Technical Design Specification

For

Elsecar Heritage Site - Security Upgrade

Client: Barnsley Metropolitan Borough Council

Reference: CS/BMB/2025-933.1 R4

Date: 16th January 2026

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Introduction

I. Consultive Solutions Limited (CSL) have been contracted by Barnsley Metropolitan Borough Council (BMBC) to produce this technical design specification for the upgrade of the following at Elsecar Heritage site:

- CCTV Cameras
- Video Recording Platform (VRP)
- Vehicle Barrier Intercom
- CCTV VMS Workstation

II. This specification will outline the necessary CCTV upgrades aimed at replacing and enhancing the existing on-site CCTV system and installation of a vehicle barrier intercom.

III. This specification details the requirements for the deployment of the systems the integrator shall reference to prepare and submit both commercial and technical proposals, also indicating compliance with the specified requirements.

Design Criteria

I. The CCTV system upgrade specification has been developed to meet the following criteria derived from -

- Stakeholder consultation.
- Site risks.
- Technical and Operational requirements.

II. The specification output shall provide:

- Compliance.
- Upgrade of CCTV.
- Deployment of CCTV Cameras with analytics.
- Deployment of Video Recording Platform.
- Provision of intercom for barrier control.
- Consideration to the sites Heritage status.
- Responsibility of Works

Drawing Register

The drawings listed in the table below have been produced in line with the site-specific specification requirements and will serve as references throughout this document and during the installation process.

Drawing Reference	Scope
CSL-BMC-2025-933.1-01001.R5	Elsecar Heritage Centre Proposed CCTV Locations
CSL-BMC-2025-933.1-01002.R4	Elsecar Heritage Centre Proposed CCTV Indicative Overall CCTV Coverage
CSL-BMC-2025-933.1-01003.R4	Elsecar Heritage Centre Proposed CCTV Indicative Type A Coverage
CSL-BMC-2025-933.1-01004.R3	Elsecar Heritage Centre Proposed CCTV Indicative Type B Coverage (1)
CSL-BMC-2025-933.1-01005.R3	Elsecar Heritage Centre Proposed CCTV Indicative Type B Coverage (2)
CSL-BMC-2025-933.1-01006.R3	Elsecar Heritage Centre Proposed CCTV Indicative Type E Coverage
CSL-BMC-2025-933.1-01007.R5	Elsecar Heritage Centre Proposed Device Connections

Operational Requirements

i. The security operation shall have two states; These will be 'Operational Hours' and 'Out of Hours'.

ii. Elsecar Heritage Centre Operational hours are deemed as:

- Monday 10AM to 5PM
- Tuesday 10AM to 5PM
- Wednesday 10AM to 5PM
- Thursday 10AM to 5PM
- Friday 10AM to 5PM
- Saturday 10AM to 5PM
- Sunday 10AM to 5PM

iii. Elsecar Heritage Centre Out of hours is deemed as:

- Monday 5PM to 10AM
- Tuesday 5PM to 10AM
- Wednesday 5PM to 10AM
- Thursday 5PM to 10AM
- Friday 5PM to 10AM
- Saturday 5PM to 10AM
- Sunday 5PM to 10AM

iv. The Ironworks building within the site may have extended hours due to planned events and weddings. (Subject to change).

v. The Playmania building has extended hours Tuesday, Thursday and Friday to 6.30PM. (Subject to change).

vi. The Maison Du Biere has the following hours (Subject to change):

- Thursday, Friday and Saturday 12PM-9PM
- Wednesday and Sunday 12PM-7PM
- Bank Holiday Mondays 12PM-6PM.

vii. The CCTV system shall be user friendly and adaptable to allow for changes to operational hours on an ad-hoc basis.

viii. Elements of each operational state shall be managed as detailed within this specification.

ix. All system operations and events shall be available to Barnsley Metropolitan Borough Council as part of a reporting/ audit function.

Operational Requirement Reference	Operational Requirement	Operational changes during Out of Hours
OR EHC1.0	The deployment of CCTV on site shall aid incident and/ or event identification, alert, and investigation.	No change.
OR EHC1.1	Video analytics for entry/exit routes and key locations.	Active
OR EHC1.2	CCTV images shall be stored for 31 days.	No change.

Infrastructure

General

i. New structured cabling infrastructure shall be installed by the integrator and meet the following specification as a minimum:

- Cabling shall comply with Construction Products Regulations(CPR) with a minimum of Cca, S1B, D2, A2 as stipulated in BS 6701:2016+A1:2017.
- Cabling shall be supplied and installed to IEEE standards for CAT6 cabling.
- All cabling shall be installed in whole and complete lengths

ii. Where required CAT6 structured cable shall be installed by the integrator and meet the minimum specification of:

- 4 Pair, 23AWG solid copper
- Low Smoke Zero Halogen (LSZH) outer sheath
- Operating temperature of -20 to +75°C

iii. All cables installed shall have the relevant test certification provided for each circuit.

iv. All test certifications shall be included within the 'As Installed' Information.

v. All connectivity to IP devices/ patching shall be provided by CAT6 patch leads.

vi. Patch cables shall have a minimum specification of:

- F/UTP
- LSZH
- RJ45 Connectors

vii. An RJ45 outlet shall be installed internally at each of the device locations.

viii. All RJ45 outlets shall be terminated within an IDC CAT6 patch panel.

ix. Any cables found to be damaged during and/or after the installation shall be replaced at no cost to the client.

x. All patch leads shall be tested prior to installation (not as part of the structured circuit).

xi. Patch cables to enter camera via rear entry, no flexible conduit or bare cabling shall be exposed externally.

xii. External devices shall have appropriate lightning/ surge protection devices installed between the patch lead and the RJ45 outlet.

xiii. All cabling and patch leads shall be labelled in line with the cable labelling schedule.

xiv. All cabling shall be hidden within containment and/ or within ceiling voids.

xv. The integrator shall liaise with Barnsley Metropolitan Borough Council IT department to establish a connection between the Elsecar Heritage Centre and The Glassworks CCTV Control Room, to allow control room staff to react to system alerts, review and monitor the CCTV system and operate the vehicle barrier when a call is received.

Network Switches

i. BMBC IT Department shall supply and install all required network switches and cabinets. The integrator shall liaise with the IT Department throughout the design and installation phases to ensure full compliance with operational requirements.

ii. BMBC IT department shall configure firewalls and gateways within the network switches.

iii. Network switches shall be provided with a sufficient number of ports to support the proposed camera count, plus an additional 20% capacity to allow for future expansion.

iv. The network switches shall meet the below specifications as a minimum and be compliant to BMBC IT department specifications:

- Gigabit Ethernet Ports
- 2 x SFP Ports
- PoE+
- 100-240vAC
- IEEE 802.3 Compliant
- Rack Mountable

Video Recording Platform (VRP)

i. The integrator shall provide a VRP that provides a single technology solution to support the proposed camera count and future expansion of a minimum of 20%.

ii. The VRP shall support a minimum retention period of 31 days.

iii. The integrator shall provide the calculations to show how the retention period shall be met, including the required future expansion and based on the configuration table below.

iv. The integrator shall calculate the required storage using an estimate of 50% motion during non-operational hours.

v. The VRP shall be configured as per the table below for each camera input:

Camera Description	Quality	Frame Rate	Within Operating Hours	Outside Operating Hours
External cameras	100%	25fps	Full time recording	Motion Only and Analytical alert where configured
Internal Cameras	100%	25fps	Full time recording	Motion Only and Analytical alert where configured

vi. The VRP shall be an open architecture that provides integration with third party systems via SDK's (Software Developer Kits) and/or API's (Application Programming Interface) where required.

vii. The VRP and its associated hardware shall support network management reporting and be discoverable by industry standard network management platforms.

viii. The VRP shall use simple network reporting protocols to report to the network management platform in the event of a system issue and or failure.

ix. The VRP shall support full user rights configuration to provide a multi-tiered, user function topology and permissions structure.

x. The VRP shall provide the operator functions to support recorded video playback, forward and reverse, frame by frame, screen shot from video and the ability to digitally zoom playback and still images.

xi. The VRP shall support programmable display configurations for the user workstations.

xii. The VRP user workstations shall display the preferred user display configuration at login.

xiii. The VRP users access rights, and functionality shall be based on their login credentials.

xiv. The VRP shall provide a searchable and reportable user action database for each allocated system user.

xv. The VRP shall support the simultaneous downloading of footage for multiple cameras as a single export.

xvi. The VRP shall support the simultaneous playback of at least four cameras concurrently to include a separate timeline for each camera.

CCTV Equipment Deployment

Refer to drawings:

Drawing Reference	Title
CSL-BMC-2025-933.1-01001.R5	Elsecar Heritage Centre Proposed CCTV Locations
CSL-BMC-2025-933.1-01002.R4	Elsecar Heritage Centre Proposed CCTV Indicative Overall CCTV Coverage
CSL-BMC-2025-933.1-01003.R4	Elsecar Heritage Centre Proposed CCTV Indicative Type A Coverage
CSL-BMC-2025-933.1-01004.R3	Elsecar Heritage Centre Proposed CCTV Indicative Type B Coverage (1)
CSL-BMC-2025-933.1-01005.R3	Elsecar Heritage Centre Proposed CCTV Indicative Type B Coverage (2)
CSL-BMC-2025-933.1-01006.R3	Elsecar Heritage Centre Proposed CCTV Indicative Type D Coverage
CSL-BMC-2025-933.1-01007.R5	Elsecar Heritage Centre Proposed Device Connections

i. Integrators shall provide the following devices that meet the following specifications as a minimum.

Type	Description
A	Internal Dome Camera
B	External Dome Camera
C	Internal PTZ Camera
D	External PTZ Camera
E	External Bullet Camera
F	Internal Multi-Sensor Camera
G	Internal Module Camera

Specification \ Type	A	B	C	D	E	F	G
Resolution of 2MP	Y	Y	Y	-	-	-	Y
Resolution of 4MP	-	-	-	Y	Y	-	-
Resolution of 8MP	-	-	-	-	-	Y	-
Frame rate of up to 30 FPS	Y	Y	-	-	Y	-	-
Frame rate of up to 60 FPS	-	-	Y	Y	-	Y	-
30m Optimised IR Range	-	Y	-	-	Y	Y	-
50m Optimised IR Range	-	-	-	Y	-	-	-
Fixed 2.4mm Lens	-	-	-	-	-	-	Y
Auto Day/Night	Y	Y	Y	Y	Y	Y	-
Wide Dynamic Range (WDR)	Y	Y	Y	Y	Y	Y	Y
Up to 25x Zoom	-	-	Y	-	-	-	-
Up to 36x Zoom	-	-	-	Y	-	-	-
360 Continuous Rotation	-	-	Y	Y	-	-	-
Image Stabilisation	-	-	Y	Y	-	-	-
IK08 Protection Rating	Y	Y	-	Y	Y	Y	-
IP66 Rated	-	Y	-	Y	Y	Y	-
PoE/ PoE+	Y	Y	Y	Y	Y	Y	-
Compression Rate of H.265	Y	Y	Y	Y	Y	Y	-
Privacy Masks	Y	Y	Y	Y	Y	Y	-
Motion Detection	Y	Y	Y	Y	Y	Y	-
Enter/ Exit Analytics	Y	Y	Y	Y	Y	Y	-
Cross Line Detection	Y	Y	Y	Y	Y	Y	-
Corridor View	Y	Y	-	-	Y	-	-
NDAA Compliant	Y	Y	Y	Y	Y	Y	Y
Open API/ SDK	Y	Y	Y	Y	Y	Y	Y

CCTV Deployment Detail

i. Integrators shall provide a proposal for the supply, installation and commissioning of the following CCTV devices.

Device Reference	Location	Device Type	Device Mounting	Operational Requirement	Recording Criteria
CCTV.1	External, Security Office (North Elevation)	E	Wall Mounted	• Existing device shall be removed and replaced. • To provide observation at the main entrance gate. • Analytical event to be generated in the event of: o Object Appear/Enter Area o Object Loitering	• Operational Hours: Continuous. • Outside of operational Hours: Motion and Analytics based.
CCTV.2	External, Ironworks Building (North Elevation)	E	Wall Mounted	• Existing device shall be removed and replaced. • To provide observation within the Beam Engine area. • Analytical event to be generated in the event of: o Object Appear/Enter Area o Object Loitering	• Operational Hours: Continuous. • Outside of operational Hours: Motion and Analytics based.
CCTV.3	External, Security Office (South Elevation)	E	Wall Mounted	• Existing device shall be removed and replaced. • To provide detection within the open area to the East of the Ironworks building. (Ironworks Place). • Analytical event to be generated in the event of: o Object Appear/Enter Area o Object Loitering	• Operational Hours: Continuous. • Outside of operational Hours: Motion and Analytics based.
CCTV.4	External, Ironworks Building (East Elevation)	E	Wall Mounted	• To provide detection within the open area to the East of the Ironworks building. (Ironworks Place). Towards the main entrance gate. • Analytical event to be generated in the event of: o Object Appear/Enter Area o Object Loitering	• Operational Hours: Continuous. • Outside of operational Hours: Motion and Analytics based.

CCTV.5	External, Building Ironworks (East Elevation)	E	Wall Mounted	• To provide detection in the area towards the Bin Store and woodworking area.	• Operational Hours: Continuous. • Outside of operational Hours: Motion.
CCTV.6	External, Antiques Centre (South Corner)	B	Wall Mounted	• To provide observation within the area to the rear of the antiques centre. Viewing Northwest.	• Operational Hours: Continuous. • Outside of operational Hours: Motion.
CCTV.7	External, Antiques Centre (East Corner)	B	Wall Mounted	• To provide observation within the area to the West of the Ironworks building towards the vehicle barrier.	• Operational Hours: Continuous. • Outside of operational Hours: Motion.
CCTV.8	External, Antiques Centre (West Corner)	B	Wall Mounted	• To provide observation within open public area towards the Pantry.	• Operational Hours: Continuous. • Outside of operational Hours: Motion.
CCTV.9	External, Antiques Centre (West Corner)	B	Wall Mounted	• To provide detection within the area to the rear of the antiques centre. Viewing Southwest.	• Operational Hours: Continuous. • Outside of operational Hours: Motion.
CCTV.10	External, Antiques Centre (West Corner)	B	Wall Mounted	• To provide detection in area of Powerhouse Square and pedestrian entrance. • Analytical event to be generated in the event of: o Object Appear/Enter Area o Object Loitering	• Operational Hours: Continuous. • Outside of operational Hours: Motion and Analytics based.
CCTV.11	External, Rear of Retail Outlet 6	E	Wall Mounted	• Existing device shall be removed and replaced. • To provide observation of the carpark area towards the vehicle charging terminals.	• Operational Hours: Continuous. • Outside of operational Hours: Motion.

CCTV.12	External, Above Pedestrian Entrance (Adjacent Unit 7a)	B	Wall Mounted.	• Existing device shall be removed and replaced. • To provide detection within the pedestrian entrance area into Powerhouse Square.	• Operational Hours: Continuous. • Outside of operational Hours: Motion.
CCTV.13	Internal, Visitors Centre Ground Floor	A	Ceiling Mounted	• Existing device shall be removed and replaced. • To provide identification within the visitors' centre.	• Operational Hours: Continuous. • Outside of operational Hours: Motion.
CCTV.14	Internal, Visitors Centre Ground Floor Exhibit area.	A	Ceiling Mounted	• To provide observation within the visitors' centre exhibit area.	• Operational Hours: Continuous. • Outside of operational Hours: Motion.
CCTV.15	External, Above BBR Auctions	B	Wall Mounted	• Existing device shall be removed and replaced. • To provide observation within the entrance gate area. • Analytical event to be generated in the event of: o Object Appear/Enter Area o Object Loitering	• Operational Hours: Continuous. • Outside of operational Hours: Motion and Analytics based.
CCTV.16	External, BBR Auctions Building. (Front of Building)	B	Wall Mounted	• To provide observation within open public area towards the Pantry.	• Operational Hours: Continuous. • Outside of operational Hours: Motion.
CCTV.17	External, Toilet Block (East Elevation)	B	Wall Mounted	• To provide observation within the open public area/seating area towards the Pantry and retail shop. Viewing East-North-east.	• Operational Hours: Continuous. • Outside of operational Hours: Motion.

CCTV.18	External, Ironworks Building (North)	B	Wall Mounted	• Existing device shall be removed and replaced.
				• To provide Identification within the vehicle gate/intercom area within Darwin yard.
				• Analytical event to be generated in the event of:
				  • Object Appear/Enter Area
				  • Object Loitering
					• Operational Hours: Continuous.
					• Outside of operational Hours: Motion and Analytics based.

CCTV.19	External, Security Office (East Elevation).	E	Wall Mounted	• To provide Identification within the vehicle gate/intercom area adjacent the security office.
				• Analytical event to be generated in the event of:
				  • Object Appear/Enter Area
				  • Object Loitering
					• Operational Hours: Continuous.
					• Outside of operational Hours: Motion and Analytics based.

Video Recording Platform	Security Office.	N/A	Existing equipment cabinet within Security office.	N/A	N/A
Operator Workstation	Security Office.	N/A	Security Office	• To provide onsite access to the CCTV system for review and administration of the system when required.	
Network Switch (1)	Antiques Building (Ground floor Storage office).	N/A	Equipment Cabinet. Wall mounted. (New Install By BMBC IT).	N/A	N/A
Network Switch (2)	Ironworks (North End towards Security office)	N/A	Equipment Cabinet. Wall mounted. (New Install By BMBC IT).	N/A	N/A

CCTV Workstation

i. The integrator shall supply a CCTV VMS workstation that is compatible with the proposed VMS software minimum specification, plus a future expansion to that specification of a minimum of 20%.

ii. The workstation shall be supplied with a wired mouse and a wired QWERTY keyboard.

iii. The workstation shall be deployed with one monitor and be compliant to the following specification, as a minimum:

- 24" LED backlit
- 3840 x 2160 resolution (4K UHD)
- 16:9 aspect ratio
- 60Hz refresh rate
- 4ms response time
- 2x HDMI and 1 DisplayPort inputs
- Rated for 24/7 operation
- Anti-glare coating
- Desk mount or VESA compatible

iv. Workstations shall support ergonomic use and operator comfort, including appropriate desk height, viewing angles, and seating.

v. Workstations shall provide access to all core VMS functions, including:

- Live camera monitoring and multi-camera synchronized playback
- Event-driven alarm notifications and incident response
- Analytics alerts and reporting
- Camera presets, PTZ control, and device management

vi. Alarm-driven camera call-ups and event notifications shall follow profile-based assignments, ensuring local operators can respond without requiring central oversight.

Vehicle Barrier Intercom

The Vehicle Barrier Intercom shall provide the following.

i. Remote Communication and Operation to The Glassworks Security Control Room.

Type	Description
A	Internal Call Station (Single)
B	Internal Call Station (Multi)
C	External Call Station (Single)
D	External Call Station (Multi)
E	Handset
F	Server
G	Help-Point

Specification \ Type	A	B	C	D	E	F	G
Single Call Button	Y	-	Y	-	-	-	-
Multiple Buttons	-	Y	-	Y	-	-	Y
LCD Screen	-	Y	-	Y	-	-	-
Built-In Camera	Y	Y	Y	Y	-	-	-
Flush/ Surface Mount	Y	Y	-	Y	-	-	Y
Desk Mount	-	-	-	-	Y	-	-
Wall Mount	-	-	-	-	Y	-	-
Input/ Output Relays	Y	Y	Y	Y	-	-	-
Speaker Phone	-	-	-	-	Y	-	-
Bluetooth	-	-	-	-	Y	-	-
12/24v & PoE	Y	Y	Y	Y	Y	-	Y
IP66	-	-	Y	Y	-	-	Y
IK08	Y	Y	Y	Y	-	-	Y
Open API/ SDK	Y	Y	Y	Y	-	Y	-
19-Inch Rack Mountable	-	-	-	-	-	Y	-
Capability of up to 500 Intercom Stations	-	-	-	-	-	Y	-
SSH, HTTPS, Firewall IP Security	-	-	-	-	-	Y	-
Active Noise Cancellation	Y	Y	Y	Y	Y	-	Y

Intercom Deployment Detail

i. Integrators shall provide a proposal for the supply, installation and commissioning of the following intercom devices.

Device Reference	Location	Device Type	Device Mounting	Operational Requirement
ITCM.1	External, Security Office. (North side).	A	Pedestal mounted with back box. Vehicle protection barrier.	• To provide communication and Operation to The Glassworks. • To allow visitors to communicate with the security office without leaving their car.
ITCM.2	The Glassworks, Security Control Room	E	Desk Mounted	• To provide communication to the Elsecar Heritage Centre vehicle barrier intercom. • To allow remote operation of the vehicle barrier.

Network Infrastructure

i. Refer to the following drawings:

- CSL-BMC-2025-933.1-01007.R5 - Elsecar Heritage Centre Proposed Device Connections

ii. The current network infrastructure consists of existing networks cabinets installed within the following locations.

- Visitors Centre
- Bridal Shop (Ground Floor Entrance Lobby)
- Ironworks (Plant Room)

iii. The existing network cabinets are connected to one another to form an onsite-network, this is via a Line of Sight (LOS) wireless system. The existing LOS wireless system shall be retained and re-used.

iv. The LOS wireless devices are located on the following buildings.

- Bridal Shop
- Visitors Centre
- Antiques Building
- Ironworks Building
- Building 2B
- Railway Sidings

v. Integrators shall provide bandwidth requirements of their proposed solution as part of their proposal.

vi. Where possible integrators shall re-use the existing Cisco 9300 network switches within the Ironworks (Plant Room), Visitors Centre and the Bridal shop.

vii. The Antiques Centre CCTV shall utilise the existing LOS wireless device installed to the facia of the building allowing the proposed cameras to connect to the site network.

viii. Integrators shall liaise with BMBC IT department to achieve the following.

- Visitors Centre - Sanitise the existing equipment connected to the network switch within the visitor's centre to allow spare capacity. If spare capacity cannot be achieved on the existing network switch, an additional network switch shall be installed by BMBC IT.
- Antiques Centre - Install a new equipment cabinet and network switch within the ground floor storage office. (By BMBC IT).
- Ironworks - Install a new equipment cabinet and network switch within the main space, located at the North end of the building in close proximity to the Security office. (By BMBC IT)
- Connection and Configuration of the Antiques Centre LOS device to the proposed network switch, to enable cameras 6,7,8,9,10 access to the site network.
- A Fiber optic connection shall be utilised to connect the Ironworks (Plant Room) equipment cabinet to the new equipment cabinet that shall be located at the North end of the main space.
- BMBC IT department shall set-up a dedicated VLAN for the CCTV and Intercom system within the Elsecar Heritage Site.

ix. PoE loading of each switch shall not exceed 80%.

Site Specific Installation Requirements

General

The following security function shall be provided as a minimum:

i. All passwords must consist of at least one Uppercase, Lowercase and Numerical character.

ii. All system and device software and firmware updates shall be available from the manufacturer's website or through technical support for download and deployment as determined by the Maintenance Programme.

iii. Systems shall support IEEE802.1x authentication configuration parameters per device.

iv. Integrators shall provide as part of their proposal, a test and commissioning plan to be implemented upon completion of agreed work stages.

v. Where CCTV cameras have been removed or relocated from suspended ceiling tiles, the integrator shall supply and install replacement tiles.

vi. All redundant CCTV equipment associated cabling/ junction boxes and bracketry shall be removed from the location.

vii. Internal cabling within the Antiques building shall be concealed within new/ exiting surface mounted trunking, in line with existing cabling.

viii. Existing internal metal cable tray work, within the Ironworks shall be utilised.

ix. Where cabling shall be routed through and/ or over tenanted retailed spaces, prior agreement and permission will be required.

Conservation Requirements

i. The majority of the buildings within the Elsecar Heritage Site are Grade 2 listed status and as such all proposed CCTV cameras, installation locations, cable entry/ exits, cable routes and finishes are subject to approval from BMBC Conservation prior to equipment procurement and install.

ii. All external equipment and bracketry shall be matt Black in colour.

iii. All mounting shall utilise mortar joints or use a secondary pattress board affixed to the mortar joints.

iv. Where holes have been made in the walls or unnecessary cabling remains, the integrator shall repair the walls and remove all redundant cabling.

v. External cables to be Black in colour.

vi. New CCTV camera fixings shall be within existing camera fixing holes or new holes within the building mortar.

vii. New CAT6 data outlets shall be installed internally at each camera location (Out of site where possible) with a Cat6 patch lead providing connectivity.

viii. All Cat6 patch leads that pass-through walls/ building fabric are to be contained within a suitable copex or conduit.

ix. Should any areas of the mortar fail during the installation, the integrator shall carry out a repair using matching Mortar.

Device Reference	Install Notes
CCTV.1	Existing cable route within Security Office/Ironworks Building to be re-used where possible. New cable containment to be installed where required. (Internal only). Terminating within patch panel/ network switch located in new equipment cabinet at the north end of the Ironworks. Existing external junction box at existing camera location to be removed.
CCTV.2	Existing cable route within Ironworks Building to be re-used where possible. New cable containment to be installed where required. (Internal only). Terminating within patch panel/ network switch located in new equipment cabinet at the north end of the Ironworks.
CCTV.3	Existing cable route within Security Office/Ironworks Building to be re-used where possible. New cable containment to be installed where required. (Internal only). Terminating within patch panel/ network switch located in new equipment cabinet at the north end of the Ironworks.
CCTV.4	New cable containment, steel conduit to be installed within building from camera location to connect with existing high-level containment. Existing cable route within the Ironworks Building to be re-used to the first floor plant room. Terminating within patch panel/ network switch located in the Plant Room Equipment Cabinet.
CCTV.5	New cable containment, steel conduit to be installed within building from camera location to connect with existing high-level containment. Existing cable route within the Ironworks Building to be re-used to the first floor plant room. Terminating within patch panel/ network switch located in the Plant Room Equipment Cabinet.
CCTV.6	Existing cable routes within building wall cavities and/ or building steelwork to be utilised. New cable containment to be installed where required. (Internal only). Terminating within the proposed patch panel/ network switch located in the proposed new antiques building equipment cabinet on the ground floor storeroom office.
CCTV.7	Existing cable routes within building wall cavities and/ or building steelwork to be utilised. New cable containment to be installed where required. (Internal only). Terminating within the proposed patch panel/ network switch located in the proposed new antiques building equipment cabinet on the ground floor storeroom office.
CCTV.8	Existing cable routes on the exterior of the building shall be utilised. Terminating within the patch panel/ network switch located in the proposed new antiques building equipment cabinet within the ground floor storeroom office.
CCTV.9	Existing cable routes within building wall cavities and/ or building steelwork to be utilised. New cable containment to be installed where required. (Internal only). Terminating within the proposed patch panel/ network switch located in the proposed new antiques building equipment cabinet on the ground floor storeroom office.
CCTV.10	Existing cable routes on the exterior of the building shall be utilised. Terminating within the patch panel/ network switch located in the proposed new antiques building equipment cabinet within the ground floor storeroom office.
CCTV.11	Cable route to utilise the roof voids and false ceilings above pedestrian entrance and retail units. New cable containment to be installed where required. (Internal only). Terminating within the patch panel/ network switch located within the existing equipment cabinet in the visitors' centre.
CCTV.12	Cable route to utilise the roof voids and false ceilings above retail units. New cable containment to be installed where required. (Internal only). Terminating within the patch panel/ network switch located within the existing equipment cabinet in the visitors' centre. Existing external junction box at existing camera location to be removed.

CCTV.13	Cable route to utilise the roof void and false ceilings within the visitors' centre. Terminating within the patch panel/ network switch located within the existing equipment cabinet in the visitors' centre. Existing camera to be located above new ceiling and be removed.
CCTV.14	Cable route to utilise the roof void and false ceiling within the visitor centre. Terminating within the patch panel/ network switch located within the existing equipment cabinet in the visitors' centre.
CCTV.15	Cable route to utilise the roof voids and false ceilings above retail units. New cable containment to be installed where required. (Internal only). Terminating within the patch panel/ network switch located within the existing equipment cabinet in the visitors' centre. Existing external junction box at existing camera location to be removed.
CCTV.16	Cable route to utilise the roof voids and false ceilings above retail units. New cable containment to be installed where required. (Internal only). Terminating within the patch panel/ network switch located within the existing equipment cabinet in the visitors' centre.
CCTV.17	Cable route to utilise the ceiling void within the toilet block, exiting through the rear wall and running with existing cabling in to the ground floor lobby of the Bridal shop. Terminating within patch panel/ network switch located in the bridal shop Equipment Cabinet.
CCTV.18	Existing cable route within Ironworks Building to be re-used where possible. New cable containment to be installed where required. (Internal only). Terminating within patch panel/ network switch located in new equipment cabinet at the north end of the Ironworks. Existing external junction box at existing camera location to be removed.
CCTV.19	New cable containment to be installed to connect with existing cable route within the security office, Ironworks Building cable route to be re-used to the first floor plant room. Terminating within patch panel/ network switch located in new equipment cabinet at the north end of the Ironworks.
Intercom	Pedestal Mounted adjacent Security Office. Setback away from roadside to minimise vehicle damage Cable route to pedestal to be sub surface.(External). New cable containment to be installed where required. (Internal only). Terminating within patch panel/ network switch located in new equipment cabinet at the north end of the Ironworks.
VRP	The VRP shall be installed within the existing equipment cabinet inside the Security office.

General Installation Requirements

i. All works shall be subject to agreed programme and integrators shall accept that some works may need to be rescheduled due to the operation of the sites, events and/ or planned maintenance impacting access to and integration with the estate wide security deployment.

ii. Integrators shall provide, as part of their proposal, a test and commissioning plan to be implemented upon completion of agreed work stages.

CCTV

i. Cameras shall be securely mounted and provide the necessary field of view as detailed within the Operational Requirements without obstructions.

ii. Integrators shall conduct a network stress test to verify that each CCTV cameras can stream video without packet loss or latency.

iii. Privacy masking shall be utilised on CCTV cameras where coverage encroaches onto private property.

iv. Where CCTV cameras are to be ceiling mounted the installed shall utilise reinforcing pattresses.

Electrical Installation Requirements

i. Where electrical installation works are required, the integrators shall be responsible for and include costs associated with all works required in accordance with the following:

a. All electrical work is to be carried out by a NICEIC approved electrician(s) and shall conform to the latest version of the 18th Edition IET Wiring Regulations, BS7671: 2018

b. All power circuits shall be designed in accordance with the 18th Edition IET Wiring Regulations, BS7671: 2018+A2;2022

c. All electrical works shall be recorded within drawings as part of “as installed” information.

d. All electrical work shall be supported by the appropriate test certification that is to be provided as part of the “as installed information”.

e. All test certificates shall be provided to the client within 3 days of that element of the works being completed.

f. Where existing supplies are proposed to be reused, the contractor shall ensure that these are fit for purpose in terms of capacity and installed condition.

Cable and Containment

i. Where required all cables and the associated cable containment systems shall be installed to satisfy the latest version of the 18th Edition IET Wiring Regulations, BS7671:2018+A2;2022.

ii. Where required Extra Low Voltage cabling shall not be installed with power or other inappropriate types/categories of cables as defined within the above regulations.

iii. CAT6 shall be used for network infrastructure where required as a minimum, to ensure optimal data transmission and minimal interference.

iv. Within the equipment cabinet the structured cabling shall be terminated into a CAT6 IDC Patch Panel. Each patch panel port shall be labelled to match the corresponding patch cable.

v. All CAT6 Patch cables shall be colour coded in accordance with their discipline.

Earth Bonding

i. All metalworks shall be fully earth bonded in accordance with the latest version of the 18th Edition IET Wiring Regulations, BS7671: 2018+A2;2022.

ii. Where existing columns, cabinets, containment and housings are installed and/ or being re-used, the contractor shall be responsible for ensuring that all relevant earth bonding for doors and removable access panels is in place and fit-for- purpose.

Labelling

i. The labelling system shall designate the cables origin and destination and a unique identifier for the cable within the system.

ii. All labelling information shall be recorded on “as installed” drawings and all test documents shall reflect the appropriate labelling scheme.

iii. A cable schedule shall be produced indicating cable type, origin, destination, and labelling detail, as a minimum.

iv. A draft cable schedule shall be submitted as part of the design process for acceptance by the client and/ or the consultant.

v. The unique reference shall be included within “as installed" information and within the cable schedule.

vi. Labels used on any external equipment, housings and cabinets shall be weatherproof engraved trifoliate type material (or printed equivalent) and firmly fixed using weatherproof fixings.

vii. Label type and configuration shall be submitted for acceptance by the client and or the consultant.

viii. 230VAC Warning labels shall be fitted to items of equipment where required.

ix. Each patch cable shall have an ID label installed within 100mm of the factory terminated connector.

Making Good Following Installation

i. The integrator shall be responsible for making good any area where installation works have been carried out.

ii. This includes but is not limited to drilling of holes, chasing of walls, removal of false ceiling tiles, access panels, bird netting etc.

iii. Any area affected by these works shall be made good to at least the original standard.

iv. The integrator is encouraged to take digital photographs of any area prior to works that may result in making good.

v. Where holes have been made in the walls or unnecessary cabling remains, the tenderer shall repair the walls and remove all redundant cabling.

vi. All penetrations in building structures, including holes resulting from the removal of cables, shall be properly sealed using approved firestopping materials in accordance with applicable codes and standards.

Removal of Existing Equipment

i. Where existing equipment shall be removed as part of these works, the integrator shall remove all obsolete and unused equipment including brackets, enclosures, containment, and cabling.

ii. Integrators shall confirm, in writing, what equipment shall be removed and whether BMBC requires the equipment to be retained and delivered to a recipient on site or removed from site.

iii. All obsolete existing equipment that is removed shall be stored in a BMBC defined location.

iv. Care shall be taken when removing the existing hardware to ensure the equipment is in a usable condition as “spares”.

v. An asset register shall be created by the integrator detailing all the equipment BMBC has defined as to be retained detailing type of device, name & quantity as a minimum.

vi. The asset register shall be provided to BMBC in excel format.

vii. Where cable or equipment is removed from existing containment or equipment racks, these shall be left in a tidy state fit for future use.

viii. It is not acceptable for redundant cable to be “cut back” to a reasonable location. Redundant cable shall be removed as far as practically possible.

ix. All redundant power supplies shall be made safe, labelled as live and marked on “as installed” drawings.

Disposal of Equipment

i. The integrator shall ensure that the disposal of waste items is undertaken in a safe and proper manner and in accordance with all relevant environmental and recycling regulations.

ii. Where WEEE directive applies to the disposal of electronic equipment, the tenderer shall detail and show appropriate certification qualifying the proposed process. This shall include any third-party body engaged for the purpose of the disposal.

iii. The integrator shall dispose of all removed/unwanted equipment and cabling unless stated otherwise or is part of the retained equipment.

iv. The integrator shall provide an appropriate waste disposal certificate, to BMBC if requested.

Support & Maintenance

O+M Manuals

i. An electronic copy of the Operator and Maintenance Manuals shall be provided to the client at full system handover.

ii. An Operator and Maintenance Manual shall be provided for the site.

iii. All documents shall be provided in one or more of the following file formats: Microsoft Word, Microsoft Excel, .DWG, or PDF.

iv. The O+M Manuals shall contain, as a minimum:

System description for the site
Asset registers for the site
Equipment list, including supplier details and part numbers for the site
As installed information and drawings for the site
Specific configuration information for the site
Cable schedules for the site
Software release/version information
Licensing information
All relevant passwords/administration log in details for all systems
Electronic backup copy of all software/system configurations
Recommended spares list
Recommended maintenance procedures
Health and safety considerations for service and maintenance tasks
Completed test documentation for the site

Maintenance

i. Planned Preventative Maintenance shall be provided to cover the 12-month system warranty period following the full system handover.

Maintenance Requirements

i. Planned preventative maintenance shall be carried out at month 5 and month 11 following full system handover.

ii. All engineers shall report to the client when attending site to carry out pre-planned maintenance and any reactive service visits.

iii. Upon completion of any works, engineers shall report to the client and provide a summary of works carried out.

iv. All support tasks, as detailed within this document, shall be provided as part of the pre-planned maintenance visits.

v. All physical aspects and fixings of the CCTV system shall be reviewed as part of the preventative maintenance visit.

vi. All system functions shall be reviewed and tested as part of the maintenance visits.

vii. A system status report shall be provided to the client after each planned preventative maintenance visit.

viii. The report shall detail any system issues that are recommended to be addressed outside the standard warranty/ maintenance cover.

ix. The report shall also include costs of any recommended works/ or required repairs.

x. In the event of device failure, integrators are required to provide a fixed cost for the cover of call outs over the maintenance period.

xi. The fixed cost shall include travel to and from site and a minimum period of 1 hour on site.

xii. A “mark-up”, shown as a percentage, shall be declared, and applied to replacement parts and repairs for the duration of the maintenance period.

xiii. All call outs will be within normal UK working hours (***Monday to Friday, 8:30am to 5:00pm, with a 4hr response time, excluding English Public and Bank Holidays). A “mark-up”, shown as a percentage, shall be declared, and applied to the call out cost in the event of an out of hours call out.

xiv. Where an issue is escalated, this shall be recorded and only when the issue is accepted and resolved to the client’s satisfaction, be closed.

Helpdesk

i. A 24/7 support helpdesk function shall be provided as part of the support proposal. All reported issues shall be recorded and uniquely referenced on the helpdesk system.

ii. Each uniquely referenced issue shall be available to be reviewed by the nominated client personnel via the “online” portal.

iii. The helpdesk shall enable access, by nominated client personnel, to report technical support issues, provide a reporting function and dashboard to allow access to historical and current issues.

iv. The helpdesk shall record any remedial actions, pre-planned maintenance tasks, support processes and additional works undertaken.

Out of Hours Remote Support

i. Out of hours telephone and remote access technical support with a 4hr response time shall be provided:

ii. Outside of normal UK business hours (Monday to Friday, 5:00pm to 8:30am) Weekends & English Public and Bank Holidays (24Hrs)

iii. The system shall support remote connectivity to allow offsite investigation, configuration and/ or maintenance at the site.

iv. The system shall support local connectivity to allow onsite investigation, configuration and/ or maintenance at each site, in case of network failure or outage.

v. A 3rd party access terms and conditions agreement shall need to be completed, to be granted out of hours access. This will need to be completed for the site, and by each person who will need access.

Request for Service Response

i. A best value solution for the provision of this support requirement shall be provided.

ii. A Response to Request for Service plan shall be provided to meet the following response requirements.

iii. Integrators shall consult with the client to determine the priority categories of the security system elements and what defines a critical/ high/ medium and low priority call in terms of equipment failure.

iv. Response to request for service shall be based on a 24/7 requirement to meet the response times as detailed below:

Category		Description	Target	***NWD	4Hr	8Hr	12Hr	24Hr	5 Days
*P1	Critical	Major function failure causing critical business impact (No workaround)	*Response time		100%				
			**Resolution or workaround time				100%		
P2	High	Significant function failure, moderate business impact (may have a workaround)	Response time		100%				
			**Resolution or workaround time					100%	
P3	Medium	Minor function failure, low business impact (has workaround)	Response time			100%			
			**Resolution or workaround time					100%	
P4	Low	Minor issue / question	Response time	100%					
			**Resolution or workaround time						100%

All requests for response for service shall be confirmed and an action process presented within 1 hour of receipt of the call.

*P1 response time starts from the placing of the request for services being received from the client. Response of (100%) should be a receipt, acknowledgement, and actioned response to the reported issue (i.e., engineer attending site).

**Resolution or Work Around Time percentage shown is the full resolution requirement relevant to that priority of system issue.

***NWD = Next working day.

****Normal UK business hours – Monday to Friday, 8:30am to 5:00pm (excluding English Public and Bank Holidays)

In the instances where an intermittent issue appears, at a particular location or with an individual access card or point, integrators shall provide a description of how they will address the investigation and work with the client to identify and rectify the issue.

Compliance

i. UK law requires that operators use surveillance responsibly, ensuring privacy and data protection through clear lawful purposes, transparency, proportionality, security, and respecting individuals' rights.

ii. To comply with the Data Protection Act (DPA 2018) and General Data Protection Regulations (GDPR), the following frameworks shall be adhered to:

- Clear signage must be displayed to inform individuals that they are being recorded.
- The purpose of the CCTV system, the identity of the operator, and contact details for more information must be displayed.
- CCTV footage shall be kept for a limited time and deleted once no longer needed.
- Where existing equipment is to be removed, the equipment and storage components must be retained for 31 days before being securely wiped and disposed of.
- All equipment waste disposals will be done in accordance with Waste Electrical and Electronic Equipment recycling (WEEE).
- Data controllers must implement appropriate technical and organisational measures to secure footage against unauthorised access, accidental loss, or destruction. This includes secure storage (encrypted systems), restricted access, and regular reviews of security protocols.
- Individuals have the right to request access to their own footage (subject access requests). This footage shall be provided within a month, and any third-party data shall be redacted.

iii. Failure to comply with these regulations may lead to enforcement actions by the Information Commissioners Office (ICO), including fines, sanctions, and reputational damage.