

**ES08**

CCTV

UNIVERSITY OF  
**LEICESTER****Document Control**

Rev	Date	By	Comments
A	Jun 16	L. Davies	Technical review update
B	Oct 17	L. Davies	Technical review update
C	Dec 17	UoL	Sign off for release
D	Mar 20	J Thrupp	March 2020 Issue
E	Feb 24	R Sturgess	Technical review and update.
F	Mar 24	R Sturgess	Technical review and update.



## Design Guidance

1. The University operates a centralised CCTV recording solution, any new requirement for CCTV should be capable of using this service and defined network structure as described in the 'Installation of CCTV at the University of Leicester' guidance document.
2. All CCTV equipment to be IP network enabled and connected back to the primary IT network infrastructure. During design stage this shall be discussed and agreed with the UOL Head of Business Systems, Security and IT departments.
3. Network points should be presented no more than 1 metre from the camera fixing point and provided in suitable containment for the installation location, ensuring the network connection point is none tamper. Power (if required) should be presented as a single unswitched fused spur within 1 metre of the camera fixing point.
4. All CCTV installations should be accompanied with an Operational Requirements document and Privacy Impact Assessment as detailed in the 'Installation of CCTV at the University of Leicester' guidance document, these should be agreed with the UOL Head of Security for camera installation.
5. Cameras should be classified as Critical, Important, or standard as defined in the guidance document.
6. All CCTV equipment to be POE capable, cameras defined as Critical should have a local power source as not to rely on the PoE, Critical Cameras should also have the capability to record locally to the device should the network be out of service for any reason. The use of POE facility shall be agreed with the University IT department. The use of PoE++ needs to be agreed prior to selection as this is not supported by the UOL standard network specification.
7. All CCTV equipment shall be Bosch, camera model to be agree with UOL Head of Business Systems before installation.
8. The implementation of video analytics shall be discussed and agreed with the UOL Head of Business Systems during the design stage, all building entrances must be containing a minimum version of Bosch Intelligent Video Analytics 8.10 with required licencing.
9. All CCTV cameras to have auxiliary input/ output facilities where required to suit the risk assessment of the project.
10. External CCTV coverage shall be designed with due consideration given to external lighting including time scheduling, glare control and IR facilities to suit the security risk assessment established with UOL Head of Business Systems where required.
11. The selection of CCTV cameras shall be undertaken in conjunction with the UOL Head of Business Systems during the design stage based on the individual project security risk assessment.
12. All technical information for camera equipment must be provided prior to installation to the UOL Head of Business Systems for review with Security and IT. Liaison will need to take place with IT to ensure compliance with the University network.
13. The UOL Head of Business Systems should be provided with a storage calculation based on a 24/7 recording, 1080p resolution, min frame rate 25 fps, 30% static, 40% standard and 30% busy basis, the UOL will then present the project a cost for providing this storage in its central repository.
14. The devices must meet the minimum-security requirements as detailed in the 'Installation of CCTV at the University of Leicester' guidance document.
15. No Network Video Recording units should be included in the project costs unless a suitable case is made to the UOL Head of Business Systems, cases may include no network or unsuitable network connection back to the main University network.
16. If local view monitors are required this should be agreed with the UOL Head of Security and should be suitable devices for 24/7 viewing.



### Design Guidance

17. To achieve the objectives outlined within the project operational requirements (CCTV risk analysis undertaken by the designer), cameras should be considered for installation at the following (list not exhaustive):
- Common areas, entrances to buildings including residencies and retail outlets
  - Access/ Egress routes to the estate including roads, pathways and gateways
  - Open areas used by members of the University and public
  - Buildings or sections of buildings designated as high risk by head of security or subject to legal governance.
18. All cable management to comply with UOL design guides ES02 and ES03.

### Design Components

Item	Manufacturer	Comments
Network Video Recording units (NVR) (Only required by Consent with the University)	Bosch	Video compression format to be H.265.
Monitors	To be agreed	To be agree depending on requirement.
Internal Cameras (Fixed)	Bosch Flexidome indoor 5100i, range  Bosch Flexidome IP Indoor 50001, range	Lens size/ focal range shall be selected to suit the operational requirement.  Mounting type and bracketry detail shall be selected to suit the application.
Internal Cameras (Fully Functional PTZ)	Bosch Autodome (HD) range	1080p30 and 720p60 ips resolutions, 12x optical zoom and 16x digital zoom.  Mounting type and bracketry detail shall be selected to suit the application.
Internal Cameras (Panoramic)	Bosch Flexidome IP panoramic 7000MP  Bosch Flexidome multi 7000i IR	12MP Fixed Lens focal range dependent upon 108° or 360° requirement. Location and use of the panoramic camera system to be provided based on the analytical requirements of the applicable space.  Mounting type and bracketry details shall be selected to suit the application.



### Design Components

Item	Manufacturer	Comments
External Cameras (Fixed)	Bosch Flexidome (HD) External Range (External / Exit points of entry where facial recognition may be required)	1080p 3-9mm lens.  Lens size/ focal range shall be selected to suit the operational requirement.  Mounting type and bracketry detail shall be selected to suit the application.  True Day/Night capable of working at low lighting levels.
External Cameras (Fully Functional PTZ)	AUTODOME IP starlight 5000i IR  MIC Inteox 7100i -2mp (For installation in high-risk vandalism areas)	Mounting type and bracketry detail shall be selected to suit the application.
External Cameras (Barrier intercom post)	Flexidome IP micro 3000i - outdoor	1080p 2.3mm lens 2mp
External Panoramic	Bosch Flexidome multi 7000i IR	Mounting type and bracketry detail shall be selected to suit the application.
Camera Housing		Full bodied CCTV housings shall come complete with condensation control. Mounting types shall vary dependent upon application. Post heights, type, location to be agreed by UOL Head of business systems
Camera Post	Altron	Post heights, type, location to be agreed by UOL Head of business systems.

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LEICESTER**Fibre Network  
EquipmentComNet, none managed  
media convertor or  
switch, local powered.

To be agreed with the Head of Business systems depending on requirement. Additional allows maybe required for additional equipment such as Intercoms, or access control. Housing of external media convertors or switches must be secure and protected by a SALTO lock solution.

**Framework Contractors**

Service

Specialist

Address &amp; Contact Details

Contractors to contact Business Systems Team for clarification.