Appendix A

DARTFORD BOROUGH COUNCIL
CCTV COST GUIDELINES

1 INTRODUCTION

This document sets out the costs that must be taken into account with any proposal for a Local Authority CCTV Project or expansion to an existing system. The actual figures indicated in the end schedule should be taken as a guideline only. There are many variables that will affect the actual cost of an individual project or system expansion, depending on the selected design and size.

2 TYPES OF COSTS

There are three main cost implications involved and all need to be considered and identified before any proposed project or extension can be approved.

2.1 Installation costs
This first group of costs are those incurred during the initial installation of the system equipment.

a. Cameras: cost will vary depending on its specification;
   - Is it a static, pan, tilt, & zoom or dome model?
   - Its features, the power of a zoom lens, its robustness (e.g. ballistic proof or not), its ability to operate in low light levels, any infra-red facility, and whether captures black and white or coloured images.
   We should always ensure that the camera purchased is capable of meeting operational requirements e.g. does it need to operate at night, at what distance does it need to be able to identify an individual, is colour important, such as identifying cars in a car park and even down to inclusion of lens wipers if it is operating outside and in the rain!

b. Mounting: will depend if the camera is mounted on a wall or a column, plus any anti-vandal measures that need to be put in place or measures to protect an individual's right of privacy such as masking or the inclusion of DPZ's (Dynamic Privacy Zones).

c. Recording equipment: is the camera to be linked into the existing recording system or will it require new equipment? The recording equipment at Dartford is now fully digital, so there is hardware and software to consider. There also needs to be adequate room for secure storage of the recording and recorded material.

d. Transmission: these are the costs involved in getting the images from the camera to the recording equipment. These vary greatly over the distance being travelled and the means of transmission selected. Here is a summary of the main options currently available.
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- Fibre Optic cabling: this produces the best images but if the distances are very large then it could become too expensive to put in new ducts and fibres. For onsite monitoring and recording the wiring will simply have to link the cameras back to the recording location. The option involves renting cabling off a telecommunication company such as BT Redcare; often this is the only option but does entail a connection fee, plus an annual payment.
- Wireless / microwave options. This requires line of sight from the cameras to the location of the recording. It does enable images to travel short distances, and is a slightly cheaper option than ducting but picture quality is compromised and the equipment shelf life is on 5 years.
- ISDN / ADSL / SDSL / Broadband. With digital recording use of computer networks becomes a realistic option and is much cheaper than laying new fibres. The quality of the ISDN is not good and this is not recommended. Broadband offers more opportunity and further research into this option is recommended.

e. Installation costs: Estimated labour costs of the contractors who will carry out the works.

f. Consultancy fees: Designing and installing a large CCTV project or system expansion is a specialist skill that requires knowledge of the various technologies and options available, together with an understanding of the various legal requirements. A consultant, whether in house or external, should be involved at some stage, whether to review proposals, or design and oversee the installation of the whole project.

2.2 Running costs
Provision needs to be made for these costs on an annual basis with financial allowances made for the generic nature of a PSS (Public Space Surveillance) CCTV system.

a. Maintenance costs. Cameras need to be kept in a good working condition and able to meet the purposes of the scheme. A maintenance contract should be in place providing a regular six monthly clean and health check of the cameras, plus a call out and repair option. The Control Room equipment will also need maintenance and repair. Depending on the method of transmission this may also require maintenance. It is recommended that such contracts are secured for a minimum of three to five years in order to maintain consistency of service.

b. Monitoring costs. If the system is to maintain the high level of service it currently provides to Kent Police, other partners and indeed the residents of Dartford then some form of monitoring is essential. This is potentially the most expensive element, especially if 24/7 monitoring is ever to be considered. At present, whilst not being able to offer 24/7 monitoring the CCTV Management Team do always ensure that the monitoring arrangements meet the purposes of
the scheme e.g. there are particular times that the monitoring can be limited to
cover core hours. There will also need to be an ongoing provision for staff
training to ensure they continue to operate to required standards.

c. Management costs. Any PSS CCTV System requires ongoing management
to ensure legal requirements are being met, there is a responsibility of reporting
and accountability to its customers, and liaison with the Police and other
partners. There is also the need to be audited and evaluated regularly. All
Monitoring staff and contractors also need to be managed and an agreed
management team structure should be firmly in place to deal with this.

d. Control Room running costs. The Control Room has its own associated
running costs that need to be covered or contributed to e.g. heat, light, power,
telephones, transmission rentals, radio licenses, replacement tapes, DVDs, etc.

2.3 Upgrade and replacement
All PSS CCTV schemes will have to upgrade and replace cameras and
monitoring equipment at some point. A general guide is approximately every 5
years. All CCTV Schemes have a responsibility to consider and plan how they
will fund these replacements. Theses tend to be capital costs so in addition to
any agreed budgetary funding external grants may also be obtained at the time
of replacement, although if left to reliance on this there is a risk no funds may be
available at the time required.

3 SCHEDULE OF GUIDELINE COSTS

Important. The following should be taken as a guideline only. These costs are at
the high end of the scale, but professional CCTV Equipment is expensive.

<table>
<thead>
<tr>
<th>COST TYPE</th>
<th>GUIDELINE COST</th>
<th>COMMENTS</th>
<th>Further breakdown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation Costs</td>
<td>£10 – 20 000 per camera</td>
<td>The big variable is the transmission costs, which is unknown until each project is designed. For example, the BT fibre-optic line for the recent Darent Path Project was about £10k (3 video/ 1 data) including the BT cabinet and base, with a 5 year up-front rental of about £5k.</td>
<td>Can easily be as much as £80 per meter for laying fibre optic cables in public highway (most expensive option)</td>
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### Appendix A

<table>
<thead>
<tr>
<th>Camera Type</th>
<th>Cost</th>
<th>Additional Notes</th>
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<tbody>
<tr>
<td>Static camera</td>
<td>£1,000</td>
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<tr>
<td>Pan, Zoom &amp; Tilt Camera (Traditional Shoebox Design)</td>
<td>£3,500</td>
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<tr>
<td>MIC1-400 Dome Camera (Currently the Preferred Installation at DBC)</td>
<td>£4,500</td>
<td></td>
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<tr>
<td>Column mounting</td>
<td>£4,000 (Based on an 8m Height)</td>
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#### Running Costs

<table>
<thead>
<tr>
<th>Cost Type</th>
<th>Cost</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Maintenance costs</td>
<td>12.5% of monitoring costs</td>
<td>This is a widely used formula purely for guidance. Maintenance costs are likely to be low when the scheme is first commissioned and increases as it gets older.</td>
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<tr>
<td>Monitoring Costs</td>
<td>£1500 - £2500 per camera</td>
<td>This is an approximation based upon 24x7 monitoring, and includes a contribution to Control Room Costs.</td>
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<tr>
<td>Management Costs</td>
<td>10% of monitoring costs</td>
<td>This is an agreed formula for guidance, based upon experiences in other existing Control Rooms</td>
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<tr>
<td>Upgrade And replacement</td>
<td>Similar to installation</td>
<td>The infrastructure is likely to be in place, but the equipment costs will be similar to initial purchase costs.</td>
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