

Video Surveillance System Recommendations



Installation of closed-circuit television (CCTV) security systems can aid police in the investigation of crime; however this is only true if the people and/or events are recorded with sufficient detail. Below are some guidelines developed by forensic video analysts in regards to what should be considered when installing a video surveillance system.

- Strategic placement of cameras is more important than the number of cameras.
- ID cameras should have field of view set to cover stomach to head (i.e. these cameras should be zoomed in enough (at or near head level) to provide good quality images from which a person can be identified). There should be one ID camera at each exit set to detect motion.
- Cameras should be in COLOUR and high quality colour cameras today can change to black and white when necessary (in low light conditions). Cameras, and specifically their lenses ,are the most overlooked part of a surveillance system. Both are critically important when it comes to image quality. Lenses can make or break a system as they do the focusing, so having high quality cameras and lenses is important.
- Ensure there is sufficient lighting in areas that are under surveillance.
- Images from the surveillance system should be date and time stamped. Ensure the date and time is accurate.
- Use the lowest compression possible (i.e. larger file sizes taking up more, not less, hard drive space). The higher the compression, the worse the image quality will be. It is better to only have enough hard drive space to hold one week of good quality video than three or more weeks of poor quality video. If you opt for quantity over quality then the video could be unusable.
- Images from the surveillance system should be recorded at a minimum of 640 X 480 pixels. Use the highest resolution possible.
- The system should have a CD/DVD writer and/or USB/Fire wire ports in order to export files. This can prevent police from having to seize the system in serious cases.
- Ensure the recording device is in a secured area.







IMPORTANT: Avoid Quad systems. Since four camera views (instead of one) take up each frame of video, it is very unlikely that a suspect could be identified as the camera images are 1/4 the size of other systems.

When deciding on a video surveillance systems do not determine the quality of images from live feed. Live feed is uncompressed and will always be clear (unless there is a problem with a specific camera). Instead view video clips that have been exported from the system (i.e. previously recorded video) to determine image quality.





Cameras:

The system should be designed such that cameras are placed where they cannot be tampered with, but have unobstructed views. Lighting should be balanced to avoid areas with excessive light or shadow and backlighting.

Details such as facial features or license plate numbers should be visible in the recorded images (See Figure 1). One camera per exit and one camera per point of transaction are recommended.

Recording:

Digital resolution refers to the number of pixels that make up an image. FVAABC recommends recording at no less than 640X480, with higher resolutions preferable. Video recorded at fewer frames per second will save storage space, but below five (5) frames or images per second (FPS or IPS) there is a risk of missing key information.

**Figure 1 and Camera system recommendations taken from Forensic Video Analysts' Association of British Columbia

REMEMBER: Video surveillance is not a crime prevention tool, it is an investigation tool and may not help prevent criminal activity from occurring. If installed correctly, it can help identify individuals that have engaged in criminal activity on or around your property.



