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AdvertQuote



Quotation Advert

Opening Date:	2022-07-20	
Closing Date:	2022-08-02	
Closing Time:	11:00	
INSTITUTION DETAILS		
Institution Name:	Provincial Pharmaceutical Supply Depot	
Province:	KwaZulu-Natal	
Department or Entity:	Department of Health	
Division or section:	Central Supply Chain Management	
Place where goods / services is required	PPSD	
Date Submitted	2022-07-20	
ITEM CATEGORY AND DETAILS		
Quotation Number:	ZNQ: 0017/23	
Item Category:	Services	
Item Description:	CCTV Cameras Phase2	
Quantity (if supplies)	67	
COMPULSORY BRIEFING SESSION / SITE VISIT		
Select Type:	Compulsory Site Visit	
Date :	2022-07-27	
Time:	11:h00	
Venue:	PPSD Premises	
QUOTES CAN BE COLLECTED FROM:	PPSD	
QUOTES SHOULD BE DELIVERED TO:	PPSD Tender Box	
ENQUIRIES REGARDING THE ADVERT MAY BE DIRECTED TO:		
Name:	Thandazile Xate/ Nonjabulo Gumede	
Email:	primrose.xate@kznhealth.gov.za/nonjabulo.gumede2@kznhealth.gov.za	
Contact Number:	031 469 8339	

Finance Manager Name:

Mr. Tricker

No late quotes will be considered

Finance Manager Signature:

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health

Department:
Health
PROVINCE OF KWAZULU-NATAL

TERMS OF REFERENCE

APPOINTMENT OF A SUITABLE SERVICE PROVIDER TO SUPPLY & INSTALL AN INTEGRATED HD IP CCTV SYSTEM AT PROVINCIAL PHARMACEUTICAL SUPPLY DEPOT, KZN DEPARTMENT OF HEALTH.

1. PURPOSE

The purposes of this specification is to get a suitable service provider to supply and install an Integrated High Definition, Internet Protocol Close Circuit Television System and provide maintenance to the installed CCTV system at PROVINCIAL PHARMACEUTICAL SUPPLY DEPOT, KZN Department of Health for a period of 24 months.

2. PROJECT IMPLEMENTATION TABLE

PROJECT PHASE	PROJECT PERIOD
Installation of a HD; IP CCTV system(supply, installation, commissioning and training)	1 month/30 days calendar period
Guarantee period on the Installed integrated HD; IP CCTV which includes (repairs and workmanship on breakdowns at no additional cost) 3 years warranty on cameras will commence from the installation date and run until the maintenance period)	12 months/1 year
Maintenance (after guarantee period)	24 months
Project life span (inclusive of installation, guarantee and maintenance contract)	36 months

3. BACKGROUND

The scope of work is summarised as follows:

- I. To Supply, Install and commission HD IP CCTV systems;
- II. To Integrate existing analogue CCTV system where applicable,
- III. Train the operator to use the new CCTV systems; and
- IV. KZN Department of Health reserve the right to extent the maintenance contract for an additional 24 months

4. GENERAL PROVISIONS APPLYING TO THE SYSTEM AND STANDARD SPECIFICATIONS

Although not bound in nor issued with this document, the latest issues of the following standards and specifications shall form part of the installation compliance of this Contract:

4.1 GUARANTEE

- a) The Contractor shall fully guarantee and provide fully comprehensive guarantee list per each component of the system from the date of notice of the completion of installations.
- b) The guarantee shall cover all costs for Warranty Service, e.g. including parts which are readily available in South Africa and delivery etc.
- c) Maintenance plan and licence fees must be supplied (renewable) e.g. service technician, turn-around response, pick-up, transportation etc.

4.2 DELIVERABLES

Please note the following deliverables:

- a) Supply, install and commission a HD IP CCTV System;
- b) Integrate existing analogue CCTV system where applicable;
- c) The functionality and reliability of all communications, cables, batteries, surge protection; settings, adjustments, equipment, etc. shall be installing correctly; and
- d) Training shall be provided to the operators and managers. Exceptions shall be explained and rectified.

5. GENERAL INSTALLATION REQUIREMENTS OF THE CCTV CAMERAS

NB: All installations must be mapped on an electronic and paper solution plan, including the wiring colour and marking used on the wires and specifications of all systems used. The electronic plan must be compatible with Microsoft products and these records will be the client's property, and must be editable to update any future changes and installations. The service provider must update the plans every time any updates and/or changes are made. All systems must have redundancy system in place including wiring. All systems used must be accessible on South African open market and of high quality.

All security system data reports must be compatible with Microsoft products. The client may use security specialist to verify the submitted proposals, and may verify hardware/software and security system used. The client also may conduct site visits of the proposed service provider.

NB: The CCTV system must be designed to allow for future expansion and integration of other electronic security systems (adding additional cameras, monitors, NVRs, etc.)

5.1 Security Systems

All hardware and software must be supplied by a service provider, including back-ups and redundancy systems. All computer systems installed must be new and the service provider must provide an acceptable maintenance and repair/replacement plan for the computer systems for the maintenance period, including a software restoration plan. The security system must have a data backup system in place, and backups must be done on a daily basis.

5.2 Equipment

- a) All equipment and components shall be new, of high quality, the most recent models and suitable for the application. Special attention shall be given to the availability of spare parts and support for at least 5 years.
- b) Power over Ethernet (PoE). Plug-to power supplies will only be allowed if it is not possible to feed a unit from a fixed power supply. Plug adaptors will not be allowed.
- c) Fast, accurate, reliable, high quality image capture.
- d) All cameras installed at access points to the buildings must allow for facial recognition both on entry and exit.
- e) Avoid installing cameras too high above the subject thus preventing 'tip-of-head' video images

5.3 Environment

- a) Ensure that all components are properly protected against possible environmental conditions and tampering by patients.
- b) Waterproof, anti-dust protection.
- c) Operating temperature shall be -10 to 60 C and -5 -95% none condensing.
- d) Operate in low light 0.5 Lux with colour picture
- e) All galvanising shall be heavy, hot dipped galvanising suitable for high corrosive areas. Painting and finishes shall also be suitable for high corrosive areas.
- f) All screws, bolts, supports and other components shall be galvanised, stainless steel or shall be protected by another suitable method against the corrosive environment.

5.4 Competent Persons

It is definite requirements that competent technicians and engineers be used to install the systems. A second person (as a standby) with similar qualifications and experience shall be identified in case the preferred person cannot attend to a problem. The names, qualifications and experience of the persons shall be submitted to the Department for approval.

The systems require competent persons with in-depth experience of the following fields:

- a) Electronic systems.
- b) CCTV Security systems.
- c) Hardware and software setup and configuration.

6. LABELLING & SIGNAGE

6.1 Labels

All equipment shall have a unique number on a permanent label and fixed to the equipment, design and operating information.

The following information shall be indicated at each piece of equipment:

APPOINTMENT OF A SUITABLE SERVICE PROVIDER TO SUPPLY&INSTALL AN INTEGRATED HD IP CCTV SYSTEM AT PROVINCIAL PHARMACEUTICAL SUPPLY DEPOT , KZN DEPARTMENT OF HEALTH

- a) The battery type and size. (next to the batteries)
- b) The sizes of all the fuses. (next to the fuses)
- c) Complete schematic, wiring diagrams and operating instructions shall be laminated and fixed on the inside of all enclosures, kiosks and cabinets or on the wall next to a system.

6.2 Cable numbers

All cables shall be marked and neatly enclosed in conduit. At least the following requirements shall be met: Cables shall be numbered as follows:

- a) Cables shall be numbered with permanent labels fixed to the cables.
- b) Cables numbers shall be installed at each end of the cable, in each manhole and on each side of sleeves or other penetrations.
- c) A detailed cable schedule must be drawn up and submitted to the Department.

7. SYSTEM FEATURES

7.1 Cable Sleeves, wire ways, conduits and fixings

- a) All cable sleeves, wire ways, cable trays and conduits required by the security installation form part of the contract.
- b) The Contractor shall be responsible to ensure that the requirements of the security installation with regard to the cable sleeves, raceways and conduits shall be met.
- c) The Contractor shall provide detail layout drawings for the all cable sleeves, raceways, cable trays and conduits required by the security system for acceptance by the Department.
- d) The cable sleeves, raceways and conduits must conform to the current cable sleeves, raceways and conduits installed in the buildings.
- e) Protect cable ends at all times with acceptable end caps except during actual termination.
- f) Cable layout shall not be integrated with the Departments Information Technology (IT) cable layout infrastructure.

7.2 Sleeves

- a) PVC sleeves shall not be accepted. Only corrugated cable sleeves shall be used.
- b) The Contractor shall seal the ends of all sleeves with a non-hardening watertight and fireproof compound after the installation of cables. All sleeves intended for future use shall likewise be sealed.
- c) The position of sleeves shall be permanently marked on curbs, paving or other suitable surface.

7.3 Conduits

- a) Concealed conduits may be PVC, but exposed conduits shall be heavy galvanised steel. Only spacer saddles shall be used to fix conduit.
- b) The Contractor shall provide draw boxes in all conduits runs exceeding 25m, every 25 metres and after every two bends.
- c) Outdoor cable runs should be housed in UV-proof conduit.

7.4 Wire ways

- a) All wiring used must be clearly marked, where it connects, and on the inside of the control box where it connects, indicating at minimum the purpose , and to what system the wire is connected to.
- b) All control boxes installed must be lockable and have locks and keys.

address information.

8.2 Network Video Recorder (NVR)

- a) Each NVR must be able to accommodate a minimum for 32 Cameras and minimum external hard Drive storage of 4TB.
- b) The NVR must be able to store images for a period of 1 months/30 days on the external Hard Drive
- c) The monitoring image quality must be minimum of 1080P (1920x1080).
- d) The NVR should allow for analytic view.
- e) Digital time lapse/real time recorders
- f)The NVR must allow for rotation of cameras view at 5 to 8 seconds per frame and be able to enlarge a specific frame for full viewing.
- g) All NVR must come with a 3 year warranty

8.3 Monitors

- a)The LED HD monitors/Screen should not be less than 45 and must be mounted on the wall for easy viewing.
- b) 1 Monitor will be used for static view of critical/high risk areas.
- c) 1 Monitor for displaying of maps, graphs and floor plan.
- d) All monitors/screens must come with a 3 year warranty

8.4 Switches

The switches must comply with the following:

- 50% spare port capacity.
- The switch should not be less than 12Gb/s for a 24 port switch and
- 17 GB/s for a 48 port switch.
- The forwarding rate shall at least be 9Mbps for a 24 port and 13Mbps for a
- 48 port switch.
- Operating temperature of 0°C to 50°C.
- Suitable for 24h full capacity duty cycle.

8.5 Operator/Client Workstation

- CPU: Intel i7 4790
- RAM: 8GB
- Network: Ethernet (1000Base-T)
- Graphics card: 2GB Graphics Card
- Disk: 120 GB SSD
- OS: Windows 7 Pro 64 bit

8.6 Operating Temperature/humidity

-10 to 60 C

5– 95% non- condensing

8.7 Housings

- a) Location indoor and outdoor.
- b) Vandalism resistant and total weight to be considered.
- c) Sufficient physical space for the camera, lens, electrical wiring and enough room to make the connections and allow for the future maintenance.
- d) Aluminium or rustproof and mounted onto load bearing points.
- e) Variation in temperature and washer camera housing.
- f) Intrinsically safe and highly corrosive.
- g) Cablings must exit from the rear of the cameras with protective housing.
- h) The CCTV-camera system must be maintained regularly during the guarantee period at least once quarterly.

8.8 Mounting

- a) Flat surface;
- b) Mounting plate must accept not less than four screws or bolts;
- c) Outdoor applications shall be in a weather-proof, ultra violet resistant housing.

8.9 Dry wall

Plugs or butterfly nuts may be used.

8.10 Brick wall

Expansion bolts or chemical bolts are acceptable

9. TRAINING

- 9.1 The service provider shall supply personnel to train identified Departmental employees on the operation of the system installed.
- 9.2 A training program shall be designed to provide a comprehensive understanding and the basic level competency with the system. It shall be sufficiently detailed to allow Departmental personnel to operate the system independent without any outside assistance and the training information should be inclusive in the system manual.
- 9.3 There must be a 24 hour call centre to provide technical support to the operator/end user of the CCTV system and/or a technician is available twice a week for a period of (6) six months to assist the ender user with any operational challenges. This should not be any additional call out cost for this purpose to KZN Health.

10. EARTHING, BONDING AND LIGHTNING PROTECTION

- a) The Contractor will be responsible for all earthing and bonding of the equipment supplied under this contract.
- b) The earthing and bonding of equipment is to be carried out strictly as described in the standard specifications and to the satisfaction of the Department.
- c) The Contractor shall provide high quality lightning protection equipment to protect the security equipment. The earthing and bonding shall be suitable for the lightning protection.
- d) The cost of earthing and bonding shall be included in other rates.
- e) All equipment must be guaranteed against lightning damage, and where damaged by lightning, maintenance and repairs will be for the cost of and the responsibility of the Contractor during the **guarantee/warranty period**.

11. OTHER WORK

- a) Construction and electrical works required for the contract should be carried out by persons registered with the CIDB or relevant regulatory bodies. The Contractor is however responsible to identify the work to be done by others and to inform the appropriate parties that the work needs to be done. The Contractor shall also follow up on the progress of the work and expedite the work if necessary.
- b) It is the responsibility of the Contractor to confirm that the quality of the work by others is acceptable for the security contract.

11.1 Builder's work

- a) Builder's work, holes, painting, making good, etc. required for this work forms part of this specification and must be allowed for in the rates.
- b) No cutting of structural concrete will be permitted unless the permission of the Department has been obtained beforehand in writing.
- c) The Contractor shall take care that all pipes, other electrical equipment and accessories to be chased, are firmly fixed in position in a manner acceptable to the Department.
- d) The Contractor shall be responsible for the making good (including painting, plastering and patching) of all chases and openings in building work after equipment has been positioned.

11.2 Electrical work electrical requirement

- a) The electrical supply to the components of the system shall be supplied by others at 240V AC \pm . Any electrical cabling and wiring from electrical supply to the equipment forms part of this contract. **The contractor must appoint a qualified and licenced electrician to perform any electrical work which must be inclusive in the pricing.**
- b) The power supply should comply with the Electrical Regulations and the SANS
- c) All electrical equipment shall be provided with a substantial earth terminal to which all metal parts are connected.
- d) All cabling must be housed in the existing trunking in the buildings. Where it is not possible for cabling to be routed in the existing trunking it shall be routed in YT 2 trunking where only machine bends will be acceptable.
- e) Any trunking shall be secured to walls by means round head brass screws and the correct inserts shall be installed at intervals of not more than 350mm.
- f) A UPS back up must be installed as part of the system and must be able to ensure that the system will work for at least 60 minutes during a power failure.
- g) Bidders must follow installation electrics in accordance with SANS 0142, certificate of compliance for electrical installations.
- h) All electrical equipment shall comply with the compulsory specification for the safety of electrical appliances as published in Government Gazette no 7464 under notice 466 of 1981.
- i) All electrical work is to be effected by, or under the direct supervision of, a licensed electrician.
- j) Ensure proper cooling or ventilation for power supplies

11.3 The bidder must submit the following requirements with the bid:

- a) Certificate of compliance with respect to safety requirements and quality assurance of the compulsory specification of the SANS;
- b) The business or technician must have minimum (5)five relevant experience in installation of electronic security systems(IP& analogue CCTV systems, Security alarms, Biometric access controls systems and security software configuration)

APPOINTMENT OF A SUITABLE SERVICE PROVIDER TO SUPPLY&INSTALL AN INTEGRATED HD IP CCTV SYSTEM AT PROVINCIAL PHARMACEUTICAL SUPPLY DEPOT , KZN DEPARTMENT OF HEALTH

- c) The project team utilised must have a minimum of (3) three years' experience in installation of CCTV systems, software set-up and configuration.
- d) The Curriculum Vitae including certified qualifications and certificates of the directors and the project team members that will be utilised for the project must be submitted with the proposal.
- e) References and contact details relevant to similar CCTV systems projects.
- f) A comprehensive project plan must form part of the bid which must outline the following:
- g) should provide for how the service provider will submit the layout plans of the electronic security system,
 - timeframes for reporting on progress and dealing with shortcoming,
 - the type of equipment/product that will be utilised,
 - the capabilities and skill of its Human Resources,
 - the testing and commissioning of the CCTV systems,
 - the training strategy of KZN Health personnel,
 - Minimum disruption of Health Care Services during installation, and
 - A comprehensive maintenance plan strategy.

NB: Failure to submit the above documents with the bid will result in being disqualified.

11.4 Mechanical work

Fans and air conditioning units will be supplied by the contractor according to the requirements of the control room where applicable.

11.5 Civil work

The security contractor is however responsible to repair areas immediately around the areas that he works. The cost for this should be included in the contract rates.

12. VOLTAGE SURGES

- a) All damage caused by voltage surges must be fixed under this contract at no additional cost. No claims for voltage surge damage will be considered.
- b) Please note that the installation areas may have high incidences of lightning and voltage surges must therefore be expected.
- c) The Contractor is advised to check the surge protection and earthing and install or replace the surge protection equipment on the systems and to regularly check the surge protection equipment for proper operation.
- d) The Contractor shall use the services of a surge protection specialist to determine what surge protection is required and to what standard the surge protection should be installed.
- e) The Contractor will be responsible for all earthing and bonding of the equipment supplied under this contract.
- f) The earthing and bonding of equipment is to be carried out strictly as described in the standard specifications and to the satisfaction of the Departments representative.
- g) Back-up emergency power supply should be provided

13. SOFTWARE & HARDWARE

All software supplied shall comply with the following:

- a) Software shall be supplied with installation CDs. Copies of the installation CDs shall be in the manuals and shall kept in the control room.
- b) The licensed of software must not be limited for the required number of users.

- c) **Software and hardware licenses shall be permanent i.e. the licenses shall not expire, stop working after a period or attract an annual fee.**
- d) Any annual maintenance fees should be included as part of the maintenance rates.
- e) Setup and configuration information of the operating systems and application software shall be properly documented in the manuals so that it will be easy for another person to set up and configure the system.
- f) Software must be updated/upgraded should a new version become available however it must not interfere with the systems operations.
- g) The system shall provide a graphical user interface (GUI) which enables users to easily see all resources (Cameras, Audio components, databases, Inputs, Outputs, Layouts etc.) on a complete site, and shall not be limited to specific I.P Network Video Servers
- h) The user shall be able to customise the monitors so that they can view different components (e.g. maps, cameras, integration data etc. on different monitors, or on window "tabs" on the same monitor.

14. SECURITY MEASURES

- a) All software programs, computers, networks and associated equipment shall be protected by suitable encryption and password structures to ensure that only authorised persons have access to the systems and software.
- b) Firewalls, passwords, keys and data encryption shall be used on all possible external links to the computer systems and networks. External links include WLAN, GSM, Internet, telephone systems, etc.
- c) A suitable password structure shall be put in place to limit the functions that a person can perform on the systems. At least the following structure shall be implemented:
- d) **Administrator level:** Software and system maintenance including configuration i.e. no restrictions.
- e) **Supervisor level:** This level will allow a supervisor to change some settings, create reports, make backups, etc.
- f) **Operator level:** This level will allow viewing, writing DVDs, printing reports and other operator functions.
- g) **Viewing level:** This is the default level and only allows basic viewing functions.
- h) Damage caused by negligence of a KZN Health employee performing unauthorised functions such as games, videos and music shall be repaired by the contractor at the cost of KZN Health.

15. SPECIAL TESTING OF AN INSTALLATION

- a) The Department may at any time inspect any part of the entire installation at his discretion order special tests to be carried out on complete installations, to verify the satisfactory functional condition of the installation.
- b) The Department reserves the right to select at random equipment and trade practices to be tested for compliance with specifications as specified in this Contract document.
- c) The Contractor shall provide all equipment, tools and instruments required for testing.
- d) The Contractor shall respond to a breakdown registration by travelling to Site to evaluate the breakdown (scope of repair work), estimate the realistic downtime and provide feedback to the Department.
- e) The delivery time of a new component/subassembly/machine or spares required for the repair of the defective component/subassembly does not enable the Contractor to successfully complete the repair work within the maximum breakdown down-time allowed

16. COMMUNICATION PLAN DURING THE GAURANTEE PERIOD

- a) The plan will provide, after agreement between the Contractor and the Department, including a communication and complaint logging procedure.
- b) The Contractor must be available 24 hours a day 24/7 365 days a year, with a max turnover of 1 hour for calls and a 8 hour max repair time.
- c) The Contractor shall establish a telephone and fax line and a cellular telephone connection to ensure that he/she can be reached at any time.

17. SPECIAL CONDITIONS OF CONTRACT(BY THE END-USER)

- a) The General Conditions of Contract issued by National Treasury as part of Supply Chain Practice Note 1 of 2003 will apply. No amendment to the General Conditions of Contract is allowed. The successful bidder (s) contracts will, in addition, enter into a Service Level Agreement, which will include the following conditions:
 - b) This project must be completed within a period of 30 days (one month) failing which a penalty of R1000 will be charged each day after the agreed completion date.
 - Quarterly assessment of the performance;
 - Penalties for poor performance;
 - Provisions for Penalties;
 - Communication with the appointed **KZN Health** contract officer;
 - c) The Department reserves the right not to award the bid.
 - d) Staffing requirements will be identified at the onset of the project and shall remain unchanged for the duration of the project, unless prior written consent has been granted by the **KZN Health**.
 - e) No material or information derived from the provision of the services under the contract may be used for any other purposed except for those of the, except where duly authorized to do so in writing by the **KZN Health**.
 - f) Copyright in respect of all documents and data prepared or developed for the purpose of the project by the Service Provider shall be vested in **KZN Health**.
 - g) The successful Service Provider agrees to keep confidential all records and information of, or related to the project and not disclose such records or information to any third party without the prior written consent of **KZN Health**.
 - h) The contractor is responsible to provide a shed to store all his equipment and tools. The KZN Health will not be held liable to safeguard the property of the contractor while such property is on KZN Health premises.
 - i) Registration on the KZN Suppliers' Database.
 - j) Over and above the awarding of preference points, the following activities will be regarded as a contribution towards achieving the goals of the Reconstruction and Development Programme. (Published in the Government Gazette No 16085 dated 23 November 1994) and will be taken into consideration during the evaluation and awarding process.
 - a) the promotion of enterprises located in the Province of KZN; or
 - b) the promotion of companies located in the District the bid, or
 - c) the promotion of companies located in a municipal area for services to be rendered in that municipal area

APPOINTMENT OF A SUITABLE SERVICE PROVIDER TO SUPPLY&INSTALL AN INTEGRATED HD IP CCTV SYSTEM AT PROVINCIAL PHARMACEUTICAL SUPPLY DEPOT , KZN DEPARTMENT OF HEALTH

SUPPLY AND INSTALL AN INTEGRATED CCTV SYSTEM FOR PROVINCIAL PHARMACEUTICAL SUPPLY DEPOT IN THE FOLLOWING IDENTIFIED AREAS AND SPECIFICATIONS:

1. Camera Positions & type:- All cameras to be full colour or Colour-Vu

ALL THE HEREUNDER CAMERAS MUST BE 2 MP INFRARED HD IP DOME CAMERAS or unless specified.

All cameras must be intrusion alert activated. (to send alarm if any movement is detected at certain times)

NO.	DEPARTMENT		MP	QUANTITY
1.	1 st Centre passage	1 bullet	4mp	3
2.	2 nd Centre passage	Bullet	4mp	3
3.	Cages 1, 2, 3 and 4	Dome	2mp	5
4.	Isles	Bullet	4mp	16
5.	Section four	Dome	2mp	1
6.	Dispatch passage (Sky net)	Done	2mp	1
7.	Collection gate	Dome	4mp	1
8.	Outside dispatch	Dome	2mp	1
9.	DSV cage	Dome	2mp	1
10.	Turnstile Gate	Dome	2mp	1
11.	Isles 13, 14, 15 and 16	Bullet	4mp	8
12.	Perimeter fence	Bullet	2mp	1
13.	Short passage	Dome	4mp	13
14.	Quarantine Store (Searching Zone)	Dome	2mp	1
15.	Mazanine Floor	Bullet	4mp	1
16.	Store Gate	Dome	4mp	1
17.	Receiving	Dome	2mp	2
18.	Main Gate	Bullet	4mp	1
19.	Receiving short passage	Dome	2mp	2
20.	Admin Entrance	Dome	2mp	1
21.	Archives Passage	Dome	2mp	3
	Total			67

COMPREHENSIVE MAINTENANCE

COMPREHENSIVE MAINTENANCE AFTER THE GUARENTEE/WARRANTY PERIOD HAS EXPIRED

The Contractor shall fully guarantee and provide fully comprehensive maintenance for a period until after completion of the repairs.

The maintenance shall consist of preventative and breakdown maintenance (As specified in the Maintenance Specification) with the purpose of keeping the complete installation in fully working condition as specified in the additional specifications.

Please note the following deliverables:

Allow for monthly, on-site maintenance inspections and for call outs.

The functionality and reliability of all communications, cables, batteries, surge protection, settings, adjustments, equipment, etc. shall be confirmed and repaired and corrected if necessary.

Training shall be provided to the operators and managers. Exceptions shall be explained and rectified.

Software settings and configurations shall be confirmed and rectified. The IP-integrity (dust and water) and locks of all enclosures equipment areas shall be confirmed and rectified.

The log books shall be updated and completed and a monthly report shall be issued and submitted to the Department.

1. PART A

2.1 GENERAL EQUIPMENTS REQUIREMENTS

All equipment and components shall be brand new, of highest quality, the most recent models and suitable for the application. Special attention shall be given to the availability of spare parts and support for at least 5 years, after delivery, installation and commissioning.

Plug-top power supplies will only be allowed if it is not possible to feed a unit from a fixed power supply. Plug adaptors, however, are to be disallowed.

2.2 ENVIRONMENT

Ensure that all components are properly protected against possible environmental conditions.

All galvanising shall be heavy, hot dipped galvanising suitable for high corrosive areas. Painting and finishes, similarly shall also be suitable for high corrosive areas.

All screws, bolts, supports and other components shall be galvanised, stainless steel or shall be protected by another suitable method against the corrosive environments.

2.3 COMPETENT PERSONS

It is definite requirements that competent technicians and engineers be used to test, service, maintain and repair the systems. A competent person shall inspect the systems and shall attend to any problems requiring his attention. A second person (as a standby) with similar qualifications and experience shall be identified in case the preferred person cannot attend to a problem. The names, qualifications and experience of the persons shall be submitted to the Department for approval.

The systems require competent persons with in-depth experience in the following fields:

- a) Electronic systems.
- b) Security systems.
- c) Analogue and IP CCTV.
- d) Hardware and software setup and configuration.

2.4 OPERATING AND MAINTENANCE MANUALS

An existing operation and maintenance manual is available and shall be extended if the type of equipment and functioning of any component or system is changed. All additions to the manual shall be provided in printed.

2.5 LABELLING & SIGNAGE

2.5.1 Labels

All equipment shall have a unique number on a permanent label and fixed to the equipment. These numbers shall correspond with that on the drawings and in the manuals.

2.5.2 Design and operating information

The following information shall be indicated on each piece of equipment:

- The battery type and size. (next to the batteries)
- The sizes of all the fuses. (next to the fuses)

Complete schematic, wiring diagrams and operating instructions shall be laminated and fixed on the inside of all enclosures, kiosks and cabinets or on the wall next to a system.

2.5.3 Cable numbers

All cables shall be marked. At least the following requirements shall be met:

Cables shall be numbered as follows:

Cables shall be numbered with permanent labels fixed to the cables.

Cables numbers shall be installed at each end of the cable, in each manhole and on each side of sleeves or other penetrations.

2. CABLE SLEEVES, WIRE WAYS, CONDUITS AND FIXINGS

All cable sleeves, wire ways, cable trays and conduits required by the security installation form part of the contract.

The Contractor shall be responsible to ensure that the requirements of the security installation with regard to the cable sleeves, raceways and conduits shall be met. The Contractor shall check the security layout drawings and provide detail layout drawings for the all cable sleeves, raceways, cable trays and conduits required by the security system for acceptance by the Department.

3.1 Sleeves

PVC sleeves shall not be accepted. Only corrugated cable sleeves shall be used.

The Contractor shall seal the ends of all sleeves with a non-hardening watertight and fireproof compound after the installation of cables. All sleeves intended for future use shall likewise be sealed.

The position of sleeves shall be permanently marked on curbs, paving or other suitable surface.

3.2 Conduits

Concealed conduits may be PVC but exposed conduit shall be heavy galvanised steel. Only spacer saddles shall be used to fix conduit.

The Contractor shall provide draw boxes in all conduits runs exceeding 25m, every 25metres and after every two bends.

3.3 Wire ways

Concealed trunking may be PVC but exposed trunking shall be painted steel or heavy galvanised steel. Small PVC trunking may be used for short runs close to installed equipment.

3.4 Cable trays

Heavy galvanised wire mesh cable trays may be installed in equipment rooms and other concealed areas.

3.5 Fixings

All conduit, wire ways and equipment shall be fixed with suitable screws. No glue or double sided tape fixing shall be acceptable.

All fixings shall be according to the fixing supplier's recommendations for the type of surface that items are fixed to.

3. EARTHING, BONDING AND LIGHTNING PROTECTION

The Contractor will be responsible for all earthing and bonding of the equipment supplied under this contract.

The earthing and bonding of equipment is to be carried out strictly as described in the standard specifications and to the satisfaction of the Department.

The Contractor shall provide high quality lightning protection equipment to protect the security equipment. The earthing and bonding shall be suitable for the lightning protection.

The cost of earthing and bonding shall be included in other rates.

4. OTHER WORK

Builders work and electrical work form part of this contract but some work as described below may be done by others. The Contractor is, however, remains responsible to identify the work to be done by others and to inform the appropriate parties that the work needs to be done. The Contractor shall, also, follow up on the progress of the work and expedite the work, if necessary.

It is the responsibility of the Contractor to confirm that the quality of the work by others is an acceptable standard for the security contract.

5.1 Builder's work

Builder's work, holes, painting, making good, etc. required for this work forms part of this specification and must be allowed for in the rates.

No cutting of structural concrete will be permitted unless the permission of the Department has been obtained beforehand in writing.

The Contractor shall take care that all pipes, other electrical equipment and accessories to be chased, are firmly fixed in position in a manner acceptable to the Department.

The Contractor shall be responsible for the making good (including painting, plastering and patching) of all chases and openings in building work after equipment has been positioned.

5.2 Electrical work

The electrical supply to the components of the system shall be supplied by others at 230V AC \pm 10% as close as possible to but within 10m of the indicated positions. The Contractor will have to specify at which points he will require a power supply. Any electrical cabling and wiring from electrical supply to the equipment forms part of this contract.

5.3 Mechanical work

Fans and air conditioning units will be supplied by contractor according to the requirements of the control room.

6 SOFTWARE & HARDWARE

All software supplied shall comply with the following:

- a) Software shall be supplied with installation CDs. Copies of the installation CDs shall be in the manuals and shall kept in the control room.
- b) The licensed of software must not be limited for the required number of users.

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- c) Software and hardware licenses shall be permanent i.e. the licenses shall not expire, stop working after a period or attract an annual fee.
- d) Any annual maintenance fees should be included as part of the maintenance rates.
- e) Setup and configuration information of the operating systems and application software shall be properly documented in the manuals so that it will be easy for another person to set up and configure the system.
- f) Software must be updated/upgraded should a new version become available however it must not interfere with the systems operations.
- g) The system shall provide a graphical user interface (GUI) which enables users to easily see all resources (Cameras, Audio components, databases, Inputs, Outputs, Layouts etc.) on a complete site, and shall not be limited to specific I.P Network Video Servers
- h) The user shall be able to customise the monitors so that they can view different components (e.g. maps, cameras, integration data etc. on different monitors, or on window "tabs" on the same monitor.

Security measures

- a) All software programs, computers, networks and associated equipment shall be protected by suitable encryption and password structures to ensure that only authorised persons have access to the systems and software.
- b) Firewalls, passwords, keys and data encryption shall be used on all possible external links to the computer systems and networks. External links include WLAN, GSM, Internet, telephone systems, etc.
- c) A suitable password structure shall be put in place to limit the functions that a person can perform on the systems. At least the following structure shall be implemented:
- d) Administrator level: Software and system maintenance including configuration i.e. no restrictions.
- e) Supervisor level: This level will allow a supervisor to change some settings, create reports, make backups, etc.
- f) Operator level: This level will allow viewing, writing DVDs, printing reports and other operator functions.
- g) Viewing level: This is the default level and only allows basic viewing functions.
- h) Damage caused by negligence of a KZN Health employee performing unauthorised functions such as games, videos and music shall be repaired by the contractor at the cost of KZN Health.

7. VOLTAGE SURGES

All damage caused by voltage surges must be fixed under this contract at no additional cost. No claims for voltage surge damage will be considered.

Please note that the installation areas may have high incidences of lightning and voltage surges must therefore be expected.

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The Contractor is advised to check the surge protection and earthing and install or replace the surge protection equipment on the systems and to regularly check the surge protection equipment for proper operation.

The Contractor shall use the services of a surge protection specialist to determine what surge protection is required and to what standard the surge protection should be installed.

The Contractor will be responsible for all earthing and bonding of the equipment supplied under this contract.

The earthing and bonding of equipment is to be carried out strictly as described in the standard specifications and to the satisfaction of the Departments representative.

8. MEASUREMENTS & PAYMENTS

8.1 REPAIR PERIOD

Monthly payment will be made for work that have been completed and tested. New rates shall be submitted to the Department for approval before the equipment is ordered and the work is done.

GUARANTEE

The Supplier shall fully guarantee all products for a minimum period of one year. Please note the following deliverables:

- a) Site Maintenance Administrator, Routine Housekeeping & regular Refresher training shall be provided to the operators and managers. Incident and Exceptions reports shall be explained and rectified.
- b) Software settings and configurations shall be confirmed and rectified.

PART B

1. COMPREHENSIVE MAINTENANCE SPECIFICATION

1.1 SCOPE

Maintenance of the specified systems, services and/or parts of buildings and infrastructure shall all be referred to as "Maintenance Control Plan of an Installation". Maintenance of all completed and commissioned installations shall ensure reliable functioning and optimum service life thereof.

Maintenance of an installation shall be performed in accordance with the Specifications, the Operating and Maintenance Manuals (where applicable) and the Maintenance Control Plan.

Remuneration for maintaining "installations" (systems, services and/or buildings and parts of the infrastructure) in good functional condition is provided for in the Bills of Quantities by means of regular service payment items.

This Additional Specification covers maintenance requirements, development of a maintenance control plan, identification of equipment, site maintenance administration, maintenance performance measurement, as well as the items for measurement of the Contractor's service

level and resulting payment.

2. CONTRACTOR'S RESPONSIBILITIES

The Contractor shall maintain the complete installations for the maintenance period.

Maintenance implies and shall include regular preventative maintenance, corrective maintenance, as well as breakdown maintenance on all components of the specified installations.

The maintenance control plan will be developed by the Contractor, to schedule the frequency of routine inspections and format of reports. The Contractor shall carry out 3-monthly inspections on the equipment as detailed in the maintenance control plan.

Each inspection, test or breakdown shall be recorded in an approved format and listed in the inspection report (part of the maintenance control plan).

The Contractor shall ensure through training that the operating and maintenance personnel are conversant with the instructions as presented in the Operating and Maintenance Manuals. Continued, on-going- regular refresher training shall be included in the scope of maintenance work for the duration of the maintenance contract period.

The Operating and Maintenance Manuals, as approved by the Department, shall be used as a basis of preventative maintenance. The Contractor shall perform all preventative and corrective maintenance as described in the Operating and Maintenance Manuals. This shall be in accordance with the Technical and Particular Specifications.

The Contractor shall, as part of his maintenance responsibilities repair or replace faulty equipment upon logging of a breakdown, within the specified down-time at the Contractor's cost.

The Contractor shall not claim additional establishment costs where repair work is to be carried out during the maintenance phase.

The Contractor shall rectify any faulty condition of which he becomes aware, even if it has not been logged. Such rectification shall also be logged and listed in the inspection report.

3. GUARANTEE & COMPREHENSIVE MAINTENANCE

The Contractor shall fully guarantee and provide fully comprehensive maintenance for a period until after completion of the expansion.

Please note the following deliverables:

Allow for monthly, on-site maintenance inspections and for call outs.

The functionality and reliability of all communications, cables, batteries, surge protection, settings, adjustments, equipment, etc. shall be confirmed and repaired and corrected if necessary.

Site Maintenance Administrator, Routine Housekeeping & regular.

Refresher training shall be provided to the operators and managers.

Incident and Exceptions reports shall be explained and rectified.

Software settings and configurations shall be confirmed and rectified.

The IP-integrity (dust and water) and locks of all enclosures equipment areas shall be confirmed

and rectified.

The log books shall be completed and a monthly report shall be submitted to the Department.

4. CONDITIONS FOR EXCEEDING THE CONTRACTOR'S LIABILITY DUE TO OPERATIONAL DAMAGE BREAKDOWNS

Operational damage shall be defined for the purpose of this clause as being any damage caused on purpose, by accident or through negligence by the User Client's employees, associates (where applicable), suppliers, subcontractors, etc for any reason whatsoever. Where repair work is necessitated during the contract as a result of operational damage caused by User Clients or their associates, the Contractor will be requested to:

- (a) perform the work, using rates bid for the supply, delivery and installation of material forming part of the bills of quantities, within the maximum down-time allowed for operational damage, where the Department rules that the damage has been caused by incorrect operation;
- (b) submit one (1) quotation for repair and/or replacement of the damaged unit, where rates bid are not available and where the Department rules that the damage caused is operational;
- (c) perform the work on receipt of an official order from the Department, within the time offered as part of the quotation,
- (d) notify the Department well in advance of completion of the repair work [in order to] enable inspection , and
- (e) Refrain from claiming additional establishment costs for such work. The responsibility of determining whether damage to the installation was caused by people, other than employees or associates of the Contractor, shall rest with the Department.
- (f) Operational damage caused by the employees, associates, suppliers, subcontractors, etc of the Contractor, shall be repaired by the Contractor at his own cost.

5. CONDITIONS FOR EXCEEDING THE CONTRACTOR'S LIABILITY ABOVE MARGINAL BREAKDOWN COST

- a) The defective parts/components/subassemblies must be identifiable as the result of a single breakdown.
- b) The Contractor shall submit a written report to the Department for approval. This report shall contain the following information
- c) The make and model number of the item serviced/inspected/ repaired/replaced;
- d) A description or name and part number of the defective part/component or subassembly;
- e) A statement on whether the component could be repaired, together with a cost estimate;
- f) A quotation valid for a minimum period of 60 calendar days if the component/part/subassembly has to be replaced or repaired by an outside firm. If the sub-assembly/machine is to be repaired or replaced by an outside company, the Contractor shall supply one (1) quotation for such parts/repairs or a quotation from any sole supplier. Only an original quotation will be accepted.
- g) The expected urgency for the replacement or repairs, and
- h) The delivery time of a new component/subassembly/machine or delivery times on spares required to repair the defective component/ subassembly.
- i) A written approval to proceed with the work must be issued by the Department. Copies of the

original VAT invoices from outside companies for all repairs or spare parts supplied must be attached to the Contractor's invoice.

6. COMPONENTS INCLUDED IN MAINTENANCE SCOPE

An installation is all the systems and all the components associated with the systems as set out below.

- Electronic systems:
 - CCTV surveillance system.
 - Complete electric system for the security systems including UPSs.

The following installations are excluded from the maintenance:

- All building work.
- The electrical installation except the sections that are specifically included above.
- Burglar proofing, gates & doors.
- Painting. (Where original painting has been spoiled due to the work done same paint should be used to retain wall to its initial state).

7. DEFINITIONS

7.1 Routine preventative maintenance

This entails the rendering of services and servicing of equipment according to a predetermined maintenance control plan to:

- (i) replace and service components of equipment, units or parts thereof for each installation at prescheduled moments regardless of condition;
- (ii) re-adjust, reset, clean, corrosion protect all components of equipment, units or parts thereof for each installation, and
- (iii) Carry out all implied actions to maintain installations in their present functional condition.
- (iv) Preventative maintenance shall be aimed at minimisation of breakdowns.

7.2 Corrective maintenance

This entails regular observation of the equipment, identifying pending breakdowns, maladjustment or anomalies of equipment, units or parts of installations and subsequent action to restore installations to the functional condition as before the breakdown.

7.3 Breakdown maintenance

This entails repair and/or replacement of defective equipment, units or parts of installations following a breakdown that leaves the installation inoperable or unsafe, and subsequent action to restore installations to their normal functional

condition, within the maximum down-time allowed.

7.4 Emergency maintenance repairs

These repairs are defined as any work required rectifying an emergency breakdown that disables a complete installation and prevents it from functioning to its designed service level.

7.5 Ordinary maintenance repairs

These repairs are defined as all maintenance work required other than emergency maintenance repairs.

8. SITE MAINTENANCE RECORD KEEPING

The Contractor shall provide and maintain hard-cover A4 maintenance files for each installation for the duration of the Contract. All schedules, checklists, breakdown reports, preventative maintenance records, component replacement records and inspection reports shall be filed, together with information regarding repairs exceeding the Contractor's liability.

9. SUPPLY OF LABOUR, EQUIPMENT AND MATERIAL

(a) Labour

Competent personnel shall execute all maintenance work.

(b) Equipment

All tools and equipment and consumables required for maintenance work shall be supplied by the Contractor at his cost.

(c) Material

All material, spare parts, components, equipment and appurtenances necessary for the complete maintenance of each installation shall be supplied and installed by the Contractor at his cost.

The Contractor shall cede any supplier's or factory guarantee of repaired or replaced components to the Employer to ensure that such guarantees are not jeopardised in any way. All workmanship, materials and components used for breakdown repair shall be guaranteed for 12 months.

10. IDENTIFICATION OF EQUIPMENT

A unique identification number will be allocated to each piece of equipment forming part of the installation. This identification number will be allocated and administered in collaboration with the User Client and must be described in the maintenance control plan.

Reference shall be made to identification numbers in the maintenance control plan operating and maintenance manuals and during all maintenance activities, including the logging of breakdowns and other correspondence. Identification numbers shall also be indicated on as-built drawings.

11. MAINTENANCE CONTROL

11.1 SCOPE

Maintenance quality control shall be the responsibility of the Contractor who shall introduce a maintenance control plan to assist him in ensuring that preventative, corrective and breakdown maintenance are performed as described in the operating and maintenance manuals and Technical and Particular Specifications.

12. PRELIMINARY MAINTENANCE CONTROL PLAN

A preliminary version of the maintenance control plan shall be submitted with the programme and the framework of the preliminary version shall be as close as possible to that of the final

maintenance control plan. Detail contained in this preliminary maintenance control plan shall include:

- (a) Actual time that a representative of the Contractor will be present on Site for the duration of the maintenance period;
- (b) The scope and frequency of routine inspections
- (c) Repair methodology

13. MAINTENANCE CONTROL PLAN

- (a) The maintenance control plan shall be based on the Contractor's preliminary maintenance control plan, and shall be bound in a neat, A4-sized, ring-bound document with a cover page and back cover. The contents of the document shall be indexed.
- (b) To ensure that the Department is satisfied that the Contractor understands the purpose and advantage of carrying out maintenance work according to a maintenance control plan he shall, as an introduction to the control plan document, set out his views as to what he believes the implementation of a maintenance control plan will achieve
- (c) The maintenance control plan shall also contain the following:
 - I. A summary of the repair and maintenance work to be carried out under the Contract giving details of the conditions of the various installations at the facility(ies) affected by the activities under the Contract.
 - II. Details of how the Contractor intends to carry out the various types of maintenance work especially breakdown maintenance should breakdowns occur.
 - III. A list of organisations and persons directly involved with the Contract or whose requirements have to be taken into account during the entire Contract Period such as, the User Client. Each person's position within his organisation as well as the applicable phone numbers shall be given
 - IV. Procedures to address complaints and logged breakdowns;
 - V. Details of inspection reports, summarising all inspections, together with inspection data such as nature of test, names of persons carrying out tests and inspection results. Detail of repairs and replacements, together with testing of repaired equipment shall also be reflected in this report, and
 - VI. Assistance to be given by the Department with decisions regarding material, equipment and other recommendations.
- (d) The maintenance control plan shall be upgraded when its contents are no longer representative of actual conditions.
- (f) The Contractor shall check the contents of existing Operating and Maintenance Manuals (if available) and shall update or modify them and then incorporate applicable data into his own manuals. Where no manuals exist, the Contractor shall draw up his own Operating and Maintenance Manuals.

Pertinent data contained in the Operating and Maintenance Manual may be transferred to the Maintenance control plan to make it a document which can be used as an independent handbook for maintenance work.

14. COMMUNICATION

The maintenance control plan will provide, after agreement between the Contractor and the Department, for the following communication and complaint logging procedure:

- (a) The Contractor shall establish a telephone and fax line and a cellular telephone connection to ensure that he can be reached at any time.
- (b) The Contractor shall primarily be responsible for determining the items requiring preventative, corrective and breakdown maintenance, and shall communicate this information directly to his maintenance workforce.
- (c) Should the Department or operating personnel of the User Client determine or suspect that preventative, corrective or breakdown maintenance is required, a call shall be logged through the call centre to reach the Contractor as soon as possible.
- (d) All complaints of the User Client shall be reported to the Department via the call centre, as set out in the maintenance control plan, and the Department shall issue instructions to the Contractor. The call centre logs the details of the Department's call and provides feedback to the complainant.

15. PERFORMANCE MEASUREMENT

The performance measurement and associated penalties or payment reductions shall not be applicable in the defect liability period but shall be applicable to a follow-on maintenance contract. The Contractor's performance shall be measured against the following parameters:

16. SPECIAL TESTING OF AN INSTALLATION

The Department may at any time inspect any part of the entire installation. During Maintenance work, the Department may at his discretion order special tests to be carried out on complete installations, to verify the satisfactory functional condition of the installation.

The Department reserves the right to select at random equipment and trade practices to be tested for compliance with specifications as specified in this Contract document.

The Contractor shall provide all equipment, tools and instruments required for testing.

17. MAXIMUM MAINTENANCE DOWN-TIME

After a complaint has been logged and forwarded to the Contractor, the Contractor shall be expected to minimise the maintenance down-time until the system component is fully operational to the satisfaction of the Department. Should the Contractor not respond within the maximum down-time, the Department may arrange, at the cost of the Contractor, for the necessary repair work to be done by others.

The Contractor shall respond to a breakdown registration by travelling to Site to evaluate the breakdown (scope of repair work), estimate the realistic downtime and provide feedback to the Department.

Should the Contractor not be able to complete the required repair work within the maximum

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down-time period allowed, it shall be his responsibility to obtain extension of down-time from the Department. The written report shall clearly state the reasons for the extension, as well as the actual extension required.

Extension of down-time will only be granted by the Department if:

- (a) the maximum down-time is unreasonable in relation to the scope of the repair work required;
- (b) the delivery time of a new component/subassembly/machine or spares required for the repair of the defective component/subassembly does not enable the Contractor to successfully complete the repair work within the maximum breakdown down-time allowed.

Should the actual down-time exceed the maximum down-time the Contractor shall be liable to a payment reduction for the difference between actual down-time and maximum down-time. This is reflected in the table below:

REQUIRED MAINTENANCE	MAXIMUM DOWN-TIME ALLOWED	PAYMENT REDUCTION IF EXCEEDED
Emergency Breakdown	8 hours	R800/h
Ordinary Breakdown	5 days	R600/day
Operational damage repair	7 days	R500/day

"Maximum down-time" shall mean the period of time allowed to repair a breakdown, and "down-time" shall mean the measured period from the instant when the breakdown was logged with the Contractor until the installation has been repaired to its functional specification.

18. MEASUREMENT AND PAYMENT

Payments will be done after each site visit and on receiving the inspection report. The contractor shall receive fixed monthly payments. Note that the monthly payments may be reduced for pro-rata part payment settlement if the maintenance performed by the contractor does not measure up to the prescribed standard. **See the Maintenance Specification for more details.**

19. ESCALATION

Maintenance rates shall be increased according to the consumer price index

20. MAINTENANCE OF A COMPLETED INSTALLATION UNIT: MONTHS

The unit of measurement shall be the monthly maintenance cost. Allow for monthly site visits.

The payment may be reduced if the maintenance was not up to the expected standard. The reduction may be determined by deducting points for inadequate maintenance.

The tendered rate shall include full compensation for all liabilities and obligations described or

implied in the Contract document and deemed by the Contractor to be applicable to the maintenance phase of the Contract, for the complete maintenance of an entire installation, and all appurtenant works deemed to form part thereof, as defined in the relevant Specifications.

The tendered rate shall also include full compensation for training and complete preventative, corrective and breakdown maintenance, including full compensation for all costs related to resetting, repair, procurement, supply, delivery, replacement, protecting, furnishing, installing, testing and commissioning of all items and material required to maintain the complete installation in a perfect functional condition.

Remuneration for all preliminary and general charges shall be deemed included in the maintenance payments for the various installations.

21. PAYMENT REDUCTION DUE TO EXCEEDING OF MAXIMUM ALLOWABLE DOWN-TIME

The unit of measurement shall be the number of hours or days, in excess of permitted downtime, during which a component of an installation was in a dysfunctional condition.

The negative fixed rate shall include full compensation for the User Client's loss in productivity and, multiplied by the number of days or days measured, shall be deducted from the certified amount due to the Contractor.