously on each dedicated portion on the screen.
- f) Must filter unwanted images that might create false detection.
- g) Unwanted images: road marking, tree shadow, building shadows, reflecting headlights on wet surfaces, street vendors wearing advertising boards.
- h) The software must have a facility of recording video streaming and storing the video stream in a form of compressed images.
- i) Must have an option to schedule recording by date and time, and also must have an option to record on an instant.

2.12 TRAFFIC DETECTOR CAMERA POWER SUPPLY

The traffic camera power supply must consist of:

- a) A 24V switch power supply module (DVPPS01)
- b) Input power 100 to 240 VAC 50/60Hz
- c) Output power 24VDC 1 Amp max or 12 VDC 2Amps
- d) Overload/Short circuit protection – Auto recovery

2.12.1 Measurements and payment

The measurement and payment for the traffic detector camera power supply shall be per number specified.

ITEM	DESCRIPTION	UNIT	Grouping
2.12.1.1	Traffic camera power supply	Each	none

2.13 PEDESTRIAN TIME COUNT DOWN SIGNAL

The pedestrian countdown signal aspect is an electronic device that used to display remaining red time for a pedestrian to cross a signalized intersection. This device shall have the following functions;

- a) This device shall self learn the pedestrian flashing red time and display remaining pedestrian red-flashing time in form of a green coloured 7segment display.
- b) This device shall have a minimum count display of 0(zero) and a maximum count display of 99(ninety nine) representing seconds;
- c) This device shall have an automatic brightness control to allow pedestrian read digital display during the day and during the night.
- d) This device shall be intergraded with a visor for allowing specific directional viewing;
- e) Countdown signal must be of a 2-aspect type.
- f) Countdown to be active only on flashing red man, and to be embedded within the steady Green man housing, see Drawing for details.

Count Down Pedestrian Signal	<i>Page25 of 34: CoT Traffic Signals Drawing</i>
------------------------------	--

The device shall have following specifications;

3.3.1	Operational Voltage	220Volts(AC)
3.3.2	Power Consumption	NOT more than 10 Watts
3.3.3	Signal Aspect Diameter	210mm
3.3.4	Operational Temperature	-15 to +80 Degrees Celsius
3.3.5	Housing Dimensions	NOT more than 400mm(height) X 400mm(width) X 300mm (depth);
3.3.6	Signal head & Housing Combined Mass.	NOT more than 2Kg.
3.3.7	Housing shall be water proof (IP65 or better)	
3.3.8	Housing shall be made of UV resistant material.	

2.13.1 Measurements and payment

The measurement and payment for the pedestrian countdown device shall be per number specified.

ITEM	DESCRIPTION	UNIT	SAME MANUFACTURE AS ITEM
2.13.1.1	Pedestrian time countdown signal	Each	None

2.14 UN-INTERRUPTED POWER SUPPLY SYSTEM including components (UPS)

2.14.1 The UPS system

This is a system to back up the operating component of the traffic signal system with an alternative source of electrical power during a period where normal electrical power is not available. The traffic signals system here includes a microprocessor type controller, signal heads, and remote monitoring system. This UPS system shall switch to immediately restore AC power to a traffic controller under the following condition.

- a) Whenever the normal AC electricity supply runs below normal or above limits; and
- b) Whenever normal AC electricity supply cuts OFF.

2.14.2 Switching

- a) The switching to an alternative power source shall be in such a way that the microcontroller of traffic signals controller affected shall not recognize this transition as being a fault in the AC mains supplied.
- b) The switching shall be in a way that no flickering will be recognized on the signal heads facing traffic approaches.
- c) Must have a manual override switch (Double Pole Double Throw type, 40A minimum) Switch
- d) Where normal AC power supply becomes unstable, (Power supply levels lower than 180 Volts AC OR Power supply levels more than 250Volts AC), the UPS must switch to UPS and Record the event as follows;
 - The UPS system shall immediate record the abnormal level,
 - The UPS system shall verify if the level is temporal i.e. (period less than 100 milliseconds second)

If voltage level is confirmed abnormal for more than 100milliseconds, then

- i. The UPS system shall switch to the alternative power source for at list 8-hours where ESKOM electricity supply is not available.
- ii. The UPS system shall send an SMS message to inform the user about the status of the power supply.

Where normal ESKOM power supply switches back to normal, then the UPS system

shall do the following;

- a) The UPS system shall confirm the stability of a normal AC power supply for a period of 5minutes.
- b) If voltage level confirmed to be stable, the UPS system must do the following;
 - i. Cuts off the alternative power source,
 - ii. Log the event on the electronic event list,
 - iii. Send SMS to the user to inform the user about the Power status.

The UPS shall have an option to allow the user to configure periods that prohibits the UPS to switch to Alternative Power. (i.e. During power outages between 20h00 to 05h00).

This is done to allow UPS to function when it is most needed in morning traffic peak periods (i.e. 5h30 to 9h00)

2.14.3 Monitoring

- a) The UPS system monitoring shall be automatic type, where only critical alarms are being reported through the system.
- b) All alarms are to be logged on the electronic database intergraded in the UPS system, and the information logged shall be accessible for downloads in an electronic format interpretable by a user.
- c) The software application shall run on an Operating System Software required by the user (at present: Windows based OS), and also shall run any Desktop or Portable Computer.
- d) Where future development on the system is required by the user, the UPS supplier shall provide the application interface at a cost to the user to facilitate user required upgrades & interfaces to other system used in CoT Traffic Signals.

2.14.4 UPS System Power Output

The system shall provide the following power outputs;

- a. 0,5 Kilowatt of 220Volts (AC) r.m.s pure sine wave of electricity, on a frequency between 49,98Hz and 50,02Hz, for 8 hours minimum and 12 hours maximum.
- b. 1Kilowatt of 220Volts (AC) r.m.s pure sine wave of electricity, on a frequency between 49,98Hz and 50,02Hz, for 8 hours minimum and 12 hours maximum.
- c. 1,5 Kilowatt of 220Volts (AC) r.m.s pure sine wave of electricity, on a frequency between 49,98Hz and 50,02Hz, for 8 hours minimum and 12 hours maximum
- d. 2Kilowatt of 220 Volts (AC) r.m.s pure sine wave of electricity, on a frequency between 49,98Hz and 50,02Hz for 8 hours minimum and 12hours maximum.

2.14.5 Packaging

The UPS system housing shall be of the following specification.

- a) Housing shall be made of a cabinet that is water resistant.
 - b) Housing shall be proven by supplier to be vandal proof.
 - c) Housing shall be made of a cabinet that is UV light resistant.
 - d) Housing shall be made of a cabinet that has a means of maintaining internal temperature between +18 and +28 Degrees Celsius throughout the year.
 - e) Housing temperature below and above expected limits shall be reported by the system as one for the critical alarms.
 - f) This housing shall auto detect Hazardous gases and liquid leaks, and report the situation as one of the critical alarms.
 - g) The safety systems shall be integrated in the housing to prevent any equipment damage that might be brought along by gas or liquid leaks.
 - h) The health and safety aspects of the system shall confirm to standards laid out by an organization approved by South Africa.
 - i) Where the total mass of the system is more than 100Kg, the responsible supplier shall be responsible for delivery of purchased equipment to the client's stores, and also from client stores to client's field of installation.
 - j) Where the total mass of the system is less than 100Kg, the responsible supplier shall be responsible for the delivery of purchases equipment to the client's stores.
 - k) Locking system shall be designed and fitted to hinder any unauthorised entry by personnel not in possession of a CoT authorised tool to access the system modules in the UPS system housing.
- l) The supplier shall provide Training on UPS system twice a year for the duration of contract, and once each upgrade on the system, at a cost to the client.

2.14.6 Marking and Design Life

Each UPS module shall be legibly and durably marked with the following information:

- a) The manufacturer's name and product model.
- b) The maximum power consumption.
- c) The input voltage range.
- d) A Serial Number.
- e) The date of manufacture.
- f) Date of installation (to be completed by user)

The complete UPS system module shall be guaranteed for a period of five years, physical damage excluded, from the date of installation.

A comprehensive training must be provided by the supplier to maintenance personnel before instillation, and during any technological upgrades made by the manufacturer. This type of training shall not be at a cost to the CoT.

2.14.7 Running cost

Guarantees on modules used in the UPS are put in place to manage running cost to

the UPS.

2.14.8 Measurements and payment

The measurement and payment for the uninterrupted power supply shall be per number specified.

ITEM	DESCRIPTION	UNIT	Grouping
2.14.8.1	UPS 0,5 KWatts (Complete System)	Each	K
2.14.8.2	UPS 1 KWatts (Complete System)	Each	K
2.14.8.5	UPS Monitoring System	Each	K
2.14.8.6	UPS Monitoring System Installation & commissioning	Each	K
2.14.8.7	Training UPS system Maintenance (field equipment)	Each	K
2.14.8.8	Training UPS Monitoring System Maintenance	Each	K

ITEM	DESCRIPTION	UNIT	Grouping
2.14.8.3	UPS 1,5 KWatts (Complete System)	Each	L
2.14.8.4	UPS 2 KWatts (Complete System)	Each	L
2.14.8.5	UPS Monitoring System	Each	L
2.14.8.6	UPS Monitoring System Installation & commissioning	Each	L
2.14.8.7	Training UPS system Maintenance (field equipment)	Each	L
2.14.8.8	Training UPS Monitoring System Maintenance	Each	L

2.14.9 Spare parts for current UPS installed in the CoT

ITEM	DESCRIPTION	UNIT	Grouping
2.14.9.1	Foundation Frame (500mm x 900mm x 675mm Deep)	Each	M
2.14.9.2	Batteries (100Ah, 12V deep cycle (400 cycle life), 10 year design life)	Each	M
2.14.9.3	Inverter (1Kw) 230V True sine wave, Currently installed: TN-1500-212 with solar input & built-in charger	Each	M
2.14.9.4	Inverter (2Kw) 230V True sine wave, Currently installed: TN-3000-212 with solar input & built-in charger	Each	M
2.14.9.5	Communications module (SMS system with mailing and FTP server recording. 4 x Relays, 4 Inputs, Remote cell phone & Internet control, battery voltage input.)	Each	M
2.14.9.6	Charge Unit (12VDC, 25A multistage trickle charger, currently installed: PB-360N-12)	Each	M
2.14.9.7	UPS control unit (UPS Bypass Relay, UPS & Grid output relays, 3 way 4000A lightning protection, 6A resettable fuses for Grid and UPS)	Each	M
2.14.9.8	UPS BOX (IP67, theft resistant, ventilated, internal lock)	Each	M
2.14.9.9	Batteries (100Ah, 24V LiFePo, with built-in Battery Management System, 10 year design life)	Each	M
2.14.9.10	Batteries (100Ah, 48V LiFePo, with built-in Battery Management System, 10 year design life)	Each	M

2.15 SUPPLY OF CONTROLLER MODULES AND controller SPARES

The following are electronic modules for controllers, responsible for functionality of existing traffic controllers in the CoT. These modules are refurbished.

The measurement and payment for the controller modules and spares shall be per number specified. The list covers spares required for current controllers already installed in the CoT

New modules shall be purchased as whiles the refurbishing of modules shall involve the following.

- a) CoT sends faulty modules to the supplier.
- b) Supplier shall repair, test and send back the working module to the CoT after the agreed time frames.
- c) Supplier shall also provide a working guarantee of minimum of 1 year to the refurbished module.
- d) Bidders shall provide the CoT with refurbishment process as part of the tender submission.
- e) Where the bidder is not a manufacture of the equipment, then the bidder shall provide a manufacturer's letter of support as part tender submission.

2.15.1 NEW MODULES for the current installed MX type controllers

The following are modules for existing Multi-stream type controller (currently MX type) being used in the CoT.

Where the bidder is not a manufacture of the equipment, then the bidder must provide a manufacturer's letter of support as part tender submission.

ITEM	DESCRIPTION	UNIT	Grouping
2.15.1.1	System Processor (MX version)	Each	0
2.15.1.2	Service Module (MX version)	Each	0
2.15.1.3	Output Module (MX version)	Each	0
2.15.1.4	Output Surge Module (MX version)	Each	0
2.15.1.5	Pedestrian Interface Module (MX version)	Each	0
2.15.1.6	Detector Interface Module (MX version)	Each	0
2.15.1.7	System Supply Module (MX version)	Each	0
2.15.1.8	Detector Supply Module (MX version)	Each	0
2.15.1.9	GPRS Module (MX version)	Each	0
2.15.1.10	GPS Module (MX version)	Each	0
2.15.1.11	Loop Detector Module (MX version)	Each	0
2.15.1.12	GPS Unit(including Antenna)	Each	0

2.15.1.13	Lightning arrestor	Each	O
2.15.1.14	Surge arrestor	Each	O
2.15.1.15	Nano Flash disc	Each	O
2.15.1.16	MX Cookoo 8 phase	Each	O
2.15.1.17	MX Cookoo 12 phase	Each	O
2.15.1.18	M4 Cookoo 8 phase	Each	O
2.15.1.19	M4 Cookoo kit 12 phase	Each	O
2.15.1.20	Flat Pack 8 phase	Each	O
2.15.1.21	Flat Pack 12 phase	Each	O

2.15.2 REFURBISHED Modules for the current installed MX type controllers

ITEM	DESCRIPTION	UNIT	Grouping
2.15.2.1	System Processor (MX version)	Each	P
2.15.2.2	Service Module(MX version)	Each	P
2.15.2.3	Output Module(MX version)	Each	P
2.15.2.4	Output Surge Module(MX version)	Each	P
2.15.2.5	Pedestrian Interface Module(MX version)	Each	P
2.15.2.6	Detector Interface Module(MX version)	Each	P
2.15.2.7	System Supply Module(MX version)	Each	P
2.15.2.8	Detector Supply Module(MX version)	Each	P
2.15.2.9	GPRS module(MX version)	Each	P
2.15.2.10	GPS Module(MX version)	Each	P
2.15.2.11	Loop Detector Module(MX version)	Each	P
2.15.2.12	Nano Flash disc	Each	P

2.15.3 NEW MODULES for the current installed EX type and ESA type controllers

The following are spares and modules for Basic Co-ordination type controller (currently EX/ESA) type controller.

ITEM	DESCRIPTION	UNIT	Grouping
2.15.3.1	16A signal switching triacs	Each	Q
2.15.3.2	Surge Arrestors (3-Wire Surge Arrestor for legacy Traffic Light Controllers)	Each	Q
2.15.3.3	Single channel, self tuning loop detector	Each	Q
2.15.3.4	GC-12 conflict monitoring card	Each	Q
2.15.3.5	Lighting arrestor (2-Wire Lightning Arrestor for legacy Traffic Light Controllers)	Each	Q
2.15.3.6	F-5 multi-channel flasher cards	Each	Q
2.15.3.7	AMR v3.0 Outstation transmission unit (OUT)	Each	Q
2.15.3.8	OUT complete with GSM modem (GPRS module)	Each	Q
2.15.3.9	OUT batteries	Each	Q
2.15.3.10	High gain aerials complete with anti-vandalism housing.	Each	Q
2.15.3.11	Police Switch	Each	Q
2.15.3.12	Double pole circuit breaker	Each	Q
2.15.3.13	MY2-US-SV relays 5A 220 V 8 pin	Each	Q

2.15.3.14	MY4 relays 5a 220 V 14 pin	Each	Q
2.15.3.15	LY4 relays 10 A 220 V 14 pin	Each	Q
2.15.3.16	Hot-dip galvanized controller cabinet(plinth mounted)	Each	Q
2.15.3.17	CPU Batteries including Jumpers and Jacks	Each	Q
2.15.3.18	24Volts Power Supply(ESA type)	Each	Q
2.15.3.19	CPU unit (ESA type)	Each	Q
2.15.3.20	I/O extension unit (ESA type)	Each	Q
2.15.3.21	GPS clock correction unit(ESA type)	Each	Q
2.15.3.22	Voltage window comparator(ESA type)	Each	Q

The following are general spare required during traffic signals maintenance.

2.15.4 NEW MODULES for the current installed EX type and ESA type controllers

ITEM	DESCRIPTION	UNIT	Grouping
2.15.4.1	Automotor GPS clock correction unit	Each	R
2.15.4.2	PLC Power Supply: DVP PS01 (1A)	Each	R
2.15.4.3	PLC CPU: DVP 12SA2	Each	R
2.15.4.4	DVP input/output module	Each	R
2.15.4.5	Conflict monitor card for ESA22/32 controllers	Each	R
2.15.4.6	Flasher card for ESA22/32 controllers	Each	R
2.15.4.7	12V V3.0 Modem charging circuit c/w transformer	Each	R
2.15.4.8	V3.0 Modem Snubber board	Each	R
2.15.4.9	High gain aerial for GPRS Modem	Each	R
2.15.4.10	Cabinet Key	Each	R

2.15.5 NEW MODULES for the current installed SICE MFU Adaptive type controllers

ITEM	DESCRIPTION	UNIT	Grouping
2.15.5.1	Power Supply Module FA_40W	Each	S
2.15.5.2	Central Processing Unit STR	Each	S
2.15.5.3	Output Card SAL_HALL	Each	S
2.15.5.4	Back-plane BP8	Each	S
2.15.5.5	Peripheral Digital Input / Output Module	Each	S
2.15.5.6	Expansion Digital Input module (8 Inputs)	Each	S
2.15.5.7	Surge protection Module	Each	S
2.15.5.8	Cabinet model '97 South Africa	Each	S

2.15.5.9	Rack 55TE, 3U	Each	S
2.15.5.10	Power Supply DELTA 24V, 100W	Each	S
2.15.5.11	Output power ribbon	Each	S
2.15.5.12	Peripheral ribbon	Each	S
2.15.5.13	LED strip	Each	S
2.15.5.14	Socket WSI6	Each	S
2.15.5.15	Socket WDU6	Each	S
2.15.5.16	Push button Open or/Order change	Each	S
2.15.5.17	Switch ON/OFF, M/A	Each	S
2.15.5.18	Switch All red/Colors/Flashing	Each	S
2.15.5.19	Fan 120x120	Each	S
2.15.5.20	Power Supply box for detectors	Each	S
2.15.5.21	Loop detector DIG600	Each	S
2.15.5.22	GPS unit for MFU controller	Each	S

2.15.6 NEW MODULES for the current installed UA Controller

ITEM	DESCRIPTION	UNIT	Grouping
2.15.6.1	UA 24V DC power supply Unit	Each	T
2.15.6.2	UA Power Management/Red Flash Board	Each	T
2.15.6.3	Main surge suppressor	Each	T
2.15.6.4	Secondary surge suppressor	Each	T
2.15.6.5	Main Processor Unit (CPU)	Each	T
2.15.6.6	Triac daughter board (one pluggable board per phase)	Each	T
2.15.6.7	MY4 Relay, 24V DC coil	Each	T
2.15.6.8	LY2 Relay, 220 V AC Coil	Each	T
2.15.6.9	Double pole circuit breaker (6A)	Each	T
2.15.6.10	Li-Ion Battery for the 3G router	Each	T
2.15.6.11	Charger for 3G router	Each	T
2.15.6.12	Button Cell backup battery for RTC	Each	T
2.15.6.13	Magnetic aerial, including vandal-resistant housing	Each	T
2.15.6.14	Cabinet Key	Each	T
2.15.6.15	Micro SD Card	Each	T
2.15.6.16	GPS clock correction unit	Each	T
2.15.6.17	Inductive loop/Pedestrian Input adaptor (12 loop inputs & 8 pedestrian inputs)	Each	T
2.15.6.18	Magnetometer/Pedestrian Input adaptor (12 Magnetometer inputs & 8 pedestrian inputs)	Each	T

2.15.6.19	Camera/Pedestrian Input adaptor (12 camera inputs & 8 pedestrian inputs)	Each	T
2.15.6.20	Industrial 3G router c/w Li-Ion Battery Charger	Each	T
2.15.6.21	Output module - 4 phases per output card	Each	T
2.15.6.22	GPS clock correction unit complete with aerial	Each	T
2.15.6.23	Fuses amp-PLC fuse-0,1 Amp	Each	T
2.15.6.24	Flat pack 8 phase controller	Each	T
2.15.6.25	Flat Pack 12 phase controller	Each	T

2.15.7 Components used in traffic signals maintenance

Item	DESCRIPTION	UNIT	Grouping
2.15.7.1	Box meter pole mounted w/o circuit break	Each	U
2.15.7.2	Cable cu 2.5mm ² x 4 core 1kv	Per/m	U
2.15.7.3	Circuit breaker 240v 1p 20a 5ka h/mann	Each	U
2.15.7.4	Conduit cable 110mm x 4m	Each	U
2.15.7.5	Connector strip PVC 12way 15a	Each	U
2.15.7.6	Gland cable & shroud no 1	Each	U
2.15.7.7	Gland cable & shroud no 2	Each	U
2.15.7.8	Gland cable & shroud no 3	Each	U
2.15.7.9	Gland cable & shroud no 0	Each	U
2.15.7.10	<p>Sleeving Heat Shrink 4.8mm x 1200mm</p> <ul style="list-style-type: none"> • Must be a thick walled polyolefin tube . Must have a hot melt adhesive layer . Shrink ration 4:1 Industrial use • Must have a skin tight fit once heated and fit over irregular shaped objects .The tube must be medium/thick walled and have adhesive lined tubing. • Featuring: High temperature resistance - Shape memory - Precise shrink ratio and recovery - split and crack resistance. • 4.8mm/2.4mm shrink ration of 2:1 with operating temperature :-75degrees to 150 degrees Celsius . 	Each	U
2.15.7.11	<p>Sleeving heat shrink 38/12mm (Adhesive Lined Heavy Duty Polyolefin)-Current is 28mm/300mm?</p> <ul style="list-style-type: none"> • Must be a thick walled polyolefin tube . Must have a hot melt adhesive layer . Shrink ration 4:1 Industrial use • Operating temperature -55 degrees to 	Each	U

	130degrees Celsius.		
2.15.7.12	Strap earth copper bamba 17mm x 25m	Each	U
2.15.7.13	Tape butyl med volt 25mm x 10m	Each	U
2.15.7.14	Paint enamel g/yellow hg926 sabs-630 t2 (refer to Item 2.5.5 for spec)	Each	U
2.15.7.15	Grey Paint - Dove grey (refer to Item 2.5.5 for Spec)	Each	U
2.15.7.16	Button p/b pedestrian with pole strap	Each	U
2.15.7.17	Cable robot cu 1.5mm2 x 7 core 1507 multi colour	Per/m	U
2.15.7.18	Cable robot cu 1.5mm2 x 12 core 1507	Per/m	U
2.15.7.19	Cable robot cu 1.5mm2 x 19 core 1507	Per/m	U
2.15.7.20	Connector dome traffic pole top	Each	U(2.9)
2.15.7.21	Earth spike with Clamp m16 x 1200mm	Each	U
2.15.7.22	Tape insulation p&b 25mm	Each	U
2.15.7.23	Tape insulation scotch 23	Each	U
2.15.7.24	Tape pvc adhesive 20mm x 20m black	Each	U
2.15.7.25	Tape pvc adhesive 20mm x 20m blue	Each	U
2.15.7.26	Tape pvc adhesive 20mm x 20m red	Each	U
2.15.7.27	Ferrule cu crimp centre 1.5mm2	Each	U
2.15.7.28	M6 x 20mm Hexagonal - stainless steel Bolt and nut	Each	U
2.15.7.29	Ferrule cu crimp centre 2.5mm2	Each	U
2.15.7.30	Ferrule cu crimp centre 4mm2	Each	U
2.15.7.31	Tape pvc adhesive 20mm x 20m yellow	Each	U
2.15.7.32	Washer flat stainless steel M6 by 25mm by1mm	Each	U
2.15.7.33	Washer flat galv M10	Each	U
2.15.7.34	Sealer spray foam fix robot control box	Each	U
2.15.7.35	Slow blow clear 5 Amp fuses 240VAC	Each	U
2.15.7.36	16mm Ferrules	Each	U
2.15.7.37	PMV 55 relay (single phase voltage monitor)	Each	U
2.15.7.38	Cat-5 cable - MEGA NET WIRE SPEED CABLE SOLID F/UTP CAT 5 E ARM PE CABLE. <ul style="list-style-type: none"> • Conductor - Solid bare copper AWG24/1, • Insulation – PE, • Drain Wire - Solid Tinned Copper, • General Shield - Aluminium/Polyester foil : covering 110 %, • Outer jacket - PVC -Black, • Armour - Corrugated galvanized steel, • Outer jacket - PE – Black, • This cable is used for the transmission of digital and analogue voice , date and video signals) 	Per/m	U
2.15.7.39	Scotch tape	Each	U
2.15.7.40	M10x 30 bolt and nut Hexagonal stainless steel	Each	U
2.15.7.41	M6 x 20 gutter bolt and nut (galvanized)	Each	U
2.15.7.42	16mm lugs	Each	U

2.15.7.43	Bandit 25mm straps	Each	U
2.15.7.44	Scotch Cast MX2	Each	U
2.15.7.45	Logic supply fuse/Phase fuse - 5mm by 20mm - 3.15A 250Vac - Ceramic fast acting.	Each	U
2.15.7.46	Lamp supply fuse - 5mm by 20mm - 6.3A 250Vac- Ceramic fast acting	Each	U
2.15.7.47	Output unit fuse -5mm by 20mm 2A 250 Vac - Ceramic fast acting	Each	U
2.15.7.48	Pan head Stainless steel M6 by 12mm	Each	U
2.15.7.49	M6 x 30mm Hexagonal - stainless steel Bolt and nut	Each	U
2.15.7.50	M10x 20 bolt and nut Hexagonal stainless steel	Each	U
2.15.7.51	Pan head Stainless steel M5 by 12mm	Each	U
2.15.7.52	Yellow reflector tape - Diamond grade Fluorescent Yellow 983-21 ES 101.6mm x 45.72m(3M product)	Each	U
2.15.7.53	Lithium 3v CR2450N Battery	Each	U
2.15.7.54	Mini Circuit breaker double pole 10 amp - Ue=240/415V - Uimp = 2kV - F=50Hz - Icu=3kA	Each	U

2.16 THE TRAFFIC CONTROLLER

2.16.1 Types of controllers

4-types of controllers are required, and are classified according to their unique performance, and all must be able to communicate with exiting central control system. The supply of controller must include frame, base, controller housing and controller modules .These modules include detection ,GPS and aerials. All of these controllers must also be available in Flat pack versions (Retrofit Version) / Cookoo kit version (Retrofit Version). The types are as follows;

2.16.1.1 Basic co-ordination type

- a) The timing shall be pre-programmed by the user and stored in an electrical erasable memory of a controller.
- b) This controller shall follow the pre-programmed program exactly as it is without alteration to the settings in a program.
- c) The program shall repeat throughout the year until changed by the user.
- d) This controller may have the ability to run more than 1 intersections simultaneously, but not compulsory.
- e) This controller must be capable of running up to 8 stages.
- f) To be integrated with a fault diagnostic panel for following minimum functions;
 - i. Change date & time
 - ii. View running stages
 - iii. View fault log
 - iv. View details of currently running plans.

2.16.1.3 Multi stream type

- a) The timing shall be pre-programmed by the user and stored in the Electrical

- erasable memory of a controller.
- b) The controller shall follow the pre-programmed program exactly as it is without alteration.
- c) The program shall repeat throughout the year until changed by the user.
- d) This controller shall be capable of running more than 2 intersections and up to 8-intersections simultaneously.
- e) This controller must be capable of running up to 50 plans of which any plan can be commanded to run at any time by an existing central control computer in the central control centre.
- f) This controller must be capable of running up to 32 stages.
- g) Must have a fault diagnostic panel integrated inside the controller, and must be able to do the following without any hand held interfacing device linked on the controller;
 - i. Change date and time.
 - ii. View running stages.
 - iii. View fault log.
 - iv. View details of the currently running plan.

2.16.1.3 Urban Traffic Controller...*(readily able to take instructions from the current ADIMOT System)*

- a) The timing shall be pre-programmed by the user and stored in the Electrical erasable memory of a controller.
- b) The controller shall follow the pre-programmed program exactly as it is but alteration allowed through the currently installed ADIMOT traffic control system.
- c) The program shall be dynamic, and allowed to change as traffic demands.
- d) This controller shall be capable of running 1 intersection and up to 8-intersections simultaneously,
- e) This controller must be capable of running up to 50 plans of which any plan can be commanded to run at any time by an existing central control computer in the central control centre.
- f) This controller must be capable of running up to 32 stages.
- g) Must have a fault diagnostic panel integrated inside the controller, and must be able to do the following without any hand held interfacing device linked on the controller;
 - i. Change date and time.
 - ii. View running stages.
 - iii. View fault log.
 - iv. View details of the currently running plan.

The CoT is currently running adaptive control over BRT trunk line via the ADIMOT system. The required traffic controller must be able to take instructions from the ADIMOT system running from the current Interim Control Centre.

The controller must be able to optimize the signal plans by optimizing cycle length and splits in real time situation, as influenced by the occupancy on upstream detectors linked to the controller.

2.16.1.4 Pedestrian type (New)

- a) The timing shall be pre-programmed by the user and stored in an electrical erasable memory of a controller.
- b) This controller shall follow the pre-programmed program exactly as it is without alteration to the settings in a program.
- c) The program shall repeat throughout the year until changed by the user.
- d) This controller shall be designed to run only 1 intersection at the time.
- e) This controller must be capable of running up to 2 stages(Pedestrian Stage and Vehicular stage)

2.16.2 Controller Central Processing Unit (All types)

The traffic controller required shall be a microprocessor type, and shall be configurable to switch 220V (AC) from a two-phase plan to a multi-phase plan. The controller shall be cable of running minimum of 8-phase expandable to 12 and 16 phases, except where it is pedestrian type controller that runs only 2-stages. Any phase shall be configurable to run vehicular movements including right turning arrows, left turning arrows, pedestrian signals.

2.16.3 External Inputs (All types)

The controller shall be capable of interpreting switched inputs from external vehicular and pedestrian detections to switch user predefined stages, and user predefined time extensions.

- a) Where inductive loop is used an external input, the interfacing hardware to the controller shall have an Auto-tune function, shall also have an option of tuning the sensitivity of the loop.

Minimum inputs interpretable simultaneously shall be as follows for different types of controllers require,

- a) Basic co-ordination type: 8-detector inputs minimum.
- b) Multi Stream type: 16-detector inputs minimum.
- c) UTC control type: 16-detector inputs minimum.
- d) Pedestrian controller: 2 to 4-detector inputs minimum.

All external inputs shall be optically isolated.

2.16.4 External Outputs (All types)

The controller shall have an electronic means of protecting internal switching triacs from being destroyed during a short circuit situation on an external load connected to the controller.

This protection means shall be easily accessible, shall be easily replaceable and shall be housed inside the controller.

2.16.5 Conflict movement protection (All types)

The controller (All types) shall have an electronic conflict monitoring circuitry to prevent

conflict movement being signalled simultaneously.

The green signals of the conflicting movements shall under no circumstance be allowed to be switched ON.

Induced conflicts from the streets must also force the controller to go on fault mode.

2.16.6 Controller Time Keeping (All types)

GPS clock synch as a standard.

The controller SHALL NOT use Eskom 50Hz mains frequency as bases of aligning clocks along the group of controllers.

2.16.7 Controller Event reporting (All types)

The controller shall be capable of reporting critical alarms, and events to the current Advance Traffic Control System used in the CoT. The medium used to report shall be any form of wireless connection between the controller and the Central Computer running the system.

2.16.8 Adverse interference (All types)

The functionality of the controller shall be protected against lightning strikes, power surges, and electronics interference around the area of installation.

- a) Where the interference is temporal (last for maximum time of 20milliseconds) and does not repeat within a cycle of signal timing period);
 - i. The controller shall ignore the interference.
- b) Where the interference becomes permanent (last more than 20milliseconds);
 - i. The controller shall log the fault in its recoverable memory; report it to the central computing, to reset the controller's operation.
- c) Where the same interference repeats again within a cycle of the controller's operation.
 - i. The controller shall switch over to flashing mode, report the fault to a responsible technician and remain flashing until the fault clears.

2.16.9 Operating modes (All types)

2.16.9.1 Basic Coordination type, Multi-Streams type, Pedestrian type, Modular type

The controller shall be designed to operate in any of the following modes;

- a) Fixed time mode,
- b) Fully vehicle actuated mode,
 - i. Where in absence of a demand for a stage to signal a minor traffic movement, the mode shall opt to remain on a stage signalling the major traffic movement.
- c) Semi vehicle actuated mode,
- d) Manual control,
 - i. This mode shall be accessed by a key.
 - ii. Stages for signalling traffic movements shall be operated by a water proof switch.
 - iii. Under no circumstance shall any minimum green of any stage be interrupted while running on a manually controlled stage.
- e) Emergency flashing.

2.16.10 UTC (Urban Traffic Control) Type

The controller must be able to connect to the current ADIMOT System, must be able to receive direct commands from the currently installed ADIMOT system.

The controller shall be designed to operate in any of the following modes;

- a) Fixed time mode, only on emergencies where input demands to a controller are being interrupted.
- b) Fully vehicle actuated mode,
- c) Semi vehicle actuated mode, only on emergencies where input demands to a controller are being interrupted.
- d) Manual control,
 - i. This mode shall be accessed by a key.
 - ii. Stages for signalling traffic movements shall be operated by a water proof switch.
 - iii. Under no circumstance shall any minimum green of any stage be interrupted while running on a manually controlled stage.
- e) Emergency flashing.

2.16.11 Streams

2.16.11.1 Basic co-ordination type

This controller shall run minimum of 1 stream with individual off-sets, and individual detections allocation.

2.16.11.2 Multi stream type

This controller shall run a minimum of 2 streams, and shall be capable of running 8(eight) streams with individual off-sets, and individual detections allocation.

2.16.11.3 UTC type

This controller shall run minimum of 2 streams with individual off-sets, and individual detections allocation.

2.16.11.4 Pedestrian type

This controller shall run minimum of 1 stream with individual off-sets, and individual detections allocation.

2.16.12 Coordination of controllers (All types)

Controllers responsible for coordinated movement shall be coordinated by the following means;

- a) Group-coordination by master controller on the field.
- b) Group-coordination by master computer in the central control centre.
- c) Group-coordination by GPS clock.

All methods shall be executed using any wireless media that will have not more than a latency of 1000 milliseconds.

Where latency is more than 1000 milliseconds between a command sent from the master equipment and a command acknowledgment from the slave controller(s),

- a) A system correction process shall run automatically to compensate for the latency experienced.
- b) The resultant of the process shall be all controllers running on the same clock, and accurate to a second level.

The Outstation Transmitting Unit (controller communication unit) shall have the following specification;

- a) Shall interface with a controller and communicate with a master computer at the central control system through GSM networks.
- b) Shall stamp date and time on each and every event reported to the master computer in the central control centre.
- c) Shall be integrated with a secondary powered backup memory for reporting open door, circuit breaker trips, and electricity outages when experienced.
- d) Shall be integrated with a RS232 OR RS485 OR USB to allow user to link the OTU with any industrial type device during system expansion.

2.16.13 Electrical stability (All types)

The controller shall under normal / legal circumstances function stably between 220V (AC) +20% and 220V (AC)-15%, AND between 48Hz to 52Hz of Eskom mains frequency, but the controller must be practically proven to able to operate correctly between 175V to 280 V.

The controller shall start clamping mains supply on overvoltage at 275V(AC), in order to prevent secondary modules from being damaged during power surges and overvoltage supply.

2.16.14 Controller housing (All types)

Controller shall be housed in a steel, waterproof cabinet, and this cabinet shall be protected from corrosion by any form of non-corrosive and UV resistant layer applied on the cabinet. The base of a cabinet shall be fixed on plinth made by the same material as the controller cabinet. The plinth shall be locked by a key or lock. The controller cabinet mount together on its plinth shall have dimension NOT MORE than what is specified below;

- a) Height (1600mm).
- b) Width (1000mm).
- c) Depth (600mm).

If a flat pack controller is requested it must be supplied using dimensions of no less than 400mm wide or 800mm High .

Controller housing final colour to be painted with an “Oyster White Finish” (colour code-RAL 1013). Painting must be conducted in an environment friendly manner.

2.16.15 Remote monitoring software (None UTC types)

The remote monitoring Software shall run on Windows Operating System or any Operating System desired by a user. This software shall be designed to run on a Pentium based chip desktop computer and NOT a server.

- a) Where the software responsible for monitoring controller is not capable of communicating to the currently running software application,
 - i. The supplier of controllers shall be responsible for providing the interface within 6-monhts after the contract has been awarded.
 - ii. This interface shall facilitate communication between supplier software application and user monitoring software.
 - iii. The supplier shall make specific required protocol available where external interface requires the protocol to be shared amongst the system development team.

2.15.16 Graphical user interface (GUI).

- a) The graphic user interface for faults diagnostics on a controller shall run on Windows Operating System, or any operating system of the user’s choice.
- b) The GUI shall have a REALTIME simulator that simulates the operation of pre-programmed signals settings including inputs triggered.
- c) Simulated events shall be date and time controlled.
- d) The GUI shall be capable for manual program downloads and uploads on the

- controller, and
- e) Shall be capable for manual changes on pre-programmed technical setting on site.

2.16.17 Controller and Software Upgrades (All types)

- a) All upgrades shall be announced formally to the user.
- b) All conditions of upgrades and cost involved shall be discussed with the user prior implementation of any upgrade.
- c) All upgrades shall be coupled with a formal training of system users; with not cost to the CoT during the period of the contract.

2.16.18 Conditions of equipment supply

The CoT prefers that, the traffic controllers must have been successfully tested by the South African Bureau of Standards (SABS) for compliance with SANS 1547:2005 or latest.

Controller day to day operation must be able to function within parameters as described under the South Africa Traffic Signals Manual Vol3. (No Certification Applicable)

The supplying firm shall make sure that controller's technical operation complies with

- SANS 1547:2005 or latest within 12 months after the tender has been awarded.
- SARTSM vol3 (no certification required)
- CoT Traffic signals functionality within 12months after the tender has been awarded

The supplying firm's support office shall be South African based and shall have proof of stock available at the firms operating premises or firm's manufacturing premises.

Training on configuration and training on operation of controllers, shall be covered by the supplier at the supplier's cost, once a year for the duration of the contract.

2.16.18.1 Basic co-ordination type

ITEM	DESCRIPTION	UNIT	GROUPING
2.16.18.1.1	8-phase Controller-Basic Coordination type (include frame, base, controller housing and controller modules including Detection Module, PGS module, Antenna.)	Each	V
2.16.18.1.2	12-phase Controller-Basic Coordination type (include frame, base, controller housing and controller modules including Detection Module, PGS module, Antenna.)	Each	V
2.16.18.1.3	Pre-programmed Configuration Software (per Dedicated Basic intersection)	Each	V
2.16.18.1.4	Pre-programmed Configuration Software (per Dedicated intersection 3-leg intersection)	Each	V
2.16.18.1.5	Pre-programmed Configuration Software (per	Each	V

	Dedicated intersection 4-leg intersection)		
2.16.18.1.6	Controller updates on site	Each	V
2.16.18.1.7	Flat Pack 8 phase controller-Coordination Type including all controller modules, detection and GPS with antenna included	Each	V
2.16.18.1.8	Flat Pack 12 phase controller-Coordination Type including all controller modules, detection and GPS with antenna included	Each	V

2.16.18.2 Multi stream type

ITEM	DESCRIPTION	UNIT	GROUPING
2.16.18.2.1	12-phase Multi streams type (include frame, base, controller housing and controller modules including Detection Module, PGS module, Antenna.)	Each	W
2.16.18.2.2	16-phase Multi streams type (include frame, base, controller housing and controller modules Including detection and GPS with aerial)	Each	W
2.16.18.2.3	Pre-programmed Configuration Software (per Dedicated Basic intersection)	Each	W
2.16.18.2.4	Controller updates on site	Each	W
2.16.18.2.5	Cookoo Kit for 12-phase Multi streams type, to fit in M4 controller box (controller modules Including detection and GPS with antenna)	Each	W
2.16.18.2.6	Cookoo Kit for 12-phase Multi streams type, to fit in non-destructive controller box (controller modules Including detection and GPS with antenna)	Each	W

2.16.18.3 UTC (Adaptive) type

ITEM	DESCRIPTION (controller including frame, base, controller housing and controller modules)	UNIT	GROUPING
2.16.18.3.1	4 phase MFU Traffic Controller <i>Tshwane model</i>	Each	X
2.16.18.3.2	6 phase MFU Traffic Controller <i>Tshwane model</i>	Each	X
2.16.18.3.3	8 phase MFU Traffic Controller <i>Tshwane model</i>	Each	X
2.16.18.3.4	10 phase MFU Traffic Controller <i>Tshwane model</i>	Each	X
2.16.18.3.5	12 phase MFU Traffic Controller <i>Tshwane model</i>	Each	X
2.16.18.3.6	14 phase MFU Traffic Controller <i>Tshwane mode</i>	Each	X
2.16.18.3.7	16 phase MFU Traffic Controller <i>Tshwane model</i>	Each	X
2.16.18.3.8	Pre-programmed Configuration Software (per Dedicated Basic intersection)	Each	X
2.16.18.3.9	Pre-programmed Configuration Software	Each	X

	(per Dedicated intersection 3-leg intersection)		
2.16.18.3.10	Pre-programmed Configuration Software (per Dedicated intersection 4-leg intersection)	Each	X
2.16.18.3.11	Controller updates on site	Each	X
2.16.18.3.12	Flat pack 12 phase MFU Traffic Controller <i>Tshwane model, to Fit in the currently installed SICE controller Box.</i>	Each	X

2.16.18.4 Pedestrian type

ITEM	DESCRIPTION	UNIT	GROUPING
2.16.18.4.1	Pedestrian type (include frame, base, controller housing and controller modules)	Each	Y
2.16.18.4.2	Pre-programmed Configuration Software (per Dedicated Peds Intersection)	Each	Y
2.16.18.4.3	Controller updates on site	Each	Y

2.17 POLE MOUNTING STRAPS

2.17.1 Construction

A pole mounting must be 130mm long and shall consists of a 60mm right angle bracket with two buckles and a tensioning set screw with a nut. The pole strap shall be 25mm wide by 1.2mm thick and shall be designed to fit poles ranging from 100mm to 170mm diameter. Pole straps that require crimping or band-it strapping will not be acceptable. As an optional extra hot-dip galvanised right angle brackets must also be available to allow mounting of signal heads at ninety degrees on the same pole

A pole mounting strap is required specifically for the mounting of traffic signal heads, pedestrian pushbutton stations as well as camera interface cabinet.

2.17.2 Finish

The pole mounting strap and its components must be manufactured from hot-dip galvanised (see Drawing Supplied).

Pole mounting Strap	<i>Page27 of 34: CoT Traffic Signals Drawing</i>
---------------------	--

2.17.3 Measurements and payment

The measurement and payment for the pole mounting strap shall be per number specified.

ITEM	DESCRIPTION	UNIT	GROUPING
2.17.3.1	Pole mounting strap and its components	Each	none

2.18 STANDARD TRAFFIC SIGNAL ARROW SIGNS (ST1, ST2 ,ST3) AND BUS SIGN

2.18.1 Scope

This section includes the specification for the permanent standard traffic signal arrow sign (ST1, ST2 and ST3). Standard traffic signal arrow signs may be used to indicate the directions in which light signals are applicable.

2.18.2 Construction a material

Standard traffic signal arrow signs must be constructed from 500mm x 500mm high profile steel Chromadec or a similar approved material, minimum thickness of 1.0mm as per SARTS Volume

2. Standard traffic signal arrow signs material must be SABS approved material with seven (7) year warranty. Road traffic signs shall be in accordance with the requirements of the Southern African development community Road traffic Sign manual (SADC-RTSM), the Road Traffic Act (Act 29 of 1989) and regulations and SANS 1519:1996. Each ST board to come with 2 x stability brackets and black out tape to close holes that are open once arrow/bus sign has been set.

2.18.3 Finish

Standard traffic signal arrow signs must be pigmented matt black. Symbol and 22mm border must be retro-reflective white.

2.18.4 Measurements and payment

The measurement and payment for the Standard traffic signal arrow signs shall be per number specified.

ITEM	DESCRIPTION	UNIT	GROUPING
2.18.4.1	Standard traffic signal arrow signs ST1/ST2/ST3.	Each	Z
2.18.4.2	BUS sign	Each	Z

2.19 CAMERA INTERFACE CABINET

2.19.1 Construction

A special designed cabinet for the mounting of a traffic camera interface unit is required. The box must comply with the following specification:

- a) Approximate size: 300mm x 220mm x 100mm
- b) The cabinet shall be weather and dust proof
- c) The door catch must have a square drive and provision must be made to lock the cabinet by means of a padlock
- d) The cabinet shall be supplied with a vertical mounted DIN rail adequate for mounting of the camera interface unit, (see Drawing Supplied).

Camera Interface Cabinet	Page31 of 34: CoT Traffic Signals
--------------------------	-----------------------------------

	<i>Drawing</i>
--	----------------

2.19.2 Mounting

Each cabinet shall be of a pole-mount design and supplied with two universal pole mounting straps suitable for pole from 100mm to 170mm diameter.

2.19.3 Cabinet entry

Two holes, 22mm diameter, must be provided at the bottom of the cabinet for cable entry. The open holes must have gromets installed.

2.19.4 Finish

Cabinet shall be manufactured from 1mm, hot-dip galvanized steel.

2.19.5 Measurements and payment

The measurement and payment for the camera interface cabinet shall be per number specified.

ITEM	DESCRIPTION	UNIT	GROUPING
2.19.5.1	Camera interface cabinet (Electrical Connection Box)	Each	None

2.20 TRAFFIC SIGNAL ASPECTS AND SIGNS BRACKETS

2.120.1 Construction

Steel brackets must be constructed as per critical dimensions contained in ITEM 4, LIST OF DRAWINGS, as supplied below:

a	Five aspect top bracket	<i>Page18 of 34: CoT Traffic Signals Drawing</i>
b	Five aspect bottom bracket	<i>Page20 of 34: CoT Traffic Signals Drawing</i>
c	Sign bracket for overhead arm	<i>Page22 of 34: CoT Traffic Signals Drawing</i>
d	Sign bracket for standard and totem pole	<i>Page34 of 34: CoT Traffic Signals Drawing</i>
e	Pedestrian Bracket	<i>Page21 of 34: CoT Traffic Signals Drawing</i>

2.20.2 Finish

Steel brackets must be manufactured from 1mm, mild steel.

2.20.3 Measurements and payment

The measurement and payment for the steel brackets shall be per number specified.

ITEM	DESCRIPTION	UNIT	GROUPING
2.20.3.1	Five Aspect Top Bracket	Each	AA
2.20.3.2	Five Aspect Bottom Bracket	Each	AA
2.20.3.3	Sign Bracket for Overhead Arm	Each	AA
2.20.3.4	Sign Bracket for Standard Pole & Totem pole	Each	AA
2.20.3.5	Pedestrian Bracket	Each	AA
2.20.3.6	Mid OH arm bracket	Each	AA

2.21 SECURITY KEY TO LOCK SYSTEMS FOR TRAFFIC SIGNALS CABINETS

2.21.1 Electronic Locks

- Electronic cylinders shall be designed to prevent unauthorized duplication of the cylinder ID code, meaning each cylinder must be unique and traceable.
- Cylinders must contain encrypted access codes to identify the system to which they belong.
- No wiring or battery is required as the electronics in the cylinder to be powered by the key. Control access must have audit trails even during power outages.
- Cylinders shall record the last 1100 authorized and denied access events in their internal memory.
- Cylinders shall contain a list of lost/stolen keys to prevent lost keys from gaining access.
- Cylinders shall have no pick-able keyway.
- Standard security features shall be built into each cylinder: Must be Tamper resistant, Torque resistant and Stun gun resistant.
- Cylinder to have a 90 degree, anti-clockwise, unlocking turn with key retaining function. The key can only be released from the lock if the lock is in closed position.
- The cylinder must record the date and time, as well as the duration of the key inside the cylinder.
- Cylinders shall require no maintenance.
- Cylinders shall be Water tight/immersion proof with the padlocks obtaining an IP68 rating.
- Cylinder cores shall be manufactured from hardened stainless steel.
- Dual key entry or time delay entry must be an option on the system.

2.21.2 Electronic Keys

- Keys must be waterproof with protected circuit boards
- Must incorporate rechargeable battery with 500 openings before a recharge is required (Lithium Iron)
- Keys must recharge from empty to full in 1 to 2 hours in the vault
- Keys must have replaceable brass tips for wear and tear.
- Key bodies shall be manufactured from highly durable fibreglass reinforced nylon.
- Keys must record up to the last 12000 transactions.

- Must record the duration that the key was retained in the lock.
- Must have a Dual key control (up to 5 keys can be requested before a lock is opened)
- Each key must have a unique serial number which is encrypted on the key.
- Each key must retain encrypted access codes that bind the key to a specific system
- Keys must not be able to be copied.
- Key must be able to operate in temperatures between 0 degrees to 50 degrees without troubles.
- Key must incorporate Visual indicators such as LED multi-colour lights on the key itself.
- Key must incorporate Audio indicator.
- Key must be assignable to one a specific lock or multiple locks by maintenance supervisor (System User).
- System must provide flexible key scheduling such as Date and time permissions, Holiday scheduling or One-time use options.

2.21.3 Electronic Key Vaults and Communicators

- Must permit Recharging of Keys
- Must allow key management solution
- Must be programmable remotely.
- Must store keys un-programmed until a valid RFID card and/or PIN is presented.
- Must incorporate Cabinet alarm: high volume Piezo buzzer
- Must allow Download/upload transactions to and from the keys
- Must keep electronic record of issued keys and can alert administrators if keys are not returned within a specified time period.
- Must allow direct network connectivity with No PC required.
- Must have LCD colour display for instructions and status
- Must Hold 20 Keys

2.21.4 Software

- Must be accessible through web browsers on desktops, laptops, smartphones or tablets
- Must allow Administrators to create custom access schedules for each individual key holder or batch schedule entire departments.
- Must allow user to Manage as many as 15 000 locks and 15 000 keys
- Must allow Download of detailed audit trails of lock and key activity
- Set key access schedules (i.e. M-F 8:00 a.m. – 5:00 p.m.)
- Must allow deactivation of keys when expiry period is reached.
- Must allow management of lost keys
- Must allow programming of locks with a multiple key mode (requires more than one key to open a lock)
- Must allow programming locks with a delay mode (a period of time before the lock actually opens after a key has been presented)
- Must permit configuration of automatic email notifications on access activity (i.e. low battery, key expiration, notification of events)
- Must allow grouping capabilities for locks and people
- Must be Accessible through a LAN or securely over the Internet Spread

- responsibility through a hierarchy of administrators
- Must Grant emergency one-time access or program and download keys in the field for on-demand access
- Must allow Scheduling of missions
- Must be Time zone flexibility
- Integrate with other software applications

2.21.5 Measurements and payment

The measurement and payment for SECURITY KEY TO LOCK SYSTEMS FOR TRAFFIC SIGNALS CABINETS shall be per number specified.

ITEM	DESCRIPTION	UNIT	GROUPING
2.21.5.1	Electronic Locks	Each	CC
2.21.5.2	Electronic Locks (Flash Lock)	Each	CC
2.21.5.3	Electronic Keys	Each	CC
2.21.5.4	Electronic Key Vaults and Communicators (20 key type)	Each	CC
2.21.5.5	Electronic Key Vaults and Communicators (20 key type)	Each	CC
2.21.5.6	Electronic Database Software	Each	CC

2.22 TRAFFIC SIGNAL VANDAL PROOF BOX – (To house controller, supply cables & connections)

2.22.1 The Complete Box (to House Controller)

A vandal proof box is currently used in areas where vandalism of controller boxes occurred in numerous occasions. The box shall be made of 3mm stainless steel shroud with 4.5mm stainless steel door, included with 3-pin slam locking system. Box-Plinth to be made of reinforced concrete with a 1.6mm steel inner liner.

The box shall fit the following dimension (750mm to 800mm) Depth, (800mm to 900mm) Width, (1200mm to 1500mm) high including plinth.

The box shall be delivered ready fitted with access control system made of electronic rotating disc cylinder mechanism lock with electronic identification technology which allows flexible control of keys, access rights and audit trails.

See supplied drawing;

Antivandal Box for Traffic Controller	<i>Page32 of 34: CoT Traffic Signals Drawing</i>
---------------------------------------	--

2.22.2 The complete Box (to House Supply Cables & Connections)

A vandal proof box is currently used in areas where vandalism of controller boxes occurred in numerous occasions. The box shall be made of 3mm stainless steel shroud with 4.5mm stainless steel double entrance door, included with 3-pin slam locking system. Box-Plinth to be made of reinforced concrete with a 1.6mm steel inner liner.

The box shall fit the following dimension(450mm to 520 mm) Depth , (460mm to 530mm) Width, (1100mm to 1300mm) High including the plinth.

The box shall be delivered ready fitted with access control system made of electronic rotating disc cylinder mechanism lock with electronic identification technology which allows flexible control of keys, access rights and audit trails.

2.22.3 Lock & Keys System (For both types of boxes)

The fitted Electronic lock must have unique mechanical structure with no less than 9 discs, disc blocking system, bump and pick proof.

Keys must be of Bluetooth access control type and to be wireless programmed using smart phone application. To have a unique mechanical cut, unique marking identification, pin code activation, LED and buzzer indication on both sides, validity setting, schedules of access, time stamps in audit trails.

The system Client interface supporting the box system must have Different levels of User Access rights I order to define, restrict or permit the level of access in to the box. Must have time based access rights, and must be able to set different schedules in a week of access control. The system must allow management of handing out of keys, handing in of keys, lost keys, broken keys, broken cylinders, changing cylinder status, location information. Must allow viewing, saving, exporting, report generation, printing of audit trails generated with from the system.

2.22.4 Measurement and Payment

ITEM	DESCRIPTION	UNIT	GROUPING
2.22.4.1	Vandal Proof Box (for Controller) fitted with lock	Each	DD
2.22.4.2	Vandal Proof Box (for Supply/Connection) fitted with lock	Each	DD
2.22.4.3	Electronic Bluetooth key	Each	DD

2.23 TRAFFIC SIGNALS CABLING MAINTENANCE TOOLS

High Voltage Surge Generator for locating faults in electrical cables.
The unit shall be used to locate underground electrical cables faults.

2.23.1 High Voltage Surge Generator

The surge generator must generates voltages between 3KV or 5 KV typically used in the location of faults in low voltage networks such as street lighting or smaller consumers. The units shall use capacitors to store and discharge required voltage pulses into a faulty cable at adjustable intervals. The unit shall also have an internal automatic dump contactor, which discharges both the unit and the cable under test. This is activated when the unit is turned off or when a power failure occurs. The unit enclosure must confirm to IP67 standard. The unit must allow single shot pulse method or continuous pulsing method during cable fault location operation. The unit must also be used to perform insulation resistance tests up to the selected output levels. The Unit must be protected from fusing and thermal overload. To be fitted with High Voltage resistor for automatic and safe discharge during manual switch-off or sudden switch-

off.

2.23.2 Ground Scope

The Ground scope shall consist of the microphone unit, acoustic amplifying unit and acoustic head phones. The combination of the instruments shall be used for listening, pinpointing acoustics sounds and pinpointing magnetic signals used during process of tracing cable faults embedded underground.

The Amplifying unit to be equipped with a sharp cut-off noise-cancelling filter, which greatly simplifies the acoustic pinpoint location of faults. Must have acoustic amplification of not less than 110dB. Must have magnetic amplification of not less than 110dB. To be powered by built-in rechargeable battery, and to be equipped with an on-board display for indicating reception of acoustics and magnetic signals.

The microphone unit must be constructed or electroplated by anti-rust material.

2.23.3 Measurement and Payment

ITEM	DESCRIPTION	UNIT	GROUPING
2.23.3.1	High Voltage Surge Generator (complete with cables & connectors)	Each	EE
2.23.3.2	Ground Scope (complete with cables, connectors, ground microphone & headsets)	Each	EE
2.23.3.3	Training on Surge Generator for a group of 5xCoT personnel in CoT	Each	EE
2.23.3.4	Training on Ground Scope for a group of 5xCoT personnel in CoT	Each	EE
2.23.3.5	Calibration	Each	EE

2.24 TRAFFIC SIGNALS CONTROLLER MAINTENANCE TOOLS

2.24.1 Tools for controller diagnostics

2.24.1.1 Multi-meter

The unit must be a True RMS type multimeter, with splash proof, drop proof, optional USB interface, backlight, Auto DC-Voltage, Auto AC-Voltage AC-Range, Auto-Resistance, Temperature, Capacitance, Frequency and Continuity Range.

2.24.1.2 Laptop for controller work (field work)

The unit must have an operating system currently used by the CoT (Windows 10/11 operating system), with Charger, 512 GB Static Hard Drive, 15,6" Screen, 8GB DDR5 RAM, Core-i3 Generation 11 or Ryzen 3 Gen 5 processor, HDMI port, 2 or more USB ports, MicroSD slot.

2.24.1.3 Laptop for configuration design & simulation

The unit must have an operating system currently used by the CoT (Windows 10/11 operating system), with Charger, 1 Terrabyte Static Hard Drive, 15,6" Screen, 16GB DDR5 RAM, Core-i7 Generation 11 or Ryzen 7 Gen 5 processor, HDMI port, 2 or more USB ports, MicroSD slot.

2.24.2 Measurement and Payment

ITEM	DESCRIPTION	UNIT	GROUPING
2.24.2.1	Multi-meter (True RMS type)	Each	none
2.24.2.2	Laptop for controller work	Each	none
2.24.2.3	Laptop for configuration design & simulation	Each	none

2.25 HARD TOOLS FOR CONTROLLER WORK

2.25.1 Hand Tools for Controller Work

- a) Electrical Insulated Screw Drivers (Flat head tip: 2.5mm, 4.0mm, 5.5mm, 6.5mm) (Phillips head tip: 5mm, 6mm), length not more than 140mm.)
- b) Electrician Long Nose Pliers (160 mm length, 38 mm head)
- c) Electrician Pliers (160 mm length, 38 mm head)
- d) Electrician Diagonal Cutters (200mm length, 30mm head)
- e) 100mm Diameter Cable Cutter, with short and extended handles, able to cut Aluminum & Copper.
- f) Wire Stripper (for 1mm² to 3.2mm²)
- g) Nut Rivet tool with Plastic Handle Material, Aluminum Alloy Head Material, Kit must includes x5 Nozzles, Rivet Gun Nut rivet Size M3, M4, M5, M6, M8 Stroke Length
- h) Measuring Wheel with 10 000m range, Folds in Half, Push Button Release Clip, Push Button Zero Reset, Kick Down Side Stand, Convenient Carry Handle, Debris Removing Scraper, Balanced In Line Movement, Better Traction, Wheel Runs in Sealed Roller Bearings, Heavy Duty, Trigger Brake, Zero Point Indicator

2.25.2 Power Tools for Controller Work

- i) Cordless drill machine:
Pistol grip drill type, with Keyless chuck, Brushless motor type, Torque 21/50 Nm, 0-500rpm 1st Gear No-Load Speed, 0-1,900 2nd Gear No-Load Speed, Chuck capacity (max): 13mm , to use Lithium-Ion (Li-Ion) battery as power source. To be supplied with 2X2Ah Li-Ion battery, and 1XBattery Charger.
- j) Cordless Grinder :
Motor type: Brushless motor. Grinding disc diameter: 11.5 cm, Idle speed (max): 11000 RPM, Bore size: 2.22 cm. Power source: Battery, Input power: 700 W, Battery voltage: 18 V. Weight: 2.2 kg, Width: 120 mm, Length: 348 mm
- k) Professional MIG (Metal Inert Gas), 180 Amp max Welder with MIG and MMA (Manual Metal Arc) function, with current range 30A to 180A, able to weld with Gas or no Gas function, to be delivered with MIG spool gun for aluminum Welding.
- l) Aluminum Welding Wire (0,8mm 500g) for Professional MIG 180 A welder.

- m) Welding Helmet with Auto Dimming & Grinding Function, Viewing Area: 100 x 60mm, Switching Time: 1/25 000s
- n) Drone with Unique GPS satellite positioning technology allows drones to prevent loss, the aircraft can automatically follow the manipulator, or open the aerial shot function, automatic follow-up shooting. With advanced intelligent identification technology, the air craft must allow recognition of gesture against the aircraft lens for automatic photo shots and video shots. Must also have one button takes off, one button landing to allow take off through the remote control and convenient fast landing, with 360 ° camera via the remote control. The built-in battery must allow minimum of 2 hours flight when fully charged, and the drone system information must allow the user to know the status of the battery remotely.
- o) 3000 W Potable UPS system (to fit within the specific dimension 1000mmHeight, 500mmWidth, 400mm Depth), with 240 V(ac) Pure Sine Wave 50Hz output, intergraded LiFePo 24V-Battery to run 2 to 4hours, Integrated charge control system, with Auto charge cut-off when batteries are fully Charged. Must also permit charging with AC outlet, with full Automatic Mains Synchronization system.
- p) 2KW Generator, Petrol type, 1800 W rated power, 2200 Max Power, 230 V(ac) rated voltage, 3.5l Fuel tank capacity, 0,35L Oil tank capacity, Package width: 330 mm, Package depth: 490 mm, Package height: 490 mm, Electric Recoil Ignition, LED Power Bar Indicator, LED Fuel Level Indicator, Supplied with Lithium Ion Battery for starting. Supplied with Parallel connection cables.

2.25.3 Measurement & Payment

ITEM	DESCRIPTION	UNIT	GROUPING
2.25.3.1	Electrical Insulated Screw Drivers	Each	FF
2.25.3.2	Electrician Long Nose Pliers	Each	FF
2.25.3.3	Electrician Pliers	Each	FF
2.25.3.4	Electrician Diagonal Cutters	Each	FF
2.25.3.5	100mm Diameter Cable Cutter	Each	FF
2.25.3.6	Wire Stripper	Each	FF
2.25.3.7	Nut Rivet tool	Each	FF
2.25.3.8	Measuring Wheel with 10 000m range	Each	FF
2.25.3.9	Cordless drill machine	Each	FF
2.25.3.10	Cordless Grinder	Each	FF
2.25.3.11	Professional MIG 180A Welder with MIG and MMA function	Each	FF
2.25.3.12	Aluminum Welding Wire (0,8mm 500g) for Professional MIG 180A welder	Each	FF
2.25.3.13	Welding Helmet with Auto Dimming & Grinding Function,	Each	FF
2.25.3.14	Drone with Unique GPS satellite positioning technology	Each	FF

2.25.3.15	3000 W Potable UPS system	Each	FF
2.25.3.16	2,2KW Generator (Petrol Type)	Each	FF

2 EVALUATION CRITERIA

The bid will be evaluated in 5 stages.

Stage 1: Administrative compliance.

Stage 2: Mandatory requirements

Stage 3: Functionality Criteria

Stage 4: Samples Evaluation

Stage 5: The 80/20 point system as prescribed in Preferential Procurement Regulation 2022.

3.1 Stage 1: Administrative compliance.

Compulsory Documentation (Submission of these are compulsory)	Returnable	Submitted (YES or NO)	Checklist (Guide for Bidder and the Bid Evaluation Committee)
a) To enable The City to verify the bidder's tax compliance status, the bidder must provide; <input type="checkbox"/> A copy of their Tax Clearance Certificate (TCS); or <input type="checkbox"/> Indicate their tax compliance status PIN.			TCS must be in the same business name as the bidding company. TCS must be valid. Tax status must be compliant before the award.
b) a copy of their Central Supplier Database (CSD) registration; or indicate their Master Registration Number / CSD Number;			CSD must be valid. Tax status must be compliant before the award.
c) Confirmation that the bidding company's rates and taxes are up to date: • Original or copy of Municipal Account Statement of the Bidder (bidding company) not older than 3 months and account must not be in			Was a Municipal Account Statement or landlord letter provided for the bidding company? The name and / or addresses of the bidder's statement correspond with CIPC document or Company profile or CSD profile? Are all payment(s)

Compulsory Returnable Documentation (Submission of these are compulsory)	Submitted (YES or NO)	Checklist (Guide for Bidder and the Bid Evaluation Committee)
arrears for more than ninety (90) days; or signed lease agreement.		up to date (i.e. not in arrears for more than 90 days?
d) In addition to the above, confirmation that all the bidding company's owners / members / directors / major shareholders rates and taxes are up to date: • Original or copy of Municipal Account Statement of all the South African based owners / members / directors / major shareholders not older than 3 months and the account/s may not be in arrears for more than ninety (90) days; or a signed lease agreement of owners / members / directors / major shareholders.		Was a Municipal Account Statement(s) or landlord letter(s) provided for ALL the bidding company's (SA based) directors? The names and/or addresses of all directors on statement correspond with CIPC document or Company profile or CSD profile? Are all payments up to date (i.e. not in arrears for more than 90 days?
e) Duly Signed and completed MBD forms (MBD 1, 4, 5, 8 and 9) The person signing the bid documentation must be authorised to sign on behalf of the bidder. Where the signatory is not a Director / Member / Owner / Shareholder of the company, an official letter of authorization or delegation of authority should be submitted with the bid document. NB: Bidders must ensure that the directors, trustees, managers, principle shareholders, or stakeholders of this company declare any interest in any other related companies or business whether or not they are bidding for this contract. <u>See Question 3.14 of MBD 4. Failure to declare interest will result in a disqualification</u>		All documents fully completed (i.e. no blank spaces)? All documents fully signed? Signature authorised (any director / member / trustee as indicated on the CIPC document, alternatively a delegation of authority would be required? Documents completed in black ink (i.e. no "Tippex" corrections, no pencil, no other colour ink, or none submission of the above , will be considered)?

Compulsory Returnable Documentation (Submission of these are compulsory)	Submitted (YES or NO)	Checklist (Guide for Bidder and the Bid Evaluation Committee)
<p>Financial Statements for the most recent three (3) years or financial statements from date of existence for companies less than three years.</p> <p>NB: The bidder must submit signed audited annual financial statements for the most recent 3 years, or if established for a shorter period, submit audited annual financial statements from date of establishment.</p> <p>If the bidder is not required by law to prepare signed annual financial statements for auditing purposes, then the bidder must submit Proof that the bidder is not required by law to prepare Audited financial statements.</p>		<p>Applicable for tenders above R10m in conjunction with MBD 5)</p> <p>Are Audited financial statements provided (Audited financials must be signed by auditor)? Or</p>
<p>f) Joint Ventures (JV) – (Only applicable when the bidder tender as a joint venture) • Where the bidder bid as a Joint Ventures (JV), the required or relevant documents as per (a) to l above must be provided for all JV parties. • In addition to the above the bidder must submit a Joint Venture (JV) agreement signed by the relevant parties.</p> <p>• Note: It is a condition of this bid that the successful bidder will continue with same Joint Venture (JV) for the duration</p>		<p>If applicable. JV agreement provided? JV agreement complete and relevant?</p> <p>Agreement signed by all parties? All required documents as per (i.e. a to e) must be provided for all partners of the JV.</p>

Compulsory Returnable Documentation (Submission of these are compulsory)	Submitted (YES or NO)	Checklist (Guide for Bidder and the Bid Evaluation Committee)
of the contract, unless prior approval is obtained from The City.		
Bidder attended a compulsory briefing session where applicable		<p>A compulsory briefing register must be signed by the bidder.</p> <p>Bidders will be disqualified should they fail to attend compulsory briefing session</p>
Pricing schedule (All items must be quoted for in pricing schedule and if not all items are quoted the bidder will be disqualified). Unless the tender is awarded per item or per section where the bidder only quoted the items or sections they are interested in.		<p>Incomplete pricing schedule results in totals being incomparable. Bidder must be disqualified.</p> <p>Bidder will be disqualified should they make corrections on the price schedule without attaching a signature thereto.</p> <p>Bidder will be disqualified should they use tippex/ correction ink, on the price schedule.</p>

3.2 Stage 2: Mandatory requirements

Bidders bidding for the following equipment, shall provide the following documentation as part of their documentation.

N.B. Failure to submit will lead to immediate disqualification.

EQUIPMENT	Mandatory Document
LIGHT EMITTING DIODE TYPE TRAFFIC LIGHT (LED)	Certification from SANS providing proof that the product supplied, complies with SANS 1459:2004 or latest
STANDARD TRAFFIC SIGNAL ARROW SIGNS (ST1, ST2 ,ST3) AND BUS SIGN	Certification from SANS providing proof that Road traffic sign is in accordance with the requirements of the Southern African development community Road traffic Sign manual (SADC-RTSM), the Road Traffic Act (Act 29 of 1989) and regulations and SANS 1519:1996 or latest.
TRAFFIC CONTROLLER	Certification from SANS providing proof that the traffic controllers have been successfully tested by the South African Bureau of Standards (SABS) for compliance with SANS 1547:2005 or latest, to be provided within 12 months after the tender has been awarded.
(OEM) ORIGINAL EQUIPMENT MANUFACTURERS	Signed letter from Manufacturing Company certifying to be manufacture of original equipment.
VENDORS OR SUPPLIERS TO OEM	Signed letter from Original Equipment Manufacturing Company certifying the vendor or supplier to be supplier of the equipment.
Proof of qualifications of Technical Support Personnel, including curricula vitae of its project team members. (For Equipment to Be Evaluated using Criteria-A)	<p>Electronics / Systems Development Personnel (<i>NQF Level5 minimum required</i>) <i>Plus (Relevant Experience)</i></p> <p>On Call Field Equipment Support Technical Personnel (<i>NQF Level5 minimum required</i>) <i>Plus (Relevant Experience)</i></p> <p>On Call Systems User Support Technical Personnel (<i>NQF Level5 minimum required</i>) <i>Plus (Relevant Experience)</i></p> <p>Equipment Test Personnel (<i>NQF Level5 minimum required</i>) <i>Plus (Relevant Experience)</i></p>
Proof of qualifications of Technical Support Personnel, including curricula vitae of its project team members. (For Equipment to Be Evaluated using Criteria-B)	<p>On Call Field Equipment Support Technical Personnel (<i>NQF Level5 minimum required</i>) <i>Plus (Relevant Experience)</i></p> <p>On Call Workshop Equipment Support Technical Personnel (<i>NQF Level5 minimum required</i>) <i>Plus (Relevant Experience)</i></p> <p>Equipment Test Personnel (<i>NQF Level5 minimum required</i>) <i>Plus (Relevant Experience)</i></p>

Proof of qualifications of Technical Support Personnel, including curricula vitae of its project team members. (For Equipment to Be Evaluated using Criteria-C)	Admin Support Personnel (NQF Level4 minimum required)
	Field Support Technical Personnel (NQF Level5 minimum required)
	Lab Support Technical Personnel (NQF Level5 minimum required)

N.B: For off the shelf equipment (“OTSE”), no certification will be required.

3.3Stage 3: Functionality

The following Functionality Criteria shall apply to this bid:

Bidders complying with ALL the requirements on stages 1 and 2 will be evaluated against the Functionality Evaluation Criteria as set below. Bidders must score 70 points or more out of a total 100 points allocated for Functional Criteria. Bidders that score less than 70 points will be disqualified and will not be evaluated further.

CRITERIA - A

For: T17, T20, T21, T22, T23, T24, T25, T26, T27, T28, T32, T33, T34, T35, T40 & T41.

For Category: Electronics, Plastics, Metals, Systems.	Sub Criteria	Scale	Weight	Highest Possible Score
Bidder's previous performance and experience in similar work. Bidders to provide references on work successfully completed. These references must specifically state the periods of experience and whether the person supplying the reference were satisfied with the work completed. All references must be on the letterhead of the company supplying the reference.	5 orders & more	5	12	60
	4 orders	4		
	3 orders	3		
	2 orders	2		
	1 order	1		
	0 orders	0		

<p>Company key personnel experience</p> <p>The company must provide:</p> <p>Proof of qualifications of Technical Support Personnel, including curricula vitae of its project team members.</p> <p>N.B. Minimum Qualification is Mandatory.</p> <p>N.B. Scoring will be done on years of Relevant Experience of member of the team in a company.</p> <p>N.B. No repeat of personnel on multiple support function will be allowed...e.g. one personnel being used on more than one support function.</p>	<p>Electronics / Systems Development Personnel</p> <p>(NQF Level5 minimum required)</p> <p>Plus</p> <p>(Relevant Experience)</p>	7 years & above	5	3	40
		5-6 years	4		
		3-4 years	3		
		1-2 years	2		
		Less than 1 year	1		
		No / Experience	0		
	<p>On Call Field Equipment Support Technical Personnel</p> <p>(NQF Level5 minimum required)</p> <p>Plus</p> <p>(Relevant Experience)</p>	7 years & above	5	2	
		5-6 years	4		
		3-4 years	3		
		1-2 years	2		
		Less than 1 year	1		
		No / Irrelevant Experience	0		
	<p>On Call Systems User Support Technical Personnel</p> <p>(NQF Level5 minimum required)</p> <p>Plus</p> <p>(Relevant Experience)</p>	4 years & above	5	2	
		3 years	4		
		2 years	3		
		1 year	2		
		Less than 1 year	1		
		No / Irrelevant Experience	0		
<p>Equipment Test Personnel</p> <p>(NQF Level5 minimum required)</p> <p>Plus</p> <p>(Relevant Experience)</p>	4 years & above	5	1		
	3 years	4			
	2 years	3			
	1 year	2			

		<i>Less than 1 year</i>	1		
		<i>No / Irrelevant Experience</i>	0		
HIGHEST POSSIBLE SCORE					100

CRITERIA - B					
For: T1, T2, T3, T4, T5, T6, T7, T8, T9, T10, T11, T12, T13, T14, T15, T16, T18, T19, T30, T31, T37, T42, T43, & T44.					
For Category: Semi Electronics, Electrical, Metal Signs & Electronic Tools		Sub Criteria	Scale	Weight	Highest Possible Score
<p>Bidder's previous performance and experience in similar work.</p> <p>Bidders to provide references on work successfully completed. These references must specifically state the periods of experience and whether the person supplying the reference were satisfied with the work completed.</p> <p>All references must be on the letterhead of the company supplying the reference.</p>		5 orders & more	5	12	60
		4 orders	4		
		3 orders	3		
		2 orders	2		
		1 order	1		
		0 orders	0		
		<p>Company key personnel experience</p> <p>The company must provide:</p> <p>Proof of qualifications of Technical Support Personnel, including curricula vitae of its project team members.</p> <p>N.B. Minimum Qualification is Mandatory.</p>			
N/A	N/A				
N/A	N/A				
N/A	N/A				
N/A	N/A				
N/A	N/A				
N/A	N/A				
	7 years & above	5			

<p>N.B. Scoring will be done on years of Relevant Experience of member of the team in a company.</p> <p>N.B. No repeat of personnel on multiple support function will be allowed...e.g. one personnel being used on more than one support function.</p>	<p>On Call Field Equipment Support Technical Personnel</p> <p><i>(NQF Level5 minimum required)</i></p> <p>Plus</p> <p><i>(Relevant Experience)</i></p>	5-6 years	4	4	40
		3-4 years	3		
		1-2 years	2		
		Less than 1 year	1		
		No / Irrelevant Experience	0		
	<p>On Call Workshop Equipment Support Technical Personnel</p> <p><i>(NQF Level5 minimum required)</i></p> <p>Plus</p> <p><i>(Relevant Experience)</i></p>	4 years & above	5	2	
		3 years	4		
		2 years	3		
		1 year	2		
		Less than 1 year	1		
		No / Irrelevant Experience	0		
	<p>Equipment Test Personnel</p> <p><i>(NQF Level5 minimum required)</i></p> <p>Plus</p> <p><i>(Relevant Experience)</i></p>	4 years & above	5	2	
		3 years	4		
		2 years	3		
		1 year	2		
		Less than 1 year	1		
		No / Irrelevant Experience	0		
	HIGHEST POSSIBLE SCORE				

CRITERIA - C

For: T29, T36, T38 & T39.

For Category: For Category: Semi Electronics, Electrical, Metal Signs & Electronic Tools	Sub Criteria	Scale	Weight	Highest Possible Score	
<p>Bidder's previous performance and experience in similar work.</p> <p>Bidders to provide references on work successfully completed. These references must specifically state the periods of experience and whether the person supplying the reference were satisfied with the work completed.</p> <p>All references must be on the letterhead of the company supplying the reference.</p>	5 orders & more	5	12	60	
	4 orders	4			
	3 orders	3			
	2 orders	2			
	1 order	1			
	0 orders	0			
<p>Company key personnel experience</p> <p>The company must provide:</p> <p>Proof of qualifications of Technical Support Personnel, including curricula vitae of its project team members.</p> <p>N.B. Minimum Qualification is Mandatory.</p>	N/A	N/A	N/A		
<p>N.B. Scoring will be done on years of Relevant Experience of member of the team in a company.</p> <p>N.B. No repeat of personnel on multiple support function will be allowed...e.g. one personnel being used on more than one support function.</p>		N/A			N/A
		N/A			N/A
		N/A			N/A
		N/A			N/A
		N/A			N/A
	<p>Admin Support Personnel (NQF Level4 minimum required)</p>	7 years & above	5	1	40
5-6 years		4			
3-4 years		3			
1-2 years		2			
Less than 1 year		1			
No / Irrelevant Experience		0			

	Field Support Technical Personnel <i>(NQF Level5 minimum required)</i>	4 years & above	5	5	
		3 years	4		
		2 years	3		
		1 year	2		
		Less than 1 year	1		
		No / Irrelevant Experience	0		
	Lab Support Technical Personnel <i>(NQF Level5 minimum required)</i>	4 years & above	5	2	
		3 years	4		
		2 years	3		
		1 year	2		
		Less than 1 year	1		
		No / Irrelevant Experience	0		
HIGHEST POSSIBLE SCORE					100

3.4 STAGE 4: SAMPLES EVALUATION

Samples will be required for tests by the CoT. Suppliers will be requested to deliver samples for evaluation during the tender evaluation process. A formal notification will be sent via the SCM office to supplier for delivering such required samples.

- Where samples found not conform to specification as per results of the technical evaluation, the item supplied will be disqualified.
- Where samples found to conform to specification as per results of the technical evaluation, the bidder will then proceed to the next stage of evaluation.
- Only samples not conforming to specifications will be disqualified, remaining samples conforming to the specification will continue for next stage of evaluation.
- All samples provided will have to be re-collected by the suppliers within 30 working days.

3.5 STAGE 5: PREFERENCE POINT SYSTEM

The preferential points to be used will be the 80/20 preference points system in terms of the Preferential Procurement Policy Framework Act, 2000 (Act 5 of 2000) and Regulations 2022.

- 80 points for price
- 20 points for specific goals

SPECIFIC GOALS

- 1) Bidders are required to submit supporting documents for their bids to claim the specific goal points.
- 2) Non-compliance with specific goals will not lead to disqualification but bidders will not be allocated specific goal points. Bidders will score points out of 80 for price only and zero (0) points out of 20 for specific goals.
- 3) Cot shall act against any bidder or person when it detects that the specific goals were claimed or obtained on a fraudulent basis.

The specific goal for this bid is outlined below.

Specific goals	80/20 preference point system	Proof of specific goals to be submitted
BB-BEE score of companies <ul style="list-style-type: none"> • Level 1 • Level 2 • Level 3 • Level 4 • Level 5 • Level 6 • Level 7 • Level 8 • Non-compliant 	<ul style="list-style-type: none"> • 8 Points • 7 Points • 6 Points • 5 Points • 4 Points • 3 Points • 2 Points • 1 Point • 0 Points 	Valid Certified copy of BBEE certificate. Sworn Affidavit for B-BBEE qualifying small enterprise or Exempt Micro Enterprises or CIPC BBEE certificate.
EME and/ or QSE	2 Points	Valid Sworn affidavit for B-BBEE qualifying small enterprise or Exempt Micro Enterprises or CIPC BBEE certificate
At least 51% of Women-owned companies	2 Points	Certified copy of Identity Document/s and proof of ownership (Sworn affidavit for B-BBEE qualifying small enterprise or Exempt Micro Enterprises, CIPC registration or any other proof of ownership)
At least 51% owned by companies	2 Points	Medical Certificate with doctor's details (Practice Number, Physical Address, and contact numbers) and proof of ownership (Sworn affidavit for B-BBEE qualifying small enterprise or Exempt Micro

PRICING SCHEDULE

BILL OF QUANTITIES: RTD 13 2023/24

N.B. THE QUANTITIES ARE USED FOR PRING ESTIMATE ONLY. THE COT WILL NOT BE OBLIGATED TO PLACE ORDERS ON THOSE QUANTITIES.

N.B. Sub Items under each specific T-category must be fully priced, if not then the whole T-item will be disqualified.

“OEM” : ORIGINAL EQUIPMENT MANUFACTURER

“OTSE” : OFF THE SHELF EQUIPMENT

“NSB-ELECTRONICS” : ELETRONICS / ELECTRCIAL EQUIPEMENT THAT MAY NOT REQUIRE SOFTWARE TO FUNCTION.

Item	2.1 LIGHT EMITTING DIODE TYPE TRAFFIC LIGHT (LED)	OEM/ OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	Electronics	
2.1.12.1	3 aspects (S1) LED traffic light (includes, head, Visors, 2 x pole straps, 2 x mounting brackets, screws and backing board)	OEM	A	Each	500	R	R	R		
2.1.12.3	2 aspect (S10) LED traffic light (includes, head, Visors, 2 x pole straps, 2 x mounting brackets, screws and backing board)	OEM	A	Each	300	R	R	R		
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document										
T1	Total						R	R		T1
The following shall be for only specific items of the signal head as specified (according to the specifications provided in the document)							Cost Excluding VAT	Cost Including VAT		
2.1.12.4	Flexible P.V.C. tubing 500mm in length,and no more than 20mm in diameter	OTSE	none	Each	50	R	R	R		
2.1.12.5	L shape (right angle) brackets	OEM	none	Each	100	R	R	R		
2.1.12.6	Visors (check item 2.3)	OEM	A	Each	300	R	R	R		

(for CoT Use Only) Penalties as in 1.1.4 of the Specification document										
T2	Total						R	R	Electronics	T2

Item	2.1 LIGHT EMITTING DIODE TYPE TRAFFIC LIGHT (LED)	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	Electronics	
2.1.12.2	2 aspects pedestrian (S11) LED traffic light (includes, head, Visors, 2 x pole straps, 2 x mounting brackets and screws)	OEM	none	Each	300	R	R	R		
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document										
T3	Total						R	R	Electronics	T3

Item	2.2 LIGHT EMITTING DIODE TYPE TRAFFIC LIGHT MODULES	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	Electronics	
2.2.4.1	Red, full disc	OEM	B	Each	500	R	R	R		
2.2.4.2	Amber, full disc	OEM	B	Each	500	R	R	R		
2.2.4.3	Green, full disc	OEM	B	Each	500	R	R	R		
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document										
T4	Total						R	R	Electronics	T4

Item	2.2 LIGHT EMITTING DIODE TYPE TRAFFIC LIGHT MODULES (musked)	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	Electronics
2.2.4.4	Amber arrow (left, right or vertical)	OEM	C	Each	300	R	R	R	

	2.2.4.5	Green arrow (left, right or vertical)	OEM	C	Each	300	R	R	R	Electronics	
	(for CoT Use Only) Penalties as in 1.1.4 of the Specification document										
T5	Total							R	R		T5
	2.2.4.6	Red standing man	OEM	D	Each	300	R	R	R		
	2.2.4.7	Green walking man	OEM	D	Each	300	R	R	R		
	(for CoT Use Only) Penalties as in 1.1.4 of the Specification document										
T6	Total							R	R	T6	
	2.2.4.8	BUS Red	OEM	E	Each	300	R	R	R		
	2.2.4.9	BUS Amber	OEM	E	Each	300	R	R	R		
	2.2.4.10	BUS green	OEM	E	Each	300	R	R	R		
	(for CoT Use Only) Penalties as in 1.1.4 of the Specification document										
T7	Total							R	R	T7	

Item	2.2.7	8-Circuit Active load-spec	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	Electronics
2.2.7.1	8-Circuit Active Load Circuit Complete		OEM	none	Each	100	R	R	R	
	(for CoT Use Only) Penalties as in 1.1.4 of the Specification document									
T8	Total							R	R	T8

Item	2.3	LONG VISORS 30° ACUTE ANGLE	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	Plastics
2.3.1.1	Long Visors 30° acute angle		OEM	A	Each	300	R	R	R	

Item	2.4 BACKGROUND SCREENS FOR TRAFFIC SIGNALS,(BACKBOARDS).	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT		
2.4.7.1	Two aspect (backboard for S10 & S12)	OEM	A	Each	300	R	R	R		
2.4.7.2	Three aspect (backboard for S1, S2, S3 & S4)	OEM	A	Each	500	R	R	R		
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document										
T9	Total						R	R		T9
2.4.7.3	Directional backing board (for ST1, ST2,ST3,ST4,ST5)	OEM	F*	Each	100	R	R	R		
2.4.7.4	Directional backing board (for BUS)	OEM	F*	Each	100	R	R	R		
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document										
T10	Total						R	R		T10

Item	2.5 OVERHEAD TRAFFIC SIGNAL POLES	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT		
2.5.6.1	Complete overhead pole (including base frame)	OEM	G	Each	300	R	R	R		
2.5.6.2	Complete overhead pole (excluding base frame)	OEM	G	Each	500	R	R	R		
2.5.6.3	Overhead pole (without arm & base frame)	OEM	G	Each	500	R	R	R		
2.5.6.4	Overhead arm alone (without pole & base frame)	OEM	G	Each	300	R	R	R		
2.5.6.5	Base Frame (for over head pole)	OEM	G	Each	50	R	R	R		
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document										
T11	Total						R	R		T11

Item	2.6 STANDARD TRAFFIC SIGNAL POLES	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	Metals
------	-----------------------------------	----------	------------	------	----------	---------------------	--------------------	--------------------	--------

	2.6.5.1	Standard poles (Including Base frame)	OEM	H*	Each	500	R	R	R		
	2.6.5.2	Standard pole (excluding Base frame)	OEM	H*	Each	700	R	R	R		
	2.6.5.3	Base Frame (for Standard Pole)	OEM	H*	Each	50	R	R	R		
	(for CoT Use Only) Penalties as in 1.1.4 of the Specification document										
T12	Total							R	R	R	T12

Item	2.7 TOTEM TRAFFIC SIGNAL POLES "EXTENDED POLES"	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	Metals	
2.7.5.1	Totem pole (Including base frame)	OEM	I*	Each	100	R	R	R		
2.7.5.2	Totem pole excluding frame(excluding base frame)	OEM	I*	Each	200	R	R	R		
2.7.5.3	Base frame (for the totem pole)	OEM	I*	Each	50	R	R	R		
	(for CoT Use Only) Penalties as in 1.1.4 of the Specification document									
T13	Total							R	R	T13

Item	2.8 PEDESTRIAN PUSHBUTTONS	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	NSB Electronics	
2.8.7.1	Pedestrian push buttons	OTSE	none	Each	300	R	R	R		
	(for CoT Use Only) Penalties as in 1.1.4 of the Specification document									
T14	Total							R	R	T14

Item	2.9 POLE TOP TERMINAL BOXES	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	NSB
2.9.4.1	Pole top terminal boxes	OEM	none	Each	500	R	R	R	

	(for CoT Use Only) Penalties as in 1.1.4 of the Specification document								
T15	Total						R	R	T15

Item	2.10 AUDIBLE PEDESTRIAN BUTTON	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	
2.10.1	Audible Pedestrian Button	OEM	none	Each	50	R	R	R	
2.10.2	Audible Pedestrian Speaker	OEM	none	Each	50	R	R	R	
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document									
T16	Total						R	R	T16

Item	2.11.1 Traffic Detector Camera	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	
2.11.1.1	Traffic detector Camera	OEM	J	Each	100	R	R	R	
2.11.3.1	Video Detector Base Receiver (4ch) for wired camera.	OEM	J	Each	100	R	R	R	
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document									
T17 A	TOTAL						R	R	T17 A
Item	2.11.2 Wireless traffic detector camera	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	
2.11.2.1	Wireless traffic detector camera 868MHz 1/3" 3mm (103°) – Wide angle	OEM	J	Each	20	R	R	R	
2.11.2.2	Wireless traffic detector camera 868MHz 1/3" 8mm (39°) – Narrow angle	OEM	J	Each	20	R	R	R	

Item	2.11.3 Base Receiver.	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	
2.11.3.2	Video Detection Base Transceiver (4ch) for wireless camera.	OEM	J	Each	50	R	R	R	
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document									
T17 B	Total						R	R	

Item	2.12 TRAFFIC DETECTOR CAMERA POWER SUPPLY	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	NSB Electronics
2.12.1.1	Traffic camera power supply	OTSE	none	Each	100	R	R	R	
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document									
T18	Total						R	R	

Item	2.13 PEDESTRIAN TIME COUNT DOWN SIGNAL	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	Electronics
2.13.1.1	Pedestrian time countdown signal	OEM	none	Each	100	R	R	R	
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document									
T19	Total						R	R	

Item	2.14 UN-INTERRUPTED POWER SUPPLY SYSTEM INCLUDING COMPONENTS (UPS)	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	Systems
------	--	----------	------------	------	----------	---------------------	--------------------	--------------------	---------

2.14.8.1	UPS 0,5 KWatts (Complete System with Cabinet & base frame)	OTSE	K	Each	20	R	R	R	Systems
2.14.8.2	UPS 1 KWatts (Complete System with Cabinet & base frame)	OTSE	K	Each	30	R	R	R	
2.14.8.5	UPS Monitoring System	OEM	K	Each	1	R	R	R	
2.14.8.6	UPS Monitoring System Installation & commissioning	OEM	K	Each	1	R	R	R	
2.14.8.7	Training UPS system Maintenance (field equipment)	OEM	K	Each	6	R	R	R	
2.14.8.8	Training UPS Monitoring System Maintenance	OEM	K	Each	6	R	R	R	
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document									
T20	Total						R	R	

Item	2.14 UN-INTERRUPTED POWER SUPPLY SYSTEM INCLUDING COMPONENTS (UPS)	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	Systems
2.14.8.3	UPS 1,5 KWatts (Complete System with Cabinet & base frame)	OTSE	L	Each	20	R	R	R	
2.14.8.4	UPS 2 KWatts (Complete System with Cabinet & base frame)	OTSE	L	Each	30	R	R	R	
2.14.8.5	UPS Monitoring System	OEM	L	Each	1	R	R	R	
2.14.8.6	UPS Monitoring System Installation & commissioning	OEM	L	Each	1	R	R	R	
2.14.8.7	Training UPS system Maintenance (field equipment)	OEM	L	Each	6	R	R	R	
2.14.8.8	Training UPS Monitoring System Maintenance	OEM	L	Each	6	R	R	R	
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document									
T21	Total						R	R	T21

Item	2.14.9 Spare parts for current UPS installed in the CoT	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	Electronics
2.14.9.1	Frame	OEM	M	Each	10	R	R	R	
2.14.9.2	Batteries(12Volts,100AH, Lithium Iron Phosphate with integrated Battery Management System)	OTSE	M	Each	100	R	R	R	
2.14.9.3	Invertor (1Kw)	OTSE	M	Each	30	R	R	R	
2.14.9.4	Invertor (2Kw)	OTSE	M	Each	30	R	R	R	
2.14.9.5	Communications module	OTSE	M	Each	30	R	R	R	
2.14.9.6	Charge Unit	OTSE	M	Each	30	R	R	R	
2.14.9.7	UPS control unit	OTSE	M	Each	30	R	R	R	
2.14.9.8	UPS BOX	OEM	M	Each	30	R	R	R	
2.14.9.9	Batteries (LiFePo), 24V100AH with Built-in BMS	OTSE	M	Each	30	R	R	R	
2.14.9.10	Batteries (LiFePo), 48V100AH with Built-in BMS	OTSE	M	Each	30	R	R	R	
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document									
T22	Total						R	R	T22

Item	2.15.1 NEW MODULES for the current installed M4 type and M4-MX type controllers	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	Electronics
2.15.1.1	System Processor (MX version)	OEM	O	Each	50	R	R	R	
2.15.1.2	Service Module (MX version)	OEM	O	Each	50	R	R	R	
2.15.1.3	Output Module (MX version)	OEM	O	Each	200	R	R	R	

Item	2.15.2 REFURBISHED Modules for the current installed M4 type and M4-MX type controllers	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	Electronics
2.15.2.1	System Processor (MX version)	OEM	P	Each	50	R	R	R	
2.15.2.2	Service Module(MX version)	OEM	P	Each	50	R	R	R	
2.15.2.3	Output Module(MX version)	OEM	P	Each	200	R	R	R	
2.15.2.4	Output Surge Module(MX version)	OEM	P	Each	50	R	R	R	
2.15.2.5	Pedestrian Interface Module(MX version)	OEM	P	Each	50	R	R	R	
2.15.2.6	Detector Interface Module(MX version)	OEM	P	Each	50	R	R	R	
2.15.2.7	System Supply Module(MX version)	OEM	P	Each	50	R	R	R	
2.15.2.8	Detector Supply Module(MX version)	OEM	P	Each	50	R	R	R	
2.15.2.9	GPRS module(MX version)	OEM	P	Each	50	R	R	R	
2.15.2.10	GPS Module(MX version)	OEM	P	Each	50	R	R	R	
2.15.2.10	Loop Detector Module(MX version)	OEM	P	Each	50	R	R	R	
2.15.2.11	Nano Falsh Disk	OEM	P	Each	50	R	R	R	
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document									
T24	Total						R	R	T24

Item	2.15.3 NEW MODULES for the current installed EX type and ESA type controllers	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	Electronics
2.15.3.1	16A signal switching triacs	OTSE	Q	Each	100	R	R	R	
2.15.3.2	Surge Arrestors	OTSE	Q	Each	50	R	R	R	
2.15.3.3	Single channel, self tuning loop detector	OEM	Q	Each	50	R	R	R	

2.15.3.4	GC-12 conflict monitoring card	OEM	Q	Each	50	R	R	R
2.15.3.5	Lighting arrestor	OTSE	Q	Each	50	R	R	R
2.15.3.6	F-5 multi-channel flasher cards	OEM	Q	Each	100	R	R	R
2.15.3.7	AMR v3.0 Outstation transmission unit (OTU)	OEM	Q	Each	50	R	R	R
2.15.3.8	OTU complete with GSM modem (GPRS module)	OEM	Q	Each	100	R	R	R
2.15.3.9	OTU batteries	OTSE	Q	Each	50	R	R	R
2.15.3.10	High gain aerials complete with anti-vandalism housing.	OTSE	Q	Each	50	R	R	R
2.15.3.11	Police Switch	OEM	Q	Each	50	R	R	R
2.15.3.12	Double pole circuit breaker	OTSE	Q	Each	100	R	R	R
2.15.3.13	MY2-US-SV relays 5A 220 V 8 pin	OTSE	Q	Each	100	R	R	R
2.15.3.14	MY4 relays 5a 220 V 14 pin	OTSE	Q	Each	100	R	R	R
2.15.3.15	LY4 relays 10 A 220 V 14 pin	OTSE	Q	Each	100	R	R	R
2.15.3.16	Hot-dip galvanized controller cabinet(plinth mounted)	OEM	Q	Each	20	R	R	R
2.15.3.17	CPU Batteries including Jumpers and Jacks	OTSE	Q	Each	50	R	R	R
2.15.3.18	24Volts Power Supply(ESA type)	OTSE	Q	Each	30	R	R	R
2.15.3.19	CPU unit (ESA type)	OTSE	Q	Each	20	R	R	R
2.15.3.20	I/O extension unit (ESA type)	OTSE	Q	Each	20	R	R	R
2.15.3.21	GPS clock correction unit(ESA type)	OTSE	Q	Each	20	R	R	R
2.15.3.22	Voltage window comparator(ESA type)	OTSE	Q	Each	20	R	R	R

(for CoT Use Only) Penalties as in 1.1.4 of the Specification document

T25		Total							T25
-----	--	--------------	--	--	--	--	--	--	-----

Item	2.15.4 NEW MODULES for the current installed EX type and ESA type controllers	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	Electronics
2.15.4.1	Automotor GPS clock correction unit	OEM	R	Each	50	R	R	R	

2.15.4.2	PLC Power Supply: DVP PS01 (1A)	OTSE	R	Each	50	R	R	R	
2.15.4.3	PLC CPU: DVP 12SA2	OTSE	R	Each	50	R	R	R	
2.15.4.4	DVP input/output module	OTSE	R	Each	20	R	R	R	
2.15.4.5	Conflict monitor card for ESA22/32 controllers	OEM	R	Each	20	R	R	R	
2.15.4.6	Flasher card for ESA22/32 controllers	OEM	R	Each	20	R	R	R	
2.15.4.7	12V V3.0 Modem charging circuit c/w transformer	OEM	R	Each	10	R	R	R	
2.15.4.8	V3.0 Modem Snubber board	OEM	R	Each	10	R	R	R	
2.15.4.9	High gain aerial for GPRS Modem	OTSE	R	Each	50	R	R	R	
2.15.4.10	Cabinet Key	OEM	R	Each	10	R	R	R	
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document									
T26						Total	R	R	T26

Item	2.15.5 NEW MODULES for the current installed SICE MFU Adaptive type controllers	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT
2.15.5.1	Power Supply Module FA_40W	OEM	S	Each	20	R	R	R
2.15.5.2	Central Processing Unit STR	OEM	S	Each	10	R	R	R
2.15.5.3	Output Card SAL_HALL	OEM	S	Each	10	R	R	R
2.15.5.4	Back-plane BP8	OEM	S	Each	10	R	R	R
2.15.5.5	Peripheral Digital Input / Output Module	OEM	S	Each	20	R	R	R
2.15.5.6	Expansion Digital Input module (8 Inputs)	OEM	S	Each	20	R	R	R
2.15.5.7	Surge protection Module	OEM	S	Each	30	R	R	R
2.15.5.8	Cabinet model '97 South Africa	OEM	S	Each	10	R	R	R
2.15.5.9	Rack 55TE, 3U	OEM	S	Each	10	R	R	R
2.15.5.10	Power Supply DELTA 24V, 100W	OEM	S	Each	20	R	R	R
2.15.5.11	Output power ribbon	OEM	S	Each	10	R	R	R

Electronics

2.15.5.12	Peripheral ribbon	OEM	S	Each	10	R	R	R
2.15.5.13	LED strip	OEM	S	Each	10	R	R	R
2.15.5.14	Socket WSI6	OEM	S	Each	20	R	R	R
2.15.5.15	Socket WDU6	OEM	S	Each	20	R	R	R
2.15.5.16	Push button Open or/Order change	OEM	S	Each	20	R	R	R
2.15.5.17	Switch ON/OFF, M/A	OEM	S	Each	20	R	R	R
2.15.5.18	Switch All red/Colors/Flashing	OEM	S	Each	20	R	R	R
2.15.5.19	Fan 120x120	OEM	S	Each	30	R	R	R
2.15.5.20	Power Supply box for detectors	OEM	S	Each	30	R	R	R
2.15.5.21	Loop detector DIG600	OEM	S	Each	10	R	R	R
2.15.5.22	GPS unit for MFU controller	OEM	S	Each	40	R	R	R

(for CoT Use Only) Penalties as in 1.1.4 of the Specification document

T27		Total		R		R	T27
-----	--	--------------	--	---	--	---	-----

Item	2.15.6 NEW MODULES for the current installed UA Controller	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT
2.15.6.1	UA 24V DC power supply Unit	OEM	T	Each	10	R	R	R
2.15.6.2	UA Power Management/Red Flash Board	OEM	T	Each	10	R	R	R
2.15.6.3	Main surge suppressor	OTSE	T	Each	30	R	R	R
2.15.6.4	Secondary surge suppressor	OTSE	T	Each	30	R	R	R
2.15.6.5	Main Processor Unit (CPU)	OEM	T	Each	20	R	R	R
2.15.6.6	Triac daughter board (one pluggable board per phase)	OEM	T	Each	20	R	R	R
2.15.6.7	MY4 Relay, 24V DC coil	OTSE	T	Each	40	R	R	R
2.15.6.8	LY4 Relay, 240V AC coil	OTSE	T	Each	40	R	R	R
2.15.6.9	Double pole circuit breaker (6A)	OTSE	T	Each	40	R	R	R
2.15.6.10	Li-Ion Battery for the 3G router	OTSE	T	Each	20	R	R	R
2.15.6.11	Charger for 3G router	OTSE	T	Each	10	R	R	R

Electronics

2.15.6.12	Button Cell backup battery for RTC	OTSE	T	Each	20	R	R	R
2.15.6.13	Magnetic aerial, including vandal-resistant housing	OTSE	T	Each	20	R	R	R
2.15.6.14	Cabinet Key	OEM	T	Each	10	R	R	R
2.15.6.15	Micro SD Card	OTSE	T	Each	20	R	R	R
2.15.6.16	GPS clock correction unit	OEM	T	Each	20	R	R	R
2.15.6.17	Inductive loop/Pedestrian Input adaptor (12 loop inputs & 8 pedestrian inputs)	OTSE	T	Each	10	R	R	R
2.15.6.18	Magnetometer/Pedestrian Input adaptor (12 Magnetometer inputs & 8 pedestrian inputs)	OTSE	T	Each	10	R	R	R
2.15.6.19	Camera/Pedestrian Input adaptor (12 camera inputs & 8 pedestrian inputs)	OTSE	T	Each	10	R	R	R
2.15.6.20	Industrial 3G router c/w Li-Ion Battery Charger	OTSE	T	Each	10	R	R	R
2.15.6.21	Output module-4phase per output card	OEM	T	Each	20	R	R	R
2.15.6.22	GPS clock correction complete with Aerial	OEM	T	Each	20	R	R	R
2.15.6.23	Fuses Amp- PLC fuse 0,1 Amp	OTSE	T	Each	40	R	R	R
2.15.6.24	Flat pack 8 phase controller	OEM	T	Each	10	R	R	R
2.15.6.25	Flat pack 12 phase controller	OEM	T	Each	10	R	R	R

(for CoT Use Only) Penalties as in 1.1.4 of the Specification document

T28		Total		R		R	T28
-----	--	--------------	--	---	--	---	-----

Item	2.15.7 Components used in traffic signals maintenance	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	Basic Components
2.15.7.1	Box meter pole mounted w/o circuit breaker	OTSE	U	Each	20	R	R	R	
2.15.7.2	Cable cu 2.5mm2 x 4 core 1kv	OTSE	U	Drum	6	R	R	R	
2.15.7.3	Circuit breaker 240v 1p 20a 5ka h/mann	OTSE	U	Each	30	R	R	R	
2.15.7.4	Conduit cable 110mm x 4m	OTSE	U	Each	100	R	R	R	

2.15.7.5	Connector strip PVC 12way 15A	OTSE	U	Each	100	R	R	R
2.15.7.6	Gland cable & shroud no 1	OTSE	U	Each	50	R	R	R
2.15.7.7	Gland cable & shroud no 2	OTSE	U	Each	50	R	R	R
2.15.7.8	Gland cable & shroud no 3	OTSE	U	Each	50	R	R	R
2.15.7.9	Gland cable & shroud no 0	OTSE	U	Each	50	R	R	R
2.15.7.10	Sleeving heat shrink 4.8mm x 1200mm, <i>Must be a thick walled polyolefin tube, Must have a hot melt adhesive layer. Shrink ration 4:1 Industrial use. Must have a skin tight fit once heated and fit over irregular shaped objects .The tube must be medium/thick walled and have adhesive lined tubing. Featuring: High temperature resistance - Shape memory - Precise shrink ratio and recovery - split and crack resistance. 4.8mm/2.4mm shrink ration of 2:1 with operating temperature :-75degrees to 150 degrees Celsius .)</i>	OTSE	U	Each	50	R	R	R
2.15.7.11	Sleeving heat shrink 38/12mm (Adhesive Lined Heavy Duty Polyolefin)-Current is 28mm/300mm? <i>Must be a thick walled polyolefin tube . Must have a hot melt adhesive layer . Shrink ration 4:1 Industrial use.Operating temperature -55 degrees to 130degrees Celsius.</i>	OTSE	U	Each	50	R	R	R
2.15.7.12	Strap earth copper bamba 17mm x 25m	OTSE	U	Each	50	R	R	R
2.15.7.13	Tape butyl med volt 25mm x 10m	OTSE	U	Each	50	R	R	R
2.15.7.14	Paint enamel g/yellow hg926 sabs-630 t2	OTSE	U	5litre	10	R	R	R
2.15.7.15	Grey Paint - Dove grey	OTSE	U	5litre	10	R	R	R
2.15.7.16	Button p/b pedestrian with pole strap	OTSE	U	Each	20	R	R	R
2.15.7.17	Cable robot cu 1.5mm2 x 7 core 1507 multi colour	OTSE	U	Drum	10	R	R	R
2.15.7.18	Cable robot cu 1.5mm2 x 12 core 1507	OTSE	U	Drum	10	R	R	R
2.15.7.19	Cable robot cu 1.5mm2 x 19 core 1507	OTSE	U	Drum	5	R	R	R

2.15.7.20	Connector dome traffic pole top	OTSE	U	Each	100	R	R	R
2.15.7.21	Earth spike with Clamp m16 x 1200mm	OTSE	U	Each	100	R	R	R
2.15.7.22	Tape insulation p&b 25mm	OTSE	U	Each	50	R	R	R
2.15.7.23	Tape insulation scotch 23	OTSE	U	Each	50	R	R	R
2.15.7.24	Tape pvc adhesive 20mm x 20m black	OTSE	U	Each	50	R	R	R
2.15.7.25	Tape pvc adhesive 20mm x 20m blue	OTSE	U	Each	50	R	R	R
2.15.7.26	Tape pvc adhesive 20mm x 20m red	OTSE	U	Each	50	R	R	R
2.15.7.27	Ferrule cu crimp centre 1.5mm2	OTSE	U	Each	50	R	R	R
2.15.7.28	M6 x 20mm Hexagonal - stainless steel Bolt and nut	OTSE	U	Each	200	R	R	R
2.15.7.29	Ferrule cu crimp centre 2.5mm2	OTSE	U	Each	100	R	R	R
2.15.7.30	Ferrule cu crimp centre 4mm2	OTSE	U	Each	100	R	R	R
2.15.7.31	Tape pvc adhesive 20mm x 20m yellow	OTSE	U	Each	50	R	R	R
2.15.7.32	Washer flat stainless steel M6 by 25mm by1mm	OTSE	U	Each	100	R	R	R
2.15.7.33	Washer flat galv M10	OTSE	U	Each	100	R	R	R
2.15.7.34	Sealer spray foam fix robot control box	OTSE	U	Each	20	R	R	R
2.15.7.35	Slow blow clear 5 Amp fuses 240VAC	OTSE	U	Each	100	R	R	R
2.15.7.36	16mm Ferrules	OTSE	U	Each	200	R	R	R
2.15.7.37	PMV 55 relay (single phase voltage monitor)	OTSE	U	Each	50	R	R	R
2.15.7.38	CAT 5 (MEGA NET WIRE SPEED CABLE SOLID F/UTP CAT 5 E ARM PE CABLE.) (50 meters length)	OTSE	U	Each	4	R	R	R

	<ul style="list-style-type: none"> • Conductor - Solid bare copper AWG24/1, • Insulation – PE, • Drain Wire - Solid Tinned Copper, • General Shield - Aluminium/Polyester foil : covering 110 %, • Outer jacket - PVC -Black, • Armour - Corrugated galvanized steel, • Outer jacket - PE – Black, • This cable is used for the transmission of digital and analogue voice , date and video signals) 								
2.15.7.39	Scotch tape	OTSE	U	Each	50	R	R	R	
2.15.7.40	M10x 30 bolt and nut Hexagonal stainless steel	OTSE	U	Each	200	R	R	R	
2.15.7.41	M6 x 20 gutter bolt and nut (galvanized)	OTSE	U	Each	200	R	R	R	
2.15.7.42	16mm lugs	OTSE	U	Each	200	R	R	R	
2.15.7.43	Bandit 25mm straps	OTSE	U	Each	100	R	R	R	
2.15.7.44	Scotch Cast MX2	OTSE	U	Each	30	R	R	R	
2.15.7.45	Logic supply fuse/Phase fuse - 5mm by 20mm - 3.15A 250Vac - Ceramic fast acting.	OTSE	U	Each	200	R	R	R	
2.15.7.46	Lamp supply fuse - 5mm by 20mm - 6.3A 250Vac- Ceramic fast acting	OTSE	U	Each	200	R	R	R	
2.15.7.47	Output unit fuse -5mm by 20mm 2A 250 Vac - Ceramic fast acting	OTSE	U	Each	200	R	R	R	
2.15.7.48	Pan head Stainless steel M6 by 12mm	OTSE	U	Each	200	R	R	R	
2.15.7.49	M6 x 30mm Hexagonal - stainless steel Bolt and nut	OTSE	U	Each	200	R	R	R	
2.15.7.50	M10x 20 bolt and nut Hexagonal stainless steel	OTSE	U	Each	200	R	R	R	
2.15.7.51	Pan head Stainless steel M5 by 12mm	OTSE	U	Each	200	R	R	R	

2.15.7.52	Yellow reflector tape - Diamond grade Fluorescent Yellow 983-21 ES 101.6mm x 45.72m(3M product) (50meter roll)	OTSE	U	Each	50	R	R	R	
2.15.7.53	Lithium Ion 3v CR2450N Battery	OTSE	U	Each	30	R	R	R	
2.15.7.54	Mini Circuit breaker double pole 10 amp - Ue=240/415V - Uimp = 2kV - F=50Hz - Icu=3kA	OTSE	U	Each	50	R	R	R	
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document									
T29	Total						R	R	T29

Item	2.15.8 Components used in traffic signals maintenance	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	Electrical
2.15.8.1	Cable robot cu 1.5mm2 x 7 core 1507 (multi-colour coded)	OTSE	FF	Drum	10	R	R	R	
2.15.8.2	Cable robot cu 1.5mm2 x 12 core 1507(multi-colour coded)	OTSE	FF	Drum	10	R	R	R	
2.15.8.3	Cable robot cu 1.5mm2 x 19 core 1507(multi-colour coded)	OTSE	FF	Drum	10	R	R	R	
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document									
T30	Total						R	R	T30
2.15.8.4	No Value cable, (1.5mm2 7core stranded swa cca(copper clad aluminium) anti-theft.600-1000V cable, must be 10% copper clad & 90% Aluminium with Armouring.	OTSE	FF	Drum	5	R	R	R	
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document									
T31	Total						R	R	T31

Item	2.16.18.1 Traffic Controller: Basic co-coordination type	OEM/OTSE	Item Grouping	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	Electroni
------	--	----------	---------------	------	----------	---------------------	--------------------	--------------------	-----------

2.16.18.1.1	8-phase Controller-Basic Coordination type (include frame, base, controller housing and controller modules)	OEM	V	Each	50	R	R	R	
2.16.18.1.2	12-phase Controller-Basic Coordination type (include frame, base, controller housing and controller modules)	OEM	V	Each	50	R	R	R	
2.16.18.1.3	Pre-programmed Configuration Software (per Dedicated Basic intersection)	OEM	V	Each	20	R	R	R	
2.16.18.1.4	Pre-programmed Configuration Software (per Dedicated intersection 3-leg intersection)	OEM	V	Each	20	R	R	R	
2.16.18.1.5	Pre-programmed Configuration Software (per Dedicated intersection 4-leg intersection)	OEM	V	Each	20	R	R	R	
2.16.18.1.6	Controller Updates on Sites	OEM	V	Each	20	R	R	R	
2.16.18.1.7	Flat pack 8 Phase Coordination type	OEM	V	Each	10	R	R	R	
2.16.18.1.8	Flat pack 12 Phase Coordination type	OEM	V	Each	20	R	R	R	
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document									
T32	Total						R	R	T32

Item	2.16.18.2 Traffic Controller: Multi Stream type	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	Electroni
------	---	----------	------------	------	----------	---------------------	--------------------	--------------------	-----------

2.16.18.2.1	12-phase Multi streams type (include frame, base, controller housing and controller modules)	OEM	W	Each	30	R	R	R	
2.16.18.2.2	16-phase Multi streams type (include frame, base, controller housing and controller modules)	OEM	W	Each	10	R	R	R	
2.16.18.2.3	Pre-programmed Configuration Software (per full intersection)	OEM	W	Each	30	R	R	R	
2.16.18.2.4	Pre-programmed Configuration Software (per dual-Multi-Stream intersection)	OEM	W	Each	10	R	R	R	
2.16.18.2.5	Controller Updates on Sites	OEM	W	Each	50	R	R	R	
2.16.18.2.6	Cookoo Kit 12phase (for M4box)	OEM	W	Each	20	R	R	R	
2.16.18.2.7	Cookoo Kit 12phase (for None Destructive Box)	OEM	W	Each	20	R	R	R	
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document									
T33	Total						R	R	T33

Item	2.16.18.3 Traffic Controller: UTC Adaptive type	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT
2.16.18.3.1	4 phase MFU Traffic Controller <i>Tshwane model</i>	OEM	X	Each	5	R	R	R
2.16.18.3.2	6 phase MFU Traffic Controller <i>Tshwane model</i>	OEM	X	Each	5	R	R	R
2.16.18.3.3	8 phase MFU Traffic Controller <i>Tshwane model</i>	OEM	X	Each	5	R	R	R
2.16.18.3.4	10 phase MFU Traffic Controller <i>Tshwane model</i>	OEM	X	Each	5	R	R	R
2.16.18.3.5	12 phase MFU Traffic Controller <i>Tshwane model</i>	OEM	X	Each	20	R	R	R
2.16.18.3.6	14 phase MFU Traffic Controller <i>Tshwane model</i>	OEM	X	Each	5	R	R	R

2.16.18.3.7	16 phase MFU Traffic Controller <i>Tshwane model</i>	OEM	X	Each	5	R	R	R	
2.16.18.3.8	Pre-programmed Configuration Software,(per Dedicated Basic intersection)	OEM	X	Each	30	R	R	R	
2.16.18.3.9	Pre-programmed Configuration Software,(per Dedicated intersection 3-leg intersection)	OEM	X	Each	20	R	R	R	
2.16.18.3.10	Pre-programmed Configuration Software,(per Dedicated intersection 4-leg intersection)	OEM	X	Each	20	R	R	R	
2.16.18.3.11	Controller Updates On Site	OEM	X	Each	20	R	R	R	
2.16.18.3.12	Flat Pack 12phase MFU (fro SICE box)	OEM	X	Each	10	R	R	R	
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document									
T34	Total						R	R	T34

Item	2.16.18.4 Traffic Controller: Pedestrian type	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	Electronics
2.16.18.4.1	Pedestrian type (include frame, base, controller housing and controller modules)	OEM	Y	Each	5	R	R	R	
2.16.18.4.2	Pre-programmed Configuration Software (per Dedicated Peds Intersection)	OEM	Y	Each	5	R	R	R	
2.16.18.4.3	Controller updates on site	OEM	Y	Each	5	R	R	R	
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document									

T35	Total						R	R	T35
-----	-------	--	--	--	--	--	---	---	-----

Item	2.17.3 POLE MOUNTING STRAPS	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	Basic Components
2.17.3.1	Pole mounting strap and its components	OTSE	none	Each	200	R	R	R	
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document									

T36	Total						R	R	T36
-----	-------	--	--	--	--	--	---	---	-----

Item	2.18 STANDARD TRAFFIC SIGNAL ARROW SIGNS (ST1, ST2 ,ST3) AND BUS SIGN	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	Metal Signs
2.18.4.1	Standard traffic signal arrow signs ST1/ST2/ST3.	OEM	Z	Each	60	R	R	R	
2.18.4.1	BUS sign	OEM	Z	Each	20	R	R	R	
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document									

T37	Total						R	R	T37
-----	-------	--	--	--	--	--	---	---	-----

Item	2.19 CAMERA INTERFACE CABINET	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	Basic Components
2.19.5.1	Camera interface cabinet (Electrical Connection Box)	OTSE	None	Each	100	R	R	R	
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document									

T38	Total						R	R	T38
-----	-------	--	--	--	--	--	---	---	-----

Item	2.20 TRAFFIC SIGNAL ASPECTS AND SIGNS BRACKETS	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	Metals
2.20.3.1	Five Aspect Top Bracket	OEM	AA	Each	100	R	R	R	
2.20.3.2	Five Aspect Bottom Bracket	OEM	AA	Each	100	R	R	R	
2.20.3.3	Sign Bracket for Overhead Arm	OEM	AA	Each	100	R	R	R	
2.20.3.4	Sign Bracket for Standard Pole & Totem pole	OEM	AA	Each	100	R	R	R	
2.20.3.5	Pedestrian Bracket	OEM	AA	Each	100	R	R	R	
2.20.3.6	Mid OH Arm Bracket	OEM	AA	Each	100	R	R	R	
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document									
T39	Total						R	R	T39

Item	2.21 TRAFFIC SIGNAL ELECTRONIC LOCKS	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	System
2.21.5.1	Electronic Locks	OEM	CC	Each	30	R	R	R	
2.21.5.2	Electronic Locks (Flash Lock)	OEM	CC	Each	30	R	R	R	
2.21.5.3	Electronic Keys	OEM	CC	Each	15	R	R	R	
2.21.5.4	Electronic Key Vaults and Communicators (2-key type)	OEM	CC	Each	2	R	R	R	
2.21.5.5	Electronic Key Vaults and Communicators (20-key type)	OEM	CC	Each	2	R	R	R	
2.21.5.6	Electronic Database Software (Once off cost to cover 3 years of the contract)	OEM	CC	Each	1	R	R	R	
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document									
T40	Total						R	R	T40

Item	2.22 TRAFFIC SIGNAL VANDAL PROOF BOX	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	System
2.22.4.1	Vandal Proof Box (fitted with Key, lock & System)	OEM	DD	Each	20	R	R	R	
2.22.4.2	Vandal Proof Box (for Supply / Connection) fitted with lock system.	OEM	DD	Each	20	R	R	R	
2.22.4.3	Electronic Bluetooth key	OEM	DD	Each	15	R	R	R	
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document									
T41	Total						R	R	T41

Item	2.23 TRAFFIC SIGNALS MAINTENANCE TOOLS	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	Electronic Tools
2.23.3.1	High Voltage Surge Generator (complete with cables & connectors)	OEM	EE	Each	2	R	R	R	
2.23.3.2	Ground Scope (complete with cables, connectors, ground microphone & headsets)	OEM	EE	Each	2	R	R	R	
2.23.3.3	Training on Surge Generator for a group of 5xCoT personnel in CoT	OEM	EE	Each	3	R	R	R	
2.23.3.4	Training on Ground Scope for a group of 5xCoT personnel in CoT	OEM	EE	Each	3	R	R	R	
2.23.3.5	Calibration	OEM	EE	Each	6	R	R	R	
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document									
T42	Total						R	R	T42

Item	2.24 TRAFFIC SIGNALS CONTROLLER MAINTENANCE TOOLS	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT	Electronic
------	---	----------	------------	------	----------	---------------------	--------------------	--------------------	------------

2.24.2.1	Multi-meter (True RMS type)	OTSE	none	Each	10	R	R	R	
2.24.2.2	Laptop for controller work	OTSE	none	Each	4	R	R	R	
2.24.2.3	Laptop for configuration design & simulation	OTSE	none	Each	4	R	R	R	
(for CoT Use Only) Penalties as in 1.1.4 of the Specification document									
T43	Total						R	R	T43

Item	2.25 TRAFFIC SIGNALS CONTROLLER MAINTENANCE TOOLS	OEM/OTSE	Item Group	Unit	Est. Qty	Price/Unit (Ex.VAT)	Cost Excluding VAT	Cost Including VAT
2.25.3.1	Electrical Insulated Screw Drivers	OTSE	EE	Each	10	R	R	R
2.25.3.2	Electrician Long Nose Pliers	OTSE	EE	Each	10	R	R	R
2.25.3.3	Electrician Pliers	OTSE	EE	Each	10	R	R	R
2.25.3.4	Electrician Diagonal Cutters	OTSE	EE	Each	10	R	R	R
2.25.3.5	100mm Diameter Cable Cutter	OTSE	EE	Each	10	R	R	R
2.25.3.6	Wire Stripper	OTSE	EE	Each	10	R	R	R
2.25.3.7	Nut Rivet tool	OTSE	EE	Each	3	R	R	R
2.25.3.8	Measuring Wheel with 10 000m range	OTSE	EE	Each	3	R	R	R
2.25.3.9	Cordless drill machine	OTSE	EE	Each	3	R	R	R
2.25.3.10	Cordless Grinder	OTSE	EE	Each	3	R	R	R
2.25.3.11	Professional MIG 180A Welder with MIG and MMA function	OTSE	EE	Each	3	R	R	R
2.25.3.12	Aluminum Welding Wire (0,8mm 500g) for Professional MIG 180A welder	OTSE	EE	Each	3	R	R	R
2.25.3.13	Welding Helmet with Auto Dimming & Grinding Function,	OTSE	EE	Each	6	R	R	R
2.25.3.14	Drone with Unique GPS satellite positioning technology	OTSE	EE	Each	3	R	R	R
2.25.3.15	3000 W Potable UPS system	OTSE	EE	Each	3	R	R	R
2.25.3.16	2.2KW Generator(Petrol type)	OTSE	EE	Each	3	R	R	R

Electronic Tools

	(for CoT Use Only) Penalties as in 1.1.4 of the Specification document			
T44	Total	R	R	T44

1. PRICING SUMMERY

Applicable Function Criteria	Category	Category	Total Excluding VAT	Total Including VAT
B	Electronics	T1	R	R
		T2	R	R
		T3	R	R
		T4	R	R
		T5	R	R
		T6	R	R
		T7	R	R
		T8	R	R
	Plastics	T9	R	R
		T10	R	R
	Metals	T11	R	R
		T12	R	R
		T13	R	R
B	NSB-Electronics	T14	R	R
		T15	R	R
		T16	R	R
A	Electronics	T17A	R	R
A	Electronics	T17B	R	R
B	NSB-Electronics	T18	R	R
A	Electronics	T19	R	R
	Systems	T20	R	R
		T21	R	R
	Electronics	T22	R	R
		T23	R	R
		T24	R	R
		T25	R	R
		T26	R	R
		T27	R	R
		T28	R	R

C	Basic Components	T29	R	R
B	Electrical	T30	R	R
		T31	R	R
A	Electronics	T32	R	R
		T33	R	R
		T34	R	R
		T35	R	R
C	Basic Components	T36	R	R
B	Metal Signs	T37	R	R
C	Basic Components	T38	R	R
A	Metals	T39	R	R
A	Systems	T40	R	R
A	Systems	T41	R	R
B	Electronics Tools	T42	R	R
B	Electronics Tools	T43	R	R
B	Electronics Tools	T44	R	R

3 TYPE OF AGREEMENT REQUIRED

Draft SLA attached

4 VALIDITY PERIOD

The validity period for the tender after closure is 90 days. CoT shall have right and power to extent any tender validity period beyond any initial validity period set and subsequent extensions. SCM shall ensure that an extension of validity is requested in writing from all bidders before the validity expiry date. Extension of validity shall be finalised while the quotations/bids are still valid.

5 MATERIAL NUMBER

100000023345 SIGNAL TRAFFIC LIGHT LED 3 ASPECT S1
100000023347 SIGNAL TRAFFIC LIGHT LED 2 ASPECT S10
200000035468 SIGNAL TRAFFIC TUBING PVC FLEXI DIA 20MM
200000035469 SIGNAL TRAFFIC LIGHT BRCKT L SHAPE R ANG
200000041361 SIGNAL TRAFFIC VISOR POLYETHYLENE 160MM
100000023346 SIGNAL TRAFFIC LIGHT LED 2 ASPECT S11 PD

100000023348 SIGNAL TRAFFIC LIGHT MODULE FULL DISC RD
100000023350 SIGNAL TRAFFIC LIGHT MODULE FULL DISC AM
100000023351 SIGNAL TRAFFIC LIGHT MODULE FULL DISC GR
100000026285 SIGNAL TRAFFIC LIGHT MOD ARROW DISC AM
100000026286 SIGNAL TRAFFIC LIGHT MOD ARROW DISC GR
100000026287 SIGNAL TRAFFIC LIGHT MOD STAND DISC RD
100000026288 SIGNAL TRAFFIC LIGHT MODULE WALK DISC GR
200000035470 SIGNAL TRAFFIC LIGHT MODULE BUS RED
200000035471 SIGNAL TRAFFIC LIGHT MODULE BUS AMBER
200000035472 SIGNAL TRAFFIC LIGHT MODULE BUS GREEN
200000035473 SIGNAL TRAFFIC LIGHT ACTIVE LOAD 8-CIRCUIT
200000041362 SIGNAL TRAFFIC VISOR LONG 30 DEGREE
200000041363 SIGNAL TRAFFIC BACKBOARD TWO ASPECT
200000041364 SIGNAL TRAFFIC BACKBOARD THREE ASPECT
200000041365 SIGNAL TRAFFIC BACKBOARD DIRECTIONAL
200000041366 SIGNAL TRAFFIC BACKBOARD DIRECTIONAL BUS

100000002466 POLE TRAFFIC OVERHEAD COMPLETE
200000041367 POLE TRAFFIC OVERHEAD COMPL EXCL BASE
100000026289 POLE TRAFFIC OVERHEAD BASE FRAME EXCLUDE
100000002469 POLE TRAFFIC OVERHEAD ARM
200000035475 POLE TRAFFIC OVERHEAD BASE FRAME

200000041368 POLE TRAFFIC SIGNAL STD INCL BASE FRAME
100000026305 POLE TRAFFIC SIGNAL STD EXCL BASE FRAME
200000035476 POLE TRAFFIC SIGNAL STD BASE FRAME

200000041369 POLE TRAFFIC SIGNAL TOTEM INCL BASE
200000041370 POLE TRAFFIC SIGNAL TOTEM EXCL BASE
200000041371 POLE TRAFFIC SIGNAL TOTEM BASE FRAME

100000002286 SIGNAL TRAFFIC BUTTON PUSH PEDESTRIAN

200000041407 BOX TERMINAL POLE TOP

200000041372 TRAFFIC SIGNAL PEDESTRIAN BUTTON AUDIBLE
200000041373 TRAFFIC SIGNAL PEDESTRIAN SPEAKER AUDIBLE

100000023352 CAMERA TRAFFIC DETECTOR

200000035478 CAMERA TRAFFIC DETECTOR WIRELESS 103°
200000035479 CAMERA TRAFFIC DETECTOR WIRELESS 39°

100000023353 CAMERA BASE RECEIVER DETECTOR 4CH
200000035481 CAMERA BASE RECEIVER DETECTOR WIREL 4"

200000035482 CAMERA TRAFFIC DETECTOR POWER SUPPLY

200000035483 SIGNAL PEDESTRIAN COUNTDOWN TIME

200000041374 TRAFFIC SIGNAL UPS COMPLETE SYSTEM 0.5KW
 200000041375 TRAFFIC SIGNAL UPS COMPLETE SYSTEM 1KW
 INCLUDED UNDER SPECIFIC SERVICE
 3031777 TRAFFIC SIGNAL UPS MONITOR SYST INSTL
 3031778 TRAFFIC SIGNAL UPS MONITOR SYST TRAINING
 3031779 TRAFFIC SIGNAL UPS MON SYST MAINT TRNG

200000041376 TRAFFIC SIGNAL UPS COMPLETE SYSTEM 1.5KW
 200000041377 TRAFFIC SIGNAL UPS COMPLETE SYSTEM 2KW
 INCLUDED UNDER SPECIFIC SERVICE
 3031777 TRAFFIC SIGNAL UPS MONITOR SYST INSTL
 3031778 TRAFFIC SIGNAL UPS MONITOR SYST TRAINING
 3031779 TRAFFIC SIGNAL UPS MON SYST MAINT TRNG

200000041378 UPS FRAME TRAFFIC SIGNAL
 200000041379 BATTERY UPS 12V 100AH TRAFFIC SIGNAL
 200000041380 INVERTOR UPS 1KW TRAFFIC SIGNAL
 200000041381 INVERTOR UPS 2KW TRAFFIC SIGNAL
 200000041382 COMMUNICATION MODULE UPS TRAFFIC SIGNAL
 200000041383 CHARGE UNIT UPS TRAFFIC SIGNAL
 200000041384 CONTROL UNIT UPS TRAFFIC SIGNAL
 200000041385 BOX UPS TRAFFIC SIGNAL
 200000041386 BATTERY UPS 24V 100AH TRAFFIC SIGNAL
 200000041387 BATTERY UPS 48V 100AH TRAFFIC SIGNAL

200000041388 PROCESSOR SYSTEM NEW MX CONTROLLER
 200000041389 MODULE SERVICE NEW MX CONTROLLER
 200000041390 MODULE OUTPUT NEW MX CONTROLLER
 200000041391 MODULE OUTPUT SURGE NEW MX CONTROLLER
 200000041392 MODULE PEDESTRIAN INTERFACE NEW MX CONTR
 200000041393 MODULE DETECTOR INTERFACE NEW MX CONTROL
 200000041394 MODULE SYSTEM SUPPLY NEW MX CONTROLLER
 200000041395 MODULE DETECTOR SUPPLY NEW MX CONTROLLER
 200000035494 MODULE GPRS NEW MX CONTROLLER
 200000035495 MODULE GPS NEW MX CONTROLLER
 200000041396 MODULE LOOP DETECTOR NEW MX CONTROLLER
 200000035488 GPS UNIT W ANTENNA NEW MC CONTROLLER
 200000041397 ARRESTOR LIGHTNING NEW MX CONTROLLER
 200000041398 ARRESTOR SURGE NEW MX CONTROLLER
 200000041399 DISC FLASH NONO NEW MX CONTROLLER
 200000041400 COOKOO 8 PHASE NEW MX CONTROLLER
 200000041401 COOKOO 12 PHASE NEW MX CONTROLLER
 200000041402 COOKOO 8 PHASE NEW M4 CONTROLLER
 200000041403 COOKOO KIT 12 PHASE NEW M4 CONTROLLER
 200000041404 PACK FLAT 8 PHASE NEW MX CONTROLLER
 200000041405 PACK FLAT 12 PHASE NEW MX CONTROLLER

3031780 REFURB PROCESSOR SYSTEM MX CTRL
 3031781 REFURB MODULE SERVICE MX CTRL
 3031782 REFURB MODULE OUTPUT MX CTRL

3031783 REFURB MODULE OUTPUT SURGE MX CTRL
 3031784 REFURB MODULE PEDESTRIAN INTERFACE MX CTRL
 3031785 REFURB MODULE DETECTOR INTERFACE MX CTRL
 3031786 REFURB MODULE SYSTEM SUPPLY MX CTRL
 3031787 REFURB MODULE DETECTOR SUPPLY MX CTRL
 3031788 REFURB MODULE GPRS MX CTRL
 3031789 REFURB MODULE GPS MX CTRL
 3031790 REFURB MODULE LOOP DETECTOR MX CTRL
 3031791 REFURB DISC FLASH NANO MX CTRL

100000023370 TRIAC SWITCHING 16A NEW EX/ESA CONTROLLER
 100000023371 ARRESTOR SURGE NEW EX/ESA CONTROLLER
 200000035527 CTRL EX/ESA NEW DETECTOR LOOP SGL CHAN
 200000035528 CARD CONFLICT MON GC-12 NEW EX/ESA CTRL
 200000041408 ARRESTOR LIGHTNING 2 WIRE EX/ESA CTRL
 100000023375 CTRL EX/ESA NEW CARD FLASHER MLT CH F-5
 200000035529 CTRL EX/ESA NEW TX UN OUTSTA AMR V3.0
 200000035530 CTRL EX/ESA NEW OUT WITH GSM MODEM
 200000035531 CTRL EX/ESA NEW BATTERY OUT
 200000035532 CTRL EX/ESA NEW AERIAL HG GAIN W HOUSING
 100000023334 CTRL EX/ESA NEW SWITCH POLICE
 200000035534 CTRL EX/ESA NEW CIRCUIT BREAKER DBL POLE
 100000023335 CTRL EX/ESA NEW RELAY 5A 220V 8PIN MY2US
 100000023336 CTRL EX/ESA NEW RELAY 5A 220V 14 PIN MY4
 100000023337 CTRL EX/ESA NEW RELAY 10A 220V 14PIN LY4
 200000041409 CABINET CONTROLLER GALV PLINTH MOUNT NEW
 200000035535 CTRL EX/ESA NEW CABINET CONTROLLER
 200000041410 SUPPLY POWER 24V NEW ESA TYPE
 200000035536 CTRL EX/ESA NEW UNIT CPU TYPE ESA
 200000035537 CTRL EX/ESA NEW UNIT EXT I/O TYPE ESA
 200000035538 CTRL EX/ESA NEW UNIT GPS CLOCK CORRECT
 200000035539 CTRL EX/ESA NEW COMPARATOR VOLT WINDOW

200000035540 CTRL EX/ESA NEW AUTOMOTOR GPS CLOCK
 200000035541 CTRL EX/ESA NEW PWR SUPL PLC DVP PS01 1A
 200000035542 CTRL EX/ESA NEW CPU PLC DVP 12SA2
 100000026295 CTR EX/ESA NEW PLC DVP IN/OUTPUT PS01 1A
 100000026296 CTR EX/ESA NEW CARD CONFLICT ESA22/32
 200000035543 CTRL EX/ESA NEW CARD FLASHER ESA22/32
 200000035544 CTRL EX/ESA NEW MODEM CHARGING CIRC V3.0
 200000035545 CTRL EX/ESA NEW MODEM SNUBBER BOARD V3.0
 200000035549 CTRL EX/ESA NEW AERIAL HG GAIN GPRS MODEM
 200000035554 CTRL EX/ESA NEW KEY CABINET

200000035555 MODULE POWER SUPPLY NEW SICE MFU CONTROLLER
 200000035556 CTRL SICE MFU NEW CPU STR
 200000035557 CTRL SICE MFU NEW CARD OUTPUT SAL_HALL
 200000035558 CTRL SICE MFU NEW BACK-PLANE BP8
 200000035559 CTRL SICE MFU NEW MODULE I/O DIGI PERIF
 200000035560 CTRL SICE MFU NEW MODULE INPUT DIGI EXP

200000035561 CTRL SICE MFU NEW MODULE SURGE PROTECT
 200000035562 CTRL SICE MFU NEW CABINET MODEL '97
 200000035563 CTRL SICE MFU NEW RACK 55TE, 3E
 200000035564 CTRL SICE MFU NEW PWR SUPL DELTA 24C 100W
 200000035565 CTRL SICE MFU NEW RIBBON OUTPUT POWER
 200000035566 CTRL SICE MFU NEW RIBBON PERIHERAL
 200000035567 CTRL SICE MFU NEW STRIP LED
 200000035568 CTRL SICE MFU NEW SOCKET WSI6
 200000035569 CTRL SICE MFU NEW SOCKER WDU6
 200000035570 CTRL SICE MFU NEW BUTTON PUSH OPN CHANGE
 200000035571 CTRL SICE MFU NEW SWITCH ON/OFF
 200000035572 CTRL SICE MFU NEW SWITCH RED/COL/FLASH
 200000035573 CTRL SICE MFU NEW FAN 120X120
 200000035574 CTRL SICE MFU NEW BOX DETECTOR PWR SUPL
 200000035575 CTRL SICE MFU NEW DETECTOR LOOP DIG600
 200000041411 GPS UNIT NEW MFU CONTROLLER

200000035576 CTRL UA NEW POWER SUPPLY DC POWER 24V
 200000035577 CTRL UA NEW POWER MANAGEMENT
 200000041412 SUPPRESSOR SURGE MAIN NEW UA CONTROLLER
 200000041413 SUPPRESSOR SURGE SECOND NEW UA CONTROL
 200000035578 CTRL UA NEW CPU
 200000041414 BOARD DAUGHTER TRIAC NEW UA CONTROLLER
 200000035580 CTRL UA NEW RELAY MY4 DC COIL 24V
 200000041415 RELAY AC COIL 240V LY4 NEW UA CONTROLLER
 200000035582 CTRL UA NEW CIRCUIT BREAKER DBL POLE
 200000035583 CTRL UA NEW BATTERY LI-ION 3G ROUTER
 200000035584 CTRL UA NEW CHARGER 3G ROUTER
 200000035585 CTRL UA NEW BACKUP BATTERY BUTTON CELL
 200000035586 CTRL UA NEW AERIAL MAGNET INCL HOUSING
 200000035587 CTRL UA NEW KEY CABINET
 200000035588 CTRL UA NEW CARD MACRO SD
 200000035589 CTRL UA NEW UNIT GPS CLOCK CORRECTION
 200000035590 CTRL UA NEW ADAPT PED INPT INDUCT LOOP
 200000035591 CTRL UA NEW ADAPT PED INPUT MAGNETOMETER
 200000035592 CTRL UA NEW ADAPT PED INPUT CAMERA
 200000035593 CTRL UA NEW ROUTER 3G C/W BAT CHARGER
 200000041416 CARD OUTPUT 4PHASE NEW UA CONTROLLER
 200000041417 CLOCK GPS W AERIAL NEW UA CONTROLLER
 200000041418 FUSE PLC NEW UA CONTROLLER
 200000041419 PACK FLAT 8 PHASE NEW CONTROLLER UA
 200000041420 PACK FLAT 12 PHASE NEW CONTROLLER UA

100000000069 BOX METER POLE MOUNTED W/O CIRCUIT BREAK
 100000000094 CBL CU SWA PVC ECC 4C 2.5MM2 LV
 100000023276 CIRCUIT BREAKER 240V 1P 20A 5KA H/MANN
 100000000267 CONDUIT CABLE FLEXIBLE 110MM X 4M
 100000000296 CONNECTOR STRIP PVC 15AMP 12WAY
 100000000420 GLAND CABLE & SHROUD NO 1
 100000000421 GLAND CABLE & SHROUD NO 2

10000000422 GLAND CABLE & SHROUD NO 3
10000000427 GLAND CABLE & SHROUD NO 0
10000000734 SLEEVING HEAT SHRINK 4.8MMX1200MM
200000041439 SLEEVING HEAT SHRINK 38/12MM
10000000805 STRAP EARTH COPPER BAMBA 17MM X 25M
10000000843 TAPE BUTYL MED VOLT 25MM X 10M
10000001617 PAINT ENAMEL G/YELLOW G6
200000041435 PAINT DOVE GREY
100000002286 SIGNAL TRAFFIC BUTTON PUSH PEDESTRIAN
100000002287 CABLE CU 1.5MM2 7CORE MULTI-COLOR ROBOT
100000026300 CABLE CU 1.5MM2 12CORE MULTI-COLOR ROBOT
100000002289 CABLE CU 1.5MM2 19CORE MULTI-COLOR ROBOT
100000002303 CONNECTOR DOME TRAFFIC POLE TOP
100000002346 EARTH SPIKE M16 X 1200MM
200000041440 TAPE INSULATION P & B 25MM
100000023311 TAPE INSULATION SCOTCH 23
100000004692 TAPE PVC ADH 20MM X 0.18MM X 20M BLACK
100000004693 TAPE PVC ADH 20MM X 0.18MM X 20M BLUE
100000004695 TAPE PVC ADH 20MM X 0.18MM X 20M RED
200000041427 FERRULE CU CRIMP CENTRE 1.5MM2
200000041422 BOLT & NUT HEXAGON SSTL M6 X 20MM
200000041428 FERRULE CU CRIMP CENTRE 2.5MM2
200000041426 FERRULE CU CRIMP CENTRE 4MM2
100000010070 TAPE PVC ADH 20MM X 0.18MM X 20M YELLOW
200000041443 WASHER FLAT SSTL M6 X 25MM X 1MM
100000012986 WASHER FLAT GALV M10
100000020134 SEALER SPRAY FOAM FIX ROBOT CONTROL BOX
200000041432 FUSE SLOW BLOW 5AMP 240VAC
100000000334 FERRULE CU CRIMP CENTRE 16MM2
200000041436 RELAY 1PH VOLTAGE MONITOR PMV 55
100000026336 SIGNAL TRAFFIC MAINT CABLE CAT-5
200000041442 TAPE SCOTCH
200000041425 BOLT & NUT HEXAGON SSTL M10 X 30MM
100000012686 BOLT GALV GUTTER M 6 X 20MM
200000041433 LUG 16MM
200000041499 STRAPPING BAND-IT/ EQUIVALENT 25MM
100000018316 JOINT COMPOUND KIT SCOTCH MX2
200000041430 FUSE CERAMIC LOGIC SUPPLY 5MM X 20MM
200000041429 FUSE CERAMIC LAMP SUPPLY 5MM X 20MM
200000041431 FUSE CERAMIC OUTPUT 5MM X 20MM
200000041438 SCREW PAN HEAD M6 X 12MM
200000041423 BOLT & NUT HEXAGON SSTL M6 X 30MM
200000041424 BOLT & NUT HEXAGON SSTL M10 X 20MM
200000041437 SCREW PAN HEAD M5 X 12MM
200000041441 TAPE REFLECTOR DIAMOND GRD 983-21 ES
200000041421 BATTERY LITHIUM 3V CR2450N
200000041434 MCB 10A DOUBLE POLE

100000002287 CABLE CU 1.5MM2 7CORE MULTI-COLOR ROBOT
100000026300 CABLE CU 1.5MM2 12CORE MULTI-COLOR ROBOT

100000002289 CABLE CU 1.5MM2 19CORE MULTI-COLOR ROBOT
 200000041445 CBL SWA CCA ANTI-THEFT1.5MM2 7C

 200000035603 CTRL BASIC 8PH COORDINATION TYPE
 200000041446 CONTROLLER BASIC COORDINATION 12 PHASE
 200000041447 SOFTWARE PRE-PROGRAM CNF BASIC INT
 200000035604 SOFTWARE PRE-PROGRAM CNF 3LEG INT BASIC
 200000035605 SOFTWARE PRE-PROGRAM CNF 4LEG INT BASIC
 3031793 UPDATE CONTROLLER TRAFFIC BASIC COOORD
 200000041448 PACK FLAT 8 PHASE NEW CONTROLLER BASIC
 200000041449 PACK FLAT 12 PHASE NEW CONTROLLER BASIC

 200000041450 CONTROLLER TRAFFIC MULTI STREAM 12 PHASE
 200000035606 CTRL MULTI STREAM TYPE 16PH
 200000035607 SOFTWARE PRE-PROGRAM CNF INT MULTI STEAM
 200000035607 SOFTWARE PRE-PROGRAM CNF INT MULTI STEAM
 200000041451 COOKOO KIT 12 PHASE M4 BOX
 200000041452 COOKOO KIT 12 PHASE N-DESCSTRUCTIVE BOX

 200000041453 CONTROLLER TRAFFIC MFU 4 PHASE
 200000041454 CONTROLLER TRAFFIC MFU 6 PHASE
 200000041455 CONTROLLER TRAFFIC MFU 8 PHASE
 200000041456 CONTROLLER TRAFFIC MFU 10 PHASE
 200000041457 CONTROLLER TRAFFIC MFU 12 PHASE
 200000041458 CONTROLLER TRAFFIC MFU 14 PHASE
 200000041459 CONTROLLER TRAFFIC MFU 16 PHASE
 200000041447 SOFTWARE PRE-PROGRAM CNF BASIC INT
 200000035604 SOFTWARE PRE-PROGRAM CNF 3LEG INT BASIC
 200000035605 SOFTWARE PRE-PROGRAM CNF 4LEG INT BASIC
 3031794 UPDATE CONTROLLER TRAFFIC UTC ADAPTIVE
 200000041460 PACK FLAT 12 PHASE CONTROLLER UTC

 200000041461 CONTROLLER TRAFFIC PEDESTRIAN COMPLETE
 200000041462 SOFTWARE PRE-PROGRAM CNF PEDESTRIAN
 3031792 UPDATE CONTROLLER TRAFFIC PEDESTRIAN

 100000000806 BUCKLE STEEL STRAP 12MM X 0.6MM

 200000041463 SIGNAL TRAFFIC ARROW ST1/ST2/ST3
 200000041464 SIGNAL TRAFFIC ARROW BUS

 200000041465 CABINET CAMERA INTERFACE

 200000041466 BRACKET TOP FIVE ASPECT
 200000041467 BRACKET BOTTOM FIVE ASPECT
 200000041468 BRACKET SIGN ARM OVERHEAD
 200000041469 BRACKET SIGN STANDARD/ TOTEM POLE
 200000041470 BRACKET PEDESTRIAN
 200000041471 BRACKET ARM MID OVERHEAD

200000041444 LOCK ELECTRONIC TRAFFIC SIGNAL
 200000041472 LOCK ELECTRONIC FLASH TRAFFIC SIGNAL
 200000041473 KEY ELECTRONIC TRAFFIC SIGNAL
 200000041474 VAULT & COMMUNICATOR ELECT KEY 2-KEY
 200000041475 VAULT & COMMUNICATOR ELECT KEY 20-KEY
 3031795 SOFTWARE DATABASE

 200000041476 BOX VANDAL PROOF TRAFFIC SIGNAL
 200000041477 BOX VANDAL PROOF W LOCK TRAFFIC SIGNAL
 200000041478 BOX VANDAL PROOF KEY ELECTRONIC

 200000041479 GENERATOR SURGE HIGH VOLTAGE COMPLETE
 200000041480 SCOPE GROUND COMPLETE
 3031796 TRAINING GENRATOR SURGE
 3031797 TRAINING SCOPE GROUND
 3031798 CALIBRATION MAINT TOOL TRAFFIC SIGNAL

 200000041481 MULTI-METER RMS TYPE

 200000041482 SCREW DRIVER SET FLAT HEAD INSULATED
 200000041483 PLIERS LONG NOSE ELECTRICIAN 160MM
 200000041484 PLIERS ELECTRICIAN 160MM
 200000041485 CUTTER DIAGONAL ELECTRICIAN 200MM
 200000041486 CUTTER CABLE HANDLE SHORT/EXTEND 100MM
 200000041487 STRIPPER WIRE 1MM²/3.2MM²
 200000041488 KIT NUT RIVET TOOL
 200000041490 WHEEL MEASURING 10 000M RANGE
 200000041491 DRILL CORDLESS
 200000041492 GRINDER CORDLESS
 200000041493 WELDER MIG
 200000041494 WIRE WELDING AL 0.8MM 500G
 200000041495 HELMET WELDING W AUTO DIM/GRINDING
 200000041496 DRONE W GPS
 200000041497 UPS SYSTEM PORTABLE 3000W
 200000041498 GENERATOR

6 MARKET ANALYSIS

The city of Tshwane reserves the right to conduct market analysis. Should the city exercise this option, where a tenderer offers a price that is deemed not to be viable to supply goods or services as required, written confirmation will be made with the tenderer if they will be able to deliver on the price, if a tenderer confirm that they cannot, the tenderer will be disqualified based on being non-responsive. If they confirm that they can deliver, a tight contract to mitigate the risk of non-performance will be entered into with the service provider. Further action on failures by the supplier to deliver will be handled in terms of the contract including performance warnings and listing on the database of restricted suppliers.

The city further reserves the right to negotiate a market related price with a tenderer scoring the highest points. If the tenderer does not agree to a market-related price, the city reserves the right to negotiate a market-related price with the tenderer scoring the second highest points, if the tenderer scoring the second highest points does not agree to a market-related price, negotiate a market-related price with the tenderer scoring the third highest points. If a market-related price is not agreed, the city reserves the right to cancel the tender

7 DRAFT SERVICE LEVEL AGREEMENTS

Draft service level agreement attached

**PART A
INVITATION TO BID**

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE CITY OF TSHWANE MUNICIPALITY					
BID NUMBER:	RTD 13-2023/24	CLOSING DATE:	11 JUNE 2024	CLOSING TIME:	10:00am
DESCRIPTION	Tender to appoint service providers for supply, delivery & offloading of traffic signals to City of Tshwane for a period of three years on an as an when required basis				
THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (MBD7).					

BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT (*STREET ADDRESS*)

Tshwane House					
Supply Chain Management					
320 Madiba Street					
Pretoria CBD					
0002					
SUPPLIER INFORMATION					
NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
TAX COMPLIANCE STATUS	TCS PIN:		OR	CSD No:	
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE [TICK APPLICABLE BOX]	<input type="checkbox"/> Yes <input type="checkbox"/> No		B-BBEE STATUS LEVEL SWORN AFFIDAVIT		<input type="checkbox"/> Yes <input type="checkbox"/> No

[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]

ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES ENCLOSE PROOF]	ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES, ANSWER PART B:3]
TOTAL NUMBER OF ITEMS OFFERED		TOTAL BID PRICE	R
SIGNATURE OF BIDDER	DATE	
CAPACITY UNDER WHICH THIS BID IS SIGNED			
BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:		TECHNICAL INFORMATION MAY BE DIRECTED TO:	
DEPARTMENT	Supply Chain Management	CONTACT PERSON	Oineeleng Lekana
CONTACT PERSON	Lukkiet Thobejane-Selowe	TELEPHONE NUMBER	012 358 4613
TELEPHONE NUMBER	012 358 6282	FACSIMILE NUMBER	n/a
FACSIMILE NUMBER	n/a	EMAIL ADDRESS	oineelengl@tshwane.gov.za
EMAIL ADDRESS	lukkiet3@tshwane.gov.za		

**PART B
TERMS AND CONDITIONS FOR BIDDING**

1. BID SUBMISSION	
1.1	BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
1.2	ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED-(NOT TO BE RE-TYPED) OR ONLINE
1.3	THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2022, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
2. TAX COMPLIANCE REQUIREMENTS	
2.1	BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
2.2	BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VIEW THE TAXPAYER'S PROFILE AND TAX STATUS.

- 2.3 APPLICATION FOR THE TAX COMPLIANCE STATUS (TCS) CERTIFICATE OR PIN MAY ALSO BE MADE VIA E-FILING. IN ORDER TO USE THIS PROVISION, TAXPAYERS WILL NEED TO REGISTER WITH SARS AS E-FILERS THROUGH THE WEBSITE WWW.SARS.GOV.ZA.
- 2.4 FOREIGN SUPPLIERS MUST COMPLETE THE PRE-AWARD QUESTIONNAIRE IN PART B:3.
- 2.5 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
- 2.6 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
- 2.7 WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.

3. QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS

- 3.1 IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)? YES NO
- 3.2 DOES THE ENTITY HAVE A BRANCH IN THE RSA? YES NO
- 3.3 DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA? YES NO
- 3.4 DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA? YES NO
- 3.5 IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION? YES NO

IF THE ANSWER IS “NO” TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 ABOVE.

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

SIGNATURE OF BIDDER:

CAPACITY UNDER WHICH THIS BID IS SIGNED:

DATE:

PRICING SCHEDULE: FIRM PRICES (PURCHASES)

NOTE: ONLY FIRM PRICES WILL BE ACCEPTED. NON-FIRM PRICES (INCLUDING PRICES SUBJECT TO RATES OF EXCHANGE VARIATIONS) WILL NOT BE CONSIDERED

IN CASES WHERE DIFFERENT DELIVERY POINTS INFLUENCE THE PRICING, A SEPARATE PRICING SCHEDULE MUST BE SUBMITTED FOR EACH DELIVERY POINT

Name of Bidder.....	Bid Number
Closing Time	Closing Date

OFFER TO BE VALID FOR DAYS FROM THE CLOSING DATE OF BID.

ITEM NO.	QUANTITY	DESCRIPTION	BID PRICE IN RSA CURRENCY **(ALL APPLICABLE TAXES INCLUDED)
----------	----------	-------------	--

- Required by:
- At:
- Brand and Model
- Country of Origin
- Does the offer comply with the specification(s)? *YES/NO
- If not to specification, indicate deviation(s)
- Period required for delivery
- Delivery basis

Note: All delivery costs must be included in the bid price, for delivery at the prescribed destination.

** "all applicable taxes" includes value- added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies.

* Delete if not applicable

PRICING SCHEDULE: NON-FIRM PRICES (PURCHASES)

NOTE: PRICE ADJUSTMENTS WILL BE ALLOWED AT THE PERIODS AND TIMES SPECIFIED IN THE BIDDING DOCUMENTS.

IN CASES WHERE DIFFERENT DELIVERY POINTS INFLUENCE THE PRICING, A SEPARATE PRICING SCHEDULE MUST BE SUBMITTED FOR EACH DELIVERY POINT

Name of Bidder	Bid number
Closing Time	Closing Date

OFFER TO BE VALID FOR 90 DAYS FROM THE CLOSING DATE OF BID.

ITEM NO.	QUANTITY	DESCRIPTION	BID PRICE IN RSA CURRENCY **(ALL APPLICABLE TAXES INCLUDED)
----------	----------	-------------	--

- Required by:
 - At:
 - Brand and model
 - Country of origin
 - Does the offer comply with the specification(s)? *YES/NO
 - If not to specification, indicate deviation(s)
 - Period required for delivery
 - Delivery: *Firm/Not firm
- ** "all applicable taxes" includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies.
- * Delete if not applicable

PRICE ADJUSTMENTS

A. NON-FIRM PRICES SUBJECT TO ESCALATION

1. IN CASES OF PERIOD CONTRACTS, NON FIRM PRICES WILL BE ADJUSTED (LOADED) WITH THE ASSESSED CONTRACT PRICE ADJUSTMENTS IMPLICIT IN NON FIRM PRICES WHEN CALCULATING THE COMPARATIVE PRICES
2. IN THIS CATEGORY PRICE ESCALATIONS WILL ONLY BE CONSIDERED IN TERMS OF THE FOLLOWING FORMULA:

$$Pa = (1 - V)Pt \left(D1 \frac{R1t}{R1o} + D2 \frac{R2t}{R2o} + D3 \frac{R3t}{R3o} + D4 \frac{R4t}{R4o} \right) + VPt$$

Where:

- Pa = The new escalated price to be calculated.
- (1-V) Pt = 85% of the original bid price. **Note that Pt must always be the original bid price and not an escalated price.**
- D1, D2.. = Each factor of the bid price eg. labour, transport, clothing, footwear, etc. The total of the various factors D1,D2...etc. must add up to 100%.
- R1t, R2t..... = Index figure obtained from new index (depends on the number of factors used).
- R1o, R2o = Index figure at time of bidding.
- VPt = 15% of the original bid price. This portion of the bid price remains firm i.e. it is not subject to any price escalations.

3. The following index/indices must be used to calculate your bid price:

Index..... Dated..... Index..... Dated..... Index..... Dated.....
 Index..... Dated..... Index..... Dated..... Index..... Dated.....

4. FURNISH A BREAKDOWN OF YOUR PRICE IN TERMS OF ABOVE-MENTIONED FORMULA. THE TOTAL OF THE VARIOUS FACTORS MUST ADD UP TO 100%.

FACTOR (D1, D2 etc. eg. Labour, transport etc.)	PERCENTAGE OF BID PRICE

B. PRICES SUBJECT TO RATE OF EXCHANGE VARIATIONS

1. Please furnish full particulars of your financial institution, state the currencies used in the conversion of the prices of the items to South African currency, which portion of the price is subject to rate of exchange variations and the amounts remitted abroad.

PARTICULARS OF FINANCIAL INSTITUTION	ITEM NO	PRICE	CURRENCY	RATE	PORTION OF PRICE SUBJECT TO ROE	AMOUNT IN FOREIGN CURRENCY REMITTED ABROAD
				ZAR=		
				ZAR=		
				ZAR=		
				ZAR=		
				ZAR=		
				ZAR=		

2. Adjustments for rate of exchange variations during the contract period will be calculated by using the average monthly exchange rates as issued by your commercial bank for the periods indicated hereunder: (Proof from bank required)

AVERAGE MONTHLY EXCHANGE RATES FOR THE PERIOD:	DATE DOCUMENTATION MUST BE SUBMITTED TO THIS OFFICE	DATE FROM WHICH NEW CALCULATED PRICES WILL BECOME EFFECTIVE	DATE UNTIL WHICH NEW CALCULATED PRICE WILL BE EFFECTIVE

ADJUSTMENT PERIODS	DATE FROM WHICH NEW CALCULATED PRICES WILL BECOME EFFECTIVE
1 st Adjustment	After 12 calendar months
2 nd Adjustment	After 24 calendar months

NB: Unless prior approval has been obtained from Supply Chain Management, no adjustment in contract prices will be made

DECLARATION OF INTEREST

1. No bid will be accepted from persons in the service of the state¹.
2. Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in service of the state, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority.
3. **In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.**
 - 3.1 Full Name of bidder or his or her representative:
 - 3.2 Identity Number:
 - 3.3 Position occupied in the Company (director, trustee, hareholder²)
 - 3.4 Company Registration Number:
 - 3.5 Tax Reference Number:
 - 3.6 VAT Registration Number:
 - 3.7 The names of all directors / trustees / shareholders members, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below.
 - 3.8 Are you presently in the service of the state? **YES / NO**
 - 3.8.1 If yes, furnish particulars.
.....

¹ MSCM Regulations: “in the service of the state” means to be –

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

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

3.9 Have you been in the service of the state for the past twelve months? **YES/NO**

3.9.1 If yes, furnish particulars.
.....

3.10 Do you have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid? **YES / NO**

3.10.1 If yes, furnish particulars.
.....

3.11 Are you, aware of any relationship (family, friend, other) between any other bidder and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid? **YES / NO**

3.11.1 If yes, furnish particulars.
.....

3.12 Are any of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state? **YES / NO**

3.12.1 If yes, furnish particulars.
.....

3.13 Are any spouse, child or parent of the company's directors trustees, managers, principle shareholders or stakeholders in service of the state? **YES / NO**

3.13.1 If yes, furnish particulars.
.....

3.14 Do you or any of the directors, trustees, managers, principle shareholders, or stakeholders of this company have any interest in any other related companies or business whether or not they are bidding for this contract. **YES / NO**

3.14.1 If yes, furnish particulars:
.....

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

Full Name	Identity Number	State Employee Number

.....

Signature

.....

Date

.....

Capacity

.....

Name of Bidder

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

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

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

1. GENERAL CONDITIONS

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

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

1.2 To be completed by the organ of state

a) The applicable preference point system for this tender is the 80/20 preference point system.

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

- (a) Price; and
- (b) Specific Goals.

1.4 To be completed by the organ of state:

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	80
SPECIFIC GOALS	20
TOTAL POINTS FOR PRICE AND SPECIFIC GOALS	100

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

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

2. DEFINITIONS

- (a) “**tender**” means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;
- (b) “**price**” means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- (c) “**rand value**” means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;
- (d) “**tender for income-generating contracts**” means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
- (e) “**the Act**” means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

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

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

$$\begin{array}{ccc} \mathbf{80/20} & \mathbf{or} & \mathbf{90/10} \\ \\ \mathbf{Ps} = \mathbf{80} \left(\mathbf{1} - \frac{\mathbf{Pt} - \mathbf{Pmin}}{\mathbf{Pmin}} \right) & \mathbf{or} & \mathbf{Ps} = \mathbf{90} \left(\mathbf{1} - \frac{\mathbf{Pt} - \mathbf{Pmin}}{\mathbf{Pmin}} \right) \end{array}$$

Where

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

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

3.2.1. POINTS AWARDED FOR PRICE

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

$$\begin{array}{ccc} \mathbf{80/20} & \mathbf{or} & \mathbf{90/10} \\ \\ \mathbf{Ps} = \mathbf{80} \left(\mathbf{1} + \frac{\mathbf{Pt} - \mathbf{Pmax}}{\mathbf{Pmax}} \right) & \mathbf{or} & \mathbf{Ps} = \mathbf{90} \left(\mathbf{1} + \frac{\mathbf{Pt} - \mathbf{Pmax}}{\mathbf{Pmax}} \right) \end{array}$$

Where

- Ps = Points scored for price of tender under consideration
 Pt = Price of tender under consideration
 Pmax = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

- 4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:
- 4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—
- (a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or
 - (b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,
- then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

Table 1: Specific goals for the tender and points claimed are indicated per the table below.

(Note to organs of state: Where either the 90/10 or 80/20 preference point system is applicable, corresponding points must also be indicated as such.

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

Specific goals	80/20 preference point system	Number of points claimed (80/20 system) (To be completed by the tenderer)
BB-BEE score of companies <ul style="list-style-type: none"> • Level 1 • Level 2 • Level 3 • Level 4 • Level 5 	<ul style="list-style-type: none"> • 8 Points • 7 Points • 6 Points • 5 Points • 4 Points 	

Specific goals	80/20 preference point system	Number of points claimed (80/20 system) (To be completed by the tenderer)
<ul style="list-style-type: none"> • Level 6 • Level 7 • Level 8 • Non-compliant 	<ul style="list-style-type: none"> • 3 Points • 2 Points • 1 Point • 0 Points 	
EME and/ or QSE	2 Points	
At least 51% of Women-owned companies	2 Points	
At least 51% owned companies by People with disability	2 Points	
At least 51% owned companies by Youth	2 Point	
Local Economic Participation <ul style="list-style-type: none"> • City of Tshwane • Gauteng • National 	4 Points 2 Points 1 Point	

N.B For points to be allocated as per above the tenderers will be required to submit proof of documentation as evidence for claims made. Any tenderer that does not submit evidence as stated in the bid document to claim applicable points will be allocated zero points.

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3. Name of company/firm.....

4.4. Company registration number:
.....

4.5. TYPE OF COMPANY/ FIRM

- Partnership/Joint Venture / Consortium
 - One-person business/sole propriety
 - Close corporation
 - Public Company
 - Personal Liability Company
 - (Pty) Limited
 - Non-Profit Company
 - State Owned Company
- [TICK APPLICABLE BOX]

4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender,

qualifies the company/ firm for the preference(s) shown and I acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
- iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –
 - (a) disqualify the person from the tendering process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
 - (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
 - (e) forward the matter for criminal prosecution, if deemed necessary.

.....	
SIGNATURE(S) OF TENDERER(S)	
SURNAME AND NAME:
DATE:
ADDRESS:

CONTRACT FORM: PURCHASE OF GOODS/WORKS

THIS FORM MUST BE FILLED IN DUPLICATE BY BOTH THE SERVICE PROVIDER (PART 1) AND THE PURCHASER (PART 2). BOTH FORMS MUST BE SIGNED IN THE ORIGINAL SO THAT THE SERVICE PROVIDER AND THE PURCHASER WOULD BE IN POSSESSION OF ORIGINALLY SIGNED CONTRACTS FOR THEIR RESPECTIVE RECORDS.

PART 1 (TO BE FILLED IN BY THE SERVICE PROVIDER)

1. I hereby undertake to render services described in the attached bidding documents to (name of the institution)..... in accordance with the requirements and task directives / proposals specifications stipulated in Bid Number **RTD 13-2023/24** at the price/s quoted. My offer/s remain binding upon me and open for acceptance by the Purchaser during the validity period indicated and calculated from the closing date of the bid.
2. The following documents shall be deemed to form and be read and construed as part of this agreement:
 - (i) Bidding documents, *viz*
 - Invitation to bid;
 - Tax clearance certificate;
 - Pricing schedule(s);
 - Filled in task directive/proposal;
 - Preference claims for specific goals in terms of the Preferential Procurement Regulations 2022;
 - Declaration of interest;
 - Declaration of Bidder's past SCM practices;
 - Certificate of Independent Bid Determination;
 - Special Conditions of Contract;
 - (ii) General Conditions of Contract; and
 - (iii) Other (specify)
3. I confirm that I have satisfied myself as to the correctness and validity of my bid; that the price(s) and rate(s) quoted cover all the services specified in the bidding documents; that the price(s) and rate(s) cover all my obligations and I accept that any mistakes regarding price(s) and rate(s) and calculations will be at my own risk.
4. I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me under this agreement as the principal liable for the due fulfillment of this contract.
5. I declare that I have no participation in any collusive practices with any bidder or any other person regarding this or any other bid.

6. I confirm that I am duly authorised to sign this contract.

NAME (PRINT)

CAPACITY

SIGNATURE

NAME OF FIRM

DATE

WITNESSES	
1
2
DATE:	

CONTRACT FORM: PURCHASE OF GOODS/WORKS

PART 2 (TO BE FILLED IN BY THE PURCHASER)

1. I..... in my capacity as accept your bid under reference number dated..... for the rendering of services indicated hereunder and/or further specified in the annexure(s).
2. An official order indicating service delivery instructions is forthcoming.
3. I undertake to make payment for the services rendered in accordance with the terms and conditions of the contract, within 30 (thirty) days after receipt of an invoice.

DESCRIPTION OF SERVICE	PRICE (ALL APPLICABLE TAXES INCLUDED)	COMPLETION DATE	B-BBEE STATUS LEVEL OF CONTRIBUTION

4. I confirm that I am duly authorised to sign this contract.

SIGNED AT ON

NAME (PRINT)

SIGNATURE

OFFICIAL STAMP

WITNESSES

1
2

DATE:

DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

- 1 This Municipal Bidding Document must form part of all bids invited.
- 2 It serves as a declaration to be used by municipalities and municipal entities in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
- 3 The bid of any bidder may be rejected if that bidder, or any of its directors have:
 - a. abused the municipality's / municipal entity's supply chain management system or committed any improper conduct in relation to such system;
 - b. been convicted for fraud or corruption during the past five years;
 - c. willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or
 - d. been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004).
- 4 **In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.**

Item	Question	Yes	No
4.1	<p>Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector?</p> <p>(Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the <i>audi alteram partem</i> rule was applied).</p> <p>The Database of Restricted Suppliers now resides on the National Treasury's website(www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.</p>	<p>Yes</p> <input type="checkbox"/>	<p>No</p> <input type="checkbox"/>
4.1.1	If so, furnish particulars:		
4.2	<p>Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)?</p> <p>The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.</p>	<p>Yes</p> <input type="checkbox"/>	<p>No</p> <input type="checkbox"/>

4.2.1	If so, furnish particulars:		
4.3	Was the bidder or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.3.1	If so, furnish particulars:		
4.4	Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.4.1	If so, furnish particulars:		
4.5	Was any contract between the bidder and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.7.1	If so, furnish particulars:		

CERTIFICATION

**I, THE UNDERSIGNED (FULL NAME)
CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM
TRUE AND CORRECT.**

**I ACCEPT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION
MAY BE TAKEN AGAINST ME SHOULD THIS DECLARATION PROVE TO BE
FALSE.**

.....
Signature

.....
Date

CERTIFICATE OF INDEPENDENT BID DETERMINATION

- 1 This Municipal Bidding Document (MBD) must form part of all bids¹ invited.
- 2 Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).² Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
- 3 Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:
 - a. take all reasonable steps to prevent such abuse;
 - b. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
 - c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
- 4 This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
- 5 In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid:

¹ Includes price quotations, advertised competitive bids, limited bids and proposals.

² Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid: **RTD 13-2023/24**

Tender to appoint service providers for supply, delivery & offloading of traffic signals to City of Tshwane for a period of three years on an as an when required basis (Bid Number and Description)

in response to the invitation for the bid made by:

CITY OF TSHWANE MUNICIPALITY

do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of: _____ that:
(Name of Bidder)

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - (a) has been requested to submit a bid in response to this bid invitation;
 - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder
6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.

³ Joint venture or consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

THE NATIONAL TREASURY

Republic of South Africa



GOVERNMENT PROCUREMENT

GENERAL CONDITIONS OF CONTRACT

July 2010

GOVERNMENT PROCUREMENT

GENERAL CONDITIONS OF CONTRACT

July 2010

NOTES

The purpose of this document is to:

- (i) Draw special attention to certain general conditions applicable to government bids, contracts and orders; and
- (ii) To ensure that clients be familiar with regard to the rights and obligations of all parties involved in doing business with government.

In this document words in the singular also mean in the plural and vice versa and words in the masculine also mean in the feminine and neuter.

- The General Conditions of Contract will form part of all bid documents and may not be amended.
- Special Conditions of Contract (SCC) relevant to a specific bid, should be compiled separately for every bid (if applicable) and will supplement the General Conditions of Contract. Whenever there is a conflict, the provisions in the SCC shall prevail.

TABLE OF CLAUSES

1. Definitions
2. Application
3. General
4. Standards
5. Use of contract documents and information; inspection
6. Patent rights
7. Performance security
8. Inspections, tests and analysis
9. Packing
10. Delivery and documents
11. Insurance
12. Transportation
13. Incidental services
14. Spare parts
15. Warranty
16. Payment
17. Prices
18. Contract amendments
19. Assignment
20. Subcontracts
21. Delays in the supplier's performance
22. Penalties
23. Termination for default
24. Dumping and countervailing duties
25. Force Majeure
26. Termination for insolvency
27. Settlement of disputes
28. Limitation of liability
29. Governing language
30. Applicable law
31. Notices
32. Taxes and duties
33. National Industrial Participation Programme (NIPP)
34. Prohibition of restrictive practices

General Conditions of Contract

1. Definitions

1. The following terms shall be interpreted as indicated:
 - 1.1 “Closing time” means the date and hour specified in the bidding documents for the receipt of bids.
 - 1.2 “Contract” means the written agreement entered into between the purchaser and the supplier, as recorded in the contract form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.
 - 1.3 “Contract price” means the price payable to the supplier under the contract for the full and proper performance of his contractual obligations.
 - 1.4 “Corrupt practice” means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.
 - 1.5 "Countervailing duties" are imposed in cases where an enterprise abroad is subsidized by its government and encouraged to market its products internationally.
 - 1.6 “Country of origin” means the place where the goods were mined, grown or produced or from which the services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembly of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.
 - 1.7 “Day” means calendar day.
 - 1.8 “Delivery” means delivery in compliance of the conditions of the contract or order.
 - 1.9 “Delivery ex stock” means immediate delivery directly from stock actually on hand.
 - 1.10 “Delivery into consignees store or to his site” means delivered and unloaded in the specified store or depot or on the specified site in compliance with the conditions of the contract or order, the supplier bearing all risks and charges involved until the supplies are so delivered and a valid receipt is obtained.
 - 1.11 "Dumping" occurs when a private enterprise abroad market its goods on own initiative in the RSA at lower prices than that of the country of origin and which have the potential to harm the local industries in the RSA.
 - 1.12 ”Force majeure” means an event beyond the control of the supplier and not involving the supplier’s fault or negligence and not foreseeable. Such events may include, but is not restricted to, acts of the purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
 - 1.13 “Fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any bidder, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the bidder of the benefits of free and open competition.

- 1.14 “GCC” means the General Conditions of Contract.
- 1.15 “Goods” means all of the equipment, machinery, and/or other materials that the supplier is required to supply to the purchaser under the contract.
- 1.16 “Imported content” means that portion of the bidding price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or his subcontractors) and which costs are inclusive of the costs abroad, plus freight and other direct importation costs such as landing costs, dock dues, import duty, sales duty or other similar tax or duty at the South African place of entry as well as transportation and handling charges to the factory in the Republic where the supplies covered by the bid will be manufactured.
- 1.17 “Local content” means that portion of the bidding price which is not included in the imported content provided that local manufacture does take place.
- 1.18 “Manufacture” means the production of products in a factory using labour, materials, components and machinery and includes other related value-adding activities.
- 1.19 “Order” means an official written order issued for the supply of goods or works or the rendering of a service.
- 1.20 “Project site,” where applicable, means the place indicated in bidding documents.
- 1.21 “Purchaser” means the organization purchasing the goods.
- 1.22 “Republic” means the Republic of South Africa.
- 1.23 “SCC” means the Special Conditions of Contract.
- 1.24 “Services” means those functional services ancillary to the supply of the goods, such as transportation and any other incidental services, such as installation, commissioning, provision of technical assistance, training, catering, gardening, security, maintenance and other such obligations of the supplier covered under the contract.
- 1.25 “Written” or “in writing” means handwritten in ink or any form of electronic or mechanical writing.

1. Application

- 2.1 These general conditions are applicable to all bids, contracts and orders including bids for functional and professional services, sales, hiring, letting and the granting or acquiring of rights, but excluding immovable property, unless otherwise indicated in the bidding documents.
- 2.2 Where applicable, special conditions of contract are also laid down to cover specific supplies, services or works.
- 2.3 Where such special conditions of contract are in conflict with these general conditions, the special conditions shall apply.

3. General

- 3.1 Unless otherwise indicated in the bidding documents, the purchaser shall not be liable for any expense incurred in the preparation and submission of a bid.
Where applicable a non-refundable fee for documents may be charged.

- 3.2 With certain exceptions, invitations to bid are only published in the Government Tender Bulletin. The Government Tender Bulletin may be obtained directly from the Government Printer, Private Bag X85, Pretoria 0001, or accessed electronically from www.treasury.gov.za
- 4. Standards**
- 4.1 The goods supplied shall conform to the standards mentioned in the bidding documents and specifications.
- 5. Use of contract documents and information inspection.**
- 5.1 The supplier shall not, without the purchaser's prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the purchaser in connection therewith, to any person other than a person employed by the supplier in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.
- 5.2 The supplier shall not, without the purchaser's prior written consent, make use of any document or information mentioned in GCC clause 5.1 except for purposes of performing the contract.
- 5.3 Any document, other than the contract itself mentioned in GCC clause 5.1 shall remain the property of the purchaser and shall be returned (all copies) to the purchaser on completion of the supplier's performance under the contract if so required by the purchaser.
- 5.4 The supplier shall permit the purchaser to inspect the supplier's records relating to the performance of the supplier and to have them audited by auditors appointed by the purchaser, if so required by the purchaser.
- 6. Patent rights**
- 6.1 The supplier shall indemnify the purchaser against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the goods or any part thereof by the purchaser.
- 7. Performance security**
- 7.1 Within thirty (30) days of receipt of the notification of contract award, the successful bidder shall furnish to the purchaser the performance security of the amount specified in SCC.
- 7.2 The proceeds of the performance security shall be payable to the purchaser as compensation for any loss resulting from the supplier's failure to complete his obligations under the contract.
- 7.3 The performance security shall be denominated in the currency of the contract, or in a freely convertible currency acceptable to the purchaser and shall be in one of the following forms:
- (a) a bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the purchaser's country or abroad, acceptable to the purchaser, in the form provided in the bidding documents or another form acceptable to the purchaser; or
 - (b) a cashier's or certified cheque
- 7.4 The performance security will be discharged by the purchaser and returned to the supplier not later than thirty (30) days following the date of completion of the supplier's performance obligations under the contract, including any warranty obligations, unless otherwise specified in SCC.
- 8. Inspections, tests and analyses**
- 8.1 All pre-bidding testing will be for the account of the bidder.

- 8.2 If it is a bid condition that supplies to be produced or services to be rendered should at any stage during production or execution or on completion be subject to inspection, the premises of the bidder or contractor shall be open, at all reasonable hours, for inspection by a representative of the Department or an organization acting on behalf of the Department.
- 8.3 If there are no inspection requirements indicated in the bidding documents and no mention is made in the contract, but during the contract period it is decided that inspections shall be carried out, the purchaser shall itself make the necessary arrangements, including payment arrangements with the testing authority concerned.
- 8.4 If the inspections, tests and analyses referred to in clauses 8.2 and 8.3 show the supplies to be in accordance with the contract requirements, the cost of the inspections, tests and analyses shall be defrayed by the purchaser.
- 8.5 Where the supplies or services referred to in clauses 8.2 and 8.3 do not comply with the contract requirements, irrespective of whether such supplies or services are accepted or not, the cost in connection with these inspections, tests or analyses shall be defrayed by the supplier.
- 8.6 Supplies and services which are referred to in clauses 8.2 and 8.3 and which do not comply with the contract requirements may be rejected.
- 8.7 Any contract supplies may on or after delivery be inspected, tested or analyzed and may be rejected if found not to comply with the requirements of the contract. Such rejected supplies shall be held at the cost and risk of the supplier who shall, when called upon, remove them immediately at his own cost and forthwith substitute them with supplies which do comply with the requirements of the contract. Failing such removal the rejected supplies shall be returned at the suppliers cost and risk. Should the supplier fail to provide the substitute supplies forthwith, the purchaser may, without giving the supplier further opportunity to substitute the rejected supplies, purchase such supplies as may be necessary at the expense of the supplier.
- 8.8 The provisions of clauses 8.4 to 8.7 shall not prejudice the right of the purchaser to cancel the contract on account of a breach of the conditions thereof, or to act in terms of Clause 23 of GCC.

9. Packing

- 9.1 The supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing, case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.
- 9.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the contract, including additional requirements, if any, specified in SCC, and in any subsequent instructions ordered by the purchaser.

10. Delivery and documents

- 10.1 Delivery of the goods shall be made by the supplier in accordance with the terms specified in the contract. The details of shipping and/or other documents to be furnished by the supplier are specified in SCC.
- 10.2 Documents to be submitted by the supplier are specified in SCC.

- 11. Insurance** 11.1 The goods supplied under the contract shall be fully insured in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in the SCC.
- 12. Transportation** 12.1 Should a price other than an all-inclusive delivered price be required, this shall be specified in the SCC.
- 13. Incidental services, services** 13.1 The supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC:
- (a) performance or supervision of on-site assembly and/or commissioning of the supplied goods;
 - (b) furnishing of tools required for assembly and/or maintenance of the supplied goods;
 - (c) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied goods;
 - (d) performance or supervision or maintenance and/or repair of the supplied goods, for a period of time agreed by the parties, provided that this service shall not relieve the supplier of any warranty obligations under this contract; and
 - (e) training of the purchaser's personnel, at the supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied goods.
- 13.2 Prices charged by the supplier for incidental services, if not included in the contract price for the goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the supplier for similar services.
- 14. Spare parts** 14.1 As specified in SCC, the supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the supplier:
- (a) such spare parts as the purchaser may elect to purchase from the supplier, provided that this election shall not relieve the supplier of any warranty obligations under the contract; and
 - (b) in the event of termination of production of the spare parts:
 - (i) Advance notification to the purchaser of the pending termination, in sufficient time to permit the purchaser to procure needed requirements; and
 - (ii) following such termination, furnishing at no cost to the purchaser, the blueprints, drawings, and specifications of the spare parts, if requested.
- 15. Warranty** 15.1 The supplier warrants that the goods supplied under the contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the contract. The supplier further warrants that all goods supplied under this contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the purchaser's specifications) or from any act or omission of the supplier, that may develop under normal use of the supplied goods in the conditions prevailing in the country of final destination.
- 15.2 This warranty shall remain valid for twelve (12) months after the goods, or any portion thereof as the case may be, have been delivered to and accepted at the

final destination indicated in the contract, or for eighteen (18) months after the date of shipment from the port or place of loading in the source country, whichever period concludes earlier, unless specified otherwise in SCC.

- 15.3 The purchaser shall promptly notify the supplier in writing of any claims arising under this warranty.
- 15.4 Upon receipt of such notice, the supplier shall, within the period specified in SCC and with all reasonable speed, repair or replace the defective goods or parts thereof, without costs to the purchaser.
- 15.5 If the supplier, having been notified, fails to remedy the defect(s) within the period specified in SCC, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expense and without prejudice to any other rights which the purchaser may have against the supplier under the contract.
- 16. Payment**
- 16.1 The method and conditions of payment to be made to the supplier under this contract shall be specified in SCC.
- 16.2 The supplier shall furnish the purchaser with an invoice accompanied by a copy of the delivery note and upon fulfillment of other obligations stipulated in the contract.
- 16.3 Payments shall be made promptly by the purchaser, but in no case later than thirty (30) days after submission of an invoice or claim by the supplier.
- 16.4 Payment will be made in Rand unless otherwise stipulated in SCC.
- 17. Prices**
- 17.1 Prices charged by the supplier for goods delivered and services performed under the contract shall not vary from the prices quoted by the supplier in his bid, with the exception of any price adjustments authorized in SCC or in the purchaser's request for bid validity extension, as the case may be.
- 18. Contract**
- 18.1 No variation in or modification of the terms of the contract shall be made **amendments** except by written amendment signed by the parties concerned.
- 19. Assignment**
- 19.1 The supplier shall not assign, in whole or in part, its obligations to perform under the contract, except with the purchaser's prior written consent.
- 20. Subcontracts**
- 20.1 The supplier shall notify the purchaser in writing of all subcontracts awarded under this contracts if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the supplier from any liability or obligation under the contract.
- 21. Delays in the supplier's performance**
- 21.1 Delivery of the goods and performance of services shall be made by the supplier in accordance with the time schedule prescribed by the purchaser in the contract.
- 21.2 If at any time during performance of the contract, the supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the goods and performance of services, the supplier shall promptly notify the purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the supplier's notice, the purchaser shall evaluate the situation and may at his discretion extend the supplier's time for performance, with or without the imposition of penalties, in which case the extension shall be ratified by the parties by amendment of contract.

- 21.3 No provision in a contract shall be deemed to prohibit the obtaining of supplies or services from a national department, provincial department, or a local authority.
- 21.4 The right is reserved to procure outside of the contract small quantities or to have minor essential services executed if an emergency arises, the supplier's point of supply is not situated at or near the place where the supplies are required, or the supplier's services are not readily available.
- 21.5 Except as provided under GCC Clause 25, a delay by the supplier in the performance of its delivery obligations shall render the supplier liable to the imposition of penalties, pursuant to GCC Clause 22, unless an extension of time is agreed upon pursuant to GCC Clause 21.2 without the application of penalties.
- 21.6 Upon any delay beyond the delivery period in the case of a supplies contract, the purchaser shall, without canceling the contract, be entitled to purchase supplies of a similar quality and up to the same quantity in substitution of the goods not supplied in conformity with the contract and to return any goods delivered later at the supplier's expense and risk, or to cancel the contract and buy such goods as may be required to complete the contract and without prejudice to his other rights, be entitled to claim damages from the supplier.

22. Penalties

- 22.1 Subject to GCC Clause 25, if the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed goods or unperformed services using the current prime interest rate calculated for each day of the delay until actual delivery or performance. The purchaser may also consider termination of the contract pursuant to GCC Clause 23.

23. Termination for default

- 23.1 The purchaser, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, may terminate this contract in whole or in part:
 - (a) if the supplier fails to deliver any or all of the goods within the period(s) specified in the contract, or within any extension thereof granted by the purchaser pursuant to GCC Clause 21.2;
 - (b) if the Supplier fails to perform any other obligation(s) under the contract; or
 - (c) if the supplier, in the judgment of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.
- 23.2 In the event the purchaser terminates the contract in whole or in part, the purchaser may procure, upon such terms and in such manner as it deems appropriate, goods, works or services similar to those undelivered, and the supplier shall be liable to the purchaser for any excess costs for such similar goods, works or services. However, the supplier shall continue performance of the contract to the extent not terminated.
- 23.3 Where the purchaser terminates the contract in whole or in part, the purchaser may decide to impose a restriction penalty on the supplier by prohibiting such supplier from doing business with the public sector for a period not exceeding 10 years.
- 23.4 If a purchaser intends imposing a restriction on a supplier or any person associated with the supplier, the supplier will be allowed a time period of not more than fourteen (14) days to provide reasons why the envisaged restriction should not be imposed. Should the supplier fail to respond within the stipulated

fourteen (14) days the purchaser may regard the intended penalty as not objected against and may impose it on the supplier.

- 23.5 Any restriction imposed on any person by the Accounting Officer / Authority will, at the discretion of the Accounting Officer / Authority, also be applicable to any other enterprise or any partner, manager, director or other person who wholly or partly exercises or exercised or may exercise control over the enterprise of the first-mentioned person, and with which enterprise or person the first-mentioned person, is or was in the opinion of the Accounting Officer / Authority actively associated.
- 23.6 If a restriction is imposed, the purchaser must, within five (5) working days of such imposition, furnish the National Treasury, with the following information:
- (i) the name and address of the supplier and / or person restricted by the purchaser;
 - (ii) the date of commencement of the restriction
 - (iii) the period of restriction; and
 - (iv) the reasons for the restriction.

These details will be loaded in the National Treasury's central database of suppliers or persons prohibited from doing business with the public sector.

- 23.7 If a court of law convicts a person of an offence as contemplated in sections 12 or 13 of the Prevention and Combating of Corrupt Activities Act, No. 12 of 2004, the court may also rule that such person's name be endorsed on the Register for Tender Defaulters. When a person's name has been endorsed on the Register, the person will be prohibited from doing business with the public sector for a period not less than five years and not more than 10 years. The National Treasury is empowered to determine the period of restriction and each case will be dealt with on its own merits. According to section 32 of the Act the Register must be open to the public. The Register can be perused on the National Treasury website.

24. Anti-dumping and countervailing duties and rights

- 24.1 When, after the date of bid, provisional payments are required, or antidumping or countervailing duties are imposed, or the amount of a provisional payment or anti-dumping or countervailing right is increased in respect of any dumped or subsidized import, the State is not liable for any amount so required or imposed, or for the amount of any such increase. When, after the said date, such a provisional payment is no longer required or any such anti-dumping or countervailing right is abolished, or where the amount of such provisional payment or any such right is reduced, any such favourable difference shall on demand be paid forthwith by the contractor to the State or the State may deduct such amounts from moneys (if any) which may otherwise be due to the contractor in regard to supplies or services which he delivered or rendered, or is to deliver or render in terms of the contract or any other contract or any other amount which may be due to him

25. Force Majeure

- 25.1 Notwithstanding the provisions of GCC Clauses 22 and 23, the supplier shall not be liable for forfeiture of its performance security, damages, or termination for default if and to the extent that his delay in performance or other failure to perform his obligations under the contract is the result of an event of force majeure.
- 25.2 If a force majeure situation arises, the supplier shall promptly notify the purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as is reasonably practical, and shall seek all

		reasonable alternative means for performance not prevented by the force majeure event.
26. Termination for insolvency	26.1	The purchaser may at any time terminate the contract by giving written notice to the supplier if the supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the purchaser.
27. Settlement of Disputes	27.1	If any dispute or difference of any kind whatsoever arises between the purchaser and the supplier in connection with or arising out of the contract, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.
	27.2	If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the purchaser or the supplier may give notice to the other party of his intention to commence with mediation. No mediation in respect of this matter may be commenced unless such notice is given to the other party.
	27.3	Should it not be possible to settle a dispute by means of mediation, it may be settled in a South African court of law.
	27.4	Mediation proceedings shall be conducted in accordance with the rules of procedure specified in the SCC.
	27.5	Notwithstanding any reference to mediation and/or court proceedings herein, <ul style="list-style-type: none"> (a) the parties shall continue to perform their respective obligations under the contract unless they otherwise agree; and (b) the purchaser shall pay the supplier any monies due the supplier.
28. Limitation of liability	28.1	Except in cases of criminal negligence or willful misconduct, and in the case of infringement pursuant to Clause 6; <p>the supplier shall not be liable to the purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the supplier to pay penalties and/or damages to the purchaser; and</p> <p>the aggregate liability of the supplier to the purchaser, whether under the contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.</p>
29. Governing language	29.1	The contract shall be written in English. All correspondence and other documents pertaining to the contract that is exchanged by the parties shall also be written in English.
30. Applicable law	30.1	The contract shall be interpreted in accordance with South African laws, unless otherwise specified in SCC.
31. Notices	31.1	Every written acceptance of a bid shall be posted to the supplier concerned by registered or certified mail and any other notice to him shall be posted by ordinary mail to the address furnished in his bid or to the address notified later by him in writing and such posting shall be deemed to be proper service of such notice

- 31.2 The time mentioned in the contract documents for performing any act after such aforesaid notice has been given, shall be reckoned from the date of posting of such notice.
- 32. Taxes and duties**
- 32.1 A foreign supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the purchaser's country.
- 32.2 A local supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted goods to the purchaser.
- 32.3 No contract shall be concluded with any bidder whose tax matters are not in order. Prior to the award of a bid the Department must be in possession of a tax clearance certificate, submitted by the bidder. This certificate must be an original issued by the South African Revenue Services.
- 33. National Industrial Participation (NIP) Programme**
- 33.1 The NIP Programme administered by the Department of Trade and Industry shall be applicable to all contracts that are subject to the NIP obligation
- 34. Prohibition of Restrictive practices**
- 34.1 In terms of section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, an agreement between, or concerted practice by, firms, or a decision by an association of firms, is prohibited if it is between parties in a horizontal relationship and if a bidder (s) is / are or a contractor(s) was / were involved in collusive bidding (or bid rigging).
- 34.2 If a bidder(s) or contractor(s), based on reasonable grounds or evidence obtained by the purchaser, has / have engaged in the restrictive practice referred to above, the purchaser may refer the matter to the Competition Commission for investigation and possible imposition of administrative penalties as contemplated in the Competition Act No. 89 of 1998.
- 34.3 If a bidder(s) or contractor(s), has / have been found guilty by the Competition Commission of the restrictive practice referred to above, the purchaser may, in addition and without prejudice to any other remedy provided for, invalidate the bid(s) for such item(s) offered, and / or terminate the contract in whole or part, and / or restrict the bidder(s) or contractor(s) from conducting business with the public sector for a period not exceeding ten (10) years and / or claim damages from the bidder(s) or contractor(s) concerned.

SERVICE-LEVEL AGREEMENT

ENTERED INTO BETWEEN

THE CITY OF TSHWANE METROPOLITAN MUNICIPALITY

AND

Registration number: _____

Doc2 Version 1 3 March 2022

SERVICE-LEVEL AGREEMENT

ENTERED INTO BETWEEN

THE CITY OF TSHWANE METROPOLITAN MUNICIPALITY

A municipality, as described in Section 2 of the Local Government: Municipal Systems Act, 2000 and as contemplated in Section 155 of the Constitution of the Republic of South Africa, 1996 as a category A municipality, or the Assignee, if applicable, herein represented by Mr Johann Mettler in his/her capacity as City Manager duly authorised thereto under and by virtue of a resolution passed on 26 January 2012, and who by his/her signature hereto warrants that he/she is properly authorised to sign this Agreement.

(Herein referred to as the “**CITY**”)

AND

Registration number: _____

Herein represented by _____ in his/her capacity as _____ is duly authorised thereto under and by virtue of a resolution of the board passed on _____, a copy of which is annexed as Annexure A, and who by his/her signature hereto warrants that he/she is properly authorised to sign this agreement.

(Herein referred to as the “**SERVICE PROVIDER**”)

CONTENTS

- 1. DEFINITIONS**
- 2. INTERPRETATION**
- 3. APPOINTMENT**
- 4. PURPOSE OF THE AGREEMENT**
- 5. RELATIONSHIP**
- 6. DURATION**
- 7. CONTACT PERSON**
- 8. SCOPE OF GENERAL SERVICES**
- 9. PRICE AND PAYMENT**
- 10. PRICE RESTRUCTURING**
- 11. SERVICE LEVELS**
- 12. WITHHOLDING OF PERFORMANCE**
- 13. PENALTY**
- 14. ACCESS**
- 15. ORDERS OF GOODS**
- 16. DELIVERY OF GOODS**
- 17. DEFECTIVE GOODS OR LATENT PRODUCTS**
- 18. AMENDMENT OR CANCELLATION OF PURCHASE ORDER**
- 19. INSPECTION**
- 20. MAINTENANCE AND SUPPORT**
- 21. TRAINING**
- 22. SERVICE PROVIDER'S WARRANTIES AND INDEMNITIES**
- 23. SERVICE PROVIDER'S PERSONNEL**
- 24. STATUTORY AND EMPLOYMENT ISSUES**
- 25. SUBCONTRACTING**
- 26. CONFIDENTIALITY**

27. **INTELLECTUAL PROPERTY RIGHTS**
28. ***FORCE MAJEURE***
29. **CESSION**
30. **CHANGE OF CONTROL OR CIRCUMSTANCE**
31. **BREACH**
32. **EARLY TERMINATION**
33. **DISPUTES**
34. **LAWS AND JURISDICTION**
35. **NOTICES AND COMMUNICATION**
36. **GENERAL AND MISCELLANEOUS**
37. **EXECUTION**

ANNEXURE A: BOARD RESOLUTION

ANNEXURE B: SCOPE OF WORK AND DELIVERABLES

ANNEXURE C: PAYMENT TERMS

RECORDAL:

WHEREAS the City requires various services to be provided or carried out and delivered at the service areas;

AND WHEREAS the City wishes to appoint the service provider;

AND WHEREAS the service provider wishes to provide such services;

AND WHEREAS the service provider has indicated that it has the necessary expertise, skills and capabilities to provide the service;

NOW THEREFORE, the parties have agreed to enter into this agreement, in terms of which the service provider shall provide the services in the service areas and/or delivery area, and provide maintenance and support thereof to the City in accordance with the terms and subject to the conditions of this agreement.

1. DEFINITIONS

Unless otherwise expressly stated, or if the context requires otherwise, the following words and expressions, when used in this agreement, including in this introduction, shall bear the following meanings ascribed to them:

- 1.1 **“Agreement”** means this service-level agreement and shall include any annexures, schedules, attachments, appendices and/or any addenda hereto or incorporated herein by reference, as amended from time to time;
- 1.2 **“Business day”** means any day from Monday to Friday, excluding public holidays, as defined in the Public Holidays Act, 1994 (Act 36 of 1994), as amended from time to time;
- 1.3 **“Business week”** means five consecutive business days, excluding public holidays as defined in the Public Holidays Act, 1994;
- 1.4 **“City”** means the City of Tshwane Metropolitan Municipality, a metropolitan municipality established in terms of Section 12 of the Local Government: Municipal Structures Act, 1998 (Act 117 of 1998);
- 1.5 **“Contact persons”** means persons identified by the parties as persons who are responsible for the execution of the agreement and whose names are set out in Clause 35 below and who can be substituted in writing from time to time;
- 1.6 **“Contract price”** means the amount reflected as the contract price in Clause 9 below;
- 1.7 **“Contract period”** means the contract period as reflected in Clause 6 below;
- 1.8 **“Effective date”**, notwithstanding the signature date, means _____;
- 1.9 **“Intellectual property”** means patents, designs, know-how, copyright, trademarks and all rights having an equivalent or similar effect which may exist anywhere in the world, introduced and required by either party to give effect to

their obligations under this agreement, owned in whole or in part by, or licenced to either party before the commencement date or developed after the commencement date, and includes all further additions and improvements to the intellectual property, otherwise pursuant to this agreement;

- 1.10 **“Month”** means a calendar month;
- 1.11 **“Parties”** means the City of Tshwane and the service provider and “party” means either of these, as the context requires;
- 1.12 **“Services”** means services to be provided by the service provider to the City as detailed in Clause 8 below;
- 1.13 **“Service provider”** means _____, a company duly incorporated in accordance with the company laws of the Republic of South Africa with company registration number: _____;
- 1.14 **“Signature date”** means the date of signature of this agreement by the party signing last;
- 1.15 **“Subcontract”** means any contract, agreement or proposed contract between the service provider and any third party whereby that third party agrees to provide to the service provider the services or any part thereof;
- 1.16 **“Subcontractor”** means the third party with whom the service provider enters into a subcontract;
- 1.17 **“Tax invoice”** means the document, as required by Section 20 of the Value-added Tax Act, 1991 (Act 89 of 1991), as amended from time to time;
- 1.18 **“VAT”** means value-added tax, as defined in terms of the Value-added Tax Act, 1991.

2. INTERPRETATION

- 2.1 Headings and subheadings are inserted for information purposes only and shall not be used in the interpretation of this agreement.
- 2.2 Unless the context clearly indicates a contrary intention, any word that connotes –
 - 2.2.1 any singular shall be deemed to include a reference to the plural and *vice versa*;
 - 2.2.2 any one gender shall be deemed to include a reference to any other gender; and
 - 2.2.3 a natural person shall be deemed to include a reference to a legal or juristic person.

- 2.3 The expiry or termination of this agreement shall not affect provisions of this agreement, which expressly provide that they will operate after any such expiry or termination of this agreement. Provisions of necessity shall continue to have been effective after such expiry or termination of this agreement, notwithstanding that the clauses themselves do not expressly provide for this.
- 2.4 The rule of interpretation that a written agreement shall be interpreted against the party responsible for the drafting or preparation of that agreement shall not apply.
- 2.5 Where figures are referred to in numerals and in words and there is any conflict between the two, the words shall prevail.
- 2.6 Any reference to any legislation is a reference to such legislation as at the signature date and as amended or re-enacted from time to time.
- 2.7 If any provision in a definition is a substantive provision that confers any rights or imposing any obligations on any party, then, notwithstanding that it is only in this interpretation clause, effect shall be given to it as if it were a substantive provision in this agreement.

3. APPOINTMENT

The City hereby appoints the service provider, who accepts such appointment, to provide the services in accordance with the terms and subject to the conditions of this agreement.

4. PURPOSE OF THE AGREEMENT

- 4.1 The purpose of this agreement is to –
- 4.1.1 formalise and regulate the working relationship between the parties;
 - 4.1.2 set out the roles and responsibilities of the parties; and
 - 4.1.3 define process and procedures to be followed by the parties.

5. RELATIONSHIP

Nothing in this agreement shall constitute or be deemed to constitute a partnership or joint venture between the parties. Furthermore, the service provider acknowledges and agrees that its status under this agreement is that of an independent service provider and its status shall in no way be deemed to be that of an agent or employee of the City for any purpose whatsoever. The service provider shall have no authority or power to bind the City or to contract in the name of the City or create a liability against the City in any way or for any purpose.

6. DURATION

This agreement shall commence on the effective date and shall subsist for _____ years, unless terminated earlier, pursuant to Clause 32 below.

7. CONTACT PERSON

- 7.1 The work to be performed by the service provider hereunder will be supervised by City's contact person referred to in Clause 35 below.
- 7.2 The parties shall notify each other in writing from time to time of the details of the nominated contact person.
- 7.3 The contact persons shall liaise and update each other on the progress of the services rendered and shall endeavour to resolve and remedy any problems or disputes that may arise in relation to the services.
- 7.4 Either party may substitute a contact person at its discretion, provided that each party shall give the other party reasonable notice of such substitution and will provide replacement employees of equivalent ability.
- 7.5 Without derogating from the foregoing, should either party replace a contact person for any reason whatsoever, it shall ensure, to the greatest extent possible in the circumstances, that the suitable period of handover and overlap takes place, at its cost, between the new and the incumbent contact person.

8. SCOPE OF GENERAL SERVICES

The service provider shall, for the duration of this agreement, provide the services set out in the scope of work and in accordance with the deliverables and milestones attached hereto as Annexure B, including but not limited to the maintenance and support services, as provided for in Clause 20 below.

9. PRICE AND PAYMENT

- 9.1 The City shall pay to the service provider the contract price in the sum of R_____ (_____ rand), payable in accordance with the terms of the appointment letter, attached hereto as Annexure C, and subject to deliverables.
- 9.2 All payments under this agreement shall be made by electronic fund transfer or other forms of payment as the parties may agree upon from time to time, upon receipt of valid and undisputed tax invoices and month-end statements together with the supporting documentation from the service provider, once the undisputed tax invoices or such portion of the tax invoices which are undisputed become due and payable.
- 9.3 All amounts and other sums payable in terms of this agreement and schedules hereto will be stipulated exclusive of VAT, unless expressly stated otherwise.

- 9.4 Unless otherwise provided in the schedules, valid tax invoices shall be submitted together with a month-end statement. Payment against such month-end statement shall be made by the City within 30 (thirty) days after the date of receipt by the City of the service provider's statement together with the relevant valid and undisputed tax invoice(s) and supporting documentation, but in any event no later than 90 (ninety) days of receipt of such statement.
- 9.5 Where the payment of any valid and undisputed tax invoice, or any part of the said tax invoice which is not in dispute, is not made by the due date, the service provider shall be entitled to charge interest on the outstanding amount, at the service provider's prime rate of interest in force, for the period from the due date of payment until the outstanding amount is fully paid.
- 9.6 There shall be no interest levied on a tax invoice that is in dispute between the parties.
- 9.7 The City shall pay the amount reflected on a tax invoice once the City's contact person has verified that the services set out in a schedule have been rendered and the tax invoice amount has been approved by the City.
- 9.8 All tax invoices shall be addressed to the City's contact person.
- 9.9 All payments shall be transferred by the City to the service provider electronically into the service provider's bank account, the details of which are as follows:
 - Bank: _____
 - Account type: _____
 - Account number: _____
 - Branch number: _____
- 9.10 Failure to comply with the clauses above may result in late payment of the total amount of an invoice by the service provider to the City. The City shall not be liable for any costs or damages suffered by the service provider as a result of such late payment.

10. PRICE RESTRUCTURING

- 10.1 The service provider shall be subject to a price review every year.
- 10.2 The City shall embark on a benchmarking exercise every 12 (twelve) months where the City shall benchmark the service provider's contract price against the prevailing market rates.
- 10.3 In the event that it emerges that the service provider's charges regarding the contract price and other charges under this agreement are materially higher than the reasonable benchmark ascertained by the City or that the City can acquire similar services of a like quality from another supplier at a total delivered cost that is lower than the total delivered cost of the services acquired hereunder from the service provider, the City shall have the right to notify the service provider of such total delivered cost and the service provider shall have an opportunity to adjust the contract price and any other charges hereunder, on

such a basis as to result in the same total delivered cost to the City, within 30 (thirty) calendar days of such notice.

- 10.4 If the service provider fails to do so or cannot legally do so, the City may –
- 10.4.1 acquire the services from such other supplier in which case the obligations, including, but not limited to, any purchase and sale requirements and/or commitments, if any, of the City and the service provider hereunder shall be reduced accordingly;
 - 10.4.2 terminate this agreement without any penalty, liability or further obligation; or
 - 10.4.3 continue under this agreement.
- 10.5 Within 30 (thirty) calendar days of a notice by the City or at any time the City so requests, the service provider shall certify in writing to the City that it is in compliance with this clause and shall provide all information that the City reasonably requests in order to verify such compliance.

11. SERVICE LEVELS

- 11.1 The service provider recognises that the City has entered into this agreement relying specifically on the service provider's representations regarding service levels including, *inter alia* –
- 11.1.1 capacity allocations in accordance with the service to be provided; and
 - 11.1.2 all work to be performed and services rendered under this agreement shall comply with industry norms and best practice acceptable within the services industry and shall be executed by the service provider to the total satisfaction of the City.
- 11.2 The service provider shall provide suitably qualified and trained employees to provide the services to the City in terms of this agreement, and shall allocate, in its discretion, employee resources in accordance with the technical skill and knowledge required, provided that any exercise of such discretion by the service provider shall not negatively impact the provision of the services by the service provider to the City. The service provider shall also allocate employees with the technical skill and knowledge on-site at the City at all times during normal working hours, if the City so requires.
- 11.3 Among others, the service provider shall comply with and provide the services as set out in Clause 8 above.

12. WITHHOLDING OF PERFORMANCE

The service provider may not, under any circumstances, including, without limitation, non-payment by the City, withhold any services from the City during the currency of this agreement, unless it validly terminates this agreement, in terms of Clause 32 below.

13. PENALTY

- 13.1 Should the service provider fail to comply with its obligations in terms of this agreement, the City may –
 - 13.1.1 exercise its rights in terms of Clause 31 below; or
 - 13.1.2 impose a penalty on the service provider.
- 13.2 An election of any of the above by the City shall not mean that the City has waived any other rights which the City might have in law.
- 13.3 Should the City choose to impose a penalty on the service provider, the City shall provide the service provider with a written notice requiring the service provider to remedy the default within 7 (seven) days from the date of delivery of the notice.
- 13.4 Should the service provider fail to remedy the default within 7 (seven) days after receiving the notice, the City shall be entitled, without prejudice to any alternative or additional right of action or remedy available to the City and without further notice, to impose a penalty, which penalty shall be a deduction of 10% of the monthly contract price for the contract period. For the avoidance of doubt, the penalty amount shall be 10% of the monies due for payment to the service provider monthly, in terms of Clause 9 above.
- 13.5 Should there be a dispute as to whether the failure to deliver was caused by the City or was the service provider's fault, such dispute shall be dealt with in accordance with Clause 33 below.

14. ACCESS

- 14.1 The City shall allow the service provider reasonable access to its premises, provided that –
 - 14.1.1 access is related to the services to be provided by the service provider; and
 - 14.1.2 the service provider adheres to all rules, regulations and instructions applicable at the City's premises.
- 14.2 The service provider is required to notify the City every month of employees who are to provide services at the service areas and/or delivery areas.
- 14.3 The City shall grant the service provider and/or its employees, referred in Clause 14.2 above, access to its premises to perform its obligations in terms of this agreement.
- 14.4 The service provider and its employees shall at all times, when entering the premises and/or service areas and/or delivery areas of the City, comply with all rules, laws, regulations and policies of the City.

15. ORDERS OF GOODS

- 15.1 The service provider's contact person shall advise the City in writing of the goods required to enable the service provider to render the services. On the order form, the service provider shall set out the quantity, description of goods and the anticipated date of delivery of the goods ("delivery date").
- 15.2 The City shall confirm the order in writing and authorise the service provider to order the goods necessary for the provision of the service.
- 15.3 All orders for goods ordered under Clause 15 shall be for the separate account of the City, the cost of which shall be invoiced to the City by the service provider upon confirmation of the order, in terms of Clause 15.2 above. The City shall not be obliged to order the goods from the service provider and shall be entitled to use any company that it deems most suitable for the provision of the goods.

16. DELIVERY OF GOODS

- 16.1 The service provider shall deliver the goods on the delivery date.
- 16.2 Should the service provider be unable to deliver the goods on the delivery date, the service provider shall inform the City of its inability to deliver the goods, the reason therefor, and shall provide the City with a reasonable alternative delivery date, which, in any event, shall not be more than 14 (fourteen) days from the original delivery date.
- 16.3 In the event that the service provider is unable to deliver the goods on the delivery date 3 (three) times in a period of 6 (six) months, the City shall be entitled to terminate this agreement by giving the service provider one (1) month's written notice to terminate.
- 16.4 Upon delivery of the goods by the service provider, the City's contact person shall sign the delivery document provided by the service provider as acknowledgement of receipt of the goods. Such acknowledgement of receipt shall not constitute an acceptance –
 - 16.4.1 that the goods were received in good condition;
 - 16.4.2 that the goods were free of any defects;
 - 16.4.3 that the goods were fit for the purpose for which they were purchased; and/or
 - 16.4.4 of any terms and conditions of the delivery document.
- 16.5 In the event that the City notifies the service provider, within 5 (five) business days, that the goods delivered are not in accordance with the order, the City shall be entitled to return the goods to the service provider at the service provider's cost and the service provider shall deliver the replacement goods ordered within 5 (five) business days of taking delivery of the defective goods.

17. DEFECTIVE GOODS OR LATENT PRODUCTS

- 17.1 The service provider shall verify whether the goods received are in order and without any defects.
- 17.2 In the event that the City realises that the goods have any defect, including (but not limited to) manufacture and/or latent defects, the City shall inform the service provider in writing within 5 (five) days of becoming aware of the defect ("Notice of Defect").
- 17.3 Upon receipt of the Notice of Defect, the service provider shall immediately deliver replacement goods to the City within 14 (fourteen) business days of receiving the Notice of Defect, referred to in Clause 17.2 above, and replace the defective goods.
- 17.4 The cost of returning and replacing the defective goods shall be borne by the service provider.
- 17.5 The service provider shall be responsible for the replacement amount of any parts of the goods that are to be replaced in terms of this agreement.

18. AMENDMENT OR CANCELLATION OF PURCHASE ORDER

The City is entitled to cancel an order, reschedule delivery of the goods or change the delivery area and delivery date on 14 (fourteen) days' written notice to the service provider.

19. INSPECTION

- 19.1 The City may, at any time, inspect the goods and/or service levels of the service provider in terms of this agreement.
- 19.2 If the City is, at any time, dissatisfied with the service levels, the City shall, within 7 (seven) days, notify the service provider in writing of the failure or default.
- 19.3 The service provider shall immediately upon receipt of written demand by the City remedy such failure or default, within 7 (seven) business days from the date of receipt of the notice, free of charge.
- 19.4 Should the service provider fail to remedy the failure or default referred to above, the City shall have the right to impose penalties as provided for in Clause 12 above or invoke the provisions of clauses and/or Clause 31 below.
 - 19.4.1 To enable the City to determine whether the goods and/or services rendered in terms of this agreement are being complied with, the service provider shall –
 - 19.4.1.1 provide the City with such information as it may reasonably require;
 - 19.4.1.2 allow the City to inspect and take copies of any records of the service provider relating to the goods and/or services, including all hardware, software, data, information, visuals,

procedures, event logs, transaction logs, audit trails, books, records, contracts and correspondence; or

- 19.4.1.3 allow the City or its authorised representatives to conduct interviews with any of the service provider's employees, subject to reasonable notice being given to the service provider.

19.5 Service provider to provide reasonable assistance

19.5.1 Where any information is required for inspection in terms of this clause and the information is kept in a computer, the service provider shall give the City reasonable assistance required to facilitate inspection and obtain copies of the information in a visible and legible form or to inspect and check the operation of any computer and any associated apparatus or material that is or has been in use in connection with the keeping of the information.

19.5.2 Any information required to be provided to the City, pursuant to Clause 19, shall be provided by the service provider, as the case may be in such form (including a form otherwise than in writing) as the City may reasonably specify.

19.5.3 The cost of any inspection contemplated in terms of Clause 19 shall be for the account of the City unless any material irregularity or failure on the part of the service provider is determined by the City in the course of such inspection.

19.6 The inspection contemplated in this agreement will be conducted –

19.6.1 during normal business hours; and

19.6.2 where the circumstances justify it, on reasonable notice to the service provider, with the minimum interference in the provision of the services and the service provider's other operations.

20. MAINTENANCE AND SUPPORT

The essential and critical elements of the maintenance and support to be provided by the service provider to the City shall be detailed in the scope of work attached hereto as Annexure B.

21. TRAINING

If required, the service provider shall, after delivery and installation of the goods, and as part of maintenance and support, ensure that the City's nominated employees, from time to time, receive the required and necessary training relating to the nature, purpose and appropriate use of the goods.

22. SERVICE PROVIDER'S WARRANTIES AND INDEMNITIES

22.1 Service warranties

22.1.1 The service provider warrants that, in relation to each service provided in terms of this agreement, –

- 22.1.1.1 it has full capacity and authority to enter into and perform this agreement, and that this agreement is executed by duly authorised representatives of the service provider;
- 22.1.1.2 it possesses or has access to the requisite knowledge, skill and experience to provide the services in an expert manner;
- 22.1.1.3 it will discharge its obligations under this agreement and any annexure, appendix or schedule hereto with all due skill, care and diligence;
- 22.1.1.4 all work performed and services rendered under this agreement shall comply with prevailing practice, standards and specifications within the industry;
- 22.1.1.5 it will be solely responsible for the payment of remuneration and associated benefits, if any, of its personnel and for withholding and remitting income tax for its personnel in conformance with any applicable laws and regulations;
- 22.1.1.6 the use or possession by the City of any materials will not subject the City to any claim for infringement of any intellectual property rights of any third party;
- 22.1.1.7 it will, with promptness and diligence, and in a skilful manner and in accordance with the practices and professional standards of operations, perform services and/or deliver goods;
- 22.1.1.8 its services and/or goods will, in all aspects, comply with industry norms and best practice to the satisfaction of the City with regard to materials and workmanship;
- 22.1.1.9 it will use and adopt any standards, processes and procedures required under this agreement;
- 22.1.1.10 it shall employ suitably qualified and trained employees to provide the services and/or goods to the City and it shall allocate employees in accordance with the technical skills and knowledge required;
- 22.1.1.11 the goods and/or services will be free from any defects in material and workmanship;
- 22.1.1.12 it will maintain and cause to be maintained the highest standard of workmanship and care in undertaking the services and/or processing the goods;

- 22.1.1.13 it will maintain and cause to be maintained the highest standard of care and diligence in providing the services, maintenance and support;
- 22.1.1.14 it will ensure that all applicable laws are observed;
- 22.1.1.15 without derogating from the generality of the foregoing, it will strictly adhere to any or all laws, regulations and accepted procedures with regard to health, hygiene and the maintaining of the environment in the manufacture, packaging, labelling, identification, storage and transportation of the goods; and
- 22.1.1.16 it guarantees that the goods shall be in good working condition for the warranty and/or maintenance period of the goods, and that the service provider shall be responsible for the costs of repair of the goods should the goods require to be repaired to their normal use.

22.2 Indemnity

22.2.1 The service provider hereby indemnifies the City against any claim which may be brought against the City by the service provider's personnel or a third party arising from the execution of this agreement or which arises against the City as a result of the service provider's breach of any of the provisions of this agreement. This is provided that the City notifies the service provider in writing within a reasonable time, and, in any event, no less than 14 (fourteen) business days of the City becoming aware of any such claim to enable the service provider to take steps to contest it. The City shall provide the service provider with such reasonable assistance as may be necessary to enable the service provider to defend the claim to the extent only that it is in a position to render such assistance. The service provider may, within 5 (five) business days of receipt of written notice from the City aforesaid, elect in writing to contest such a claim in the name of the City and shall be entitled to control the proceedings in regard thereto. This is provided that the service provider indemnifies the City against all and any costs (including attorney and own client costs) which may be incurred by or awarded against the City as a consequence of the defence of the claim.

23. SERVICE PROVIDER'S PERSONNEL

23.1 Liability for criminal acts of employees

The service provider shall be liable to the City for any loss that the City or any third party may suffer as a result of any theft, fraud or other criminal act of any employee of the service provider which arises within the course and scope of such employee's employment with the service provider.

23.2 Character of employees

23.2.1 Due to the confidential nature of certain aspects of the services and the position of trust which the service provider's employees will fulfil, the service provider hereby undertakes to use its best commercial endeavours to ensure that it only assigns to the City employees who are fit and proper persons, who display the highest standards of personal integrity and honesty, and who have not, to their knowledge, been convicted of any crime.

23.2.2 The service provider shall, at its own cost, conduct all reasonable background checks into its employees before using them to provide the services in terms of this agreement.

23.3 The City shall conduct all reasonable background checks into the service provider's employees from time to time, where it deems it necessary to do so.

24. STATUTORY AND EMPLOYMENT ISSUES

24.1 The service provider shall comply with all employment legislation

24.1.1 The service provider warrants that it has full knowledge of all relevant statutory, collective and other stipulations applicable to the relationship with its personnel and its relationship with the City. This includes, but is not limited to, the Labour Relations Act, 1995 (Act 66 of 1995), the Basic Conditions of Employment Act, 1977 (Act 75 of 1997), the Employment Equity Act, 1998 (Act 55 of 1998) and any other applicable employment legislation currently in force.

24.1.2 The service provider warrants further that it is not and will not in future be in contravention of any of the provisions of any such legislation and in the event of such contravention, the service provider shall immediately take all steps to remedy such contravention. If the City advises the service provider of any contravention of such legislation in writing, the service provider shall, within 10 (ten) days after receipt of such notice, take all steps necessary to remedy such contravention and shall keep the City informed regarding the steps taken and the implementation and result thereof.

24.2 No employment

The service provider warrants that none of its personnel shall be regarded as employees of the City. The service provider shall assist to defend and bear all costs in the event that the City is required to defend a claim, whether civil or employment related, instituted against it by the service provider's personnel should the City defend the matter. The service provider hereby indemnifies the City against all and any costs (including attorney and own client costs) which may be incurred by or awarded against the City as a consequence of the defence of the claim.

24.3 Occupational Health and Safety Act, 1993

The service provider shall be responsible for ensuring compliance with all the provisions of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) and it indemnifies the City against any claim which may arise in respect of such act by its personnel against the City.

25. SUBCONTRACTING

25.1 The service provider may not subcontract the whole of or any portion of the services in terms of this agreement to any third party without the prior consent of the City.

25.2 In the event the service provider wishes to subcontract the whole of or any portion of the services in terms of this agreement, it shall apply to the City in writing for consent to do so.

25.3 In its application, the service provider shall give the name of the subcontractor, the subcontractor's obligations, the proposed date of commencement of the subcontract, which shall include the fees payable to the subcontractor, and a report of the background security check on the subcontractor's suitability, financial and otherwise.

25.4 The City may, in its sole and absolute discretion, refuse consent to subcontract. In the event the City approves the subcontracting of the whole of or any portion of the services in terms of this agreement, –

25.4.1 the service provider shall ensure that the subcontractor's BBBEE level is equal or better than that of the service provider, its price is competitive and it has the capacity to provide the service;

25.4.2 such subcontracting shall not absolve the service provider from the responsibility of achieving the service levels or complying with its obligations in terms of this agreement, and the service provider hereby indemnifies and holds the City harmless against any loss, harm or damage which the City may suffer as a result of such subcontracting;

25.4.3 the service provider shall, at all times, remain the sole point of contact for the City in respect of the acquisition of services by the City; and

25.4.4 no such subcontracting shall have any effect on the contract price and charges payable by the City to the service provider in terms of this agreement.

26. CONFIDENTIALITY

26.1 The service provider acknowledges that all information relating to the City's confidential business and technical information, data, documents or other information necessary or useful for the carrying on by the City of its business which shall include, but shall not be limited to, operating procedures, quality control procedures, approximate operation personnel requirements, descriptions, trade names and trademarks, know how, techniques, technology, information relating to clients, customers, suppliers and relevant authorities, copyright, trade secrets and all goodwill relating to the business and any other

intellectual property rights, technical data and documents in whole or in part, used by the City in respect of its business (“confidential information”) shall remain confidential and shall not be made known unless the City has given written consent to do so.

- 26.2 The information provided by the City in the context of this agreement is confidential information and the service provider shall take all reasonable measures to keep the information confidential and will only use the information for the purpose for which it was provided.
- 26.3 The service provider undertakes to not disclose any such confidential information. However, there will be no obligation of confidentiality or restriction on use where –
 - 26.3.1 the information is publicly available, or becomes publicly available otherwise than by action of the receiving party;
 - 26.3.2 the information was already known to the receiving party (as evidenced by its written records) prior to its receipt under this or any previous agreement between the parties or their affiliates; or
 - 26.3.3 the information was received from a third party not in breach of an obligation of confidentiality.

27. INTELLECTUAL PROPERTY RIGHTS

- 27.1 All intellectual property rights of the contractor and/or third party vest in the contractor and/or third party, as appropriate.
- 27.2 All rights in the City name and logo remain the absolute property of the City.
- 27.3 The contractor warrants that no aspect of the services provided in terms thereof will infringe any patent, design, copyright, trademark, trade secret or other proprietary right of any third party.
- 27.4 The contractor shall promptly notify the City, in writing, of any infringement or apparent or threatened infringement or any circumstances which may potentially give rise to an infringement, or any actions, claims or demands in relation to any intellectual property rights.
- 27.5 In the event the City becomes aware of any such infringement, the contractor shall, at its cost, defend the City against any claim that the services infringe any such third party intellectual property rights, provided that the City gives notice to the contractor of such claim and the contractor controls the defence thereof. The contractor further indemnifies the City against, and undertakes that it will pay all costs, damages and attorney fees, if any, finally awarded against the City in any action which is attributable to such claim and will reimburse the City with all costs reasonably incurred by the City in connection with any such action.
- 27.6 Should any claim be made against the City by any third party in terms of Clause 27.1 above, the City shall give the contractor written notice thereof

within 3 (three) days of becoming aware of such claim to enable the contractor to take steps to contest it.

27.7 Should any third party succeed in its claim for the infringement of any third party proprietary rights, the contractor shall, at its discretion and within 30 (thirty) days of the services having been found to infringe, at its own cost, –

27.7.1 obtain for the City the right to continue using the subject of infringement or the parts thereof which constitute the infringement;

27.7.2 replace the subject of infringement or the parts thereof which constitute the infringement with another product or service which does not infringe and which is materially similar to the subject of infringement;

27.7.3 alter the subject of infringement in such a way as to render it non-infringing while still in all respects operating in substantially the same manner as the subject of infringement; or

27.7.4 withdraw the subject of infringement.

28. FORCE MAJEURE

28.1 For the purposes hereof, “*force majeure*” shall mean civil strife, riots, insurrection, sabotage, national emergency, acts of war of public enemy, rationing of supplies, flood, storm, fire or any other like forces of nature beyond the reasonable control of the party claiming *force majeure* and comprehended in the terms thereof.

28.2 If *force majeure* causes delays in or failure or partial failure of performance by a party of all or any of its obligations hereunder, this agreement shall be suspended for the period agreed in writing between the parties.

28.3 In the event of circumstances arising which the other party believes that it constitutes a *force majeure* (“the affected party”), such affected party shall send, within 5 (five) days from the interrupting circumstances, a written notice of the interrupting circumstances specifying the nature and date of commencement of the interrupting event to the other party. The parties shall agree, in writing, to suspend the implementation of this agreement for a specific period (“agreed period”).

28.4 In the event that both parties reasonably believe that the affected party shall be unable to continue to perform its obligations after the agreed period, either party shall be entitled to terminate this agreement without further notice to the other party.

28.5 The party whose performance is interrupted by the interrupting circumstances shall be entitled, provided that such party shall have given notice to that effect with a written notice of the interrupting circumstances as provided above, to extend the period of this agreement by a period equal to the time that its performance is so prevented.

29. CESSION

The service provider shall not be entitled to cede, assign or transfer in any other way and/or alienate its rights and obligations in terms of this agreement without the prior written consent of the City.

30. CHANGE OF CONTROL OR CIRCUMSTANCE

30.1 The service provider shall notify the City in writing of any change in the service provider's shareholding or membership or any change in the service provider's subsidiary companies or holding or its affiliates (such change shall be considered a material change in the constitution and identity of the service provider). The City may terminate this agreement upon becoming aware of such material change.

30.2 The parties agree that should there be a change, as envisaged in Clause 30.1 above, the service provider will no longer exist and a new third party or entity shall have been constituted. In this regard, such third party shall not be entitled to inherit any of the service provider's rights and obligations in terms of this agreement, which will only be transferred to the new entity in writing by the City following the City's satisfaction and approval in writing of such new entity.

30.3 The service provider shall further notify the City of any material changes or circumstance which might have led the City to appoint the service provider to provide the goods and/or services. In the event that any material change or circumstance occurs and the service provider fails to inform the City of such a change or circumstance, the service provider shall be deemed to have breached a material term of this agreement and the City shall be entitled to cancel the agreement on 1 (one) month's prior notice.

31. BREACH

31.1 Subject to Clause 30.3 above, should either party commit a breach of any term of this agreement ("the defaulting party") then the affected party ("aggrieved party") shall be entitled to inform the defaulting party in writing to remedy such failure or default within 5 (five) business days. Should the defaulting party fail to remedy the breach within 5 (five) business days after receipt of the notice, the aggrieved party shall be entitled, without prejudice to any of its rights under this agreement or law, to –

31.1.1 immediately terminate this agreement without giving written notice and claim damages (which shall include legal costs on an attorney or client scale);

31.1.2 request specific performance and claim damages (which shall include legal costs on an attorney or client scale); or

31.1.3 impose penalties as provided for in Clause 13 above.

32. EARLY TERMINATION

The City shall have the right to terminate this agreement by giving 30 (thirty) days' notice in writing to the service provider of its intention to terminate the agreement.

33. DISPUTES

33.1 Save for Clause 31 above or any other clause in this agreement which provides for its own remedy, should any dispute arise between the parties in respect of or pursuant to this agreement, including, without limiting the generality of the foregoing, any dispute relating to –

33.1.1 the interpretation of the agreement;

33.1.2 the performance of any of the terms of the agreement;

33.1.3 any of the parties' rights and obligations;

33.1.4 any procedure to be followed;

33.1.5 the termination or cancellation or breach of this agreement; or

33.1.6 the rectification or repudiation of this agreement,

any party may give the other party written notice of such dispute, in which event the provisions below shall apply.

33.2 Within 7 (seven) days of the declaration of such dispute, the parties' representatives or their nominated persons shall meet in the spirit of goodwill and endeavour to resolve the dispute, failing which (and without prejudice to any other alternative dispute resolution to which the parties may agree, either prior to or concurrently with arbitration) the provisions of Clause 33 shall apply.

33.3 If the parties are unable to resolve the dispute within 14 (fourteen) days of the notice of the dispute (or such longer period as they may have agreed to in writing), then either party may, on written notice to the other party, require that the dispute be submitted to and decided by arbitration, in terms of the Arbitration Act, 1965 (Act 42 of 1965).

33.4 The arbitration shall be held under the provisions of the Arbitration Act, 1965 provided that the arbitration shall be –

33.4.1 at any place which the parties agree, in writing, to be mutually convenient; and

33.4.2 in accordance with such formalities and/or procedures as may be settled by the arbitrator and may be held in an informal and summary manner, on the basis that it shall not be necessary to observe or carry out the usual formalities of procedure, pleadings and/or discovery or respect rules of evidence.

33.5 If the arbitration is –

- 33.5.1 a legal matter, then the arbitrator shall be a practising advocate or a practising attorney of no less than 10 (ten) years' standing;
 - 33.5.2 an accounting matter, then the arbitrator shall be a practising chartered accountant of no less than 10 (ten) years' standing; and
 - 33.5.3 any other matter, then the arbitrator shall be any independent person agreed upon between the parties.
- 33.6 Should the parties fail to agree on an arbitrator within 14 (fourteen) days after the arbitration has been demanded, then the arbitrator shall be nominated at the request of either of the parties, by the president for the time being of the Law Society of the Northern Provinces.
- 33.7 Should the parties fail to agree whether the dispute is of a legal, accounting or other nature within 7 (seven) days after the arbitration has been demanded, it shall be deemed to be a dispute of a legal nature.
- 33.8 The arbitrator may –
- 33.8.1 investigate or cause to be investigated any matter, fact or thing which he/she considers necessary or desirable in connection with the dispute and, for that purpose, shall have the widest powers of investigating all documents and records of any party that have a bearing on the dispute;
 - 33.8.2 interview and question under oath the parties or any of their representatives;
 - 33.8.3 decide the dispute according to what he/she considers just and equitable in the circumstances; and
 - 33.8.4 make such award, including an award for specific performance, damages or otherwise, as he/she in his/her discretion may deem fit and appropriate. The arbitration shall be held as quickly as possible after it is requested, with a view to it being completed within 30 (thirty) days after it has been so requested.
- 33.9 The arbitrator's decision and award shall be in writing with reasons and shall be subject to appeal by either party.
- 33.10 Subject to the provisions of Clause 33.9 above, the arbitrator's award may, on application by either party to a court of competent jurisdiction and after due notice is given to the other party, be made an order of court.
- 33.11 Notwithstanding the provisions of Clauses 33.1, 33.2, 33.3, 33.4, 33.5, 33.6 and 33.7 above, in the event of either party having a claim against the other party for a liquidated amount or an amount which arises from a liquid document, or for an interdict or other urgent relief, then the other party having such a claim shall be entitled to institute action therefor in a court of law rather than in terms of the above clauses, notwithstanding the fact that the other party may dispute the claim.

33.12 The provisions of Clause 33 are severable from the rest of this agreement and shall remain in effect even where this agreement is terminated or cancelled for any reason.

34. LAWS AND JURISDICTION

34.1 This agreement shall be governed by and interpreted according to the law of the Republic of South Africa.

34.2 Each party submits to the exclusive jurisdiction of the South African courts in respect of any matter arising from or in connection with this agreement, including its termination. Each party further consents to the jurisdiction of the High Court of South Africa (North Gauteng High Court (in Pretoria)).

35. NOTICES AND COMMUNICATION

35.1 The Parties choose, as their respective *domicilium citandi et executandi* (hereinafter referred to as the “*domicilium*”) and for the delivery of any notices arising out of the agreement or its termination or cancellation, whether in respect of court process, notices or other documents or communication of whatsoever nature (including the exercise of any option), the address, as set out below.

35.1.1 The City:

2nd Floor, Block D
Tshwane House
320 Madiba Street
Pretoria CBD
0001

Attention: _____
Telephone: _____
Fax: 086 214 9544
Email: _____

35.1.2 The service provider:

Attention: _____
Telephone: _____
Fax: _____
Email: _____

35.2 Each party shall be entitled, from time to time, by written notice to the other party, to vary its *domicilium* to any other address, which is not a post office box or *poste restante*.

- 35.3 Any notice given and any payment made by any party to another party (hereinafter referred to as “the addressee”) which –
- 35.3.1 is delivered by hand during normal business hours of the addressee at the addressee’s *domicilium*, shall be deemed, until the contrary is proved by the addressee, to have been received by the addressee at the time of delivery;
 - 35.3.2 is posted by prepaid registered post to the addressee at the addressee’s *domicilium* shall be deemed, until the contrary is proved by the addressee, to have been received on the 7th (seventh) day after the date of posting; or
 - 35.3.3 is sent by email or facsimile machine shall be deemed, until the contrary is proven by the addressee, to have been received within 1 (one) hour of transmission where it is transmitted during business hours of the receiving instrument and at noon on the following business day (excluding Saturdays) where it is transmitted outside such business hours.
- 35.4 Any notice or communication required or permitted in terms of this agreement shall be valid and effective only if in writing, but it shall be competent to give notice by facsimile.
- 35.5 Notwithstanding anything to the contrary in this agreement, a notice or communication actually received by one party shall be an adequate notice or communication notwithstanding that it was not sent to or delivered at the chosen *domicilium citandi et executandi*.

36. GENERAL AND MISCELLANEOUS

36.1 Sole record of agreement

This agreement constitutes the sole record of the agreement between the parties with regard to the subject matter hereof. No party shall be bound by any express or implied term, representation, warranty, promise or the like not recorded herein.

36.2 No amendment except in writing

No addition to, variation of or agreed cancellation of this agreement shall be of any force or effect unless in writing and signed by or on behalf of the parties. Any alleged waiver of this requirement must itself be reduced to writing and signed by the relevant party to be of any effect.

36.3 Waivers

No relaxation or indulgence which any party may grant to any other shall constitute a waiver of the rights of that party and shall not preclude that party from exercising any rights which may have arisen in the past or which might arise in future.

36.4 Survival of obligations

Any provision of this agreement which contemplates performance or observance subsequent to any termination or expiration of this agreement shall survive any termination or expiration of this agreement and continue in full force and effect.

36.5 Approvals and consents

An approval or consent given by a party under this agreement shall only be valid if in writing and shall not relieve the other party from the responsibility of complying with the requirements of this agreement nor shall it be construed as a waiver of any rights under this agreement, except as and to the extent otherwise expressly provided in such approval or consent, or elsewhere in this agreement. Any alleged waiver of the requirement that the approval or consent must be in writing must itself be reduced to writing and signed by the relevant party to be of any effect.

37. EXECUTION

37.1 This agreement may be executed in several counterparts, which shall each be deemed an original, but all of which shall constitute one and the same instrument. A facsimile shall constitute a valid counterpart for all purposes hereunder.

37.2 The signatories to this agreement, by their signature, warrant their authority to enter into this agreement and the capacity of their principal, if signing in a representative capacity, to enter into this agreement.

Signed at on this day of 20.....

Witnesses:

1.

2.

**For and on behalf of the City of
Tshwane Metropolitan
Municipality
(duly represented by Mr Johann
Mettler)**

Signed at on this day of 20.....

Witnesses:

1.
2.

For and on behalf of

(duly represented by

_____)

ANNEXURE A

RESOLUTION OF THE BOARD

Resolution by the board of directors of _____
(the "company") made at a meeting held at _____ on
_____ 20__.

NOTED: THAT _____ intends to enter into an agreement with the City of Tshwane Metropolitan Municipality in terms of which the company shall provide various services (the "agreement") on the terms and subject to the conditions of the agreement to which this resolution is attached as Annexure A.

RESOLVED:

THAT the company approves and enters into the agreement on the terms and subject to the conditions of the agreement to which this resolution is attached.

THAT _____ in his/her capacity as a _____ of the company, be and is hereby authorised to negotiate, settle and sign the agreement attached hereto, and to sign all documentation and do all things necessary to give effect to the aforesaid resolutions on behalf of the company.

Read and confirmed

CHAIRPERSON/COMPANY SECRETARY

ANNEXURE B
SCOPE OF WORK AND DELIVERABLES

ANNEXURE C
PAYMENT TERMS