

CCTV SYSTEM ANNUAL MAINTENANCE SPECIFICATION

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CCTV System Annual Maintenance Specification

1. Introduction

- a) The purpose of this document is to specify the preventative maintenance and the reactive maintenance and repair requirements of the CCTV system owned and operated by Elsenham Parish Council (the Council).
- b) It is expected that the same contractor will carry out both the preventative and reactive maintenance activities through the provision of a Maintenance Contract (the Contract), which the Council will award to its chosen contractor and will run for a specified period of time, typically up to 3 years in length. The exact length of the Contract will be specified within the Council's invitation to quote.

2. Maintenance Requirements

2.1 CCTV Standards

- a) BS IEC 62676-4 (and currently BS EN 50132-7) provides requirements for the maintenance of CCTV systems. This document provides additional recommendations for the maintenance of CCTV surveillance systems, and provides examples of the type of documentation required to be used by the maintenance company.
- b) It is recognised that for CCTV systems that are within the scope of the Surveillance Camera Code of Practice, principle 8 requires that the use of approved technical and competency standards be used. Standards such as those listed above are likely to feature in the SCC code and will be detailed on the Surveillance Camera Commissioners website.

2.2 Types of Maintenance

- a) Up to three (3) types of maintenance are required to be carried out on the CCTV system:
 - i) **Preventative maintenance** of a system and its equipment, carried out on a scheduled basis.
 - ii) **Corrective maintenance** of a system and its equipment, carried out in response to the development of a fault.
 - iii) **Customer maintenance** comprising basic maintenance/fault reporting tasks to be carried out by the customer/user.

2.3 **Preventative Maintenance**

- a) The Council's CCTV equipment and systems shall receive at least one (annual) preventative maintenance visit per year, which will allow for a complete audit / check of the CCTV equipment and system/s.
- b) As a part of the preventative maintenance visit, the Contractor shall complete a preventative maintenance visit report, which should confirm that the various actions of the non-exhaustive Checklist (see 2.3.1 below) have been completed.

2.3.1 Preventative Maintenance Checklist (non-exhaustive)

- a) The preventive maintenance checklist has been divided into a number of sub-headings, each of which contain a number of checks considered necessary as part of the overall audit / check of the CCTV equipment and system:
 - i) <u>Camera Housings</u>
 - Clean housing glass of camera unit(s)
 - Visual inspect, check weatherproof gasket for seal, rectify where necessary.
 - Check internal housing for moisture, rectify where necessary
 - Check external joints, glands make off and re-seal where necessary.
 - Check operation of wash wipe. (IF APPLICABLE)
 - Fill washer bottles.

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- Check operation of wiper blades, replace where necessary.
- Clean housing glass. Replace where necessary
- Check operation of heater. Replace where necessary.
- Check validity of all brackets & mechanisms.
- ii) Bracket Mounts/Poles
 - Check for instability in columns and brackets.
 - Check validity of any locking mechanisms.
 - Replace or temporarily make safe.
 - Check all relevant electrical and earth connections.
 - Check for any cable damage, corrosion.
 - Check bracket mounts/poles for corrosion.
- iii) <u>Cameras & Lens</u>
 - Remove optical lens.
 - Inspect for moisture, seal failure.
 - Rectify or replace where necessary.
 - Clean optical lens with proprietary soft lens cloth and refit.
 - Check operation of auto iris & zoom adjust where necessary
 - Re-set camera to manufacturer's specification and adjust camera settings as necessary.
 - Check all relevant camera performance.
 - For integrated dome camera / lens units the above will apply where relevant together with relevant requirements of (i) and (ii) above.
- iv) Cables, Connectors & Connections
 - Check all cables for damage continuity, etc.
 - Check and replace if necessary all copex covers.
 - Replace where necessary.
 - Check all connections, plugs for damage, continuity, moisture ingress. Replace where necessary.
- v) <u>Telemetry Interface Tx/Rx</u>
 - Check telemetry within manufacturer's specification
 - Check all functions operate correctly.
 - Check all system control functions.
- vi) <u>Display Devices</u>
 - Check validity of all signal & power connections.
 - Check video signal for levels as necessary.
 - Check all display devices and validate.
 - Brightness/Contrast/Saturation/Aspect/Pixel performance.
- vii) Video Archiving and Retrieval System
 - Check validity of all signal & power connections.
 - Check all control functions.
 - Ensure the validity of software commands.
 - Check for HDD errors and defragmentation.
 - Check validity of operation of all remote switching units.
 - Check random (at least TEN) archived data and confirm performance and timescale.
 - Check & confirm operation of all retrieval devices (CD/DVD) replace if necessary.

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viii) <u>Housings</u>

- Check all housings not listed above for:
- Electrical isolation / earthing.
- Ventilation.
- Cleanliness.
- Rectify as necessary.
- ix) Electrical & General Safety

During servicing and maintenance the Contractor is responsible for ensuring validity of all equipment and compliance with safety regulations.

2.3.2 Preventative Maintenance Reports

- a) Following a preventative maintenance visit, the Contractor shall provide the Council with a full maintenance report and shall confirm the checks and actions carried out during the visit, together with any further actions arising from the visit that requires further maintenance or remedial work to be carried out.
- b) A copy of the completed preventative maintenance report should be made available to the Council (via the Clerk) on completion of the maintenance visit.

Note: Some reports and checklists may take the form of electronic media and therefore may be presented for acceptance and sent to immediately after the visit by email or post.

- c) An example of a preventative maintenance report is given in Appendix A.
- d) The purpose of the preventative maintenance visit report is to help the Council to monitor the reliability of its CCTV equipment and system/s, to ensure that it continues to meet its original purpose and will assist the budgeting of any replacement parts/equipment in the future.

2.3.3 Preventative Maintenance Visits

- a) The frequency of the preventative maintenance visit/s shall be agreed between the Council and the Contractor. However, as previously stated, see 2.3 (a), at least one (1) visit per year shall be carried out by the Contractor for the purposes of preventative maintenance.
- b) The date and time of the Contractor's visit shall be agreed at least one (1) month in advance of the visit in order to allow the Clerk to make the necessary arrangements for access to the central video recording equipment located in the Memorial Hall.

2.4 Corrective Maintenance

- a) Corrective maintenance shall be carried out in response to the development of a fault that has occurred in a particular piece of equipment or in the CCTV system overall.
- b) It is anticipated that corrective maintenance will occur upon a random basis throughout a year and that visits by the Contractor will be on an ad-hoc basis. Nevertheless, it is important at a suitable communication procedure is established between the Council (via the Clerk) and the Contractor to ensure at the necessary maintenance and fault repairs are carried out in a timely manner.

2.4.1 Response Time

- a) The Council's desired response time to a reported fault by the Contractor will form a part of the 'invitation to quote' for the Council's CCTV Maintenance Contract and the subsequent Contract/Agreement.
- b) Due consideration should be given to the possible financial uplift in costs that shorter response times to corrective maintenance events may engender.

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2.4.2 Corrective Maintenance Report

a) On completion of corrective maintenance, the Contractor should complete a maintenance report and give a copy to the customer and/or user.

<u>Note</u>: Some reports and checklists may take the form of electronic media and therefore may be presented for acceptance and sent to immediately after the visit by email or post.

b) An example of a corrective maintenance report is given in Appendix B.

2.5 Customer (Council) Maintenance

- a) Whilst it is recognized that regular maintenance on the CCTV equipment and system/s should be carried out by properly accredited professionals, it is important that the customer (Council) is aware of the importance to provide user maintenance to the CCTV equipment and system/s.
- b) The customer (Council) should also conduct a periodic review of the CCTV system's effectiveness to ensure it is still doing what it is intended to do1. Good practice would also suggest the 12 guiding principles in the Surveillance Camera Code of Practice be followed to ensure the system remains fit for purpose.

2.5.1 Customer (Council) Maintenance Actions

The customer (Council) should ensure all fault reporting on the CCTV system is undertaken in a methodical and timely manner. The following should be considered:

i) Ensure all users are trained on a regular basis in the actions to take in the event of an equipment and/or system/s fault.

Note: Annual training is recommended when appropriate and necessary.

- ii) Ensure faults are reported as soon as possible after they are discovered, and that details are entered in a fault reporting book.
- iii) Inspect the fault reporting book monthly to ensure all faults are dealt with efficiently and effectively.
- iv) Decide if the fault can be corrected 'in-house' or whether the maintenance contractor's services is required.
- v) Liaise with the maintenance contractor when 'in-house' fault correction is not appropriate and higher-level maintenance is required.
- vi) Ensure the technician has access to site and equipment at an agreed time and date.
- vii) After a repair has been carried out, sign and keep a copy of the corrective maintenance report for the CCTV system file.
- viii) Sign off the work from the fault reporting book. A typical fault reporting procedure is shown in Appendix C.

2.5.2 Customer (Council) Maintenance Checks

Additional checks to be carried out at regular periods by the customer (Council) should include the following activities:

- i) Clean the monitor screen/s.
- ii) Ensure the recording facilities/equipment are operating correctly.
- iii) Carry out a visual inspect of all cameras and support structures.
- iv) Inspect all CCTV warning notices, which are a statutory requirement on the Council.
- v) Carry out any other functions recommended by the Contractor.

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3. Software Upgrades

- a) It is recognised that manufacturer software upgrades to the various equipment forming the CCTV system/s may be required/necessary during the operational lifetime of a CCTV equipment/system.
- b) It is expected that the maintenance contractor, as a part of the maintenance contract, will advise the Council when software upgrades are necessary and/or recommended.
- c) It is anticipated that software upgrades may <u>not</u> automatically be carried out as part of a preventative maintenance visit, but will be subject to the Level of Service to be provided under the maintenance contract agreed between the Council and the Contractor and will be at an additional cost.
- d) Should software upgrades not be included with the Contract/Level of Service, then the Council should ensure that any software upgrades proposed are both necessary and cost-effective in regard to the type of CCTV system deployed and its operational age.

4. Maintenance Contract, Agreement and Level of Service

4.1 Maintenance Contract Period

It is anticipated that, like the other service contracts the Council operates, maintenance contracts for the CCTV systems will typically have a contract period of up to 3 years (or longer).

4.2 Maintenance Agreement

- a) The maintenance agreement should be based on the CCTV system specification (and operational requirements, where identified) and drawn up by the Council in agreement with the maintenance company. The specification should include the location of all equipment installed and the coverage and any limitation of surveillance of all cameras and any specific privacy requirements.
 - b) The maintenance agreement should also contain the following provisions:
 - i) The price and the period of support to which the agreement applies; the start and end dates for the contract; the action required for renewal; labour rates for chargeable visits.
 - ii) The equipment that is or is not covered by the agreement including consumable or perishable items.
 - iii) Any services not included in the agreement e.g. civil works, whether parts are included in the quoted cost, or are to be charged separately. Any fault causes which will give rise to a chargeable visit; e.g.: vandalism, act of God.
 - iv) The operating hours (and days) during which faults can be reported. The operating hours (and days) during to which faults will be responded.
 - v) The time that the maintenance company will take to respond to faults. The time that the maintainer will take to repair faults (customers and the maintenance company should consider that the time taken to respond is often of less consequence than the time taken to repair faults). Whether the customer needs to hold spares on site in order for a repair time to be guaranteed. Whether there are any elements of the system that require an enhanced or escalated response consider the impact of the loss of one camera versus the loss of the whole system, or a significant part of it.
 - vi) The means available for the customer's representative to report faults including telephone numbers and/ or email addresses escalation procedures, if applicable. Dependencies e.g. if the customer needs to provide an internet connection for the provision of remote support.
 - vii) Whether there are to be regular meetings to discuss maintenance and, if so, at what frequency. Any performance reports that will be provided and at what intervals.

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4.3 Level of Service

- a) A service-level agreement (SLA) defines the level of service expected by a customer from a supplier, laying out the metrics by which that service is measured, and the remedies or penalties, if any, should the agreed-on service levels not be achieved.
- b) It is normal practice for a level of service to be (typically) characterised, for example, as either a bronze, silver, gold or platinum maintenance package, where each ascending level and maintenance package includes more maintenance items / activities and a particular guaranteed (quicker) response time to call-outs, etc. within the agreed cost of the contract.
- c) It will be the responsibility of the Council when negotiating the CCTV maintenance contract to assess the level of maintenance services required under a contract and to balance the resulting cost of those services with the Council's annual CCTV expenditure and available budget

5. Documentation

- a) The following documentation should be held by the Clerk relating to the maintenance of the CCTV equipment and system:
 - i) CCTV system "as fitted" specification.
 - ii) Handover check list/completion certificate.
 - iii) Maintenance Agreement.
 - iv) Preventative Maintenance Reports (see Appendix A).
 - v) Corrective Maintenance Reports (see Appendix B).
 - vi) Fault Reporting Book (see Appendix C).
 - vii) Installed equipment manuals.
- b) The maintenance contractor should comply with the Data Protection Act in regard to customer data held.

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Appendix A - PREVENTATIVE MAINTENANCE REPORT FOR CCTV SYSTEM

Company Name:		Date:		
Company Address:				
Customer:				
	Confirm			
	Checked (✓)	Comments		
Check the number and type of cameras, including lenses, are in accordance with the specification and any amendment.				
Check visual / audible indications are functioning correctly.				
Check warning notices / labels are still in place.				
Check all cables and fixings remain properly supported, undamaged and showing no undue signs of wear.				
Check for sound physical fixings of all equipment including loosening or corrosion of supports and fixings including mounting columns and brackets.				
Check all glands and seals on external equipment to ensure no ingress of water into the equipment.				
Cameras, lens, covers and housings have been cleaned where necessary to ensure nothing obscures the field of view.				
Check the picture quality of each camera and correct monitor selection.				
Check all camera fields of view are free from obstruction and any privacy masking zones are still in place.				
Operation of all monitoring and recording equipment (including time synchronisation) is satisfactory.				
Check that the performance of the system(s) continues to meet the agreed specification / operational requirement.				
Additional comments: incl. any further recommendations to the CCTV system:				
Equipment left disconnected The system has been left in full working order, except for the disconnected item(s) listed below: Item(s) disconnected:		Revisit Is a revisit required? YES / NO If YES state why in the comments section above and give details below of any agreed arrangements:		
Permanent OR temporary:				
Planned reconnection date (if known):	Revisi	t date:	_ Time:	

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Appendix A - PREVENTATIVE MAINTENANCE REPORT FOR CCTV SYSTEM

Maintenance Engineer's name:	Signature:
	Date :
For the Council:	
I accept that the work carried out is to my satisfaction and confirm that	tt I am authorised to sign on behalf of the Council.
I have also been made aware of any disconnected equipment and array	nged revisit as listed above.
Council representative's name:	Position:
Signature:	Date:

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Appendix B - CORRECTIVE MAINTENANCE REPORT FOR CCTV SYSTEM

Company Name:	Date:	
Company Address:		
Customer:	Site:	
Reported fault (by the Council):		
Fault category:		
Action taken (by the Engineer) comments:		
Materials used:		
Chargeable: YES [] NO []		
Equipment left disconnected		
The system has been left in full working order, except for the	disconnected item(s) listed below:	
Type of disconnection Permanent [] Temporary [] Sub	scriber to notify [].	
Planned reconnection date (if known)		
Revisit		
Is a revisit required? YES [] NO []		
If YES state why in the comments section above and give deta	ils below of any agreed arrangements:	
Revisit date: Time	: am / p	m
	CD OVERLEAF	

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Appendix B - CORRECTIVE MAINTENANCE REPORT FOR CCTV SYSTEM

Maintenance Engineer's name:	Signature:
For the Council:	Date :
I accept that the work carried out is to my satisfaction and co	nfirm that I am authorised to sign on behalf of the Council.
I have also been made aware of any disconnected equipment	and arranged revisit as listed above.
Council representative's name:	Position:
Signature:	Date:

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Appendix C - FAULT REPORT REGISTER FOR CCTV SYSTEM

DATE	TIME	DETAILS OF FAULT	ACTION TAKEN	REPORTED BY	DATE OF REPAIR

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