

INVITATION TO BID

BID NO:

RAF/2025/00029

BID DESCRIPTION:

THE ROAD ACCIDENT FUND (RAF) REQUIRES AN ACCREDITED BIDDER TO DESIGN, SUPPLY, INSTALL, COMMISSION AND MAINTAIN THE INTEGRATED SECURITY SYSTEMS OF CCTV, ACCESS CONTROL AND PERIMETER CONTROL FOR ROAD ACCIDENT FUND (RAF) HATFIELD REGION FOR A PERIOD OF 60 MONTHS.

PUBLICATION DATE: 20 AUGUST 2025

BRIEFING SESSION DATE AND TIME: 28 AUGUST 2025 @ 11:00 AM

A COMPULSORY BRIEFING SESSION WILL BE HELD AT:

ROAD ACCIDENT FUND: HATFIELD OFFICE

1040 BURNETT STREET, HATFIELD PRETORIA

CLOSING DATE: 19 SEPTEMBER 2025 @ 11H00 AM

Submission of proposals at:

ROAD ACCIDENT FUND: HEAD OFFICE

420 Witch- Hazel Avenue, Eco-Glades 2
Centurion

Note: Faxed and/or Emailed Proposals/ bids will not be accepted, only hand delivered and couriered Proposals/ bids must be deposited in the tender box on or before the closing date and time.

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IMPORTANT NOTES:

- 1. Bid documents are available on the website (www.raf.co.za) at no cost.
- 2. Submission of Proposals
 - Bid responses must be placed in the tender box clearly marked with a tender number and description; and
 - Bidders are required to submit an original Bid Document/Proposal (Hard copy) and a soft copy of the Original Bid Document/Proposal.
 - The proposal must be deposited in the tender box situated at the reception of RAF at the below address:

Road Accident Fund (RAF), Eco Glades 2 Office Park, 420 Witch-hazel Avenue, Centurion, 0046

3. Validity Period

The proposal submitted by the supplier must be valid for a period of 90 days, from the closing date for the submission of proposals.

4. Enquiries

All enquiries regarding this bid must be directed to the Supply Chain Management Office:

Bid Enquiries: Shadi Matlou

E-mail address: Shadim@raf.co.za.

Note: No telephonic enquiries will be entertained.

Closing date and time for Bid questions and enquiries: 02 September 2025

Publication date for Questions & Answers: 05 September 2025

Questions and Answers will be published on the RAF website and eTender portal.

Important Notes:

- 1. All questions/enquiries must be forwarded in writing to the e-mail address above; and
- 2. Questions/enquiries received after the above-stated date and time will not be entertained.

MANDATORY/ LEGISLATIVE REQUIREMENTS

This stage checks and validates the bidders' compliance to the legal requirements to conduct business in South Africa, as well as to the industry requirement for the supply of goods and services.

Returnable Documents / Information	Check list ✓ Tick each box
SBD 1: Completed, attached and signed	
SBD 3.1 or 3.2 or 3.3 Completed, attached and signed	
SBD 4: Completed, attached and signed	
SBD 5: Completed, attached and signed	
SBD 6.1: Completed, attached and signed	
Proof of Construction Industry Development Board (CIDB) registration, if applicable.	
Specification document	
General Condition of contract	
Provide Tax TCS Pin to verify Tax Status: Attached (In bids where Consortia/Joint Ventures/Sub-contractors are involved, each party must submit a separate Tax TCS Pin.)	
If the bidder is a joint venture, consortium or other unincorporated grouping of two or more persons/ entities, a copy of the joint venture agreement between the members should be provided.	
Registered on the Central Supplier Database of National Treasury. (For registration information, go to https://secure.csd.gov.za/)	

Note: Some requirements may not be applicable to international suppliers/ bidders and only those suppliers/ bidders will be exempted from these mandatory/ legislative requirements. All SBDs must be submitted (signed) noting where it is not applicable.

PART A INVITATION TO BID

					E (NAME OF DEPARTMEN		
	BID NUMBER: RAF/2025/00029 CLOSING DATE: 19 September 2025 CLOSING TIME: 11H00						
DESCRIPTION THE ROAD ACCIDENT FUND (RAF) REQUIRES AN ACCREDITED BIDDER TO DESIGN, SUPPLY, INSTALL, COMMISSION AND MAINTAIN THE INTEGRATED SECURITY SYSTEMS OF CCTV, ACCESS CONTROL AND PERIMETER CONTROL FOR ROAD ACCIDENT FUND (RAF) HATFIELD REGION FOR A PERIOD OF (SIXTY)							
		NTHS.	DEDOCITED IN THE		OV CITUATED AT (OTDE	-T 45	(DDF00)
Road Accident Fu			DEPOSITED IN THE	RID R	OX SITUATED AT (STREE	: I AD	DRESS)
Eco Glades 2 Offic							
420 Witch-Hazel A	venu	е					
Centurion							
0046							
TO PROCE	DURE	E ENQUIRIES M	AY BE DIRECTED	TEC	HNICAL ENQUIRIES MAY	BE D	IRECTED TO:
CONTACT PERSO	N	Shadi Matlou		CON	ITACT PERSON		
NUMBER		012 621 1721		TELI	EPHONE NUMBER		
FACSIMILE NUMB	ER	N/A		FAC	SIMILE NUMBER		
E-MAIL ADDRESS		Shadim@raf.co.	<u>za</u>	E-M	AIL ADDRESS		
SUPPLIER INFOR	MATI	ON					
NAME OF BIDDER	2						
POSTAL ADDRES	S						
STREET ADDRESS	S	Т		1			
NUMBER		CODE		NU	MBER		
CELLPHONE NUMBER							
FACSIMILE NUMB	FR	CODE		NU	MRER		
E-MAIL ADDRESS							
VAT REGISTRAT							
NUMBER SUPPLIER		TAX					
COMPLIANCE STATUS		COMPLIANCE SYSTEM PIN:		OR	CENTRAL SUPPLIER DATABASE No:	MAA	۸۸
31A103		STSTEMPIN.			DATABASE NO.	IVIA	NA .
1 ARE YOU	<u> </u>						
THE ACCREDITED				2	ARE YOU A FOREIGN		
REPRESENTATIVI		□Yes	□No		ED SUPPLIER FOR THE DDS /SERVICES /WORKS		☐Yes ☐No
FOR THE GOODS			_		ERED?		[IF YES, ANSWER THE
/SERVICES /WORI OFFERED?	KS	[IF YES ENCLOS	SE PROOFJ				QUESTIONNAIRE BELOW]
QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS							
IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?							
DOES THE ENTITY HAVE A BRANCH IN THE RSA? ☐ YES ☐ NO							
DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA? ☐ YES ☐ NO							
DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA? ☐ YES ☐ NO							
IS THE ENTITY LIA	ABLE	IN THE RSA FOR	ANY FORM OF TAX	OITA	N?		☐ YES ☐
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 BELOW.							

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 IN THE MANNER PRESCRIBED IN THE BID DOCUMENT.
- 1.3. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT, 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
- 1.4. THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (SBD7).

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 VERIFY THE TAXPAYER'S PROFILE AND TAX STATUS.
- 2.3 APPLICATION FOR TAX COMPLIANCE STATUS (TCS) PIN MAY BE MADE VIA E-FILING THROUGH THE SARS WEBSITE WWW.SARS.GOV.ZA.
- 2.4 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
- 2.5 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
- 2.6 WHERE NO TCS PIN IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
- 2.7 NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE, COMPANIES WITH DIRECTORS WHO ARE PERSONS IN THE SERVICE OF THE STATE, OR CLOSE CORPORATIONS WITH MEMBERS PERSONS IN THE SERVICE OF THE STATE."

NB: FAILURE TO PROVIDE / OR COMPLY WITH ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID

INVALID.	
SIGNATURE OF BIDDER:	
CAPACITY UNDER WHICH THIS BID IS SIGNED:	

(Proof of authority must be submitted e.g. company resolution)

PRICING SCHEDULE (Professional Services)

NAME OF	BIDDER:	BID NO.:	
CLOSING	TIME: 11:00	CLOSING D	ATE
OFFER TO	BE VALID FORDAYS FROM THE CLOSING DATE OF	BID.	
ITEM NO INCLUDE	DESCRIPTION ED)	BID PRICE IN F **(ALL APPLICA	RSA CURRENCY BLE TAXES
1.	The accompanying information must be used for the formulati	on of proposals.	
2.	Bidders are required to indicate a ceiling price based on the including all expenses inclusive of all R	ne total estimated time for completio applicable taxes for	n of all phases and the project.
3.	PERSONS WHO WILL BE INVOLVED IN THE PROJECT AND RENDERED IN TERMS HEREOF)) RATES APPLICABLE (CERTIFIED I	NVOICES MUST BE
4.	PERSON AND POSITION	HOURLY RATE	DAILY RATE
		R	
		R	
		R	
		11	
		R	
5.	PHASES ACCORDING TO WHICH THE PROJECT WILL BE BE SPENT	COMPLETED, COST PER PHASE A	AND MAN-DAYS TO
		R	days
5.1 Proof	Travel expenses (specify, for example rate/km and total km, f of the expenses incurred must accompany certified invoices.	class of airtravel, etc). Only actual co	osts are recoverable.
	DESCRIPTION OF EXPENSE TO BE INCURRED AMOUNT	RATE QUAI	NTITY
	R		
	R		

R.									
R.									
R.							TOTAI	_:	
					I tax, pay as y oment levies.	ou earn, incor	me tax, unem	ıployme	nt
		t, etc.). Or	n basis of the			nree star hotel, b pices will be ched			
DE	SCRIPTION	OF EXPEN	ISE TO BE I	NCURRED	RATE	QUANTITY	' AMOU	NT	
							R		
							R		
TC)TAL: R			•			К		
6.	Period		for c			project afte	er Accepta	nce d	of bid
	Estimated		-		for	completion	of		project
8.			rm for the ful						
9.	If not firm fo		eriod, provide be	e details of th applied	e basis on which	n example	consumer	price	index.
*[C	DELETE IF NO	OT APPLIC	ABLE]						

Any enquiries regarding bidding procedures may be directed to the -

(Road Accident Fund: Head Office, 420 Witch- Hazel Avenue, Eco-Glades, Centurion, 0046)

BIDDER'S DISCLOSURE

1. PURPOSE OF THE FORM

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

2. Bidder's declaration

- 2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest1 in the enterprise, employed by the state? **YES/NO**
- 2.1.1 If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

Full Name	Identity Number	Name of State institution

¹ the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

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employed by the procuring institution? YES/NO
2.2.1 If so, furnish particulars:
2.3 Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract? YES/NO
2.3.1 If so, furnish particulars:
3. DECLARATION
I, the undersigned, (name)
3.1 I have read and I understand the contents of this disclosure;
3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;
3.3 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 consortium2 will not be construed as collusive bidding.
3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.

2.2 Do you, or any person connected with the bidder, have a relationship with any person who is

² 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.

- 3.5 The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- 3.6 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.
- 3.7 I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.
- I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT.
- I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

Signature	Date
Position	Name of bidder

SBD:5

THE NATIONAL INDUSTRIAL PARTICIPATION PROGRAMME INTRODUCTION

The National Industrial Participation (NIP) Programme, which is applicable to all government procurement contracts that have an imported content, became effective on 1 September 1996.

The NIP Policy and Guidelines were fully endorsed by Cabinet on 30 April 1997. In terms of the Cabinet decision, all state and parastatal purchases/lease contracts (for goods, works and services) entered into after this date, are subject to the NIP requirements. NIP is obligatory and therefore must be complied with. The Industrial Participation Secretariat (IPS) of the Department of Trade and Industry (dti) is charged with the responsibility of administering:

1 PILLARS OF THE PROGRAMME

- 1.1 The NIP obligation is benchmarked against the imported content of the contract. Any contract having an imported content equal to or exceeding US\$10 million or other currency equivalent to US\$10 million will have an NIP obligation. This threshold of US\$10 million can be reached as follows:
 - (a) Any single contract with imported content exceeding US\$10 million.
 - (b) Multiple contracts for the same goods, works or services each with imported content exceeding US\$3 million awarded to one seller over a two-year period which exceeds US\$10 million in total.

or

(c) A contract with a renewable option clause, where should the option be exercised, the total value of the imported content will exceed US\$10 million.

٥r

(d) Multiple suppliers of the same goods, works or services under the same contract, where the value of the imported content of each allocation is equal to or exceeds US\$3 million worth of goods, works or services to the same government institution, which in total over a two-year period exceeds US\$10 million.

1.2

- The NIP obligation applicable to suppliers in respect of subparagraphs 1.1 (a) to 1.1 (c) above will amount to 30% of the imported content, whilst suppliers in respect of sub-paragraph 1.1 (d) shall incur 30% of the total NIP obligation on a pro-rata basis.
- 1.3 To satisfy the NIP obligation, the dtiwould negotiate and conclude agreements such as investments, joint ventures, sub-contracting, licensee production, export promotion, sourcing arrangements and research and development (R&D) with partners, or suppliers
- 1.4 A period of seven years has been identified as the time frame within which to discharge the obligation.

2 REQUIREMENTS OF THE DEPARTMENT OF TRADE AND INDUSTRY

- 2.1 In order to ensure effective implementation of the programme, successful bidders (contractors) are required to, immediately after the award of a contract
 - that is in excess of R10 million, submit details of such a contract to the dti for reporting purposes.
- 2.2 The purpose for reporting details of contracts in excess of the amount of R10 million is to cater for multiple contracts for the same goods, works or services; renewable contracts and multiple suppliers for the same goods, works or services under the same contract as provided for in sub-paragraphs 1.1.(b) to 1.1. (d) above.

3 BID SUBMISSION AND CONTRACT REPORTING REQUIREMENTS OF BIDDERS AND SUCCESSFUL BIDDERS (CONTRACTORS)

- 3.1 Bidders are required to sign and submit this Standard Bidding Document (SBD 5) together with the bid on the closing date and time.
- 3.2 In order to accommodate multiple contracts for the same goods, works or services, renewable contracts and multiple suppliers for the same goods, works or services under the same contract as indicated in sub-paragraphs 1.1 (b) to 1.1 (d) above and to enable the dti in determining the NIP obligation, successful bidders (contractors) are required, immediately after being officially notified about any successful bid with a value in excess of R10 million, to contact and furnish the dti with the following information:
 - Bid/contract number;
 - Description of the goods, works or services;
 - Date on which the contract was accepted;
 - Name, address and contact details of the government institution;
 - Value of the contract; and
 - Imported content of the contract, if possible.
- 3.3 The information required in paragraph 3.2 above must be sent to the Department of Trade and Industry, Private Bag X 84, Pretoria, 0001 for the attention of Mr Elias Malapane within five (5) working days after award of the contract. Mr Malapane may be contacted on telephone number (012) 394 1401, facsimile (012) 394 2401 or e-mail at Elias@thedti.gov.za for further details about the programme.

4 PROCESS TO SATISFY THE NIP OBLIGATION

- 4.1 Once the successful bidder (contractor) has made contact with and furnished the dti with the information required, the following steps will be followed:
 - a. The contractor and the dti will determine the NIP obligation;
 - The contractor and the dti will sign the NIP obligation agreement;
 - c. The contractor will submit a performance guarantee to the dti;
 - d. The contractor will submit a business concept for consideration and approval by the dti;

- e. Upon approval of the business concept by the dti, the contractor will submit detailed business plans outlining the business concepts;
- f. The contractor will implement the business plans; and
- g. The contractor will submit bi-annual progress reports on approved plans to the dti.
- 4.2 The NIP obligation agreement is between the dti and the successful bidder (contractor) and, therefore, does not involve the purchasing institution.

Bid number
Closing date:
Name of
bidder
Postal address

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
 - the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2 To be completed by the organ of state

(delete whichever is not applicable for this tender).

- 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**

80/20

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:

 $Ps = 80\left(1 - \frac{Pt - Pmin}{Pmin}\right)$ or $Ps = 90\left(1 - \frac{Pt - Pmin}{Pmin}\right)$

90/10

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:

$$Ps = 80\left(1+rac{Pt-P\,max}{P\,max}
ight)$$
 or $Ps = 90\left(1+rac{Pt-P\,max}{P\,max}
ight)$

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.)

The specific goals allocated points in terms of this tender	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the tenderer)	Number of points claimed (90/10 system) (To be completed by the tenderer)
South African citizen who had no franchise in national elections prior to the introduction of the Constitution of the Republic of South Africa, 1983 (Act 200 of 1983) or the Constitution of the Republic of South Africa, 1996. (minimum 51% ownership or more)	10	5		
Women (minimum 51% ownership or more)	8	4		
Persons with disabilities (minimum 51% ownership or more)	2	1		

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:	

BID SPECIFICATION - DESIGN, SUPPLY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF THE INTEGRATED SECURITY SYSTEMS OF CCTV, ACCESS CONTROL AND PERIMETER CONTROL FOR ROAD ACCIDENT FUND (RAF) HATFIELD REGION FOR A PERIOD OF SIXTY (60) MONTHS.

1. BACKGROUND OF THE ROAD ACCIDENT FUND

The Road Accident Fund (RAF) is a schedule 3A Public Entity established in terms of the Road Accident Fund Act, 1996 (Act No. 56 of 1996), as amended. Its mandate is the provision of compulsory social insurance cover to all users of South African roads, to rehabilitate and compensate persons injured as a result of the negligent driving of motor vehicles in a timely and caring manner, and to actively promote the safe use of our roads.

The customer base of the RAF comprises not only the South African public, but all foreigners within the borders of the country. The RAF head office is in Centurion, and the RAF has a national footprint. There will however be Customer Experience Centres in each Province in the country, in the near future.

1. SPECIAL INSTRUCTIONS TO BIDDERS

- 2.1 The bidder must be an eligible, registered service provider in terms of the applicable laws of the country.
- 2.1 The bidder must have a business continuity management plan, which must be available for inspection by the Road Accident Fund during the subsistence of rendering services to the Road Accident Fund.
- 2.2 The Evaluation Criteria that were published with a Request for Proposal/ Bids will be used to assess bidders' responses and no amendment after the closing of a bid. Bid Proposals must be clearly indexed and cross referenced to a Table of Contents.
- 2.3 Companies or Directors included on the National Treasury register of Restricted Suppliers and/ or Tender Defaulters will be automatically disqualified from the bidding process.
- 2.4 As prescribed all Standard Bidding Documents (SBD Forms Returnable Documents) must be fully completed and duly signed. All Returnable Documents must be submitted with the proposal at the closing of a bid.
- 2.5 The RAF will confirm the following prior to any award being made:
 - That the bidder is registered on the National Treasury Central Supplier Database (CSD)

The bidder's tax status is compliant with the South African Revenue Service (SARS), in
cases where the recommended bidder is non-compliant with SARS, the bidder will be
allowed (seven) 07 working days to rectify their tax matters, if the bidder fails to rectify
their tax matters, they then be disqualified once the 7 working day period lapses.

3. BACKGROUND OF THE BID

Road Accident Fund is seeking proposals from qualified service providers for the supply, installation, and maintenance of an integrated security system at our office premises. This project also includes the removal and disposal of the existing security system, which has reached the end of its operational lifecycle.

Security is a key priority for Road Accident Fund, and we require a modern, high-performance security solution that enhances the safety of our facilities, employees, and assets. The new system should integrate access control, surveillance (CCTV), alarm monitoring, and intrusion detection to provide a seamless and efficient security infrastructure.

The selected service provider will be responsible for:

- Decommissioning and safe removal of the existing security system.
- Design, supply, and installation of a comprehensive security solution tailored to the needs of the RAF.
- Integration of security components for centralized monitoring and management.
- Testing and commissioning to ensure full functionality.
- Ongoing maintenance and support to guarantee system reliability.

These tender aims to identify a vendor with the expertise, experience, and technical capabilities to implement a robust and scalable security system that aligns with industry best practices. Interested bidders must demonstrate their ability to deliver innovative and cost-effective security solutions while ensuring minimal disruption to daily operations during the transition.

4. THE SCOPE OF REQUIREMENTS

4.1 SECURITY MANAGEMENT SYSTEM (SMS)

4.1.1General Description and System Overview

The Contractor shall remove all existing system, supply, install, commission and maintain a fully integrated multi-workstation security management system to facilitate the control and monitoring of all security sub-system components by means of a mouse activated operator workstation.

Control room workstations or consoles shall be located within Hatfield regional office. The Contractor shall provide all materials, labour and supervision required to install, commission, and document the complete system as required by this specification, and as indicated on the accompanying drawings. The SMS offered shall have demonstrated proven operation in a facility, and a list of reference sites shall be provided as part of the tender response.

4.1.2 Security Sub-System Integration

The Security Management System (SMS/VMS) shall provide the integration platform for all Security Sub-Systems. It is a specific requirement of this tender that the SMS shall interface directly with all sub-system hardware by means of existing drivers supplied as part of the SMS software/VMS license. Hardwired interface of one sub-system to another to achieve integration with the SMS shall not be accepted.

The SMS software shall perform all interlocking functions between the various subsystems i.e., the automated switching of CCTV images upon intercom selection, door alarms, fire alarms, intrusion detection etc. The SMS software shall be capable of configuring the necessary interlock functions either by providing a configuration table or an internal scripting site or a combination of the two. The programming of interlock functions within sub-system hardware/software as a means of achieving the required functionality shall not be accepted. The tenderer shall provide a description of the interface protocol for each sub-system hardware platform offered as part of this tender, in the clause-by-clause compliance statement to be returned with their submission. The SMS software shall provide the necessary soft control functions to eliminate the need for any additional control components such as keyboards, joysticks, or proprietary operator panels.

System operators shall be capable of controlling all functions of the sub-system hardware components via a single mouse driven operator workstation running on a Windows 10 or later operating platform within a single Security Management Application.

The following sub-system hardware components shall be directly integrated with the Security Management System by means of a high-level interface:

- Access Control based door locking system
- IP Intercom system
- IP based CCTV system
- Perimeter Intrusion Detection system
- PA system
- Network Video Recorder

- Servers
- Intruder alarm system
- Operator console PCs
- Video wall decoder

The following devices shall be interfaced to the Security Management System via the **Security Interfacing Controller (SIC)**:

- CCTV IP Cameras
- CCTV NVR
- Electric fence energizer
- Pepper Spray unit
- Panic button
- AC Power Grid
- Local Alarm outputs (e.g. siren). At least 3 minimum

4.1.3 **Security Management functions**

The Security Management System (SMS) shall provide the following software/hardware functions:

- Graphical representation of the sites by means of multiple area maps
- Security Interfacing Controller
- Control and Monitoring of Access Controlled Doors
- Control and Monitoring of Intercom Stations
- Manual and event-based selection of IP based fixed and Pan, Tilt, Zoom (PTZ) CCTV cameras
- Control of Pan, Tilt, Zoom functions of CCTV Cameras
- Event based Management of CCTV Cameras
- Configuration of Network Video Recording (NVR)
- Event based retrieval of recorded video footage
- Control and Monitoring of Perimeter Detection devices
- Control and Monitoring of motorized gates

- Two way talk of PA system
- Monitoring of centralized UPSs
- Monitoring of panic buttons
- Monitoring of Standby Generator sets
- Solar power backup inverter
- Staff and Visitor Enrolment
- Spikes & boom barriers
- License disc scanner

4.1.4 Security Large Area Network.

The service provider must perform an accurate network feasibility study for the client building.

The service provider to have technical expertise to do a specialized fibre build from the connected building into the main control room and connect to the future control rooms if need may arise.

The fibre connectivity is imperative to ensure that the highest grade of technology is available to the control room which will allow for seamless integration and streaming of all security services being offered.

Minimize all external and internal data traffic as the fibre route will ensure a closed loop of communication dedicated to security.

The service provider must ensure the following:

- Closed access data transmission for security enhancement
- A full SDWAN deployment which entails that the routers on site (RAF Office) together with the newly deployed 24 Port 1gig SFP switches will receive and transmit data via VPN routes to the DC (Data Centre)
- A RAF server/hard drive including a router will be deployed within the data centre to ensure that live streams are recorded and transmitted safely and securely
- The client (RAF) has 99.999% redundancy via VPN remote access to DC storage
- The router in the data centre will ensure that 24/7/365 proactive monitoring can take place to allow for best practice principals such as –
 - Immediate redundancy plans of failure regarding connectivity.
 - Immediate redundancy route plans on data transmission for streaming which in turn allows proactive security to continue.
- The minimum data centre details and credentials should entail the following -

- 2 x Eskom power supplies via different substations.
- 2 x backup generators.
- Water cooling system and heat suppression systems of world class standards.
- Access control logs policy of up to 1 year.
- Access control policy allows only the customer to visit the rack space for access on configurations.
- o 99.999% up time.

The proposed methodology must allow the main switches to be configured with firewall rules applicable to the various buildings, assets and/or even at user level.

A failover LTE must also be installed to ensure that should any damage or act of nature happen to the fibre infrastructure; the LTE shall ensure the network stays up and running for employees/users in office to continue work.

The control rooms shall be connected via VPN and IP configurations as well as LAN CAT6 cables to ensure a throughput of 1000Mbps/1gig is achieved.

The service provider must provide 24/7/365 support and assistance to the client regarding the network deployed.

The control room router must run secure firewall settings regarding traffic rules, port set up on site as well as connected devices to ensure streaming and uploading from camera to live display is seamless and secure.

SHE compliance officer must always be on site to ensure the highest safety standards.

4.1.5 Integration Description

4.1.5.1 Security Interfacing Controller.

The **Security Interfacing Controller (SIC) should be able to** interface various devices such as electric fence (energizer), pepper spray (master unit), CCTV cameras, Network video recorder, panic button/push button, local alarm outputs.

The **Security Interfacing Controller** is used to assist clients to deter, detect, deny and delay (4D's) any criminal activities that might happen in our infrastructure/building.

The security service provider to design and submit the proof of ownership patent for the Security Interfacing Controller (SIC) product. The system demonstration of the SIC will be mandatory for this tender.

4.1.5.2 I/O Alarm Monitoring Sub-System

An Alarm monitoring sub-system shall be provided to monitor specific hardwired alarm I/O points within the site, which shall be managed by the SIC system hardware. Such Alarms shall include but not be limited to the following:

- Doors contact monitored alarms.
- Windows contact monitored alarms only on the ground floor.
- Standby generator alarms.
- Surge Voltage alarms.

The alarm monitoring system control hardware (I/O points) shall be an integrated function of the door control module/contact as well as the multiple I/O control modules described in this specification.

4.1.5.3 Access Control Sub-System.

The Access Control requirement shall consist of two sub-components:

- Biometric & facial Logon of Control room workstations
 - Each Security Management System Operator Workstation/console shall be provided with individual login credentials for logging on to the console. Operator's commands and events shall be logged into the centralised database against the relevant Operators details.
- Biometric & facial Access Controlled Doors
 - Each Access Controlled door shall be equipped with a Fingerprint and facial reader as detailed in the specification.

The following functionality shall be provided by the Access Control System:

- Staff Time and Attendance Management
- Visitor Management

The access control system will control the movement of users through access points at critical RAF Access point such main doors. This will ensure that everyone entering and exiting the RAF infrastructure uniquely identifies themselves. Every person will be identified at access points by presenting a unique identity to a biometric or facial recognition reader. The access control system will be administered using the control room workstation.

The access control should consist of the below listed functionality but not limited to:

System Basic Function

System

Main Processor : Embedded processor

Network Protocol : IPv4; TCP

• OSSDP Protocol : Yes

Basic

Appearance : All-in-one

• Buzzer : Yes

Function

• Unlock : Fingerprint/Facial unlock

Period List :128

Performance User Capacity Ports

Performance

• Fingerprint sensor type: Optical

• Fingerprint Verification: 1: N

Capacity

• User capacity : 30, 000

• Finger Capacity : 10, 000

• Record Capacity : 150 000

Alarms General

Alarm

Anti-Pass back : Yes

• Temper Alarm : Yes

Intrusion : Yes

Duress Fingerprint : Yes

General

Power Adapter : Optional

Power Supply : 12V DC 1A

165 (Apply silica gel to gaps, for details,

4.1.5.4 Intercom Sub-System.

The IP Intercom sub-system hardware shall be integrated with the SMS/VMS via a high-level Interface (HLI). The full functionality of the system shall be integrated with the SMS/VMS to provide enhanced features including but not limited to:

Features

- 7" TFT Capacitive touch screen, 1024x600
- IPC surveillance
- Alarm integration
- High performance
- HD CMOS camera
- Zinc alloy panel, IP65 and IK10 rated
- ICR night vision and voice prompt
- · Video and audio messaging
- TCP/IP, and SIP
- Surface mounted

Technical Specification

System

Main Processor : Embedded

Processor Button Type : Mechanical

Interoperability : ONVIF; CGI

Network Protocol : RTSP; DNS; P2P; UPnP; RTP; RTMP; SIP; SSH; HTTP/HTTPS.

Station Call-In

Station Fault Analysis

Call In Divert

Call Answer

Call Cancel

Call-In Queuing

Tamper Alarm monitoring

Threshold Monitoring (Disturbance detection)

Individual station Speaker and Microphone sensitivity adjustment

The Intercom system shall enable the selection of any individual or group of intercom stations by any control room workstation within the site.

4.1.5.5 IP Based CCTV Sub-System

A fully IP based CCTV System shall be integrated with the SMS via a high-level Interface (HLI) at each workstation or server. The full functionality of the system shall be integrated with the SMS to provide enhanced features including but not limited to:

- Camera to Monitor commands
- Sequence to Monitor commands
- Sequence programming commands
- Pan, Tilt, Zoom commands
- PTZ preset select commands
- PTZ preset save commands
- Monitor Blanking commands
- Black screen technology

Camera Types that are not available as direct IP cameras shall be converted to IP via a single channel H264 IP Video Encoder mounted directly at the camera position.

4.1.5.5.1 IP Based Network Video Recording Sub-System

A fully IP based Video Recording System shall be integrated with the SMS whereby all images are stored on Digital Video Recording Servers installed within the various security equipment rooms in the site. NVRs shall be connected directly to the appropriate 24 Port managed switches within the local equipment cabinets.

The managed Ethernet switches shall be configured to limit the Video traffic onto the incoming 1Gb uplink ports on the switches, by restricting outgoing streams to those required for live video feeds based on Operator selection, and recorded video footage being reviewed by Central control workstations or the Operations room.

In order to minimize traffic on the 1 GB uplink ports, the allocated recording stream on each of the Direct IP cameras or IP Video Servers shall be assigned to the IP address of the Network Video Recorders within the local subnet.

The full functionality of the NVR system shall be integrated with the SMS to provide enhanced features including but not limited to:

- Individual Channel Record and Stop commands based on other sub-system conditions such as Intercom, CCTV and Locking.
- Channel Playback select
- Play
- Stop
- Pause
- Back
- Left Jump
- Right Jump
- Left Shift
- Right Shift
- Plus
- Minus
- Log
- Search

The search and playback site shall be an integrated function of the SMS and shall not require any third-party software platform to perform these functions.

Upon operator request the SMS system shall be capable of instructing the NVR system to playback video images to allow proper investigation of the visual event. The SMS management workstation shall be capable of recalling associated historical Video and Audio data based upon events logged to the event recording database on the severs.

System supervisors with the correct user level shall be able to query the event database as described in this specification and by double-clicking on a specific event shall be presented with the associated Video and Audio footage automatically.

4.1.5.6 Perimeter Intrusion Detection Sub-System

The Perimeter Intrusion Detection system shall be fully integrated with the Security Management System by means of a TCP/IP socket interface (High Level Interface), in order to carry out logical connections with other security sub-systems such as the CCTV and Digital Video recording systems. The operator shall be able to select a graphical layout of the entire site, which shall also be automatically activated upon an alarm event from the perimeter fence system.

The Security management system shall be capable of, but not limited to the following monitoring and control functions relating to Perimeter Detection:

- Non-Lethal shock energizer loop open circuit status
- Non-Lethal shock energizer loop short circuit status
- Non-Lethal shock energizer loop normal status
- Digital expansion Input status
- Field Node communication status
- Field cabinet tamper status
- Field Node logic monitoring status (Light on status)
- Field Node battery charger voltage
- Sensor alarm Acknowledge
- Loop alarm Acknowledge
- Sensor alarm Reset
- Loop alarm Reset
- Inhibit Digital Expansion Input alarm
- Inhibit Field kiosk Tamper alarm

Individual Sensor sensitivity setting

· Loop sensitivity setting

Mounted sensors detect cutting, climbing or vibrations

4.1.5.7Thermal Perimeter Protection System

The security service provider to ensure thermal cameras are installed on the perimeter fence to

detect any human crossing over the intrusion detection area and triggers the alarm on both perimeter

fence and local control room within the building.

Installation of short & long-range thermal cameras along the RAF office fence to ensure that

intruders are monitored at night and during the day. Thermal cameras will provide a minimum of

coverage distance from 10m to 300m human detection; this will help in reducing the number of

cameras required.

4.1.5.8 Centralized UPS System

The Dual redundant centralized UPSs shall be fully integrated with the Security Management System

by means of a High-Level Interface (HLI), to provide operators and technicians with detailed status

and alarm conditions regarding the UPS systems.

Due to the Centralized configuration, the following detailed diagnostic information is required, and

shall be presented to the operator via a drop-down menu option within the SMS: (VMS)

UPS Data:

Manufacturer

Type

Serial Number

Software Version

Battery Data:

Battery Status

Battery charge level

Time Remaining in minutes

31

- Remaining Charge in %
- Battery Voltage
- Battery Current
- Battery Temperature in Degree C
- Battery Frequency
- Runtime estimation
- Replacement status

AC Input Data:

- Frequency per phase
- Voltage per phase
- Current per phase
- Power per phase

AC Output Data:

- Frequency per phase
- Voltage per phase
- Current per phase
- Power per phase
- Load % per phase

UPS Alarm Conditions:

- Battery Failure
- Battery Mode
- Fault Mode
- On Battery Power
- Low Battery

- Depleted Battery
- Over Temperature
- Input Supply Out of Limits
- Output Out of Limits
- Output Overload
- Bypass Active
- Bypass Inhibited
- Charger Failure
- Fan Failure
- Fuse Failure
- Diagnostic Test Failure
- Communications Failure
- Shutdown Pending
- Shutdown Imminent
- Power Surge/Spike events

Temperature & Environmental Monitoring

- Humidity sensors
- High ambient temperature

All alarm conditions shall be presented to the operator within the Fault queue as described in the specification.

4.1.6 System Configuration

The Interactive Security Management System (SMS) shall consist of multiple Operator Workstations, situated in the local, movement and central control rooms, and shall be networked by means of a Fibre Optic Large Area Network (LAN). This network shall be a dedicated security network for use by the SMS only.

The network interface between control rooms shall be by means of a Fibre Optic medium and shall form a star configuration from the Central Control room to each local control room to ensure local system autonomy.

All operator functions shall be controlled by means of a mouse and shall require the minimum movement and actions in order to complete a required task.

The audio sub-system components within each control room shall form an integral part of the control console, and shall not require the use of external control equipment such as PTT buttons, Operator Keyboards etc.

All security sub-system control functions shall be interlocked to ensure that functional procedures are adhered to.

The following Interlock functions shall be programmed as an integrated function of the Security Management System:

- The selection of Cameras prior to Door opening
- The selection of Intercom communications prior to Door opening
- Automatic Camera selects upon door opening
- Monitored door interlocking
- Automatic Camera selection upon Intercom activation
- Automatic Video recording on camera image activity
- Automatic event recording on individual operator activity
- Automatic Control console "LOG-OFF" on control room door
- Interlock capability according to operator log-in level

Alarm processing, alarm logging, alarm response data entry, graphical and text-based user interface, data entry, and other system management functions shall be performed by the SMS operator workstations connected to the SMS network. The operator workstations shall be located in the Central Control Room and other nominated locations.

All Distributed control modules as other than door control modules mounted in door headers are to be suitably mounted within secure enclosures to the approval of the Engineer and located in the respective buildings' security and communications equipment cupboard, or other secure area as approved by the Engineer.

The SMS shall utilize a single global database and shall be fully distributed to Distributed control modules connected to the SMS security network. All system operators shall have limited access to this information/data from the operator workstations. The level of access shall be controlled by use of the Biometric logon site available at each operator workstation.

The system shall be designed such that failure of any control module or operator workstation shall not functionally affect the operation of any other module, network, building, or Operator workstation connected to the SMS network.

Similarly, should any area lose power or suffer a loss in communications due to a break in the communications cabling, all Distributed control modules installed in that area shall continue to operate with no loss of functionality.

The SMS shall be fully programmable to allow:

- Response instructions to be displayed for all alarm types.
- Use dynamic (real time) graphics to display device status.
- Initiate operator commands via system tailored icons.
- Display building layouts in a graphical representation.
- Easy to follow menus with single key select options, to assist in the daily routine operations of each site.
- Allocate alarm priorities.
- Set Alarm response properties.
- Set lock/unlock and access/secure operating schedules.
- Generate User defined reports.

The contractor shall allow adequate time to liaise with the Engineer in order to detail any user specific requirements necessary for the operation of each building, system, alarm type, and alarm response configuration within the system. This shall include the configuration of maps, report formats, access schedules, alarm response instructions and the like, to suit each operator workstation.

The system shall be modular in design to allow for future system expansion with minimum cost and disruption to the existing operational system.

Tenderers are to specify the systems total capacity for future expansions. Such upgrades shall not render a redundancy in field hardware, the Central Processing Units or any major component of software, firmware or operating systems.

4.1.7 System Performance

4.1.7.1 Regional Control Room Workstations

The interaction delay between activating a control icon on any given operator workstation and the controlled point activation, (i.e., the lock), shall be no greater than one half of one second (0.5 sec).

The interaction delay between controlled point activation and any given operator workstation response either by activation of an audible alarm and/or the associate icon changing state (color) shall be no greater than one half of one second (0.5 sec).

The interaction delay between recalling any floor plan at any given operator workstation shall be no greater than one quarter of one second (0.25) second.

4.1.8 Minimum Hardware Requirements

4.1.8.1 Operator Workstations

Logon Reader: Vandal resistant Fingerprint verification reader or assigned login credential for automatic operator identification and login.

4.1.8.2 Management Workstation

A single Management Workstation shall be provided for a shift supervisor

Logon Reader: Vandal resistant Fingerprint verification reader or assigned login credential for automatic shift supervisor identification and login.

4.1.8.3 Server Workstation

A backup server at different location shall be provided.

4.1.9 Minimum Software Requirements

The Security Management System (SMS) software shall be design specifically for Integrated Security Management Applications, shall have a proven track record in the security industry, and shall be an Off-the-shelf package available through a distributor network. The off-the-shelf software shall be

programmed and tailored to the specified functions and features described herein and as indicated on the accompanying drawings.

The software shall convey an accurate floor plan of all areas that require display on the VDU. The software shall utilize the maximum resolution and colours of the SVGA monitor to enhance and simplify the displayed control and status information. Fast orientation and ergonomics will be the goal of the graphic displays.

The software shall provide integrated Biometric (Fingerprint) log-on security functionality with security level protection for all Mouse driven operator workstations. The Biometric (Fingerprint) logon site shall be capable of providing a one too many search algorithm to confirm operator credentials, without the need for entering user details or the swiping of a personal identification card.

There shall be a minimum of ninety-nine (99) levels of access and shall be expandable.

The software shall provide a user database within the Management workstation. The database shall support a minimum of twenty (20) users.

The software shall provide on-line utilities accessed through the Management workstation menu structure. These utilities shall provide the system supervisor with the ability to edit and update required data bases, system operating variable, report configuration and generation, alarm tags and point descriptions, etc. These utilities shall be protected by security levels and Biometric Access.

All software licenses shall be transferred to the Owner at completion of the project. This shall include but not be limited to all original installation disks, software manuals, equipment manuals, etc. All project specific applications software shall be transferred at the end of warranty period.

4.1.10 Operator Visual Display Units

4.1.10.1 **General**

The SMS system offered shall be capable of providing a multiple operator workstation environment, which may be configured for full or selective operational & functional monitoring and control of select areas and functions.

Operator workstations shall be located as indicated in the tender drawings issued.

The operator workstations shall operate in both text and graphics-based display. Any operator workstation enabled via the Biometric logon system shall be capable of controlling any area within the site providing the respective operator is authorized to do so.

The service provider shall be the only responsible company to implement changes to the system configuration and parameters, provided the service provider personnel has the necessary administration rights.

Entries, deletions, or modifications to the configuration shall be possible via the NVR and the server The following workstation functions shall be possible:

- Displaying point status information.
- Manually initiating control commands.
- Displaying system events and alarms.
- Displaying staff, visitor photographs for positive identification.
- Enrolling and verifying staff, visitor fingerprints. (Visitor Management module)
- Assigning operator access levels.
- Altering time schedules and creating new time schedules.
- Assigning or modifying time schedules for automatic operation of monitored doors/gates and redirection of duress alarms and indicators appropriate to the user's building/department/etc.
- Overriding time-controlled functions, momentarily, to allow operator control of doors/gates/and the like.
- Altering existing or assigning new descriptions or actions.
- Displaying status of all alarm sectors within the user's areas.
- Remotely operate doors/gates within their restricted areas.
- Displaying all appropriate building activities.
- Performing on-line backup copies of complete system without any degradation in the overall system performance.
- Displaying building alarms including duress push buttons, etc.
- Enable the viewing of Sub-system status icons to be enabled or disabled through a built-in menu structure.

All of the above shall be restricted by user level based on the fingerprint access to the operator workstation.

4.1.10.2 Monitors

All operator workstations shall be of robust construction, ergonomically designed to minimize operator fatigue.

4.1.10.3 Keyboards

Keyboards shall be supplied with all workstations, however, shall only be used for commissioning and maintenance purposes. All operator functions shall be performed by means of an optical mouse, with system screens being designed so as to require the minimum operator action. Functions such as audio system Push to talk, volume up and down control etc shall be possible by means of function keys on the SMS workstation.

4.1.10.4 Printer

A high-quality Inkjet printer shall be supplied, installed, and commissioned as part of this contract, for use with the management workstation in order to generate user defined management reports.

The printer shall incorporate a visible control panel with LED indication for power on, paper out and ready.

The printer shall be installed and configured into the Management workstation to be installed within the Central Control Room.

The printer shall be supplied with both power and data cables of suitable length to suit the location. In addition, the printer shall be set up complete with one full box of paper and two spare ink cartridges each.

4.1.10.5 Mouse

All mouse devices shall be optical of robust construction and suitably secured by an interconnecting cable.

4.1.10.6 Local Network

Each SMS workstation installed on the security LAN shall be capable of monitoring and reporting the status of all workstations on the network provided the shift supervisor login

Each control room operator should have his/her own workstation/console login credential that displays sites dedicated to him/her to control and monitor. The operator should be able to login at the different workstation with his/her own credentials and display sites dedicated to him/her.

All alarms triggered on site shall be displayed at the operator workstation/console as per dedicated site, the Security Management System should be capable of displaying pop up notification that consist of date, time, zone name, snapshot, live view & playback.

Failure of any operator workstation shall not prevent communication between any other workstation and the shift supervisor.

4.1.11 Software

4.1.11.1 General

Software shall be fully proven prior to being supplied, installed, tested and commissioned.

A list of reference sites at which the system software has been installed and operational at the date of the closing of this tender shall be provided.

The operator interface software shall incorporate English language descriptions and messages using both text-based menus and graphical/icon displays. All configurations (e.g. entering of alarm response properties, adjusting time schedules, user data, etc) shall be performed on-line without effecting the operation of the overall system.

Selective access to different operator functions shall be configured based on an operator's user level. User levels shall be determined from the Biometric verification each time an operator logs on to a workstation.

After any predefined period, if no operator activity has occurred at the operator workstations, that station shall automatically request Biometric verification failing which the station shall log off.

The time period before automatic logging off of workstations shall be user configurable, and shall be determined during commissioning of the system, in liaison with the Engineer.

4.1.11.2 Operating System

The operating system shall be a recognized and widely accepted standard operating system that shall suit the requirements of the system to be installed. The operating system shall be a real time multi-user/multi-tasking system such as Windows 10.

The operating system shall have proven and demonstrated reliable operation in the security environment.

Facilities shall be provided to store all programs on site and include all equipment necessary to backup and reload all system programs, including the operating system with all user specific system parameters.

4.1.11.3 System Access

- Operators shall be required to "log on" to operator workstations using the fingerprint reader or login password credential provided at each operator station before being able to access the system or user information, reset alarms or access any other system functions.
- Access to all workstations shall be limited through allocation of access levels.
- A minimum of 50 users and 10 User levels shall be available.
- Only users allocated with a user level of administrator shall be capable of the assignment and changing of passwords to all levels.
- Only users allocated with a user level of super administrator shall be capable of executing system configuration
- Each operator shall be allowed to access different operator commands and functions, and view certain individually assigned events, menus and functions based on their assigned user level.

4.1.11.4 Scheduling

The SMS/VMS system shall have the ability to configure schedules which do not restrict the user to pre-determined times, dates, or access levels. Access to and editing of these schedules shall be possible via the Management workstation.

The following schedules shall be configurable:

- Operator station Access times.
- Designated Alarm priority changes.
- Automated door locking/unlocking.

4.1.12 Archiving Historical Data

4.1.12.1 General

Archiving of historical data shall take place automatically according to a configurable time frame, which shall be set via the Management workstation. The archived files shall be stored on the Raid 1 servers situated in the Central Control Room equipment rack. The system shall be capable of storing archived history events files for a minimum period of 6 months and a normal daily recording for a minimum of 3 months.

Archived history files shall be read directly from the current or archived databases, without terminating or suspending the logging of current events.

4.1.12.2 Overwriting

The SMS software shall display an alarm to system operators warning of the imminent loss of archived data once the available disk space becomes full. The alarm shall occur with sufficient margin to allow the systems operator to execute a manual history file dump to the removable storage medium, if required (normally 80%). The percentage alarm set point shall be variable by the highest user level.

4.1.12.3 System Logging/Monitoring

The server workstations shall be capable of logging/monitoring the following data: Event related data:

Item	Database Fields		
1	Time and Date Stamp		
2	Equipment Type		
3	Snapshot		
4	Live view		
5	Playback		
6	Equipment Location		
7	Alarm/Event Type		
8	Alarm/Event Status		
9	Responsible Operator		
10	Operator Workstation Name		
11	Control Area		
12	Alarm/Event Priority		

Logged Events/Alarms:

Item	CCTV Events/Alarms		
1.1	CCTV Camera Activated		
1.2	CCTV PTZ Preset Edited		
1.3	CCTV Sequence Selected		
1.4	CCTV Sequence Edited		
1.5	CCTV System Hardware Failure		

1.6	CCTV System Communication Failure	
1.7	CCTV Alarm/Failure Acknowledged	

Item	NVR Events/Alarms		
2.1	NVR Channel Record Command		
2.2	NVR Channel Halt Record Command		
2.3	NVR System Hardware Failure		
2.4	NVR System Communication Failure		
2.5	NVR Alarm/Failure Acknowledged		

Item	Pepper Spray	
3.1	Pepper spray Arm function	
3.2	Pepper spray Disarm function	
3.3	Pepper spray alarm trigger	

Item	Power Grid		
4.1	Power grid failure		
4.2	Power grid Acknowledged		

Item	Electric fence		
5.1	Electric fences energize function		
5.2	Electric fence de-energize function		
5.3	Electric fence temper		
5.4	Electric fence temper Acknowledged		

Item	Intrusion Events/Alarms	
6.1	Intrusion Zone Activated	
6.2	Intrusion Zone Alarm Acknowledged	

Item	Panic Button Events/Alarms			
7.1	Panic Button Activated			
7.2	Panic Button Activation Acknowledged			

Item	Door Events/Alarms	
8.1	Door Open Command	
8.2	Door Closed Command	

4.1.12.4 System Reporting

The SMS shall be capable of performing SQL queries to the current or archived databases on the server workstations, format the data into customized reports which shall allow for the following:

- Display of all relevant information on any individual alarm point including alarm point identification by device number and alarm point status.
- Display all alarm points in the system in alarm or normal condition, as a single log.
- Display all emergency procedures applicable to any alarm type with corresponding alarm response actions and locations, per alarm device.

Reporting details shall include:

- · Alarm point status
- Alarm count per device.
- Alarm activity over a time period, selected by time and date.
- Display of selected alarm transactions based on alarm type and a calendar / time period.
- Display system operator's login/out history
- Display all operator commands entered by any or all operators based on time/calendar interval.

4.1.13 System Status

The SMS shall provide a menu option which, when selected, allows the system to display or print a list of current alarms, faults and conditions including the current fault conditions relating to SMS workstations, Distributes control modules, sub-system equipment hardware and associated devices. In graphical display mode the system shall display maps of each building complete with all internal levels and shall indicate all systems equipment status (i.e. locked/unlocked; open/closed; secure/access; isolated/active; alarm; tamper etc).

4.1.14 Current Alarm Window

The system shall provide an efficient and reliable alarm handling procedure and shall include both audio and visual annunciation, logging to the database and recording of the history file the device description, point description, location, time and date the alarm occurred.

The system software shall have the ability to route only selected alarms to specific operator workstations, allowing different locations or applications to be segregated on a building or system basis

All systems activity shall be presented to ensure proper actions have been taken and that no alarm is left unattended for any lengthy period. Alarms, which have been acknowledged, and not cleared/reset shall be clearly distinguishable.

Upon occurrence of an alarm(s) a user configurable audible tone shall sound at the operator workstation(s) and display an indication of the incoming alarm together with its priority.

If there are additional alarms to acknowledge the operator's station shall continue to sound the appropriate alarm tone, display the number of alarms waiting and identify the highest priority alarm.

The first alarm displayed shall be the highest priority alarm followed by the next highest priority alarm, etc.

All alarms are required to be separately acknowledged by the operator, by means of the mouse provided to acknowledge and reset each alarm separately.

Each time new alarms are created the system shall restack the alarms, so the operator sees them in order of priority.

The system shall also have an alarm/event status display available to the operator at all times on the operator's station.

The display shall be a real-time dynamic display of alarms in the active state, or system component failures.

An audit trail shall be used to log the actions taken by all system operators in response to an alarm. The audit trail shall note:

- When the alarm was activated.
- · When the alarm was acknowledged.
- Who acknowledged the alarm.
- When the alarm was restored.

The system shall record every user command, acknowledgment and log every operator login.

These transactions shall be routed to the history database.

Any alarm point which has been suppressed/inhibited by the operator shall on expiry of the time zone, or when unsuppressed by the operator, generate an alarm if the alarm point is in the "active" state. The report to the operator terminal shall be the same as described above.

Each alarm point shall have the site for a description of the alarm occurring. A Comprehensive outline for operator instructions, detailing all response actions shall be provided for all alarms.

4.1.15 Graphical Display

The SMS shall support a minimum of 150 colour maps for the purpose of displaying the location and real time status of any SMS input or output.

Graphical maps to be included within the initial configuration are to show in detail the following areas:

- Site plan showing all buildings and locations of all alarm points and operator workstations.
- A plan of each accommodation unit and building.
- All buildings devices/status/alarms and the like.
- All building tamper, communications, power and the like devices/status/alarms and the like.
- Other maps as required to clearly display all alarm input within buildings, or an external equipment cubicle locations.

Each site map shall be provided with a site plan key, which shall be common to all maps and situated in the same position. The key shall provide a means for the operator to quickly navigate through the entire site without the need to use standard navigation buttons or the main site map.

All device location and statuses shall be detailed on each map and coloured accordingly for ease of recognition of both the device type and real time status.

Text messaging identifying the device type, designation and alarm status shall be available in a "mouse over" or "windows hint" structure to minimize text on individual maps.

All text descriptors shall be approved by the Engineer prior to final acceptance. Liaise with the Engineer when programming these maps and other alarm/response descriptions.

Function key descriptions shall also be displayed as mouse over or windows hints.

Graphical map displays shall be of high resolution to enable accurate images to be represented. The configuration software shall provide a complete graphical design environment in order to design/edit building and site maps. A standard icon library shall be available to the designer in a window environment to enable efficient editing of existing maps by means of dragging and dropping equipment icons onto maps.

The system shall allow maps to be linked by means of navigation buttons to allow operators to "zoom" in or out to display either additional detail or an overall map.

Point status and locations shall be clearly displayed using colour-coded icons. All icons shall display real time status of each point with continuous updates being provided to any dynamic screen display.

Updates shall occur every 1 second or less. Icons shall be easily duplicated from a library of standard symbols at the configuration stage of developing the graphics.

4.1.16 Security Management Functions

4.1.16.1 Configuration

The SMS shall consist of a multiple screen representation of the entire site, which shall contain all of the necessary icons to control all security sub system equipment and devices situated throughout the site. All icons shall be activated with the use of a mouse. All icons and status indicators shall be a minimum of 5mm in diameter. All symbols shall provide status by colour and/or associated text.

4.1.16.2 Global Function Operations

Global function icons shall be located at the bottom of each graphic screen in the form of a footer window, which shall be common to all area maps. These icons, if active, shall control the global functions for the entire site.

4.1.16.2.1 System Control

Activating this icon shall cause the system to switch to the system control screen. The System Control screen shall provide a complete system diagnostic window for all sub-system components and communication systems within the entire site.

The diagnostic information shall include but not be limited to the following:

- UPS System (Per Zone):
- Load on Bypass
- · Load not protected
- Mains Failure
- Battery Fault
- Battery Low
- Surge Arrestor Failure

Control Hardware Status (Per Zone):

- TCP/IP communication Failure
- Control Network communication Failure
- Device Network communication Failure

- I/O Device Failure
- Communication Redundancy Integrity
- CCTV Matrix communication Alarm

Perimeter Protection System (Per Zone):

- Intruder Detection Alarm
- Video Motion Detection Alarm
- Door position switch violation alarm per DPS
- Controlled door security violation alarm per door
- Fire door security violation alarm per door
- Panic Button activated alarm per Panic Button
- Intercom Call in Failure per Intercom
- Operator Log on Violation

Where applicable all alarm conditions shall allow for operator acknowledgement and automatic selection of the alarmed zone layout screen.

4.1.16.2.2 Site Plan

The site plan shall consist of an interactive miniature layout of the entire site and shall be situated on the bottom Right-hand side of each operator screen.

The site plan shall provide the operator with a quick method to access an individual area to monitor and / or control.

The site plan shall also indicate critical operational information to the operator, which shall include but not be limited to the following:

- Fire Doors Unsecured
- Sally port Doors Unsecured
- Local Control Room Logon Status
- Local Control Room Call In
- Local Control Room Communication Alarm

4.1.16.2.3 Volume Up

Activating and maintaining this icon shall result in an increase in the operator console speaker volume. The icon shall change status to RED to indicate activation of this function.

4.1.16.2.4 Volume Down

Activating and maintaining this icon shall result in a decrease in the operator console speaker volume. The icon shall change status to RED to indicate activation of this function.

4.1.16.2.5 Select

Activating this icon shall result in either the first audio call-in or the currently selected audio call-in in the Audio Call-in Queue to be answered. Upon answering the call, the call shall be removed from the Audio Call In queue on all workstations.

4.1.16.2.6 Reset

Activating this icon shall result in either the first audio call in or the currently selected audio call-in in the Audio Call-in Queue to be reset. Upon resetting the call, the call shall be removed from the Audio Call In queue on all workstations.

4.1.16.2.7 Push To Talk

Activating and maintaining this icon shall results in the PTT function being activated within the audio control hardware. Releasing the icon resets the PTT function.

4.1.16.2.8 Call Central/Movement

Each regional operator workstation's footer window shall contain a "Call Central" and a "Call Movement" icon. When selected the SMS shall generate a high priority call-in at the Central or Movement Control operator workstations. Central and Movement control room operators shall respond to these call-ins in the same manner as with a normal intercom station call request.

Movement Control workstations shall be equipped with "Call Central" functionality only.

4.1.16.2.9 Audio Call in Queue

The SMS footer window shall contain an Audio Call-in queue site into which audio call requests are entered on a first in first out (FIFO) basis.

Upon receipt of an audio call-in from any intercom station in the site, the call-in detail listing the control area, equipment designation and the specific location of the calling intercom station shall be entered into a FIFO queue.

The call-in priority of each Intercom station within the site shall be individually configurable within the SMS, and station priority shall take preference over the FIFO queue. Intercom station call requests of higher priority e.g., Control room call-in requests shall be entered into the top of the queue.

The following methods of answering calls-ins shall be possible:

- Highlighting the desired call-in in the Audio queue and clicking on the "Select" icon in the footer window.
- Clicking repeatedly on the "Select" icon in the footer window, which shall automatically answer the oldest entry in the Audio queue.
- Double clicking on any entry in the Audio queue.

Any of the above-mentioned methods of answering a call-in shall reset the currently selected intercom station and enable the selected station as well as simultaneously removing the entry from the Audio gueue on all workstations.

When the local operator workstations are logged on, call-ins from the relevant local area shall be directed to the local workstation. In the event that the call is not answered within thirty seconds, the call shall be forwarded to the Central Control room workstations. Call-ins from local areas in which a local operator is not logged in, shall be forwarded immediately to the Central Control room operators.

4.1.16.2.10 Fault Queue

The SMS footer window shall contain a Fault queue site into which all security sub-system or control system faults are entered in order of priority.

Upon receipt of any security sub-system or control system fault, the relevant fault detail including the control area, equipment designation and the specific location of the fault shall be entered into the Fault queue.

The Fault queue is intended to provide a quick reference to the system operator of current alarms and is intended to replace functionality of the Current Alarm window described in the specification. Faults may be dealt with in the following ways:

By right clicking on a specific fault in the queue, the operator shall be presented with an "Acknowledge" option. Clicking on the Acknowledge option shall enter the acknowledgement into the event recording system and remove the fault from the queue.

By double clicking on a specific fault in the queue, the appropriate area map shall be displayed with the faulty equipment control icon clearly visible. The equipment icon shall display the fault detail in a mouse-over or "hint" fashion. Right clicking on relevant equipment icon shall present the operator with an "Acknowledge" option. Clicking on the Acknowledge option shall enter the acknowledgement into the event recording system and remove the fault from the queue.

Local operator workstations shall display alarms and faults related to the immediate area of control only. Central operator workstations shall display all current alarms within the entire site.

4.1.16.2.11 Synchronized Clock System

All operator workstations footer windows shall contain a synchronized digital clock, which indicates the Date and Time in 24 Hour mode. The accuracy of the synchronized digital clock system shall be within +- one (1) minute within a thirty (30) day period and shall be synchronized with the management workstation within the central control room each hour on the hour.

4.1.16.2.12 Operator Logon Details

The SMS footer window shall contain the detail of the currently logged on operator including full name and authorized user level.

4.1.16.3 Locking Operations

4.1.16.3.1 Door Position status (Monitored Only)

There shall be a status icon for each monitored door to indicate the position of the door. The status icon shall illuminate red when the door is unsecured and shall be green when the door is secure.

Each DPS icon shall provide mouse over or "hint" fashion detail of fault conditions relating to the equipment element as well as indicating the equipment designation.

A right mouse click over any icon shall provide the operator with an option to acknowledge an alarm condition as well as to view the engineering properties of the element provided the necessary user level is active.

4.1.16.3.2 Unlock Icon (Swing Door)

There shall be a single control icon with visual status indication for each controlled swing door lock. Activating the UNLOCK command shall apply power to the lock and activate the UNLOCK control cycle. The associated status icon shall indicate red when the incorporated lock status switch indicates an unsecured state and green when the lock is secured. Each door icon shall provide mouse over or "hint" fashion detail of fault conditions relating to the door.

A right mouse click over any icon shall provide the operator with an option to acknowledge an alarm condition, to inhibit a door open command, or to view the engineering properties of the element

provided the necessary user level is active. Inhibiting a door open command shall change the icon colour to blue.

4.1.16.3.3 Unlock / Lock Icon (Sliding & Fire Doors)

There shall be a single control icon with visual status indication for each controlled sliding door control mechanism. Activating the UNLOCK/LOCK icon shall either activate the UNLOCK cycle or the LOCK CYCLE of the mechanism in a toggle fashion. The associated status icon shall illuminate red when the door is unsecured and green when the lock is secured. Activation of this icon whilst the associated door is in travel shall cause the door to instantly change its direction of travel. Each door icon shall provide mouse over or "hint" fashion detail of fault conditions relating to the door.

A right mouse click over any icon shall provide the operator with an option to acknowledge an alarm condition, to inhibit a door open command, or to view the engineering properties of the element provided the necessary user level is active. Inhibiting a door open command shall change the icon colour to blue.

4.1.16.3.4 Open / Close / Stop Icons (Sliding gates)

There shall be three individual control icons with visual status indication for each controlled sliding gate. Activating the OPEN icon shall activate the OPEN cycle of the controlled device Activating the CLOSE icon shall activate the CLOSE cycle of the controlled device. Activating the STOP icon while the device is in the OPEN cycle or CLOSE cycle shall STOP the device. The associated status icon shall illuminate red when the locking device is unsecured and shall be green when the locking device is secured. Each gate icon shall provide mouse over or "hint" fashion detail of fault conditions relating to the door.

A right mouse click over any icon shall provide the operator with an option to acknowledge an alarm condition or to view the engineering properties of the element provided the necessary user level is active.

4.1.16.3.5 Emergency release

An Emergency release icon shall be provided for each housing unit day room area, which shall be used to initiate an automated opening sequence for Perimeter and Exercise yard doors. The opening sequence shall be configurable within the SMS in order to provide the most efficient opening sequence.

Activating this icon shall cause a pop-up window to appear on top of the graphically displayed area. Located within this window shall be text explaining to the operator that the activation of this function shall result in all controlled doors in the corresponding area to be released under an emergency

procedure. Also located within this window there shall be three icons namely "Open", "Close" and "Cancel". Activating the icon with the text "Open" text will activate the emergency open routine. Activating the icon with the text "Close" text will activate result in the same doors to simultaneously close. Activating the icon with the text "Cancel" shall remove the pop-up window and resume normal operation.

Once an emergency release routine has been activated the doors in the controlled area shall open and indicate an emergency condition by flashing the affected door icons in RED. The activation of the emergency close routine shall return the icon status to normal

4.1.16.3.6 Interlock Group Status

Activating a door lock icon that is part of an interlocked group of doors of which one or more doors are currently open, shall cause a pop-up window to appear on top of the graphically displayed area to indicate to the operator that an interlocked door is currently open and that the "Interlock Override" function should be activated to open the door.

Right clicking on the door icon shall provide the operator with an interlock lock group option, which when selected shall indicate each door contained in the relevant interlock group.

4.1.16.3.7 Interlock Override

Activating this icon shall enable the operator to override an interlocked door. The override function shall only remain active for 10 seconds. Activating a door control icon while override is active shall cause the associated door to unlock or open. When the override timeout limit is reached, the system shall return to normal operation.

During the active 10s period the Icon shall Flash RED to indicate activity.

4.1.16.3.8 Group Assign Icon

Activating this icon shall result in the door status icons of all doors in the corresponding Perimeter area to turn White. By toggling the door control icon whilst in the "Group Assign" mode shall toggle the door icon colour from White to Grey. A White icon shall indicate that the door is included in the controlled group, whilst a Grey icon indicates that it is not included in the group.

Upon activating the Group Assign icon for a second time the system shall return to a normal state and set the controlled door group into memory. Re-activation of the Group Assign icon shall cause the door control icons to indicate the current group assign status from memory.

4.1.16.3.9 Group Release:

Activating this icon shall cause a pop-up window to appear on top of the graphically displayed area. Located within this window shall be three icons namely "Open", "Close" and "Cancel". Activating the

icon with the text "Open" text will result in the doors included in the Group Assign memory to Open. Activating the icon with the text "Close" text will result in the doors included in the Group Assign memory to Close. Activating the icon with the text "Cancel" shall remove the pop-up window and resume normal operation.

4.1.16.4 Intercom Operations

4.1.16.4.1 Audio Control – Intercom Icon

The SMS shall provide a control icon with visual status indication for each intercom station within the entire site.

The icons shall be used to initiate or terminate an audio channel between the relevant control room operator's audio console and the selected intercom station.

Each Intercom station icon shall provide mouse over or "hint" fashion detail of fault conditions relating to the station as well as indicating the equipment designation.

The alarm detail displayed by the "hint" function shall include:

- Intercom station Tamper alarm
- Intercom station Threshold alarm
- Intercom station I/O alarm
- Intercom station Communications alarm

All alarm conditions shall be presented to the operator within the Fault queue as described in the specification.

A right mouse click over any icon shall provide the operator with an option to acknowledge an alarm condition, to inhibit an intercom station, or to view the engineering properties of the element provided the necessary user level is active. Inhibiting an intercom station shall change the icon colour to blue.

Intercom Station Call Up

Activating an intercom station icon shall open a talk path between the operator and the associated intercom station. The associated status icon shall illuminate yellow to indicate an active channel. Activating the intercom station icon a second time shall close the talk path and the status icon shall

Intercom Station Call-In

extinguish.

Upon activation of an intercom station call-in button located on the intercom station faceplate, the associated status icon shall illuminate and flash between yellow and grey with an audible tone. Activating the associated intercom station icon shall open a talk path between the operator and the staff station. The status icon shall illuminate yellow, and the audible tone shall silence. Once

complete, activating of the staff station icon a second time shall close the talk path and the associated status icon shall extinguish.

Automatic termination of an audio channel

Should multiple audio call ins be received by the local operator, the operator shall only be required to select each audio icon once. The second icon selected shall initiate an audio channel to the appropriate intercom station and initiate an automatic de-select command to the previous channel.

Delayed Call-In

Upon activation of an intercom station call-in button on an intercom station which falls under the control of a local control workstation, provided the particular operator is logged in, the call shall at first be routed to the local operator. If the local operator fails to respond to a call in within 60 seconds, the call is automatically routed to central control. This event is to be logged to the event recording system.

Audio Queue

An Audio Call-in queue site shall be provided as an integrated function of the SMS system.

4.1.16.5 Closed Circuit Television (C.C.T.V.) Operation

4.1.16.5.1 CCTV Fixed Camera Select

The SMS shall provide a single control icon with visual status indication for each CCTV Fixed Camera within the entire site.

Activating a camera icon shall cause the associated camera to be switched to the relevant operator's spot monitor via the IP Interface to the CCTV Virtual Matrix. By selecting another camera icon the spot monitor image shall change accordingly.

Camera to Monitor commands shall be configured within the SMS to determine the allocation of spot monitors to operator workstations.

Currently selected camera icons shall illuminate RED, whilst un-selected icons shall illuminate GREEN.

Each Camera icon shall provide mouse over or "hint" fashion detail of the camera designation.

A right mouse click over any icon shall provide the operator with an option to view the engineering properties of the element provided the necessary user level is active.

4.1.16.5.2 C.C.T.V. PTZ Camera Select

The SMS shall provide a single control icon with visual status indication for each CCTV PTZ Camera within the entire site.

Activating a PTZ camera icon shall cause the associated camera to be switched to the relevant operator's spot monitor via the High-Level Interface to the CCTV Matrix. By selecting any other camera icon, the spot monitor image shall change accordingly.

Camera to Monitor commands shall be configured within the SMS to determine the allocation of spot monitors to operator workstations.

Currently selected PTZ camera icons shall illuminate RED, whilst un-selected icons shall illuminate PURPLE.

Each PTZ Camera icon shall provide mouse over or "hint" fashion detail of the camera designation.

A right mouse click over any icon shall provide the operator with an option to view the engineering properties of the element provided the necessary user level is active.

4.1.16.5.3 C.C.T.V. PTZ Control

Once a PTZ camera icon has been selected by the operator, the SMS shall provide a pop-up control window, which shall allow the following PTZ control functions:

- Pan Left
- Pan Right
- Tilt Up
- Tilt Down
- Simultaneous Pan Left, Tilt Up
- Simultaneous Pan Right, Tilt Up
- Simultaneous Pan Left, Tilt Down
- Simultaneous Pan Right, Tilt Down
- Zoom In
- Zoom Out
- Continuous rotate Left
- Continuous rotate Right
- Rotate Stop
- Preset Position Select
- Guard tour initiate

4.1.16.5.4 C.C.T.V. PTZ Preset Save

The SMS shall provide the operator with a menu option which shall initiate a pop-up control window, which shall allow the following PTZ control functions:

- PTZ Camera Select (1-n)
- PTZ Preset Select (1-99)
- Pan Left
- Pan Right
- Tilt Up
- Tilt Down
- Simultaneous Pan Left, Tilt Up
- Simultaneous Pan Right, Tilt Up
- Simultaneous Pan Left, Tilt Down
- · Simultaneous Pan Right, Tilt Down
- Zoom In
- Zoom Out
- PTZ Preset Store Command
- PTZ Preset Load Command

The SMS shall be able to assign a specific PTZ Preset position to a standard fixed camera icon. The operator shall be able to click on a fixed camera icon, which shall load a PTZ preset position onto the appropriate spot monitor.

4.1.16.5.5 Sequence to Monitor Select

The SMS shall provide a single control icon with visual status indication for each Monitor within the individual control rooms.

A control room layout map shall be configured within the SMS, indicating the physical layout of the control desk and the CCTV monitors for the relevant SMS workstation.

The Monitor icon shall illuminate RED if a CCTV sequence has not been assigned to a specific monitor, and GREEN when a logical sequence has been assigned. The sequence number and description shall be displayed within the Monitor icon when a logical sequence has been assigned.

The operator shall be able to select the desired camera sequence by means of a Right mouse key function on the monitor icon.

Camera sequences may be assigned to any Monitor in the site including the spot monitors if required, however the manual selection of a camera image shall automatically override the sequence allocation.

4.1.16.5.6 Perimeter Detection - Black Screen Technology

The SMS shall provide integrated Black screen technology, which shall enable the automatic selection of relevant Perimeter Cameras to be allocated to Video Wall Monitors in the case of a Perimeter Detection alarm.

The SMS through its high-level interface to the Perimeter Detection, CCTV and NVR sub-system hardware shall make logical selections of camera images to the dedicated video wall monitors situated in the Central Control room.

Once a Perimeter alarm is triggered, the relevant zone fixed camera image shall be switched to the dedicated monitor along with the zone cameras on each side of the alarm zone.

The technology is required to ensure that all Perimeter alarm conditions are brought to the attention of the Central Control room operators immediately, and to present them with the necessary information to respond to the event.

The monitors to the left and right of the ALARM ZONE monitor ensure that an Intruder shall be visible should he/she move to the left or right of the immediate alarm zone. The PTZ preset position allows the operator to immediately view the alarm zone, and to follow the Intruder via the PTZ control functions.

4.1.17 Visitor Management Module

The Access Control hardware provided shall support the Visitor Management System, which shall be provided as a fully integrated module of the Security Management System provided under this contract.

The Visitor Management System Module (VMS), shall provide for a fully integrated Biometric based Visitor, Staff identification System providing the following components as a minimum:

- Visit Booking
- Visitor, Staff Enrolment
- Visitor, Staff Verification
- Visitor, Staff location tracking

- Visitor Management
- Staff Management (Time & Attendance)
- Integration to Security Management System

4.1.17.1 System Components

The base system shall consist of the following components, however, shall be indefinitely expandable to provide additional Visitor points, staff tracking points, as may be required.

- Visitor Enrolment stations (General or Visitors entrance gate).
- Visitor Verification stations
- Management Administration station (Administration building).

4.1.17.2 Component Description

4.1.17.2.1 Visitor Enrolment Station

The Visitor Enrolment Station shall consist of a dedicated PC workstation situated at the general or visitor's entrance. The station shall consist of a PC, fingerprint reader, Camera, adhesive label printer and a storage tray for temporary Visitor cards.

The station shall be used to enrol visitor information into the system, and to print and issue a temporary Visitor identification card to each visitor, which shall contain the visitor details with a bar code for database indexing.

4.1.17.2.2 Visitor Verification Station

Visitor Verification stations shall be installed in each Visitor area e.g. Contact and Non-Contact Visitor and shall consist of a PC workstation and a fingerprint reader.

The station shall be used to verify a visitor's identity both upon entering and leaving the Visitor area.

4.1.17.2.3 Management Administration Station

The Management station shall be installed within the Administration building, and shall consist of a PC workstation, fingerprint reader, Camera, LaserJet reporting printer and a Desktop Colour PVC identification card Printer.

The station shall be used to enrol staff members onto the system.

Staff members shall have their picture and fingerprints captured and shall be issued with a permanent staff access card, which shall be required to enter and leave the site.

4.1.17.3 System Description

In summary the objective of the system is to provide the following managerial functions within the site:

- The management and tracking of staff.
- The management and verification of Visitors and the recording of visits.

4.1.17.4 Typical Station Allocation

Station	Station Type	Building	Primary Function
Nº		Allocation	
1	File Server	Administration	Central file server (RAID 5 configuration).
2	Enrolment	Entrance/Guardho	Enrolment of Visitors
		use	Issuing of photo passes
			Adding to visitor count
			Search and display red list for banned visitors
			Login of Visitors to site
			Logout Visitors from site
3	Verification	Visitor	Positive identification of visitors in and out of the
			site.

4.1.17.5 Installation Specifications

- Cameras to be wall mounted approx. 1.8m from subject and above head height.
- If possible, natural daylight from behind camera provides the best illumination
- Plain or light-coloured background (recommended –blue or light grey)
- Photographic strip lighting (white light illumination) to replace fluorescent strip lighting to eliminate yellow tones.

4.1.17.6 Environmental Conditions

The following environmental issues shall be taken into consideration

Temperature

o To avoid overheating of the PCs, air conditioning equipment shall be provided.

Humidity

The contractor shall ensure that the humidity shall be maintained within the manufacturer's specification and controlled via the internal air conditioning. The tenderer shall ensure the adequacy of the current air conditioning system and make allowances to replace under rated units.

Anti-Static

Adequate measures shall be taken to discharge any possible static at installation points. An
installation specific survey with a list of recommended protection measures shall be required
from the contractor.

Power Supply

 The system shall make use of a 240V AC source. The tenderer shall allow for a suitable uninterruptible power supply for each station capable of providing 35min of backup power.

4.1.17.7 Training

A comprehensive operator-training programme shall be provided and shall cover all aspects of the Management system so as to provide first line local support to operators both operational and managerial.

The training shall include the following topics as a minimum:

4.1.17.7.1 Software

- System overview
- Pre-booking Visits Procedure
- Visits Orders
- Logging onto the System
- Enrolment procedure, and the understanding of fingerprint technology
- Verification Points and Procedures (In and Out)

- Red List Notification
- Visits Notification
- Visitor Enrolment
- Visitor Pass & ID Card Design
- System Maintenance
- · Reporting and Enquiries

4.1.17.7.2 Hardware

- PC System
- Components and field replacements
- Access Control Terminals
- Printers & Print heads

4.1.17.7.3 Support

- Trouble Shooting Problems / Queries
- The Support Program and Support Procedures
- Support Communications
- Environmental Issues

4.1.18 Maintenance and Spare equipment

The contractor shall provide 10% spares of all system modules, control modules, door modules including peripheral equipment, with a minimum of one modules of each type.

The contractor shall provide the Using Agency with the following:

One printed copy of all application source code that is specific to this project, including comments: I/O lists, binding lists and a complete instruction document detailing the replacement of each module type.

One copy of all application source code that is specific to this project in digital format (CD Rom or DVD). The files contained shall include both compiled and un-compiled source code.

The contractor shall demonstrate that the un-compiled source code contained on the digital media is the current version of the code contained in the system modules.

One system-programming device to facilitate control module replacement and/or expansion.

4.1.19 CCTV & Access Control Solution (Integrated Security Solution)

The service provider must supply and install a complete and working RAF regional office PRASA House, 1040 Burnet Street, Hatfield Pretoria.

The chosen service provider is required to supply the below services for this project:

Install the above-mentioned equipment to form the new access control and surveillance system based on the service provider **preferred OEM**.

It is important to note that the requirement of the total scope is not only to do the installation but to provide a complete solution which must include all earth / civil works, decommission of existing system, removing of any building rubble and to clean up the work area.

A new biometric / facial recognition access control system. The service provider is liable for the design, supply, installation and maintenance of the complete system.

Where containment for cabling is needed, the service provider will be responsible for repairing the area that was damaged during the laying of the containment.

Where containment is buried underneath the surface, steal containment MUST be used and shall be at least 300mm depth.

All cabling, including 220VAC power cable must be installed by the service provider to the closet electrical outlet. If connection is required to the electrical circuit of the University, the University's electricians will assist in providing a power point(s). A dual pole isolator needs to be provided as well as a 25A breaker.

Network cabling (CAT6 and Cat6A) will **BE** required and will be done according to the RAF's network cabling specification standard; thus all network points will be catered for. The service provider is not to compromise the network infrastructure or its containment as it will void the warrantee. Any damage or repairs regarding the network infrastructure will be for the service provider's account and they must then engage with the current network service provider to settle the repair cost or replacement cost.

Any cabling needed, except for the network cabling (CAT6/ CAT 6A), must be installed by the service provider according to the relevant equipment manufacturer's specifications.

All biometric terminals must be secured on a mild steel mounting bracket and rain/sun shield with no loose wires or openings visible.

As the Access Control Terminals will be primarily used for face recognition access control a suitable height must be used.

The service provider will be responsible for all programming and configuration of EACH component. All information e.g., VLANs, IP addresses, usernames, passwords, etc. will be communicated through to the successful service provider.

As stated, this is a design, supply, install, commission and maintenance solution, thus when the service provider is done, the system must be ready to be used as turnkey, every component had

already been programmed and configured, this includes the configuration on the ALL Servers.

The quotation provided by the service provider MUST be complete in all aspects as there will be no additional allowances made for additional costs.

Absolutely NO changes will be made to equipment specification once the official purchase order has been issued. In the scenario where equipment is not available for some reason, a change request will be made and submitted to the Supply Chain Management for approval.

All licenses, software, documentation, and cabling needed to program and configure the system need to be handed to the RAF prior to signing off the project. All licenses are to be added to the NEW server license.

All removed equipment, e.g., cameras, access control terminals etc., remains the property of the RAF and must be delivered to the security technician. A complete project plan needs to be provided where the time span of the project is detailed.

All equipment and labour regarding to the installation criteria MUST carry a full 1-year warrantee from the date of completed installation. A warrantee certificate must be signed and accompanied by all the documentation.

A completion certificate issued by the service provider must accompany the documentation The requirement is summarized as follows:

- Civil works for Cleaning and Marking of manholes, draw pits and building entries.
- Rebuilt and/or repair existing manholes and draw pits.
- Excavation of trenches for underground cable routes.
- Laying of new underground pipes and repair of existing underground pipes.
- Hauling and termination of Fibre Optic cables where necessary.
- Supply and Installation of Equipment Cabinets.
- Supply and Installation of internal ducting and trays.
- Hauling and termination of CAT6A F/UTP
- Supply and Installation of cameras
- Supply and Installation of access control units at gate
- Supply and Installation of boom gates
- Supply and Installation of gate motor
- Supply and Installation of number plates recognition system
- Supply and Installation of access control units at doors

- Supply and Installation of perimeter fence and cameras
- Supply and Installation of strobe lights and alarm
- Supply and Installation of smart surveillance monitoring system
- Supply and Installation of switches and NVR
- Commissioning.
- · Removal of redundant hardware and cabling.
- Compilation of documentation.

4.1.20 Scope of Work Comprise of The Following Areas

- Location 1: ground floor, gates and outside building
- Location 2: 1st floor west
- Location 3: 1st floor east
- Location 4: 2nd floor west
- Location 5: 2nd floor east
- Location 6: 3rd floor west
- Location 7: 3rd floor east
- Location 8: guard house 1 main gate
- Location 9: guard house 2 visitors
- Location 10: basement / underground parking
- Location 11: perimeter fence
- Location 12: civil works
- Location 13: control room and security server room

4.1.21 Installation of Solar System, Backup Power & Electrical Solution

Scope of Work for Solar Installation

Site Assessment & Evaluation

- Survey: Conduct a site survey to assess the location's solar potential, shading analysis, roof conditions, or ground area (if applicable).
- Load Analysis: Evaluate the customer's energy consumption and determine the backup load requirement (e.g., which appliances or systems need to be supported during an outage).

- System Sizing: Based on the energy needs, decide the appropriate size of the solar array and battery backup system
- Engineer: to assess the roof structure and analysis if it can take panels and to identify the weight it can carry.

System Design

- Solar Array: Design the solar panel system considering available space, energy requirements, and optimal panel positioning for maximum sunlight exposure.
- Battery Storage: Choose and size battery banks based on desired autonomy (how long the system should run during an outage).
- Inverter Selection: Select the correct inverter and ensure it is compatible with both the solar array and the battery backup system.

Permitting and Approvals

- Local Permits: Obtain necessary permits from local authorities, which may include zoning, electrical, or building permits.
- Utility Approval: If connecting to the grid, approval from the local utility may be required, particularly if net metering is involved.

• Equipment Procurement

- Solar Panels: Order high-quality solar panels suitable for the region's climate and energy needs.
- o Batteries: Purchase appropriate storage batteries (e.g., lithium-ion, lead-acid, etc.).
- Inverters and Controllers: Acquire inverters, charge controllers, and any necessary accessories like disconnects or switchgear.
- Mounting Systems: Ensure robust mounting solutions are available for roof or ground installations.

Installation

- Solar Panel Mounting: Install the mounting system on the roof or ground and secure the panels.
- Wiring and Connections: Run wiring from the panels to the inverter, battery storage, and the electrical distribution panel, ensuring compliance with electrical standards.
- Inverter Installation: Install the inverter and make electrical connections to the system, including integration with the grid (if required).
- o **Battery Storage System**: Set up the battery bank and connect it to the system.

 Backup Integration: Ensure the system is designed to automatically switch to battery backup in case of power failure and verify the load transfer mechanism works as intended.

System Testing and Commissioning

- Functionality Test: Perform a test to ensure the solar panels, inverter, and batteries are functioning correctly.
- Backup Test: Simulate a power outage to confirm that the battery backup operates as expected and supports critical loads.
- Monitoring Setup: Set up a remote monitoring system, if applicable, to track solar production, battery status, and system performance.

Training and Handover

- User Training: Train the RAF security officials on the system operation, maintenance, troubleshooting and issue the certification to the trained officials.
- Documentation: Provide the customer with CoC documents, system drawings, manuals, warranty details, and all necessary documentation, including the system design and installation report.

• Post-Installation Support

- o **Maintenance**: Offer ongoing support for system monitoring, maintenance, or troubleshooting.
- Warranty Coverage: Provide warranty information for panels, batteries, and other components.

This comprehensive scope ensures that the solar backup system is tailored to meet both current and future energy needs, while adhering to local regulations and ensuring proper functionality.

Lighting Solution Installation

The **scope of work** for a lighting solution installation defines all the tasks involved in designing, supplying, and installing lighting systems for residential, commercial, or industrial purposes. Here's a typical breakdown:

Project Consultation & Assessment

- Initial Consultation: Meet with the client to understand their lighting needs, preferences, and objectives (e.g., energy efficiency, aesthetics, security, task lighting).
- Site Survey: Conduct a detailed site survey to assess the space, including existing lighting conditions, layout, and any specific requirements or challenges.
- Lighting Goals: Discuss and document key goals, such as ambient lighting, accent lighting, task lighting, or emergency lighting.

Design & Planning

- Lighting Design: Develop a customized lighting design plan that includes:
 - Layout: Determine the best placement of light fixtures, switches, and dimmers to achieve optimal light distribution and functionality.
 - ➤ **Fixture Selection**: Recommend suitable lighting fixtures (e.g., LED, CFL, incandescent, pendant, track, recessed, outdoor, etc.) based on client needs and energy efficiency goals.
 - ➤ **Lighting Controls**: Select appropriate control systems, such as dimmers, motion sensors, timers, or smart lighting solutions (e.g., smart bulbs, automated systems).
 - Lighting Levels: Calculate appropriate light intensity and brightness for each area (e.g., ambient, task, and accent lighting levels).
 - ➤ Energy Efficiency: Incorporate energy-efficient options, such as LED lighting or daylight sensors, to meet energy-saving targets.
- Electrical Design: Prepare an electrical layout that includes wiring diagrams, load calculations, and power supply considerations for the lighting system.
- Compliance & Standards: Ensure the design complies with local electrical codes, building codes, and lighting standards

Procurement & Material Ordering

- **Lighting Fixtures & Controls**: Order and procure all necessary lighting fixtures, bulbs, dimmers, switches, sensors, and control systems.
- **Electrical Components**: Purchase wiring, junction boxes, connectors, and any other electrical materials needed for installation.
- Specialized Equipment: If applicable, procure any specialized equipment for outdoor lighting, emergency lighting, or custom designs.

Installation

Pre-Installation Preparation

- Power Shutdown & Safety: Ensure the power is turned off before starting any electrical work and adhere to safety protocols (lockout/tagout).
- Site Preparation: Prepare the installation site by clearing obstacles and ensuring easy access to electrical panels, junction boxes, and installation areas.

• Fixture & Electrical Installation

- Install Fixtures: Mount and secure light fixtures at the specified locations, including ceiling lights, wall sconces, track lighting, or outdoor lighting as per the design.
- Wiring: Connect all necessary wiring from light fixtures to the power supply, following the electrical layout and ensuring proper wire gauges and connections.
- Lighting Controls: Install lighting controls (e.g., dimmers, motion sensors, timers, smart switches) and integrate them with the fixtures as required.
- Electrical Panel Integration: Connect the lighting system to the electrical panel, ensuring circuit protection with the appropriate breakers.

Outdoor Lighting Installation (if applicable)

- Outdoor Fixtures: Install any exterior lighting, such as floodlights, pathway lights, or landscape lighting, ensuring they are weatherproof and properly wired.
- Power Source: If using low-voltage lighting or solar-powered systems, ensure the appropriate power supply or battery systems are installed.

System Testing & Commissioning

- Testing: Perform functionality tests to verify that all lighting fixtures, switches, dimmers, and control systems are working as intended.
- Light Levels Check: Verify the lighting intensity in each area to ensure it meets the design specifications.
- Control Functionality: Test all control systems (e.g., dimming, motion sensors, timers, smart controls) to ensure they are operating correctly.
- Troubleshooting: Address any issues such as flickering lights, incorrect dimming, or nonfunctioning controls during the testing phase.

Client Training & Handover

- Client Orientation: Provide the client with a walkthrough of the system, explaining how to operate the lighting controls, dimming features, and any smart lighting systems.
- User Manuals: Provide manuals or documentation for the lighting fixtures, controls, and smart systems for reference.
- Energy-Saving Tips: Offer guidance on energy-efficient usage and how to maximize the lifespan of the lighting system (e.g., replacing bulbs, adjusting brightness).

• Post-Installation Support & Maintenance

o **Warranties**: Provide information on warranties for fixtures, bulbs, and electrical components.

- Maintenance: Offer optional maintenance services, such as regular bulb replacements, cleaning of fixtures, or troubleshooting any future issues.
- System Monitoring (if applicable): If smart controls or automated systems are installed,
 offer monitoring services for energy usage, scheduling, or remote-control functionality.

Compliance & Documentation

- Inspection & Certification: If required, provide documentation of the work completed and schedule a final inspection to ensure everything is up to code.
- As-Built Documentation: Provide the client with an as-built diagram that shows the final installation layout, and any modifications made during installation.
- Compliance with Standards: Ensure that all installed systems meet relevant local building and electrical codes and any energy certification standards.

This scope of work ensures a complete, efficient, and compliant lighting solution installation, from planning and design to post-installation support. It addresses both the technical and aesthetic aspects of lighting while focusing on energy efficiency and safety.

4.1.22 Installation Of Pepper Spray Installation

Scope of Work for the Supply and Deployment of Pepper Spray

• Project Overview

The objective of this project is to procure and distribute pepper spray for security personnel, law enforcement, or personal protection. The supplier must ensure the quality, compliance, and proper training for handling the product.

Scope of Work

Product Specifications

The supplier must provide pepper spray that meets the following criteria:

- Type: Non-lethal, handheld aerosol spray.
- Active Ingredient: Oleoresin Capsicum (OC) concentration between 10–15%.
- Spray Range: Minimum 3–5 meters effective range.
- Canister Size: Available in compact (50ml), medium (100ml), and large (150ml) sizes.
- o Dispersion Mechanism: Stream, fog, or gel-based options.
- Shelf Life: Minimum 3 years from manufacturing date.
- o Safety Features: Tamper-proof, child-safe, and with expiration date labelling.
- o Compliance Standards: Must meet SABS, ISO 9001, or relevant national security standards.

Supply & Distribution

- Supplier must deliver pepper spray to designated locations.
- Packaging should be sealed, labelled, and easy to store.
- Supplier must provide bulk supply options for security agencies.

Training & Demonstration (If required)

- Conduct a training session on the proper use and safety of pepper spray.
- o Cover legal guidelines and responsible use for security personnel.
- o Provide demonstration units for testing before bulk deployment.

4.1.23 Installation of Electric Fence

Scope of Work for Electric Fence Installation

Project Overview

This document outlines the scope of work for the installation of an electric fence at PRASA HOUSE. The objective is to enhance security by installing a fully functional, durable, and effective electric fencing system.

Scope of Work

Site Preparation

- Conduct a site survey to determine fence layout and potential obstacles.
- Clear vegetation and debris along the fence line.
- Mark fence post positions and confirm with the client.

Materials and Equipment

- > Supply and install high-quality electric fence wires, insulators, and tensioners.
- Provide sturdy fence posts (steel, wooden, or concrete).
- Install electric fence energizer and backup power system.
- Provide warning signs as per safety regulations.

o Installation

- Securely install and align fence posts.
- Mount and tension electric wires according to design specifications.
- Install insulators to prevent power loss.
- Set up an energizer and connect to power supply.
- Integrate fence with existing security systems (if required).
- Test the fence for voltage consistency and effectiveness.

Safety and Compliance

- Ensure compliance with local laws and industry standards.
- Install warning signage at required intervals.
- Conduct a safety briefing for the client and relevant personnel.

Testing and Commissioning

- Perform voltage and functionality tests.
- Demonstrate the system to the client.
- Provide training on operation and maintenance.

Handover and Documentation

- > Deliver as-built drawings (if applicable).
- > Provide warranty details and maintenance recommendations.
- Obtain client approval and sign-off.

Exclusions

- Civil works beyond fence post installation.
- Additional security system integration not specified in the contract.
- Ongoing maintenance unless specified in a service agreement.
- o Timeline
- The estimated completion time for the project is [Duration], depending on site conditions and weather.

4.1.24 Civil Works & Installation of Perimeter Camera Poles

Scope of Work

- o Civil Works
- > The contractor shall carry out the following civil works for the installation of camera poles.

Site Preparation & Excavation

- Conduct a site survey to determine pole locations based on security requirements.
- Clear and level the installation sites, ensuring a stable foundation.
- > Excavate holes for pole foundations according to the approved design specifications.
- Concrete foundation design
- Conduct wayleave or scanning of any existing services. The SP to submit the drawings and scanning report.

Foundation Construction

- Install reinforced concrete foundations for the camera poles.
- Ensure foundations meet structural requirements for wind resistance and weight stability.
- Cure concrete foundations as per engineering standards before pole installation.

Trenching & Cable Ducting

Excavate trenches for underground power and data cabling.

- Install HDPE or PVC conduits for cable protection.
- Backfill trenches and restore surfaces to original conditions (pavement, grass, or asphalt).

Camera Pole Installation

The contractor shall supply and install perimeter security camera poles with the following specifications:

Pole Specifications

- Material: Galvanized steel, corrosion resistant.
- Height: 3m 8m, as per site requirements.
- Base Plate: Flanged or embedded in reinforced concrete.
- Mounting Brackets: Adjustable brackets for camera alignment.
- Weight Load Capacity: Suitable for PTZ (Pan-Tilt-Zoom) and fixed cameras.

Pole Erection & Fixing

- Install poles using anchor bolts or direct embedding.
- Ensure proper vertical alignment and stability.
- Apply protective coating to prevent rust and corrosion.

> Electrical & Data Cabling

- Supply and install weatherproof electrical enclosures at pole bases.
- Route power and network cables from the control room to each camera pole.
- Install surge protection devices for electrical safety.
- Terminate and test all cables for continuity and connectivity.

> System Integration & Testing

- Mount CCTV cameras securely on poles.
- Align cameras for optimal coverage of the perimeter.
- Connect cameras to the security network and verify remote access.
- Conduct stability, night vision, and motion detection tests.

> Deliverables

- Completed site preparation & civil works.
- Securely installed perimeter camera poles.
- Properly routed power and network cables.
- Fully integrated and operational surveillance system.
- Final inspection and handover report.

Safety & Compliance Requirements

- All works must comply with local construction codes & safety regulations.
- Use PPE (Personal Protective Equipment) for all workers.
- Implement environmental protection measures to minimize site disturbance.
- Ensure non-disruptive installation in active security zones.

This Scope of Work ensures that the civil works and camera pole installation are completed to a high standard, providing a reliable and long-lasting perimeter surveillance system.

Support and maintenance

- a) The awarded service provider shall be required to sign a Service Level Agreement with the Department which will contain items such as the following but not limited to:
 - Monthly maintenance work on the total security system
 - Call out when required with acceptable response times.
 - Replacement of items that are not repairable must be provided approval by the project manager.

Skills Transfer and Training

- a. Detailed training for operation of the installed security products (products include operating of security equipment, software and any other items that will be installed as part of this contract) to be provided to all security personnel for all above-mentioned systems and infrastructure.
- b. Control room operator to receive job on training on the VMS platform installed.
- c. Technicians to be trained within the first six months of the contract.
- d. Both operators and technicians must attend the OEM training and be accredited by the OEM

This is to equip the operators with the skill to perform the following tasks:-

To monitor all the sites via the surveillance system on 24hrs basis

To respond to various types of alarms from different field devices

To react and process various types of alarms at real time

 a. Training manuals and/or standard operating procedures for all the systems and infrastructure should be supplied.

RAF reserves the right to verify all qualifications through the South African Qualifications Authority and to verify experience indicated on CVs with third parties.

> Data Storage Capacity

The following are the requirements of the data storage platform:

- NVR Hard drive
- Server Storage
- SD Cards

Data Centre

The data storage for alarm events should be at least the minimum (six) 6 months archiving

The data storage for 24Hrs recording should be at least the minimum (three) 3 months archiving

5.EVALUATION CRITERIA AND METHODOLOGY

The Evaluation Process shall be conducted under the following phases:

Phase 1: Initial Screening Process—At this phase, Bidders' responses are reviewed to determine whether they have responded according to the RAF RFB document. NB: **Compulsory Briefing Session.**

Note: Bidders who do not attend the Compulsory Briefing Session will be disqualified during the Initial Screening Process and will not be evaluated further on the Mandatory Requirements.

Phase 2: Mandatory Evaluation Process - At this phase Bid Responses are evaluated per the criteria specified in the Request for Bid (RFB) document for compliance to Mandatory Requirements. Bidder(s) who meet the Mandatory Requirements will be evaluated further on Technical Requirements.

Phase 3: Functionality Evaluation and Site Visit

Part A: Functionality Evaluation - Bidder(s) must meet the minimum threshold of 75 points out of 100 points allocated at Functionality Evaluation to be evaluated further on Part B (Site Visit).

Part B: Site Visit - Bidder(s) will be required to deliver a live demonstration of the proposed system in line with the requirements of this RFB document where the RAF officials will visit the bidders' offices. Bidders must achieve a minimum score of 75 out of 100 points to proceed to the next stage of the evaluation (Phase 4 Price and Specific Goals). Bidders who do not achieve a minimum score of 75 out of 100 points will not be eligible to proceed further with the evaluation and will be disqualified.

Phase 4: Price and Specific Goals evaluation - At this phase the bid(s) will be assessed as per the preferential point system specified in the RFB document.

5.1 Mandatory Requirement (Phase 2)

All bidders who do not comply with the mandatory requirements will be disqualified and will not be considered for further evaluation on the functional requirements.

Bidders must indicate by ticking ($\sqrt{}$) the correct box indicating that they Comply OR Do not Comply

5.1.1	PSIRA Registration	Comply	Not Comply
	The bidder must be registered with Private Security		. ,
	Industry Regulatory Authority (PSIRA).		
	The bidder must provide documentary proof in the		
	form of a valid PSIRA registration certificate.		
5.1.2	PSIRA Letter of Good Standing	Comply	Not
			Comply
	The bidder must be in Good Standing with Private		
	Security Industry Regulatory Authority (PSIRA).		
	The bidder must provide documentary proof in the		
	form of a valid PSIRA Letter of Good Standing.		
	NB: The letter of Good Standing must be valid at the		
	closing of this bid.		
5.1.3	OEM Letter	Comply	Not
			Comply
	The bidder must be an approved system integrator of		
	the Original Equipment Manufacturer (OEM).		
	The bidder must provide documentary proof in the form		
	of a valid System Integrator Letter / Certificate issued		
	by the OEM or Website Listing confirming that the		
	bidder is listed as a reseller on the OEM's website.		
	Note: In the case where the bidder provides the		
	website listing as the proof, the bidder must provide it		
	in the form of a screenshot of the OEM's website.		
5.1.4	Public Liability	Comply	Not
			Comply
	The bidder must have public liability Insurance of a		
	minimum value of R15 000 000.00.		
	The bidder must provide documentary proof in the		
	form of a valid insurance certificate / letter.		

5.1.5	Bank Rating	Comply	Not
			Comply
	The bidder must provide a bank rating showing the		
	Rating C from a Financial Service Provider (FSP) and		
	national Credit Regulator, stamped and signed by the		
	institution to indicate the financial capacity of the		
	bidder.		
	The bidder must provide documentary proof in the		
	form of the letter issued by the Financial Service		
	Provider.		
5.1.6	Demonstration of the Integrated Security Solution	Comply	Not
			Comply
	The bidder must be able to do a demonstration of the		
	integrated security solution upon request.		
5.1.7	Approved Data Centre Space	Comply	Not
			Comply
	The bidder must have current connectivity and hosting		
	space within a South African approved Data Centre.		
	The bidder must provide documentary proof in the		
	form of valid confirmation letter/s.		
5.1.8	Project Manager Experience	Comply	Not
	The hidder must provide a CV of the Draiget Manager		Comply
	The bidder must provide a CV of the Project Manager. The CV must partray a minimum of five (5) years'		
	The CV must portray a minimum of five (5) years'		
	experience in managing projects of a similar nature. The Project Manager must have the following		
	minimum qualifications and certifications:		
	National Diploma in Project Management.		
	- National Diploma in Project Management.		
	CCTV installation and maintenance		
	Certification.		
	Project Manager velid DSIDA registration		
	Project Manager valid PSIRA registration certificate (Grade A)		
	certificate (Grade A).		
	NB: The Project Manager must meet all the		
	requirements above in order for the bidder to comply		
	with this requirement. In the case where the Project		
	Manager does not meet all the requirements above,		

	the bidder will be deemed non-compliant with this		
	requirement.		
5.1.9	Electrician / Technician Experience	Comply	Not Comply
	The bidder must provide a CV of the Electrician / Technician. The CV must portray a minimum of five (5) years' experience in installation, configuration and maintenance of integrated access control system. The Electrician / Technician must have the following minimum qualifications and certifications: • Electrical Engineering N6. • Electrical Trade Test Certificate. • CCTV & Access Control installation and maintenance Certification. NB: The Electrician / Technician must meet all the requirements above in order for the bidder to comply with this requirement. In the case where the Electrician / Technician does not meet all the requirements above, the bidder will be deemed non-compliant with this requirement.		Comply
5.1.10	IT Specialist/ Network Engineer Experience	Comply	Not Comply
	The bidder must provide a CV of the IT Specialist / Network Engineer. The CV must portray a minimum of five (5) years' experience in ensuring network capabilities are at maximum and best performance, oversee network, constant configuration and constant maintenance to ensure routing protocols such as VPN's functions optimally. The IT Specialist / Network Engineer must have the following minimum qualifications and certifications: • National Diploma in Computer science.		

- SAAS (Software as a Service) Certification.
- Network Certification in line with the implemented network solution.

NB: The IT Specialist / Network Engineer must meet all the requirements above in order for the bidder to comply with this requirement. In the case where the IT Specialist / Network Engineer does not meet all the requirements above, the bidder will be deemed non-compliant with this requirement.

5.2Technical / Functional Criteria (Phase 3 - PART A)

Functionality is equal to a total of 100 points. The minimum threshold is 75 points. Bidders who score less than 75 points on functionality will be disqualified from further evaluation.

5.2.1	BIDDER'S EXPERIENCE IN PROVIDING INT	FEGRATED SECURITY SYSTEMS	POINTS			
	The bidder must have a minimum of five (5) years' experience in providing access control systems, CCTV cameras supply, installation, repair, maintenance and support. The bidder must submit reference letters with the following details: • The reference letters must be on client's official letter head bearing the name of the company at which the project was implemented.					
	The reference letters must indicate that the service provider implemented the project of similar nature.					
	The reference letters must be duly sign	ned by the client's representative.				
	The reference letter must have contact	person and contact details of the client.				
	 The reference letter must include the s format (date, month and year). 	tart and end date of the project in the				
	Please note: The RAF will not accept a list of references and/or references listed on a table other than signed reference letters. The RAF reserves the right to validate all reference letters submitted by contacting the client's representatives. The reference letter(s) must be in the form of individual letter(s) from the respective clients.					
	Experience: Scoring Matrix					
	Bidder's Experience in years	Score				
	Less than five years of 0 experience					
	Five years of experience	20				
	More than five years of experience 40					
	Please Note: • If the RAF cannot validate the client reference submitted by the service provider, the service provider will be scored a zero (0).					

	In case where the bidder has multiple running projects, experience will be			
	calculated on the calendar years.			
5.2.2	PROJECT MANAGEMENT METHODOLOGY			30
	The service provider must provide a presentable/detail	led proposal on how	to carry out	
	the project.			
	The following details must be clearly indicated in detail	l:		
	Accurate Project Timelines			
	Project control and monitoring plan.			
	Detailed Site feasibility study (attach relevant of the content of the conte	designs)		
	Roles & Responsibilities of project team			
	Risk Management strategy and measures			
	Project detailed execution plan.			
	Project detailed milestones & deliverables, actual project phases.			
	Project Communication Plan			
	Proposed methodology for delivering the project efficiently			
	Scoring Matrix]	
	Project Management Methodology	Score		
	Less than four (4) deliverables have been covered.	0		
	Four (4) to eight (8) deliverables have been	20		
	covered.			
	All nine (9) deliverables have been covered.	30		
5.2.3	SKILLS TRANSFER AND TRAINING PROGRAMME			30
	In terms of the training programme and ensuring skills	transfer in the RAF,	the bidder	
	will be responsible for establishing a training programm	ne aligned to the skil	l's	
	developmental needs of identified officials responsible	for operating the rel	evant	
	security products to be installed. The training program	me should be attach	ed and be	
	inclusive of:			
	Hands on practical training.			
	Develop a training programme with quantifiable measure	ures.		
	Relevant software training.			
	Provide evidence of training received by employees/or	fficials.		
	RAF Staff members to be trained:			

1.Control room operators: 6		
2.Technical staff: 3		
3.Shift Supervisors: 3		
Training Estimated period: 90 days.		
Training to be certified by the manufac	cturer or OEM (certificates of comp	etence issued
to individuals).		
Experience: Scoring Matrix]
Skills Transfer and Training	Score	
Programme		
No clear or well-defined skills	0	
transfer, and training		
programme was provided.		
A partial defined skills	15	
transfer, and training		
programme were provided		
but lacked the clarity and		
comprehensiveness		
necessary to address the		
skills transfer and training		
requirements.		
A well-defined skills transfer	30	
and training programme that		
demonstrates a clear		
understanding of the skills		
transfer and training		
requirements.		
Minimum Threshold	<u> </u>	7:
Total		10

NB: Bidders who score a minimum threshold of **75 out of 100** points for Technical/Functional Criteria will be considered for Site Visit (Phase 3 - Part B).

5.3 SITE VISIT (PHASE 3 - Part B)

Shortlisted bidders will be required to technically demonstrate to RAF on how the proposed system meets the technical requirements as contained in this RFB document. This will be delivered in a live technical demonstration of the proposed solution where the RAF officials will visit the bidders' offices. Bidders will be given a maximum of 5-day notice for the site visit.

NB: Only bidders that meet the minimum threshold of 75 points scored during the technical demonstration will be evaluated further for Price and Specific Goals (Phase 4).

The following will be evaluated during this phase:

Evaluation Scoring Matrix

Evaluation Criteria	Description	Scoring Matrix	Points
Control Room	Ergonomic layout,	0 Points -	5
Design	integration	Requirement not	
Layout and system	readiness,	Met	
functionality	scalability	5 Points -	
		Requirement Met	
Security Interfacing	Ability to interface		15
Controller	with more than two		
	system and		
	manage alerts		
	(Auto-alerting and	0 Points -	
	classification of	Requirement not	
	incidents,	Met	
	escalation	15 Points -	
	procedures)	Requirement Met	
System Streaming	Real-time	0 Points -	5
& Data	streaming	Requirement not	
Storage/Hosting	capability, data	Met	
	redundancy,	5 Points -	
	backup systems	Requirement Met	
Testing Local	Ability to trigger	0 Points -	5
Alarms Outputs	and monitor local	Requirement not	
	alarms	Met	
		5 Points -	
		Requirement Met	
Testing Power	Power resilience	0 Points -	10
System & UPS	and autonomy	Requirement not	
	testing	Met	
		10 Points -	
		Requirement Met	
CCTV System,	Camera coverage,	0 Points -	5

NVR & Access	clarity, positioning,	Requirement not	
Control	Recording quality	Met	
	and access	5 Points -	
	management	Requirement Met	
	features		
Perimeter Intrusion	Sensor	0 Points -	10
Detection System	effectiveness and	Requirement not	
	alert mechanisms	Met	
		10 Points -	
		Requirement Met	
Electric Fence	Power output,	0 Points -	10
System Design	safety compliance	Requirement not	
		Met	
		10 Points -	
		Requirement Met	
Pepper Spray	Deployment	0 Points -	5
System Design	effectiveness,	Requirement not	
	safety standards	Met	
		5 Points -	
		Requirement Met	
Power Grid Failure	System's automatic	0 Points -	5
Response	switchover and	Requirement not	
	backup response	Met	
		5 Points -	
		Requirement Met	
Panic Button	Accessibility and	0 Points -	5
Functionality	response time	Requirement not	
		Met	
		5 Points -	
		Requirement Met	
Intrusion Alarm	Detection accuracy	0 Points -	5
Events	and response	Requirement not	
	triggering	Met	
		5 Points -	
		Requirement Met	
PTZ Camera	Camera	0 Points -	5
Functionality	maneuverability	Requirement not	

Threshold			
Minimum			75
Total			100
		Requirement Met	
		5 Points -	
	message clarity	Met	
Functionality	emergency	Requirement not	
PA System	Audibility and	0 Points -	5
		Requirement Met	
		5 Points -	
		Met	
Quality	night vision quality	Requirement not	
Camera Video	Resolution and	0 Points -	5
		Requirement Met	
	precision	5 Points -	
	and tracking	Met	

ANNEXURE: A

EVALUATION SCORING MATRIX

Control room

CCTV Surveillance System capabilities	Live feed and recorded video with analytics capabilities.
Access Control System	Manages entries/exits using cards, biometrics, or Facial recognition
Alarm & Intrusion Detection System	Detects unauthorized access, fire, gas, etc.
Incident Management Software	Logs incidents, assigns response teams, tracks resolutions.
Visitor Management System (VMS)	Monitors and records all visitors entering premises.
Integrated Communication System	Radios, intercoms, VOIP systems, and panic buttons.
Command-and-Control Software	Unifies all security systems into a central dashboard.
Video Management System (VMS)	Centralized control of video feeds, playback, and storage.

Tracking Systems (GPS/Asset)	Tracks patrols, assets, or vehicles in real time.

5.4 SPECIFIC GOALS

The evaluation for Price and Specific Goals shall be based on the 80/20 or 90/10 PPPFA principle (whichever is applicable) and the points for evaluation criteria are as follows:

Evalu	Evaluation Criteria				
1.	Price				80/90
2.	Specific Goals				20/10
				Points	
	#	Specific Goal	Proof	Allocation	
	1	South African citizen who had no	CSD Report	10/5	
		franchise in national elections prior to			
		the introduction of the Constitution of			
		the Republic of South Africa, 1983			
		(Act 200 of 1983) or the Constitution			
		of the Republic of South Africa, 1996.			
		(Minimum 51% ownership or more)			
	2	Women	ID copy / CSD	8/4	
		(Minimum 51% ownership or more)	report		
	3	Persons with disabilities	Valid medical	2/1	
		(Minimum 51% ownership or more)	certificate issued		
			by an accredited		
			medical		
			practitioner		
Total		1	I	<u>l</u>	100

2. PRICING SCHEDULE

This annexure should be completed and signed by the Bidder's authorized personnel.

NB: PLEASE PROVIDE COST BREAK-DOWN FOR EACH DELIVERABLE IN SEPARATE PAGE WITH NO TERMS AND CONDITIONS.

All prices must be VAT inclusive and must be quoted in South African Rand (ZAR). The pricing will be added to determine the total cost of the services for comparison purposes to compare the bids.

Important: It is mandatory to indicate your total bid price as requested above. This price must be the same as the total bid price you submit in your pricing schedule. Should the total bid prices differ, the one indicated above shall be considered the correct price.

Bill of Quantities (BoQ) for Integrated Security System

BILL OF MATERIALS (BOM) DESIGN, SUPPLY, INSTALLATION COMMISSIONING AND MAINTENANCE of the Security CCTV, ACCESS CONTROL AND PARIMETER CONTROL INFRASTRUCTURE FOR ROAD ACCIDENT FUND

ITEM	DESCRIPTION	UNIT	ESTIMATED	UNIT	TOTAL
I I LIVI	DESCRIPTION	CIVII			IOIAL
			QTY	PRICE	
LOCA	TION 1: GROUND FLOOR, GATE AND OUTDOOR C	AMER	AS		<u>'</u>
		Laa			
1	Face Recognition Terminal (Card Capacity: 50 000,	No	36		
	Face Capacity: 10 000, Event Capacity: 150 000)				
	including mounting bracket/housing for complete				
	unit (including peripheral module)				
2	Fingerprint module to be connected to the above	No	36		
	Access Control Terminal Peripheral Module				
3	Suitable mild steel mounting bracket and rain shield	No	28		
	and Terminal				
4	Securi-Prod Backup Power Supply 13.6VDC -	No	2		
	5Amp				
5	12V, 18Ah Lead Acid Battery	No	2		
6	12V, 7Ah Lead Acid Battery	No	2		

7	Door Access Controller complete in case including	No	2	
	power supply			
8	Western Digital Surveillance, 10 TB 3.5" SATA	No	6	
	Hard Drive			
9	4MP 2.8mm AcuSense Powered-by- Darkfighter	No	21	
	Fixed Dome Network Camera including suitable			
	mounting bracket (must include built in			
	microphone)			
10	Intercom, 2 call button outstation with camera	No	2	
11	Intercom, Indoor Video Station	No	2	
12	elock Maglock Indoor 600lbs 272Kg 1224VDC	No	12	
	Monitored with LED (Part No: LK118)			
13	SanDisk Ultra memory card 128GB Micro SDXC	No	38	
	Class 10			
14	12V, 7Ah Backup Battery Lead Acid	No	1	
15	Central Door Access Channel License Software -	No	2	
	1Door (Extended system)			
16	Video 1 camera channel license	No	43	
	Extended system)			
17	FR_4MP IR Bullet WizMind Network Camera. 4-	No	2	
	MP 1/1.8" CMOS image sensor, low luminance,			
	and high-definition image.			
18	Resetable Emergency Door release	No	15	
19	Door closer, Light Duty	No	30	
20	4MP Vari-focal Bullet WizMind Network Camera.	No	12	
	ACUPICK OUTDDOR			
21	ACCESS SMART ANPR CAMERA 4MP 8-32MM	No	2	
	80-120K IR DISK 30M			
22	8MP 42x Starlight Dual Light Network Panoramic	No	3	
	PTZ Camera			
23	64CH, 4HDD NETWORK VIDEO RECORDER.	No	1	
	Supports AcuPick with up to 32 channels.			
24	20-Port Cloud Managed Desktop Gigabit Switch	No	4	
	with 16-Port PoE			
25	10-Port Unmanaged Desktop Gigabit Switch with 8-	No	2	
	Port PoE			
26	6U Cabinet	No	1	

28 GATE SCANNER (driver's license & license disc) No 8 29 Molex Certified CAT6A Cable Network Point No 81	
29 Molex Certified CAT6A Cable Network Point No 81	
Installation (End-to-End)	
30 IP Speaker No 1	
31 Network migrating and surveillance camera No 81	
configuration	
32 Removing of unused surveillance and access Lot 1	
control network cabling and	
containment including network switching	
33 Consumables (Nail-in Anchors, Screws, Silicone Lot 1	
sealant, Touch up paint, etc.)	
34 Focussing, alignment and testing of installed Lot 1	
surveillance cameras	
35 Project management, SHEQ File, PPE, Labour, Lot 1	
and Installation	
LOCATION 2: 1ST FLOOR WEST ACCESS CONTROL AND CAMERAS	
1 Face Recognition Terminal (Card Capacity: 50 000, No 12	
Face Capacity: 10 000, Event Capacity: 150 000)	
including mounting bracket/housing for complete	
unit (including peripheral module)	
2 Fingerprint module to be connected to the above No 12	
Access Control Terminal Peripheral Module	
3 Suitable mild steel mounting bracket and rain shield No 12	
and Terminal	
4 Securi-Prod Backup Power Supply 13.6VDC - No 2	
5Amp	
5 12V, 18Ah Lead Acid Battery No 2	
6 12V, 7Ah Lead Acid Battery No 2	
7 Door Access Controller complete in case including No 2	
power supply	
8 Western Digital Surveillance, 8 TB 3.5" SATA Hard No 4	
Drive	
9 4MP 2.8mm AcuSense Powered-by- Darkfighter No 11	
Fixed Dome Network Camera including suitable	
mounting bracket (must include built in	

	microphone)			
10	Intercom, 2 call button outstation with camera	No	2	
11	Intercom, Indoor Video Station	No	2	
12	elock Maglock Indoor 600lbs 272Kg 1224VDC	No	12	
	Monitored with LED (Part No: LK118)			
13	SanDisk Ultra memory card 128GB Micro SDXC	No	11	
	Class 10			
14	12V, 7Ah Backup Battery Lead Acid	No	1	
15	Central Door Access Channel License Software -	No	11	
	1Door (Extended system)			
16	Video 1 camera channel license	No	11	
	Extended system)			
17	Resetable Emergency Door release	No	6	
18	Door closer, Light Duty	No	6	
19	16CH, 4HDD NETWORK VIDEO RECORDER.	No	1	
	Supports AcuPick with up to 16 channels. Max.			
	decoding capability: 32 x 1080p@30 fps or 16 x			
	4MP@30 fps.			
20	20-Port Cloud Managed Desktop Gigabit Switch	No	1	
	with 16-Port PoE			
21	9U Cabinet	No	1	
22	Molex Certified CAT6A Cable Network Point	No	45	
	Installation (End-to-End)			
23	Network migrating and surveillance camera	No	45	
	configuration			
24	Removing of unused surveillance and access	Lot	1	
	control network cabling and			
	containment including network switching			
25	Consumables (Nail-in Anchors, Screws, Silicone	Lot	1	
	sealant, Touch up paint, etc.)			
26	Focussing, alignment and testing of installed	Lot	1	
	surveillance cameras			
27	Project management, SHEQ File, PPE, Labour,	Lot	1	
	and Installation			
LOCA	TION 3: 1ST FLOOR EAST ACCESS CONTROL ANI	CAM	ERAS	

1	Face Recognition Terminal (Card Capacity: 50 000,	No	12
	Face Capacity: 10 000, Event Capacity: 150 000)		
	including mounting bracket/housing for complete		
	unit (including peripheral module)		
2	Fingerprint module to be connected to the above	No	12
	Access Control Terminal Peripheral Module		
3	Suitable mild steel mounting bracket and rain shield	No	12
	and Terminal		
4	Securi-Prod Backup Power Supply 13.6VDC -	No	2
	5Amp		
5	12V, 18Ah Lead Acid Battery	No	2
6	12V, 7Ah Lead Acid Battery	No	2
7	Door Access Controller complete in case including	No	2
	power supply		
8	Western Digital Surveillance, 8 TB 3.5" SATA Hard	No	4
	Drive		
9	4MP 2.8mm AcuSense Powered-by- Darkfighter	No	11
	Fixed Dome Network Camera including suitable		
	mounting bracket (must include built in		
	microphone)		
10	Intercom, 2 call button outstation with camera	No	2
11	Intercom, Indoor Video Station	No	2
12	elock Maglock Indoor 600lbs 272Kg 1224VDC	No	12
	Monitored with LED (Part No: LK118)		
13	SanDisk Ultra memory card 128GB Micro SDXC	No	11
	Class 10		
14	12V, 7Ah Backup Battery Lead Acid	No	1
15	Central Door Access Channel License Software -	No	11
	1Door (Extended system)		
16	Video 1 camera channel license	No	11
	Extended system)		
17	Resetable Emergency Door release	No	6
18	Door closer, Light Duty	No	6
19	16CH, 4HDD NETWORK VIDEO RECORDER.	No	1
	Supports AcuPick with up to 16 channels. Max.		
	decoding capability: 32 x 1080p@30 fps or 16 x		
	4MP@30 fps.		

20	20-Port Cloud Managed Desktop Gigabit Switch	No	1	
	with 16-Port PoE			
	9U Cabinet	No	1	
21	Molex Certified CAT6A Cable Network Point	No	45	
	Installation (End-to-End)			
22	Network migrating and surveillance camera	No	45	
	configuration			
23	Removing of unused surveillance and access	Lot	1	
	control network cabling and			
	containment including network switching			
24	Consumables (Nail-in Anchors, Screws, Silicone	Lot	1	
	sealant, Touch up paint, etc.)			
25	Focussing, alignment and testing of installed	Lot	1	
	surveillance cameras			
26	Project management, SHEQ File, PPE, Labour,	Lot	1	
	and Installation			
LOCA	TION 4: 2ND FLOOR WEST ACCESS CONTROL AN	D CAM	<u>ERAS</u>	
1	Face Recognition Terminal (Card Capacity: 50 000,	No	12	
	Face Capacity: 10 000, Event Capacity: 150 000)			
	including mounting bracket/housing for complete			
	unit (including peripheral module)			
2	Fingerprint module to be connected to the above	No	12	
	Access Control Terminal Peripheral Module			
3	Suitable mild steel mounting bracket and rain shield	No	12	
	and Terminal			
4	Securi-Prod Backup Power Supply 13.6VDC -	No	2	
	5Amp			
5	12V, 18Ah Lead Acid Battery	No	2	
6	12V, 7Ah Lead Acid Battery	No	2	
7	Door Access Controller complete in case including	No	2	
	power supply			
8	Western Digital Surveillance, 8 TB 3.5" SATA Hard	No	4	
	Drive			
9	4MP 2.8mm AcuSense Powered-by- Darkfighter	No	11	
	Fixed Dome Network Camera including suitable			
	mounting bracket (must include built in			

	microphone)			
40	, , ,	NIa		
10	Intercom, 2 call button outstation with camera	No	2	
11	Intercom, Indoor Video Station	No	2	
12	elock Maglock Indoor 600lbs 272Kg 1224VDC	No	12	
	Monitored with LED (Part No: LK118)			
13	SanDisk Ultra memory card 128GB Micro SDXC	No	11	
	Class 10			
14	12V, 7Ah Backup Battery Lead Acid	No	1	
15	Central Door Access Channel License Software -	No	11	
	1Door (Extended system)			
16	Video 1 camera channel license	No	11	
	Extended system)			
17	Resetable Emergency Door release	No	6	
18	Door closer, Light Duty	No	6	
19	16CH, 4HDD NETWORK VIDEO RECORDER.	No	1	
	Supports AcuPick with up to 16 channels. Max.			
	decoding capability: 32 x 1080p@30 fps or 16 x			
	4MP@30 fps.			
20	20-Port Cloud Managed Desktop Gigabit Switch	No	1	
	with 16-Port PoE			
21	9U Cabinet	No	1	
22	Molex Certified CAT6A Cable Network Point	No	45	
	Installation (End-to-End)			
23	Network migrating and surveillance camera	No	45	
	configuration			
24	Removing of unused surveillance and access	Lot	1	
	control network cabling and			
	containment including network switching			
25	Consumables (Nail-in Anchors, Screws, Silicone	Lot	1	
	sealant, Touch up paint, etc.)			
26	Focussing, alignment and testing of installed	Lot	1	
	surveillance cameras			
27	Project management, SHEQ File, PPE, Labour,	Lot	1	
	and Installation			
LOCA	TION 5: 2ND FLOOR EAST ACCESS CONTROL AND	CAM	<u>ERAS</u>	

1	Face Recognition Terminal (Card Capacity: 50 000,	No	12
	Face Capacity: 10 000, Event Capacity: 150 000)		
	including mounting bracket/housing for complete		
	unit (including peripheral module)		
2	Fingerprint module to be connected to the above	No	12
	Access Control Terminal Peripheral Module		
3	Suitable mild steel mounting bracket and rain shield	No	12
	and Terminal		
4	Securi-Prod Backup Power Supply 13.6VDC -	No	2
	5Amp		
5	12V, 18Ah Lead Acid Battery	No	2
6	12V, 7Ah Lead Acid Battery	No	2
7	Door Access Controller complete in case including	No	2
	power supply		
8	Western Digital Surveillance, 8 TB 3.5" SATA Hard	No	4
	Drive		
9	4MP 2.8mm AcuSense Powered-by- Darkfighter	No	11
	Fixed Dome Network Camera including suitable		
	mounting bracket (must include built in		
	microphone)		
10	Intercom, 2 call button outstation with camera	No	2
11	Intercom, Indoor Video Station	No	2
12	elock Maglock Indoor 600lbs 272Kg 1224VDC	No	12
	Monitored with LED (Part No: LK118)		
13	SanDisk Ultra memory card 128GB Micro SDXC	No	11
	Class 10		
14	12V, 7Ah Backup Battery Lead Acid	No	1
15	Central Door Access Channel License Software -	No	11
	1Door (Extended system)		
16	Video 1 camera channel license	No	11
	Extended system)		
17	Resetable Emergency Door release	No	6
18	Door closer, Light Duty	No	6
19	16CH, 4HDD NETWORK VIDEO RECORDER.	No	1
	Supports AcuPick with up to 16 channels. Max.		
	decoding capability: 32 x 1080p@30 fps or 16 x		
	4MP@30 fps.		

20	20-Port Cloud Managed Desktop Gigabit Switch	No	1	
	with 16-Port PoE			
21	9U Cabinet	No	1	
22	Molex Certified CAT6A Cable Network Point	No	45	
	Installation (End-to-End)			
23	Network migrating and surveillance camera	No	45	
	configuration			
24	Removing of unused surveillance and access	Lot	1	
	control network cabling and			
	containment including network switching			
25	Consumables (Nail-in Anchors, Screws, Silicone	Lot	1	
	sealant, Touch up paint, etc.)			
26	Focussing, alignment and testing of installed	Lot	1	
	surveillance cameras			
27	Project management, SHEQ File, PPE, Labour,	Lot	1	
	and Installation			
LOCAT	TION 6: 3RD FLOOR WEST ACCESS CONTROL ANI	D CAM	<u>ERAS</u>	
1	Face Recognition Terminal (Card Capacity: 50 000,	No	12	
	Face Capacity: 10 000, Event Capacity: 150 000)			
	including mounting bracket/housing for complete			
	unit (including peripheral module)			
2	Fingerprint module to be connected to the above	No	12	
	Access Control Terminal Peripheral Module			
3	Suitable mild steel mounting bracket and rain shield	No	12	
	and Terminal			
4	Securi-Prod Backup Power Supply 13.6VDC -	No	2	
	5Amp			
5	12V, 18Ah Lead Acid Battery	No	2	
6	12V, 7Ah Lead Acid Battery	No	2	
7	Door Access Controller complete in case including	No	2	
	power supply			
8	Western Digital Surveillance, 8 TB 3.5" SATA Hard	No	4	
	Drive			
9	4MP 2.8mm AcuSense Powered-by- Darkfighter	No	11	
	Fixed Dome Network Camera including suitable			
	mounting bracket (must include built in			
		_		_

	microphone)			
10	Intercom, 2 call button outstation with camera	No	2	
11	Intercom, Indoor Video Station	No	2	
12	elock Maglock Indoor 600lbs 272Kg 1224VDC	No	12	
	Monitored with LED (Part No: LK118)			
13	SanDisk Ultra memory card 128GB Micro SDXC	No	11	
	Class 10			
14	12V, 7Ah Backup Battery Lead Acid	No	1	
15	Central Door Access Channel License Software -	No	11	
	1Door (Extended system)			
16	Video 1 camera channel license	No	11	
	Extended system)			
17	Resetable Emergency Door release	No	6	
18	Door closer, Light Duty	No	6	
19	16CH, 4HDD NETWORK VIDEO RECORDER.	No	1	
	Supports AcuPick with up to 16 channels. Max.			
	decoding capability: 32×1080 p@30 fps or $16 \times$			
	4MP@30 fps.			
20	20-Port Cloud Managed Desktop Gigabit Switch	No	1	
	with 16-Port PoE			
21	9U Cabinet	No	1	
22	Molex Certified CAT6A Cable Network Point	No	45	
	Installation (End-to-End)			
23	Network migrating and surveillance camera	No	45	
	configuration			
24	Removing of unused surveillance and access	Lot	1	
	control network cabling and			
	containment including network switching			
25	Consumables (Nail-in Anchors, Screws, Silicone	Lot	1	
	sealant, Touch up paint, etc.)			
26	Focussing, alignment and testing of installed	Lot	1	
	surveillance cameras			
27	Project management, SHEQ File, PPE, Labour,	Lot	1	
	and Installation			
LOCA	TION 7: 3RD FLOOR EAST ACCESS CONTROL AN	ID CAN	<u>IERA</u>	

1	Face Recognition Terminal (Card Capacity: 50 000,	No	14	
	Face Capacity: 10 000, Event Capacity: 150 000)			
	including mounting bracket/housing for complete			
	unit (including peripheral module)			
2	Fingerprint module to be connected to the above	No	14	
	Access Control Terminal Peripheral Module			
3	Suitable mild steel mounting bracket and rain shield	No	14	
	and Terminal			
4	Securi-Prod Backup Power Supply 13.6VDC -	No	2	
	5Amp			
5	12V, 18Ah Lead Acid Battery	No	2	
6	12V, 7Ah Lead Acid Battery	No	2	
7	Door Access Controller complete in case including	No	4	
	power supply			
8	Western Digital Surveillance, 8 TB 3.5" SATA Hard	No	4	
	Drive			
9	4MP 2.8mm AcuSense Powered-by- Darkfighter	No	14	
	Fixed Dome Network Camera including suitable			
	mounting bracket (must include built in			
	microphone)			
10	Intercom, 2 call button outstation with camera	No	3	
11	Intercom, Indoor Video Station	No	3	
12	elock Maglock Indoor 600lbs 272Kg 1224VDC	No	14	
	Monitored with LED (Part No: LK118)			
13	SanDisk Ultra memory card 128GB Micro SDXC	No	14	
	Class 10			
14	12V, 7Ah Backup Battery Lead Acid	No	4	
15	Central Door Access Channel License Software -	No	14	
	1Door (Extended system)			
16	Video 1 camera channel license	No	14	
	Extended system)			
17	Resetable Emergency Door release	No	7	
18	Door closer, Light Duty	No	7	
19	16CH, 4HDD NETWORK VIDEO RECORDER.	No	1	
	Supports AcuPick with up to 16 channels. Max.			
	decoding capability: 32 x 1080p@30 fps or 16 x			
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20	20-Port Cloud Managed Desktop Gigabit Switch	No	1	
	with 16-Port PoE			
21	9U Cabinet	No	1	
22	Molex Certified CAT6A Cable Network Point	No	52	
	Installation (End-to-End)			
23	Network migrating and surveillance camera	No	52	
	configuration			
24	Removing of unused surveillance and access	Lot	1	
	control network cabling and			
	containment including network switching			
25	Consumables (Nail-in Anchors, Screws, Silicone	Lot	1	
	sealant, Touch up paint, etc.)			
26	Focussing, alignment and testing of installed	Lot	1	
	surveillance cameras			
27	Project management, SHEQ File, PPE, Labour,	Lot	1	
	and Installation			
28	Intercom, Indoor Video Station	No	2	
29	elock Maglock Indoor 600lbs 272Kg 1224VDC	No	2	
	Monitored with LED (Part No: LK118)			
30	SanDisk Ultra memory card 128GB Micro SDXC	No	21	
	Class 10			
31	12V, 7Ah Backup Battery Lead Acid	No	1	
LOCAT	ION 8: MAIN / STAFF OPEN PARKING GATES	ACCES	SS CONTROL	
AND C	<u>AMERAS</u>			
1	Face Recognition Terminal (Card Capacity: 50 000,	No	3	
	Face Capacity: 10 000, Event Capacity: 150 000)			
	including mounting bracket/housing for complete			
	unit (including peripheral module)			
2	Fingerprint module to be connected to the above	No	3	
	Access Control Terminal Peripheral Module			
3	Suitable mild steel mounting bracket and rain shield	No	6	
	and Terminal			
4	Securi-Prod Backup Power Supply 13.6VDC -	No	3	
	5Amp			
5	12V, 18Ah Lead Acid Battery	No	3	
6	12V, 7Ah Lead Acid Battery	No	3	
7	GATE Access Controller complete in case including	No	3	
		<u> </u>		<u>l</u>

	power supply			
8	Western Digital Surveillance, 8 TB 3.5" SATA Hard	No	4	
	Drive			
9	4MP 2.8mm AcuSense Powered-by- Darkfighter	No	2	
	Fixed Dome Network Camera including suitable			
	mounting bracket (must include built in			
	microphone)			
10	Intercom, 2 call button outstation with camera	No	1	
11	Intercom, Indoor Video Station	No	1	
12	elock Maglock Indoor 600lbs 272Kg 1224VDC	No	1	
	Monitored with LED (Part No: LK118)			
13	SanDisk Ultra memory card 128GB Micro SDXC	No	8	
	Class 10			
14	12V, 7Ah Backup Battery Lead Acid	No	4	
15	Central Door Access Channel License Software -	No	3	
	1Door (Extended system)			
16	Video 1 camera channel license	No	9	
	Extended system)			
17	Resetable Emergency Door release	No	3	
18	Door closer, Light Duty	No	1	
19	4MP Vari-focal Bullet WizMind Network Camera.	No	2	
	ACUPICK OUTDDOR			
20	8MP 42x Starlight Dual Light Network Panoramic	No	1	
	PTZ Camera			
21	FR_4MP IR Bullet WizMind Network Camera. 4-	No	2	
	MP 1/1.8" CMOS image sensor, low luminance,			
	and high-definition image.			
22	4MP Vari-focal Bullet WizMind Network Camera.		2	
	ACUPICK OUTDDOR			
23	GATE SCANNER	No	2	
24	16CH, 4HDD NETWORK VIDEO RECORDER.	No	1	
	Supports AcuPick with up to 16 channels. Max.			
	decoding capability: 32 × 1080p@30 fps or 16 ×			
	4MP@30 fps.			
25	20-Port Cloud Managed Desktop Gigabit Switch	No	1	
	with 16-Port PoE			
26	9U Cabinet	No	1	

27	6U Cabinet	No	1	
28	Molex Certified CAT6A Cable Network Point	No	18	
	Installation (End-to-End)			
29	IP Speaker	No	1	
30	Network migrating and surveillance camera	No	18	
	configuration			
31	Removing of unused surveillance and access	Lot	1	
	control network cabling and			
	containment including network switching			
32	Consumables (Nail-in Anchors, Screws, Silicone	Lot	1	
	sealant, Touch up paint, etc.)			
33	Focussing, alignment and testing of installed	Lot	1	
	surveillance cameras			
34	Project management, SHEQ File, PPE, Labour,	Lot	1	
	and Installation			
35	Intercom, Indoor Video Station	No	2	
36	elock Maglock Indoor 600lbs 272Kg 1224VDC	No	2	
	Monitored with LED (Part No: LK118)			
37	SanDisk Ultra memory card 128GB Micro SDXC	No	10	
	Class 10			
38	12V, 7Ah Backup Battery Lead Acid	No	1	
39	CENTURION GATE MOTOR COMPLETE WITH	No	2	
	REMOTE CONTROL			
40	BOOM GATE	No	2	
LOCAT	ION 9: VISITORS / STAFF UNDER GROUND	PARK	INGN GATES	
ACCES	SS CONTROL AND CAMERAS			
1	Face Recognition Terminal (Card Capacity: 50 000,	No	2	
	Face Capacity: 10 000, Event Capacity: 150 000)		_	
	including mounting bracket/housing for complete			
	unit (including peripheral module)			
2	Fingerprint module to be connected to the above	No	2	
	Access Control Terminal Peripheral Module			
3	Suitable mild steel mounting bracket and rain shield	No	2	
	and Terminal			
4	Securi-Prod Backup Power Supply 13.6VDC -	No	2	
	5Amp			
5	12V, 18Ah Lead Acid Battery	No	2	
		<u> </u>		

6	12V, 7Ah Lead Acid Battery	No	2	
7	GATE Access Controller complete in case including	No	2	
	power supply			
8	Western Digital Surveillance, 10 TB 3.5" SATA	No	2	
	Hard Drive			
10	Intercom, 2 call button outstation with camera	No	1	
11	Intercom, Indoor Video Station	No	1	
12	elock Maglock Indoor 600lbs 272Kg 1224VDC	No	1	
	Monitored with LED (Part No: LK118)			
13	SanDisk Ultra memory card 128GB Micro SDXC	No	7	
	Class 10			
14	12V, 7Ah Backup Battery Lead Acid	No	4	
15	Central Door Access Channel License Software -	No	3	
	1Door (Extended system)			
16	Video 1 camera channel license	No	8	
	Extended system)			
17	Resetable Emergency Door release	No	3	
18	Door closer, Light Duty	No	1	
19	4MP Vari-focal Bullet WizMind Network Camera.	No	2	
	ACUPICK OUTDDOR			
21	8MP 42x Starlight Dual Light Network Panoramic	No	1	
	PTZ Camera			
22	FR_4MP IR Bullet WizMind Network Camera. 4-	No	2	
	MP 1/1.8" CMOS image sensor, low luminance,			
	and high-definition image.			
23	ACCESS SMART ANPR CAMERA 4MP 8-32MM	No	2	
	80-120K IR DISK 30M			
24	16CH, 4HDD NETWORK VIDEO RECORDER.	No	1	
	Supports AcuPick with up to 16 channels. Max.			
	decoding capability: 32 x 1080p@30 fps or 16 x			
	4MP@30 fps.			
25	20-Port Cloud Managed Desktop Gigabit Switch	No	1	
	with 16-Port PoE			
26	6U Cabinet	No	1	
27	GATE SCANNER	No	2	
28	Molex Certified CAT6A Cable Network Point	No	24	
	Installation (End-to-End)			

	Queue management system:			
29	Dual directional domes.	No	8	
30	Queue management dome.	No	8	
31	Brackets.	No	16	
32	Queue management licence	No	1	
	Parking Lot system:			
33	Parking lot detection camera.	No	8	
34	Bracket.	No	8	
35	Single layer.	No	4	
36	Parking Lot system license	No	1	
37	IP Speaker	No	1	
38	Network migrating and surveillance camera configuration	No	24	
39	Removing of unused surveillance and access control network cabling and containment including network switching	Lot	1	
40	Consumables (Nail-in Anchors, Screws, Silicone sealant, Touch up paint, etc.)	Lot	1	
41	Focussing, alignment and testing of installed surveillance cameras	Lot	1	
42	Project management, SHEQ File, PPE, Labour, and Installation	Lot	1	
43	Intercom, Indoor Video Station	No	1	
44	elock Maglock Indoor 600lbs 272Kg 1224VDC Monitored with LED (Part No: LK118)	No	1	
45	12V, 7Ah Backup Battery Lead Acid	No	1	
46	CENTURION GATE MOTOR COMPLETE WITH REMOTE CONTROL	No	4	
47	BOOM GATE	No	4	
48	STAINLESS STEEL GATE 7M DUAL OPENING	No	1	
LOCAT	TION 10: BASEMENT / UNDERGROUND PARKING	ACCE	SS CONTROL	
AND C	AMERAS			
1	Face Recognition Terminal (Card Capacity: 50 000, Face Capacity: 10 000, Event Capacity: 150 000) including mounting bracket/housing for complete unit (including peripheral module)	No	14	

2	Fingerprint module to be connected to the above	No	14
	Access Control Terminal Peripheral Module		
3	Suitable mild steel mounting bracket and rain shield	No	14
	and Terminal		
4	Securi-Prod Backup Power Supply 13.6VDC -	No	2
	5Amp		
5	12V, 18Ah Lead Acid Battery	No	2
6	12V, 7Ah Lead Acid Battery	No	2
7	Door Access Controller complete in case including	No	4
	power supply		
8	Western Digital Surveillance, 10 TB 3.5" SATA	No	4
	Hard Drive		
9	4MP 2.8mm AcuSense Powered-by- Darkfighter	No	21
	Fixed Dome Network Camera including suitable		
	mounting bracket (must include built in		
	microphone)		
10	Intercom, 2 call button outstation with camera	No	3
11	Intercom, Indoor Video Station	No	3
12	elock Maglock Indoor 600lbs 272Kg 1224VDC	No	21
	Monitored with LED (Part No: LK118)		
13	SanDisk Ultra memory card 128GB Micro SDXC	No	27
	Class 10		
14	12V, 7Ah Backup Battery Lead Acid	No	4
15	Central Door Access Channel License Software -	No	14
	1Door (Extended system)		
4.0			
16	Video 1 camera channel license Extended system)	No	31
17	Resetable Emergency Door release	No	7
18	Door closer, Light Duty	No	7
19	Thermal Camera 10mm focal length	No	4
20	4MP Vari-focal Bullet WizMind Network Camera.	No	2
24	ACUPICK OUTDOOR	Nic	
21	64CH, 4HDD NETWORK VIDEO RECORDER.	No	1
22	Supports AcuPick with up to 32 channels.	Nic	
22	20-Port Cloud Managed Desktop Gigabit Switch	No	4
22	with 16-Port PoE	No	1
23	IP Speaker	No	1

24	9U Cabinet	No	1
25	Network migrating and surveillance camera	No	63
	configuration		
26	Removing of unused surveillance and access	Lot	1
	control network cabling and		
	containment including network switching		
27	Consumables (Nail-in Anchors, Screws, Silicone	Lot	1
	sealant, Touch up paint, etc.)		
28	Focussing, alignment and testing of installed	Lot	1
	surveillance cameras		
29	Project management, SHEQ File, PPE, Labour,	Lot	1
	and Installation		
LOCAT	TION 11: PERIMETER FENCE ACCESS CONTROL A	ND CA	AMERAS
1	Thermal bullet Camera_10mm focal length	No	2
2	Thermal bullet Camera_13mm focal length	No	5
3	Thermal bullet Camera_19mm focal length	No	3
4	Thermal bullet Camera 25mm focal length	No	1
5	Thermal bullet Camera 35mm focal length_	No	2
6	4MP 32X Smart Dual Light Network Panoramic	No	4
· ·	PTZ Camera	110	
7	8MP 42x Starlight Dual Light Network Panoramic	No	1
-	PTZ Camera		
8	Video 1 camera channel license	No	36
	Extended system)		
9	SanDisk Ultra memory card 128GB Micro SDXC	No	18
	Class 10		
10	Western Digital Surveillance, 10 TB 3.5" SATA	No	4
	Hard Drive		
11	64CH, 4HDD NETWORK VIDEO RECORDER.	No	1
	Supports AcuPick with up to 32 channels.		
12	20-Port Cloud Managed Desktop Gigabit Switch	No	4
	with 16-Port PoE		
13	Molex Certified CAT6A Cable Network Point	No	55
	Installation (End-to-End)		
14	IP Speaker	No	4
15	IP Speaker license (for 10 speakers)	No	1
	<u> </u>		

SUMN	<u>IARY</u>		
	LOCATION 1: GROUND FLOOR, GATES AND		
	OUTSIDE BUILDING		
	LOCATION 2: 1ST FLOOR WEST		
	LOCATION 3: 1ST FLOOR EAST		
	LOCATION 4: 2ND FLOOR WEST		
	LOCATION 5: 2ND FLOOR EAST		
	LOCATION 6: 3RD FLOOR WEST		
	LOCATION 7: 3RD FLOOR EAST		
	LOCATION 8: GUARD HOUSE 1 MAIN GATE		
	LOCATION 9: GUARD HOUSE 2 VISITORS		
	LOCATION 10: BASEMENT / UNDERGROUND		
	PARKING		
	LOCATION 11: PERIMETER FENCE		
	LOCATION 12: CIVIL WORKS		
	LOCATION 13: CONTROL ROOM AND		
	SECURITY SERVER ROOM		
1	Total number of cameras:	191	
2	Total number of NVR:	11	
	16 Channel	8	
	64 Channel	3	
3	Total number of network switches: 16 Port PoE	20	
4	Total number of Cabinets:	11	
_	27U Cabinet	1	
	9U Cabinet	8	
	6U Cabinet	2	
	oo oabiiict		
5	Total number of camera poles:	9	
	·		
EL	ECTRIC FENCE INSTALLATION.		
1	*4 zones fencing		
	<u> </u>		

2	2xdual Energizer			
3	*aluminum 2,0mm wiring			
4	832m fencing based on clients'			
	meters given.			
5	3,0m heights			
6	*Power points provided by the			
	clients, not included in the			
	quotation.			
7	Ensure all bushes trees and side			
	cleared of any obstacles.			
8	daul duid m28 Energizer	No	2	
9	4×dual Energizer surge, per	No	2	
	surge			
10	Energizer earthing, per kit	No	2	
11	30w siren	No	2	
12	28×2.0mm aluminum wire solid	No	28	
13	2mm omega end post, 22 post	No	3	
14	1.0m omega intermediate post,	No	1	
	*277 post			
15	Y standards insulators, Per	No	1	
	insulator			
16	Strain insulator	No	499	
	*499 strainers, Per Unit			
17	S hook	No	998	
18	2-way gate contact	No	2	
19	Warning signs Per Sign	No	98	
20	Nail in anchors 6x100mm	No	74	
21	6core cable	No	1	
22	line clamps units per unit	No	1672	
23	Fence earthing	No	1	
24	Earth spike kit	No	27	
25	Slimeline ht cable 100	No	4	
26	Steel Enclosure box	No	2	
27	100mm Ferros	No	294	
28	Consumable Sundries	No	1	
29	Certification of completion	No	1	
30	Corner stay supports kit	No	19	

	PEPPER PRAY			
	Pepper spray Unit			
1	Master Unit	No	3	
2	Slave Master	No	3	
3	SMS Communicator	No	3	
4	LED light	No	3	
5	Roll 4-Core Comms Wire	No	3	
6	Conduit pipes	No	30	
	,	1		
	PERIMETER POLES			
1	Perimeter Camera Poles	No	10	

	BILL OF MATERIALS (BOM) DESIGN, SUPPLY, INST	ΓΑΙΙ ΔΤ	ION		
COM	MISSIONING AND MAINTENANCE OF ELECTRIC FE				
	ACCIDENT FUND				
1	LT-Basement - 1.2m LED Light - 18-20Watt tubes	No	180		
ı	Light LED (White)	INO	180		
2	Installation fee - Line inspection; Fault elimination;	No	180		
2	Installation; Maintenance; COC	INO	100		
3	LT-Street - Street Lights Waterproof Outdoor	No	25		
4	solar light - solar light 200w	No	20		_
5	LT-Spots - LED SPOTS LIGHT 200W	No	20		_
J	WATERPROOF	INO	20		
6	Installation fee - Line inspection; Fault elimination;	No	65		
O	Installation; Maintenance; COC	INO			
7	ACCB-1.5M FLAT - 3 Core 1.5mm Twin and Earth	No	1000		
,	Flat Cable	INO	1000		
8	T Junction - Cable Connector T Junction IP68 3Core	No	120		_
9	Sundries - Sundries Extra cabling, trunking, screws,	No	1		
9	cable ties and glue	140	'		
	RK-MPS050KW - MPS050 Megarevo MPS series				
10	hybrid inverters 55KW 400V 72A PV Voc1000V Ten-	No	1		
	year warranty				
	RTBT-200KWH - Ritar 200kwh 51.2V280Ah				
11	including battery module Management unit BMU,	No	1		
	Fire Fighting System				

40	JKM480M-7RL3-V - JINKO Mono Silicon Solar		100	
12	Panel 480W P-Type 31pcs/pallet	No	108	
13	PV-MT - PV Mounting Bracket System	No	108	
14	DC-BOX - DCBOX &Electrical Materials	No	1	
15	AC-BOX - ACBOX &Electrical Materials	No	1	
16	DCCB - Combiner box 10way smart	No	1	
17	MC4-1 - CONNECTORS MALE & FEMALE (PAIR) CED	No	50	
18	PVCB-6mm Black - PV Cable Black 6mm2	No	1000	
19	PVCB-6mm Red - PV Cable Red 6mm2		1000	
20	DCCB-BLK 35MM2 1000V - CU 35mm2 1C PVC BLE-MAINS CS LV 01-072019 600/1000V	No	100	
21	DCCB-RED 35MM2 1000V - CU 35mm2 1C PVC RED-MAINS CS LV 01-072019 600/1000V	No	100	
22	DCCB-BLK 50MM2 1000V - CU 50mm2 1C PVC BLE-MAINS CS LV 01-072019 600/1000V	No	50	
23	DCCB-RED 50MM2 1000V - CU 50mm2 1C PVC RED-MAINS SC LV 01-072019 600/1000V	No	50	
24	ups 1kva - KSTAE ON-LINE UPS 1kav 900W	No	1	
25	ACCB-35MM2 4C - Cable PVC SWA 35mm x 4Core	No	100	
26	ACCB-1.5MM2 - 1.5mm x 3 CORE ARMOURED CABLE /M	No	50	
27	plugs - Double socket 16A and ,4*4 box	No	10	
28	AC-EARTHCABLE - 6mm GREEN/YELLOW FLEX WIRE	No	200	
29	SUNDRIES - Sundries Extra cabling, trunking, screws, cable ties and glue	No	1	
30	RK-INFRA - Cement foundation construction + ground construction	No	1	
31	Engineer - Engineers conduct on-site inspections; design; and confirm.	No	1	
32	Installation fee – include	No	1	

Total Summary

Category	Total (R) (Currency)

Category	Total (R) (Currency)
Security Management System	
2. Access Control System	
3. Surveillance System (CCTV)	
4. Perimeter Intrusion Detection	
5. Network Backbone System	
6. Visitor Management System	
7. Installation and Commissioning	
8. Training and Documentation	
9. Maintenance and Spares	

Grand Total: (Total Currency)

5. Integrated Security System Bill of Materials

The bidder must provide pricing for the following components and services, ensuring a solution suitable for a period of five (5) years:

- The indicated quantities are based on estimates that will be used for evaluation purposes
- The tendered rate to remain fixed for the first 12 months thereafter a Consumer Price Index (CPI) increase will apply on the contract anniversary date for years 2 5

Solution/Service Component	Estimated Quantity
IP Cameras (Indoor and Outdoor)	191
Network Video Recorders (NVRs) 16 channels	8
Network Video Recorders (NVRs) 64 channels	3
Network switches	20
Video Wall Displays for Central Command	4 (64inch)
Biometric access readers (Visitors and Employee gate)	4
Facial recognition and Biometric Access Readers	20
Turnstiles with Integrated Biometric Readers with facial	4
recognition	
Solar/Power Backup System	1
Redundant Uninterruptible Power Supply (UPS)	5
Security System Software Licensing	1 (5year)
Camera poles	10
Electric fence	832m

Gate motors	4
Boom gates	6
Pepper spray	3
Training and Support Services (Onsite/Remote) As	1

idder's Name:
ignature:
9
ate:

NATIONAL TREASURY

Republic of South Africa



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

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9.	Packing
10.	Delivery and documents
11.	Insurance
12.	Transportation
13.	Incidental services
14.	Spare parts
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20.	Subcontracts
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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.

2. 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

- 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 amendments

- 18.1 No variation in or modification of the terms of the contract shall be made 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.
 - (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;
 - (a) the supplier shall not be liable to the purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the supplier to pay penalties and/or damages to the purchaser; and

(b) the aggregate liability of the supplier to the purchaser, whether under the contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

29. Governing language

29.1 The contract shall be written in English. All correspondence and other documents pertaining to the contract that is exchanged by the parties shall also be written in English.

30. Applicable law

30.1 The contract shall be interpreted in accordance with South African laws, unless otherwise specified 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.