Bat Survey Report

Fox Court

Clare Real Estate (14 Gray's Inn Road) Ltd

October 2023

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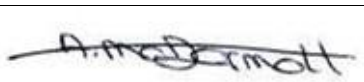
Primary author:	Anna McDermott	Signed:	
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Contents

1.0 Introduction

1.1 Background

Aven Ecology Ltd was commissioned in July 2023 by Clare Real Estate (14 Gray's Inn Road) Ltd (The Applicant) to carry out a Bat Survey at Fox Court, 14 Gray's Inn Road, London WC1X 8HN, hereafter referred to as the 'Site'. The requirement for the survey was identified by a Preliminary Ecological Appraisal (PEA) and bat inspection[1], undertaken in February 2023 to support a planning application to be submitted to the London Borough of Camden ("LBC") for development proposals for the Site. The Fox Court building on the Site was assessed as having 'Low' potential to support roosting bats. In addition, the habitats adjacent to the Site were assessed as providing low-quality foraging habitat for bats, with commuting routes in the immediate vicinity.

The purpose of the survey was to determine the potential impacts of the proposals on bats.

1.2 Site Location and Description

The Site is located within the Holborn & Covent Garden Ward within the London Borough of Camden (LBC) (OS grid reference TQ31148170). It is a 9-storey purpose built office building (14,287 sqm GIA of Class E office floorspace), in a U-shape with an external courtyard space to the north of the building. The building is finished predominantly in red brick with glazing and cladding to the Grays Inn Road frontage. It is of no architectural merit.

To the south is the recently completed 150 High Holborn office and residential development. To the west, beyond Grays Inn Road, is an 8-storey building with retail at ground floor and residential above that turns the corner onto High Holborn and the office buildings surrounding Grays Inn South Square. To the north is a predominantly residential area comprising 6 storey buildings fronting Grays Inn Road, a 4 storey building facing Brookes Market and 2 storey buildings in Brookes Court, which also includes the Holborn Mosque. To the east, on the other side of Brook Street, is the Waterhouse Square office complex.

In terms of planning designations, the site lies within the Central Activities Zone (CAZ), the London View Management Framework (LVMF) protected vista from Primrose Hill to St Paul's Cathedral and the background areas of the views from Blackheath Point and Greenwich Park.

In terms of heritage assets, the site lies between two conservation areas, Bloomsbury Conservation Area on the west side of Grays Inn Road and Hatton Garden Conservation Area to the east of Brook Street. Waterhouse Square (The Prudential Insurance Building) is Grade II* listed and Church of St Alban the Martyr (Grade II*) and its associated Clergy and Railings (Grade II) to the north of the site are listed. Within the Grays Inn complex to the west are a number of listed buildings including The Hall (Grade I), The Chapel (Grade II) and Statue of Francis Bacon (Grade II), all set within the Grade II* Grays Inn Registered Park and Garden.

The surrounding area comprises a mix of office buildings, residential buildings, schools, and retail/commercial buildings; these are interspersed with patchworks of amenity and open space, including gardens and parks, including amenity grassland, street trees, and shrubs.

[1] Fox Court, London Refurbishment. Preliminary Ecological Appraisal, Aven Ecology, 2023

1.3 Development Proposals

The planning application seeks planning permission for the following description of development: 'Demolition of existing facades, retaining existing reinforced concrete frame and basement structures; refurbishment and reconfiguration of the existing office (Use Class E) building for continued office use including extensions with new facades to the west elevation fronting Grays Inn Road (9 storeys), to the northern courtyard elevation facing Brookes Court (9 storeys), to the existing 5 storey north-east wing fronting Brook Street (3 storeys) and to the south elevation (8 storeys); external alterations, provision of rooftop amenity terraces, landscaping and associated works'

The proposed development falls within one red line area and specifically comprises of the following components:

- Retrofit and extension of the existing office building to provide additional office accommodation, with an uplift of 8,579sqm GIA (9,652sqm GEA).
- Existing reinforced concrete frame to be retained, along with ground floor slab and basement structure.
- Extensions to west, north and south sides of the building with new facades.
- Provision of a central atrium space between the existing structure and the northern extension for internal circulation and rooftop amenity spaces for tenants, including urban greening.
- Provision of cycle parking and servicing at basement level, provision of plant space at roof and basement levels.

The proposed development has evolved through pre-application and wider stakeholder consultation process, which has included collaborative discussions with the Council and a number of other key stakeholders. The proposed development provides the opportunity to regenerate this important site through the sustainable retrofitting of the existing poor-quality office building to provide a highly sustainable and modern office building which reflects commercial demand in the area and seeks to support LBC's aspirations to provide a range of business premises within the Borough.

1.4 Survey Aims and Objectives

The aims of the bat survey were to:

- Determine presence/likely absence of bat species within the Site;
- Determine the bat usage of the Site (i.e., maternity, night roosts in various structures);
- Identify foraging, commuting or swarming sites in the immediate vicinity of the building; and
- Assess likely requirement for a Natural England licence in respect of development proposals.

The objectives of the survey included:

- Completion of one survey visit to the property (one dusk emergence survey), with reference to published guidance;
- Review of legislation relating to bats (see Appendix 1);
- Identify potential ecological constraints to works based on survey findings.

1.5 Quality Assurance

All surveys are led by Ecologists who are members of the Chartered Institute of Ecology and Environmental Management (CIEEM) at the appropriate level. By joining the CIEEM staff sign up to a professional code of conduct. The bat survey was led by a licensed bat-worker.

2.0 Methodology

2.1 Introduction

The bat survey was carried out in August 2023 and comprised a single dusk emergence survey, with reference to good practice guidelines (Collins, 2016). In addition, two static detectors were left in the roof space of the building with the aim of recording any bats entering the void.

2.2 Bat Emergence Surveys

During the survey, three surveyors were utilised; two surveyors were deployed at strategic locations around the building, focussing on the ventilation structure, shed and stairwells in the courtyard, to ensure good visual coverage of areas identified during the external assessment as supporting potential bat roosting features; the third surveyor undertook an activity transect around the building to assess activity levels in the area. The location of the surveyors is shown in Figure 1, Appendix 4. The dusk emergence survey commenced approximately 15 minutes before sunset and continued for at least 1.5 hours after sunset, in line with methods based on good practice guidelines (Collins, 2016).

Survey effectiveness is dependent on the time of year, recent weather conditions, the degree of darkness and bat activity levels. During the survey, the surveyors made a note of any bats observed, noting the time, location, number of bats, species and direction of flight for each bat leaving or returning to a roost. Bat passes by foraging or commuting bats encountered during the survey were also recorded on standardised recording forms.

Two infra-red cameras and a thermal imaging camera were used to support the surveyors during the survey. The cameras were positioned to record bat activity within the courtyard stairwells and shed (see photographs in Appendix 3 and Figure 1, Appendix 4); recorded footage was subsequently analysed in conjunction with recorded bat calls.

2.3 Static Monitoring

Two static detectors were placed within the parapet/roof voids on the 7th floor of the building, along the southern and eastern elevations, on 21st August, prior to the dusk emergence survey; the locations of the static detectors are shown on Figure 1, Appendix 4. The detectors were set to record bat activity from 15 minutes before sunset until 15 minutes after sunrise and were left in place to record for a period of nine days.

Gaps around/between the sloping metal panels forming the walls of the parapet/roof voids, as well as along the uncovered drainage ducts between the brick wall and the metal cladding, offered potential access points for bats to the void within, providing roosting opportunities for void-dwelling bat species.

2.4 Survey Date, Surveyors and Equipment Used

2.4.1 Bat Surveys

The personnel and the equipment used during the survey are detailed below. Table 1 below presents the dates and the weather conditions during the surveys.

Personnel

The following surveyors undertook the surveys at the Site:

- Anna McDermott MCIEEM (18 years' experience; Natural England bat licence no. WML CL-18)
- Kevin Hume MCIEEM (17 years' experience; Natural England bat licence no. WML CL-18)
- Dani Rozycka (12 years' experience of undertaking bat surveys)

Equipment

The survey was undertaken using Batlogger bat detectors. All bat calls were recorded and later analysed using Batexplorer sound analysis software.

The infra-red cameras used to support the surveyors were a Nightfox Red and a Nightfox Whisker with associated IR lighting. The thermal imaging camera was a Pulsar Helion XP38 scope.

Survey Weather Conditions

Table 1: Survey Weather Conditions

Survey	Sunset/ Sunrise Times	Start/End	Weather Conditions (Start/end of Survey)			
			Temp (ºC)	Wind (Bft)	Cloud (Okt)	Precipitation
21st August 2023 Dusk	20:09	19:54	20	1	6	None
		21:39	19	1	6	

2.5 Limitations

Any ecological survey represents a snapshot of ecological conditions at the time of survey; ecological conditions may change over time. Bats are a highly mobile species that may vary in their use of buildings and trees on a year-to-year, seasonal, and day-to-day basis. The details within this report will therefore remain valid for a period of up to 24 months; beyond that date it is advised that a review of ecological conditions is undertaken.

The parapet roof void on the 7th floor of the building was difficult to see from ground level due to its height. This was mitigated for by placing two static detectors within the void to record for over one week, and by a surveyor transecting around the building to assess levels of bat activity within the area. Therefore, this is not thought to be a constraint to the project.

Most of the potential roosting/access features previously identified within the Courtyard plant/vent rooms were no longer present, as the mesh had been replaced/fixed. The focus of the two surveyors deployed within the courtyard could therefore be directed to features noted elsewhere in that area.

3.0 Results

3.1 Pre-Emergence Survey Walkover

Prior to the start of the survey, the surveyors walked around the building to determine the best surveyor and camera locations for the survey to focus on the potential roosting/access features identified during the bat inspection in February 2023. During the walkover the surveyors noted most of the potential roosting features on the ventilation buildings were no longer present as the mesh behind the vents had been replaced/fixed, therefore the potential access points into the interior of the buildings were no longer present. Photographs of these replaced mesh are included within Appendix 3. The survey therefore focussed primarily on the shed and stairwells within the courtyard area.

3.2 Dusk Emergence Survey Results

A description of the survey findings is provided below, and a figure showing the indicative locations of the surveyors is provided in Figure 1, Appendix 4. Infra-red photographs from the camera(s) are included in Appendix 3. Information regarding the species recorded on Site is included in Appendix 2. The raw survey data is available on request.

3.2.1 Dusk Emergence Survey – 21st August

No bats were seen or heard during the survey.

3.3 Static Monitoring

Only one bat species was recorded during the surveys, the common pipistrelle *Pipistrellus pipistrellus*. Occasional common pipistrelle calls were recorded by both static detectors between 22nd and 25th August 2023 (approximately 2-4.5 hours after sunset). Each call recorded was a single pass, indicating the bats were flying past the Site, rather than roosting within the building. The dates and times of the recorded bat calls are presented in Table 2 below.

Table 2: Bat Passes Recorded by the Static Detectors

Detector	Date	Species Recorded	Time of call
218	22nd August	Common pipistrelle	22:08
	25th August	Common pipistrelle	00:42
387	22nd August	Common pipistrelle	22:08 (likely same bat as 218 recorded)
	23rd August	Common pipistrelle	00:00
	24th August	Common pipistrelle	22:32
	24th August	Common pipistrelle	23:14

Typical emergence times for bat species relative to the times of sunset are used to provide a proxy measure of the likely proximity of roosts to the survey locations (based on Andrews and Pearson.

2022, as well as surveyor experience). Table 3 below sets out the typical emergence times for the species recorded on the Site.

Table 3: Typical Roost Emergence Times Relative to Sunset for the Bat Species Recorded on Site

Species	First Emergence (mins)	Last Emergence (mins)	Mean Emergence (mins)
Common pipistrelle	6.9	42.7	24.80

3.4 Summary of Survey Results

One bat species was recorded on Site, the common pipistrelle.

No bat calls were recorded during the dusk emergence/activity survey undertaken on 21st August. The common pipistrelle passes, recorded by the static detectors from within the roof void, were outside of the typical emergence window for this species (common pipistrelles typically emerge from their roosts within approximately 25 minutes after sunset, whereas the passes recorded on Site occurred approximately 2-4.5 hours after sunset). Typical emergence times for bat species relative to the times of sunset/sunrise are used to provide a proxy measure of the likely proximity of roosts to the survey locations, as shown above; therefore, it is highly unlikely the common pipistrelle passes recorded were from bats roosting close to the Site.

4.0 Discussion

4.1 Discussion

4.1.1 Background

Following the Preliminary Ecological Appraisal of Fox Court in February 2023, the office block was assessed as having 'Low' potential to support roosting bats. The proposed refurbishment works will affect the whole building. During the emergence survey it was noted the habitats in the immediate vicinity of the Site offered low quality commuting and foraging opportunities, primarily provided by the tree corridor along Grays Inn Road. One dusk emergence survey was recommended to establish if bats were roosting within the Site, and if so, the type of roosts present and the species and numbers of bats using them.

4.1.2 Proposals

The proposed development plans are for the refurbishment of the existing building for office space, as set out in Section 1.3 above. Regarding potential impacts on biodiversity within the Site, the elements of the proposals of relevance include:

- terraced infill construction within the existing courtyard area, which will result in the loss of the existing ornamental planting within the courtyard, as well as the remodelling of the existing outbuildings.
- intrusion/remodelling of the parapet/roof voids.

The Landscape Strategy comprises terraces of native species planting – including trees – and living/green roofs (extensive and intensive). The Landscape Strategy will also be informed by the Preliminary Ecological Appraisal to include biodiversity enhancement features, including the installation of various bat roost boxes and bird nest boxes on the refurbished building/new terraces, as well as provision for invertebrates on the living roofs (including 'bug hotels', log/brash/rubble-piles, and gravel/sand patches).

4.1.3 Bat Survey

No bat roosts were identified on the Site, and no bats were recorded during the emergence/activity survey. The high artificial light levels in the courtyard and surrounding streets would potentially act as a deterrent to bats.

Occasional common pipistrelle bats were recorded by the two static detectors deployed within the parapet/roof voids on Site. However, the calls were all single passes outside of the typical emergence times for common pipistrelles, indicating the bats were commuting past the Site.

Bats are a mobile species group and frequently change their roosting locations, therefore there remains the very low risk that bats could occasionally roost within Fox Court in the future.

4.1.4 Impacts

The parapet/roof voids, outbuildings and stairwells were all noted to support potential roosting features during the PEA and the bat survey, and all will be affected by the proposed works. In the very unlikely event bats do take up roosting within these features of the building in the future, they could be affected by the proposed works. Therefore, further recommendations for precautionary

measures in respect of occasional roosting bats, potentially undetectable by standard best practice surveys, are included in Section 5 of this report.

It is considered that bat features may be incorporated within the extended building, offering opportunities to deliver gains in terms of bat roosting habitat. Extensive planting proposals, including tree planting and green roofs/walls are also expected to deliver substantial improvements in terms of the potential for the Site to support foraging bats. Recommendations for enhancements are included within the Biodiversity Report and Ecological Management Plan (Aven Ecology, October 2023).

It is understood the street trees along Grays Inn Road (outside the Site boundary) will not be affected by the proposed works, ensuring the limited potential foraging habitat and commuting routes within the vicinity of the Site will be retained, and protected from additional artificial lighting.

5.0 Recommended Precautionary Measures

5.1 Works – Soft-strip of Parapet Roofs

As a precautionary measure, due to the residual risk of potentially undetectable pipistrelles occasionally roosting on Site, it is recommended the contractors working on Site should be made aware of the very low risk of a bat being present within the areas identified as supporting potential bat roosting features within the PEA.

If a bat or evidence of a bat roost is found, all works should stop and an ecologist should be contacted immediately. If this situation arises, a licence from Natural England would be required before works can proceed. The survey carried out in 2023 would contribute to any licence application potentially required.

6.0 References

Aven Ecology (2023), Fox Court, London Preliminary Ecological Appraisal Report.

Aven Ecology (2023), Fox Court, London Biodiversity Report and Ecological Management Plan

Bat Conservation Trust/Institute of Lighting Professionals (2018). Guidance Note 08/18: Bats and Artificial Lighting in the UK

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Buckley Gray Yeoman (07/09/2023) Fox Court – Stage 2 Report

Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London.

HMSO (1981) The Wildlife and Countryside Act (as amended); London

HMSO (1994) Biodiversity: The UK Action Plan; London

HMSO (2000) The Countryside and Rights of Way Act; London

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Jones & Walsh (2006) A Guide to British Bats (3rd edition); Field Studies Council/The Mammal Society

Mitchell-Jones, A.J. (2004) *Bat Mitigation Guidelines*; English Nature, Peterborough

Mitchell-Jones, A.J. and McLeish, A.P. (2004) *The Bat Workers' Manual* (third edition); JNCC, Peterborough

Russ, Jon. 2012. *British Bat Calls a Guide to Species Identification*. Pelagic Publishing.

Waring, S. D., Essah, E. A., Gunnell, K. & Bonser, R. H. C. (2013) Double Jeopardy: The potential for problems when bats interact with breathable roofing membranes in the UK. Architecture & Environment. 1 (1): 1-13pp.

Appendices

7.0 Appendices

Appendix 1 – Relevant Legislation

Bats

All species of bat found in the UK are listed under Schedule 5 of *The Wildlife and Countryside Act 1981* (as amended) and are afforded protection under Section 9(4)(b&c) and Section 9(5) of Part 1 of the Act. Under this legislation, a person is guilty of an offence if he intentionally or recklessly:

- Kills or injures any bat;
- Disturbs any bat while it is occupying a structure or place which it uses for shelter or protection; or
- Obstructs access to any structure or place which any bat uses for shelter or protection.

Bats are afforded additional protection through their inclusion on Schedule 2 of *The Conservation of Species and Habitats Regulations 2010* (as amended). Under Part 3 of this legislation, a person is guilty of an offence if he:

- Deliberately captures, injures or kills a bat;
- Deliberately disturbs a bat; or
- Damages or destroys a bat breeding site or resting place.

Disturbance of animals includes in particular any disturbance which is likely to impair their ability to survive, breed or reproduce, rear or nurture their young, migrate or hibernate. It also includes any disturbance likely to affect significantly the local distribution or abundance of the species. Consequently, attention should be given to dealing with the modification or development of an area if aspects of it are deemed important to bats, such as flight corridors and foraging areas.

Appendix 2 – Species Information

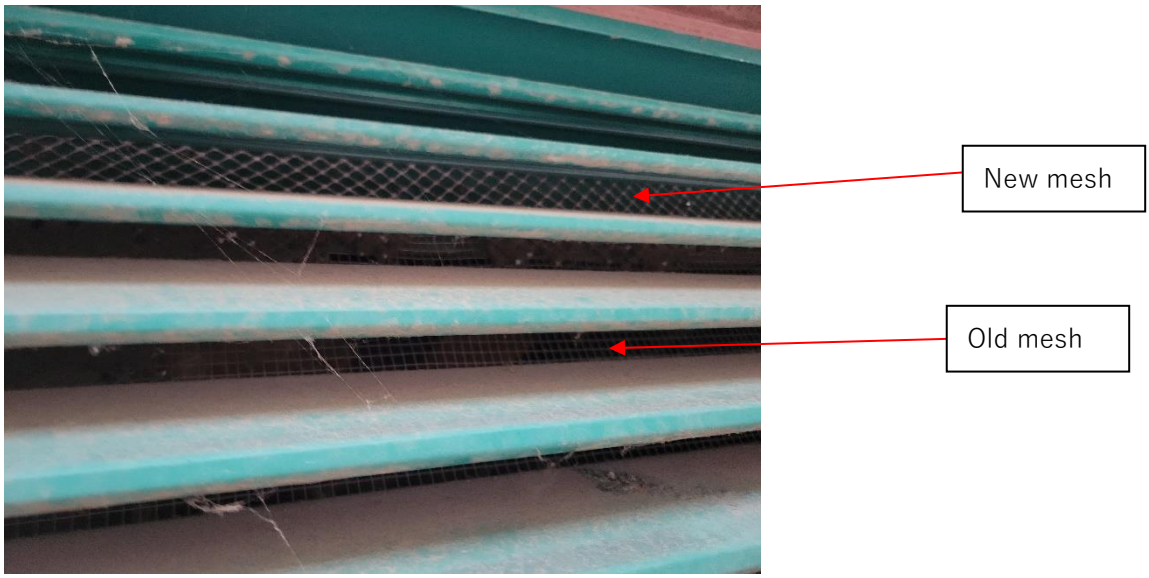
Information on the species found on the survey is provided below. For more information please visit the Bat Conservation Trust website http://www.bats.org.uk.

Common Pipistrelle *Pipistrellus pipistrellus*

Common pipistrelles are the most common and widespread of all British bat species. They are a widespread species found in a range of habitats, including towns and cities, as well as in the countryside. They are small, and their flight is fast and jerky as they pursue small insects which they catch and eat whilst flying. A single pipistrelle can consume up to 3,000 insects in one night.

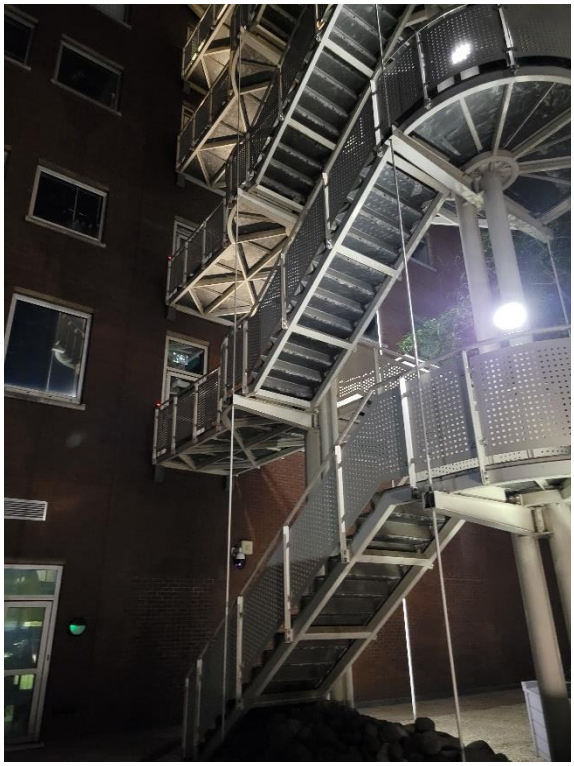
Appendix 3 – Pre-Emergence Walkover Photographs and Night Vision Aid Images

Pre-Emergence Walkover Photographs

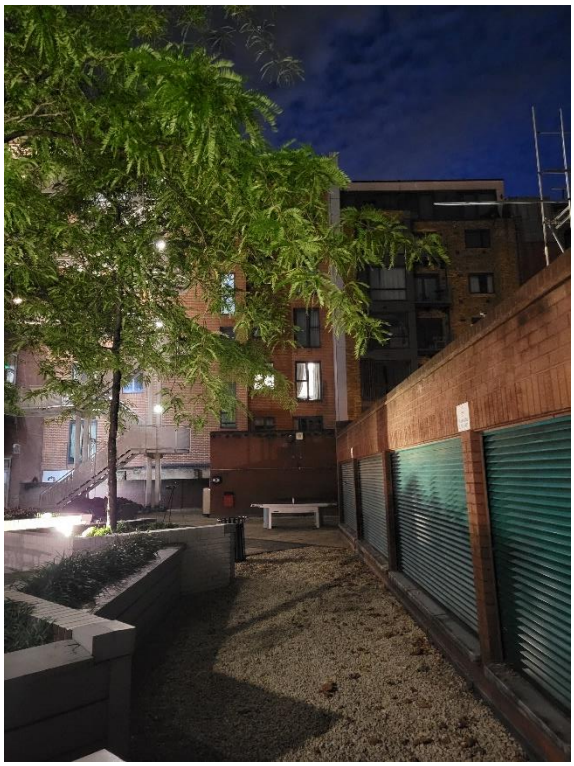


Photograph 1: Potential roosting/access features in the Courtyard plant/vent rooms had been fixed/replaced

Photograph 2: Static detector deployed within the parapet/roof voids



Photograph 3: High levels of lighting in the courtyard at night



Photograph 4: High levels of lighting in the courtyard at night

Night Vision Aid Images

Infra-red Camera (Courtyard Stairwell)

Infra-red Camera (outbuilding in Courtyard)

Appendix 4 – Figures

Figure 1: Bat Survey Results – Surveyor and Night Vision Aid camera locations

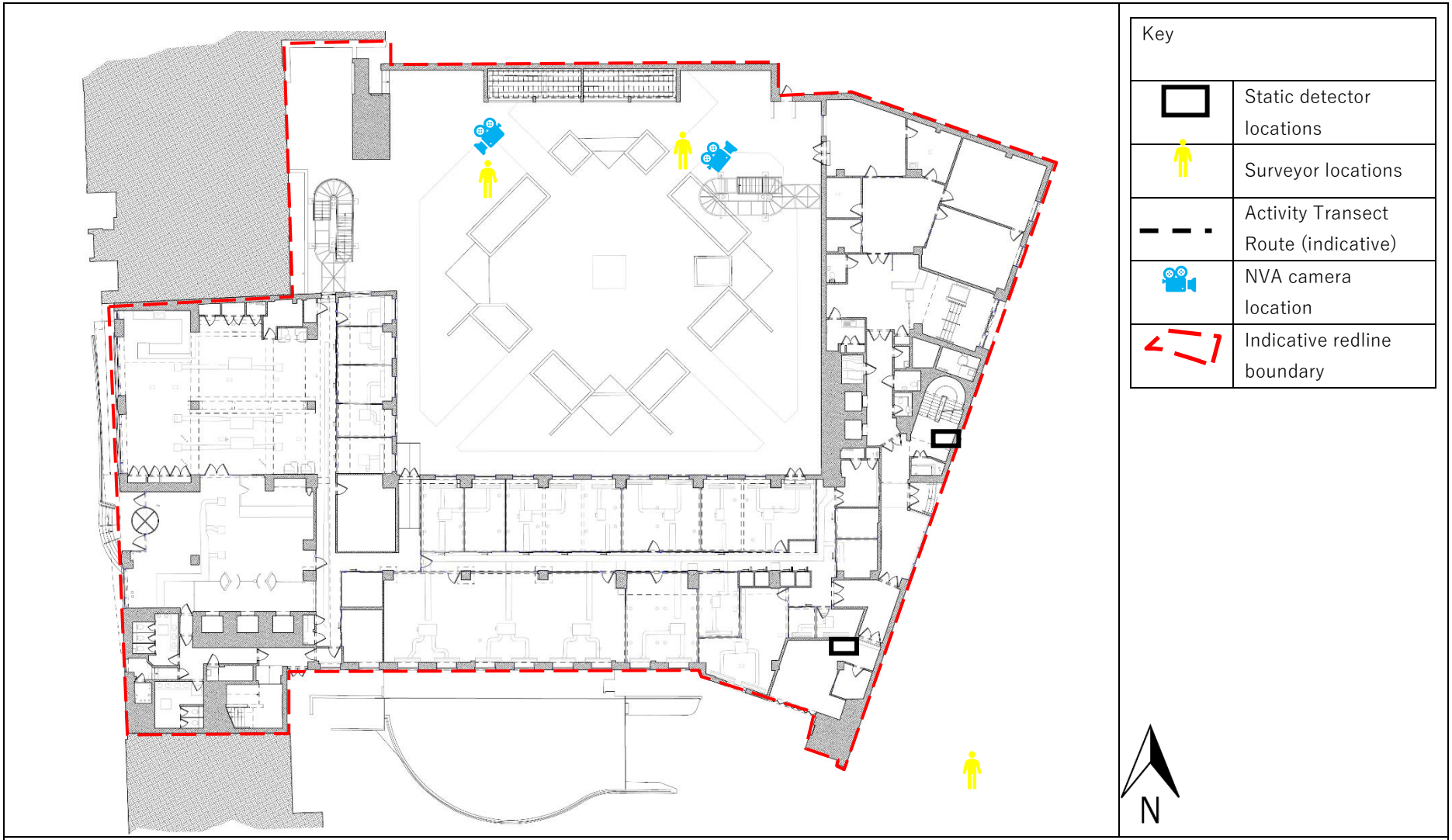


Figure 1: Marked-up plan showing indicative locations of Surveyors, Night Vision Aids, and Automated Detectors (not to scale)