



Berkeley Homes (West London) Limited

Latchmere House, Richmond

Bat Mitigation Report

854891

AUGUST 2015, UPDATED OCTOBER 2015





RSK GENERAL NOTES

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Client: Berkeley Homes (West London) Limited

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Date:	<u>27/08/15</u>	Date:	<u>27/08/15</u>

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1 INTRODUCTION

This report provides details of the bat mitigation strategy to be followed at Latchmere House, Ham Common, Richmond, Surrey, (Ordnance Survey Grid Reference TQ 184 172).

The site is a disused young offenders Institution previously owned by the Ministry of Justice. The site has been acquired by Berkeley Homes (West London) Limited who intend to re-develop the site into 73 residential units comprising 66 single family dwelling houses and 7 apartments in Latchmere House. This includes the demolition of twelve buildings and the extension of Latchmere House (Main House), plus associated landscaping and parking.

This plan was submitted in early 2015 and planning consent has been granted for a residential development by Kingston Council (ref: 14/12144/FUL) and by the Secretary of State at Appeal for Richmond Council (ref: APP/L5810/W/3002030).

This document has been prepared to discharge the following planning condition set out by Richmond Council:

No development, including any works of demolition, shall take place until a scheme for bat conservation and mitigation, including a timetable for its implementation, has been submitted to and approved in writing by the local planning authority. The scheme shall provide for:

- a) Inspection of the existing trees on the site within one month prior to their felling to establish the presence or absence of roosting or hibernating bats.*
- b) No trees containing bats shall be felled until the bats have been safely excluded by such methods as have been previously submitted to and approved in writing by the local planning authority.*
- c) Identification and retention of trees and hedgerows which are important for foraging bats.*
- d) No artificial lighting to directly illuminate any features of value to foraging or commuting bats, such as boundary trees.*

Development shall be carried out in accordance with the approved scheme

2 BACKGROUND INFORMATION

The site is bordered to the south, east and west by residential properties. To the north it borders Ham Common; a 40 ha site that comprises secondary woodland and grassland. Richmond Park borders Ham common and lies 300 m to the east of Latchmere House (*Figure 1*). Richmond Park is a designated Special Area of Conservation (SAC), National Nature Reserve (NNR) and a Site of Special Scientific Interest (SSSI). The site is well connected on the eastern boundary to Ham Common Local Nature Reserve (LNR) which provides good foraging and commuting link to a range of habitats for species, in particular bats.

RSK undertook an initial bat survey of all thirteen buildings on site in April 2013. No evidence of bats was found during this survey however, three of the buildings (Main House, Building 9 and Building 12) were assessed as having high potential for bats.

Emergence surveys on the Main House, Building 9 and Building 12 were carried out between June and September 2013. During these surveys a single Soprano Pipistrelle (*Pipistrellus pygmaeus*) was recorded re-entering the gable end on the north-eastern corner of Building 12 during a dawn survey 6th August 2013. *Figure 4* shows the bat roost location. No other bats were recorded emerging from or re-entering any of the other buildings on the site, although they were recorded foraging and commuting around the site.

Updated bat surveys were carried out this year (2015) to inform the European Protected Species (EPS) licence.

All survey findings and raw survey data is provided in the bat method statement which forms part of the European protected Species licence application. This can be found in *Appendix B*.

Bat emergence surveys were conducted between June and August 2015 on the Main House, Building 9 and Building 12. During this year's surveys a single Soprano Pipistrelle was observed re-entering the gable end to the north east side of Building 9, on 25th June 2015 and emerging from between the roof tiles and gable end on 30th July 2015. *Figure 4* shows the bat roost location.

In total, two Common Pipistrelle (*Pipistrellus pipistrellus*) bats were observed emerging from the gable end on the north-eastern side of the building on 8th July 2015. These roosts are considered to be day roosts of transitory males or non-breeding females. No evidence of a maternity roost was noted.

On 25th August 2015 a bat mitigation EPS license was submitted to Natural England to allow the disturbance of bats during the demolition of Buildings 9 and 12. The following mitigation measures were included:

- During demolition the gable end and all roof tiles on both buildings will be removed by hand and in the presence of a licensed bat ecologist.
- Ten bat boxes will be erected in mature trees to the east and south of site in order to act as receptor locations if any bats are found during the demolition and as mitigation for loss of roosts. Bat boxes will be erected prior to the soft demolition works (*Figure 2*).
- Workers/ contractors will be given an induction on bat presence and will be provided with a Method Statement detailing the bat mitigation.

- Buildings 9 and 12 must be excluded from bats outside of the hibernation season (November to mid-March exclusive); all other buildings that do not contain bat roosts can be demolished at any time.
- Demolition works of Buildings 9 and 12 will only take place once the licence has been granted and the night time temperature is above 8°C for three preceding days.

3 MITIGATION PLAN

Natural England's Bat Mitigation Guidelines (Mitchell-Jones, 2004) state, that the level of mitigation (or compensation), must be proportionate to the ecological impact of the development. This depends on the conservation significance of the roosting sites, which is determined by species, population size and roost status. For feeding perches of both common and rare species, or for roosts of individual or low numbers of common species this includes "Flexibility over the provision of bat boxes, access to new buildings etc."

The conservation significance of bats recorded from Buildings 9 and 12 at Latchmere House is low. In addition the population size is recorded as single or up to 5 individuals using the buildings as day roosts. The removal of these two buildings will only have a minor negative effect on Soprano and Common Pipistrelle bats at a site Level. Hence the mitigation involves the installation of ten Schegler roost boxes (1FF, 2F and 1FD) on mature trees to the east and south of the site (Figure 2). These boxes are designed for crevice dwelling bats. This will assist in compensating for the loss of roosting beneath roof tiles and gable ends within the buildings. It was felt this was a better way forward as permanent roosts constructed in new buildings were more likely to be impacted by any works carried out by the new home owners after purchase from the developer. They have been located on mature trees which are well connected to commuting habitat and will be furthest away from any artificial lighting.

The bat boxes will be installed on site prior to any building or tree removal and the boxes will be maintained for 5 years following their installation around site to ensure they are still viable as bat roosts.

No monitoring is proposed on the site as monitoring is not required for small numbers of common species where it is not a maternity roost (Mitchell-Jones, 2004).

The sequence of mitigation will be as follows:

1. Prior to works commencing on site all staff will undergo a safety briefing which will include a tool box talk. This tool box talk will include details of the bats likely to be encountered, where they are likely to be encountered and the methods to be employed in the removal of roof tiles so that bats are not injured or killed.
2. During demolition works, removal of all roof coverings (roof tiles, gables) on buildings 9 and 12 would be supervised by an appropriately qualified ecologist.
3. The supervising ecologist will undertake an internal inspection of both buildings immediately prior to demolition starting, for any visible bats within the building. Where appropriate and possible any visible bats will be captured either by hand (using gloves) or hand-net. Any bats captured in this way will be relocated to the bat boxes pre-erected on the site.
4. The roof tiles and gable on buildings 9 and 12 will then be stripped by hand. Each tile will be lifted commencing with the ridge tiles and working down the roof slopes. Each tile will be lifted directly upwards so that no bats roosting beneath are injured or killed as a result of crushing.

5. Each tile will be inspected for bats clinging to the tile before disposal. If a bat is discovered the tile will be carefully placed back over the bat and the ecologist will supervise the removal of the bat by hand (using gloves) and then relocated into one of the pre erected bat boxes on the east and south of site. The tile strip will continue until all tiles are stripped from the roof.
6. Demolition works will not commence before the grant of a licence and outside the hibernation period (which is mid-November through to mid-March).
7. No works will commence on any roost unless the weather in the preceding three days has had night time temperatures above 8°C. If temperatures are below this temperature the works will be delayed until they are achieved.

3.1 Key Retention Areas

The site has opportunities for commuting and foraging bats particularly on the eastern boundary of the site where it borders with Ham Common LNR. These areas have been identified and will be retained to ensure links to connective habitats are retained, they are shown on *Figure 2*.

The proposed works will not result in fragmentation and isolation of habitats. Habitat loss associated with the development of the site is minimal and includes immature trees, ornamental plants and amenity grassland all of which are considered low ecological value to bats.

3.2 Tree Removal Plan

The tree removal required on site is mainly located towards the western end of site and the trees are ornamental or immature and of little value to bats.

All trees due to be removal on site will be subjected to a Ground Level Tree Assessment (GLTA). This type of survey involves inspecting each tree from ground-level using binoculars and a 500, 000 candle power torch to view all angles of the tree. Any features that are recorded as having potential for roosting bats such as woodpecker holes, rot cavities, splits, cracks, flaking bark and thick-stemmed or matted climbing plants will be noted and if they cannot be view sufficiently from the ground then the tree will be climbed.

Access to the suitable features so that they may be viewed in closed detail will be, where possible, through using a ladder, rope and harness. Once the feature has been accessed it will be examined using a bright torch and endoscope to inspect the full extent of the feature and search for bats or evidence of bat activity e.g. droppings, urine stains, odour, feeding remains, scratch marks and grease stains.

Trees which have features that are suitable for bats (and cannot be ruled out during the inspection) will either be retained or subject to emergence/ re-entry surveys during the active season for bats.

All tree inspections will be done within one month of them being felled.

No trees containing bat roosts will be felled until bats have been safely excluded. This is likely to require a European Protected Species licence and as such a new application will be made to Natural England to allow these works to legally proceed, should any tree roosts be found. The application will include details on appropriate exclusion measures to be used and this information will also be submitted to and approved in writing by the local planning authority.

3.3 Lighting Strategy

The lighting proposals for the site do not include any lighting that would impact on the proposed roosts i.e. bat boxes. In addition the lighting is positioned so that it does not interrupt bats along the boundary hedges or features used by commuting and foraging bats (see *Figure 3*).

Night-time lighting during demolition and construction works will be minimised so that they do not exceed existing levels and any security lighting required will be directed away from the boundary hedges and trees.

3.4 Timetable of works

Activity	Planned date
Installation of Bat Boxes	Early/mid September 2015
Ground level tree assessment/ tree climbing of trees to be felled	Mid September 2015
Emergence / re-entry surveys of trees with evidence of bats/trees that could not be inspected fully (to be felled)	Mid September to Mid October 2015
Tree removal	Mid October 2015 (once confirmed by the ecologist)
EPS licence return for Buildings 9 and 12	End September 2015
Exclusion of bats and building demolition (9 and 12)	End September- mid November 2015

4 REFERENCES

Bat Conservation Trust (2012) *Bat Surveys – Good Practice Guidelines*. Bat Conservation Trust, London.

Mitchell-Jones, A.J. & McLeish, A.P. 2004. 3rd Edition Bat Workers' Manual. JNCC.

Richmond Council (2015) Appeal decision.

RSK (2013) Latchmere House Bat Initial Report. Hemel Hempstead.

RSK (2013). Latchmere House Bat Survey Report. Hemel Hempstead.

5 FIGURES

Figure 1. Site Location Plan

Figure 2. Retention of connective habitat (including trees and hedgerows) and bat box locations

Figure 3. Lighting plan

Figure 4. Bat Roost Location



Site boundary



Rev	Date	Description	Drn	Chk	App
00	10.08.15	054891	RG	SP	EL

Latchmere House



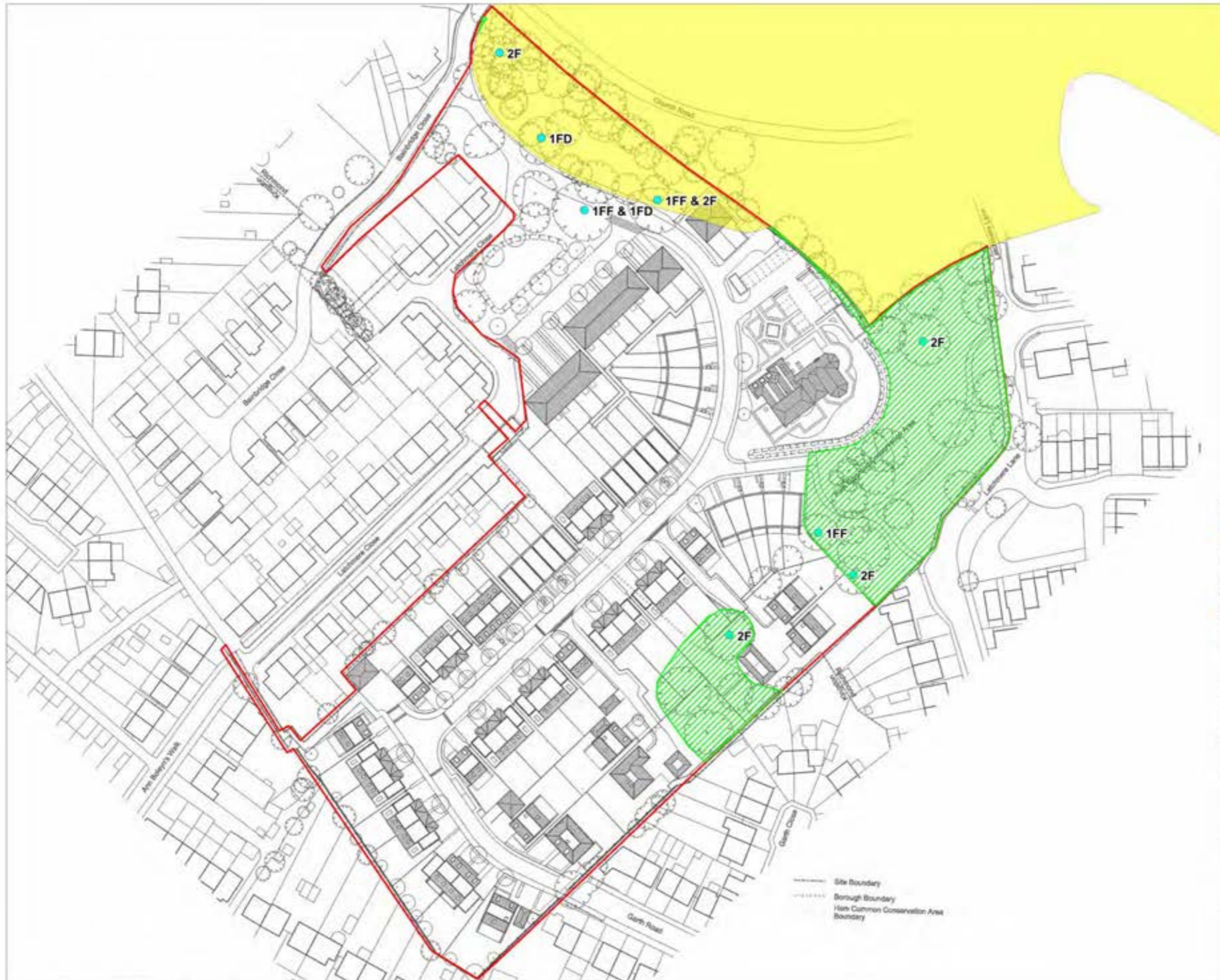
Figure 1
Site Location Plan

0 150 metres
Scale = 1:5,000 @ A3

REV 00

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- Site boundary
 - Ham Common Local Nature Reserve
 - Connective habitat
 - Bat box(es)
- Box types labeled with Schwegler model ID



Rev	Date	Description	Drn	CHK	App
00	27.08.15	854891	RG	SP	RB

Latchmere House

Figure 2
Connective Habitat and Bat Box Locations

0 — 37.5

metres

Scale = 1:1,250 @ A3

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- Lighting bollards (1m mounting height), 35w CDM-T lamp, 360° with 180° reflector where appropriate to reduce spillage
- Sensitive area - no light spill



Rev	Date	Description	Dm	CHK	App
00	27.08.15	854891	RG	SP	RB

Latchmere House



Figure 2
Lighting Plan



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Lighting Strategy Plan provided by Berkeley Homes, produced by Matthew Allchurch Architect Limited - drawing BK004 P302

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- Site boundary
- Building - negligible bat roost potential
- Building - high bat roost potential
- Confirmed roost
- ✕ Surveyor location
- ➔ Common Pipistrelle emergence / re-entry
- ➔ Soprano Pipistrelle emergence / re-entry

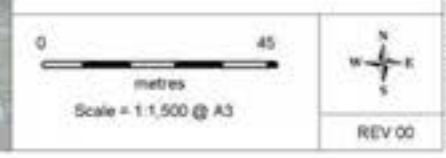


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00	10.06.15	854891	RG	SP	EI

Latchmere House



Figure 4 - Bat Roost locations



APPENDIX A – LEGISLATION

Bats

All species of British bat are protected by *The Wildlife and Countryside Act 1981 (as amended)*, extended by the *Countryside and Rights of Way Act 2000*. This legislation makes it an offence to:

- intentionally kill, injure or take;
- possess or control;
- intentionally or recklessly damage, destroy or obstruct access to a breeding site or resting place; and
- intentionally or recklessly disturb whilst the animal occupies a breeding site or resting place.

Bats are also European Protected Species listed on *The Conservation (Natural Habitats, & c.) Regulations 1994 (as amended)*. This legislation makes it an offence to:

- deliberately capture, injure or kill;
- deliberately disturb, including in particular any disturbance which is likely (a) to impair their ability - (i) to survive, to breed or reproduce, or to rear or nurture their young; or (ii) hibernate or migrate, where relevant; or (b) to affect significantly the local distribution or abundance of the species to which they belong.
- damage or destroy a breeding site or resting place; and
- possess, control, transport, sell, exchange, or offer for sale or exchange.

APPENDIX B – BAT METHOD STATEMENT



Bats – Method Statement template to support a licence application

The Method Statement will be used to determine the impact of the proposal on the favourable conservation status (FCS) of the species concerned (Regulation 53(9)(b)).

You are strongly advised to refer to the Bat Mitigation Guidelines.

Please use recent photographs to support your application.

Customer Services
Wildlife Licensing
Natural England
First Floor
Temple Quay House
2 The Square
Bristol, BS1 6EB.
T. 0845 601 4523
F. 0845 601 3438

Important advice:

The format below must be used. Please enter text below each heading keeping information as concise as possible.

All maps/figures that will become part of any annexed licence granted must be submitted as separate documents (with the site name and date included on the map/figure. See section 1 for list – all others may be included within the Method Statement document (e.g. survey maps/figures) if preferred).

A separate work schedule must also be submitted on form WML-A13a-E5a&b to accompany the Method Statement.

A Executive summary

Provide an overview (no more than 1 side of A4) of what works are proposed and how the impacts identified will be addressed in order to ensure no detriment to the maintenance of the population at a favourable conservation status.

1. This report relates to Latchmere House, Ham, Richmond, London, Ordnance Survey Grid Reference TQ 18572 71343. Latchmere House is a former Young Offenders Institution run by the Ministry of Justice and has been unoccupied since 2011. The site comprises thirteen buildings (including a Victorian house, prison cells and workshops) set within amenity grasslands, ornamental shrubbery, a pond, scattered trees and broadleaved woodland.
2. The Latchmere House site was acquired by Berkeley Homes (West London) Limited in 2012 and planning consent has been granted for a residential development by the Secretary of State at Appeal (Planning reference Richmond Council: APP/L5810/W/3002030) and Kingston Council Reference: 14/12144/FUL.
3. An initial bat survey of all thirteen buildings was undertaken in April 2013 followed by emergence / dawn surveys on three buildings between June and September 2013. The site had repeat emergence / re-entry bat surveys between June and August 2015. No other buildings on site had suitable features for bats so were not the subject of emergence and dawn surveys.
4. No evidence of bats was found during the initial survey in 2013 within any of the buildings but some of the buildings were assessed as having High potential for bats due to there being suitable access for bats. Buildings 1 (Main House), 9 and 12 could not be fully accessed therefore three emergence / re-entry surveys were required to confirm or discount the presence of bats.
5. During the 2013 emergence/re-entry surveys only a single Soprano Pipistrelle was recorded re-entering the gable end of Building 12, on one occasion (6th August 2013). No other bats were recorded emerging from or re-entering any of the other buildings on the site, although they were recorded foraging and commuting around site.

6. During the 2015 emergence surveys a single Soprano Pipistrelle was observed re-entering the gable end of the north east side of the Building 9 on the 25th June 2015 and emerging from between the roof tiles and gable end on the 30th July 2015. In total two Common Pipistrelle bats were observed emerging from the gable end on the north east side of the building on the 8th July 2015 exiting between the roof tiles and the gable end. These were considered to be day roosts of transitory males or non-breeding females. No evidence of maternity roosts was noted.
7. During demolition/ redevelopment of the buildings, the gable end and all roof tiles on Buildings 9 and 12 will be removed by hand and in the presence of a licensed bat ecologist. Ten bat boxes will be erected in mature trees to the east and south of site in order to act as receptor locations if any bats are found during the demolition and as mitigation for loss of roosts. Bat boxes will be erected prior to the soft demolition works.
8. As only low numbers of common bat species were found and no maternity roosts are present, there are no restrictions on when works to exclude bats are carried out other than the avoidance of the hibernation season between November and mid-March. All other buildings do not contain bat roosts and can be demolished at any time.
9. Demolition works will be undertaken immediately on the grant of a licence when bats will be active and not within the hibernation period.
10. The erection of 10 bat boxes (5 x Schwegler 2F, 2 x Schwegler 1FD and 3 x Schwegler 1FF) in the mature trees on southern and eastern boundaries will compensate for the loss of Common and Soprano Pipistrelle day roosts.

B Introduction

B1 Background to activity/development:

Include a brief summary of:

- Why the activity and a licence are necessary (*e.g. bridge structure repairs are required and will affect a known maternity roost of Daubenton's bats, which will be temporarily lost whilst works are being undertaken; renovation works to an office building will result in the permanent loss of three day roosts of common pipistrelle bats; demolition of an existing hospital to be replaced with flats will result in the loss of a brown-long eared bat maternity roost*).

Latchmere House was bought by Berkeley Homes (West London) Limited in 2012 as the site sits in between two local authorities an application was made to both.

A full planning application for 73 residential units was submitted in 7th February 2015 to Richmond Council (DC/ANO/14/0451/FUL) and to Kingston Council 14th February 2015 (14/12144/FUL). Planning consent was given by Kingston and refused by Richmond and the application was sent to appeal (refusal reference from Richmond Council DC/ANO/14/0451/FUL). Planning permission was granted on appeal on 3rd July 2015 by Richmond Council, appeal reference is APP/L5810/W/14/3002030.

The works will include the demolition of all existing buildings on site excluding Latchmere House (Main House). This includes Buildings 9 and 12 where bat roosts of single Common and Soprano Pipistrelle bats have been recorded beneath roof tiles at the north east gable end of Building 9 and from roof void on western end and gable end on eastern of Building 12. These transitory day roosts will be permanently lost.

- Include the site/project name and provide an OS grid reference to 8 figures (*e.g. format AB 12345678*).

Latchmere House, Church Road, Ham, Richmond, London, TW10 5HH (TQ 18577134)

- Include current status of planning permission (if applicable) *e.g. full planning permission with all relevant wildlife conditions discharged; permitted development; demolition with prior notification of demolition issues resolved*. If the proposal is for demolition only of a structure supporting a bat roost/s, please confirm whether there are plans to develop the site in the future and if so when.

Full planning permission has been granted by with one wildlife condition still to discharge (which

relates to an assessment of trees for bats which cannot be discharged until 1 month prior to works commencing).

- No development, including any works of demolition, shall take place until a scheme for bat conservation and mitigation, including a timetable for its implementation, has been submitted to and approved in writing by the local planning authority. The scheme shall provide for:
 - a). Inspection of the existing trees on the site within one month prior to their felling to establish the presence or absence of roosting or hibernating bats.
 - b). No trees containing bats shall be felled until the bats have been safely excluded by such methods as have been previously submitted to and approved in writing by the local planning authority.
 - c). Identification and retention of trees and hedgerows which are important for foraging bats.
 - d). No artificial lighting to directly illuminate any features of value to foraging or commuting bats, such as boundary trees.Development shall be carried out in accordance with the approved scheme.

B2 Relationship with other nearby development and cumulative impacts

B2.1 Is the current application part of a larger development project? For example, is it part of a phased or multi-plot housing development that will require more than one bat licence? Enter Yes, No or N/A in the text box below. If yes, note a separate [master plan](#) document will be required.

No

Important Advice: If yes to the above, please note that sections in this Method Statement on impact assessment and mitigation measures must explicitly relate *only* to impacts from the works currently proposed.

A project-wide master plan must detail the overall impact assessment and mitigation and explain where, and why, each of the bat licences will be required. The master plan must be included as a separate document to this application: see http://www.naturalengland.org.uk/Images/WML-G11_tcm6-9930.pdf for details that are to be included in this separate document. The separate master plan is expected to take due regard of the overall project to ensure that in-combination effects are considered, and mitigation and compensation measures are both sufficient and coherent.

If the current development is part of a larger development project, summarise very briefly here how the current application relates to the larger project and how the in-combination effects are considered and mitigation/compensation is sufficient.

N/A

Important Advice: to accompany this Method Statement also include Figure. B2.1 for a Master plan overview - and see section I "Map checklist" at the end of this document.

B2.2 Apart from any mention in B2.1, please inform us of any past or future development or other projects (in the last 5 years or next 5 years) in the vicinity which may have significantly impacted or are likely to significantly impact on the same population/s of bats as this application (e.g. loss of maternity or hibernation roosts). You must make reasonable efforts to establish this, including discussions with your client and the Local Planning Authority – stating below what you undertook. A brief summary of the project/s should be provided including the site name and location, dates and if known the licence reference number(s).

Please note we are not expecting details of every licence/planning permission issued within the vicinity of the site – we are only concerned with projects that have the potential to significantly impact or have impacted on same population of bats (maternity and hibernation roosts). Note: Natural England is aiming to make available licensing records from the last 5 years publically available.

Following a search using MAGIC two EPS mitigation licences for bats were recorded within a 2km radius of the site (*Figure B2.2*). A brief summary is provided below:

EPS Licence reference: EPSM2011-2921

EPS licence for Common Pipistrelle, Soprano Pipistrelle, Brown Long-Eared and Natter's Bat to allow destruction of a resting place was granted on the 31/01/2011 until 30/09/15. This EPS Licence is located approximately 1.8km south of the application site.

EPS Licence reference: EPSM2011-3396

EPS licence for Common Pipistrelles to allow damage or destruction of a resting place was granted on 09/09/11 until 01/09/11. This EPS Licence is located less than 2km from the site.

Important Advice: locations of other bat mitigation sites in relation to this proposal must be shown on Figure B2.2.

C Survey and site assessment (also see section 5 of the Bat Mitigation Guidelines)

C1 Pre-existing information on the bat species at the survey site:

Please undertake a historical data search within a 2km search radius and provide a summary of the results of this search. For example, records from local environmental records centres, local bat groups and previous survey work undertaken at the site is all relevant.

- Should no historical records be found from your search please state this – and specify what searches you undertook.
- Note that you must not include records from National Biodiversity Network (NBN) without first obtaining written permission from the relevant Data Provider.

No records of bats were known from the site prior to surveys commencing.

Greenspace Information for Greater London (GiGL) have the following records of bats within 1 km of the site. Records include the following:

- Six records of Common Pipistrelle (*Pipistrellus pipistrellus*);
- Two records of Soprano Pipistrelle (*Pipistrellus pygmaeus*);
- One record of Brown Long-eared Bat (*Plecotus auritus*);
- Thirteen records of an unidentified *Pipistrellus* species;
- One record of an unidentified *Myotis* species; and
- Nineteen records of an unidentified *Vespertilionidae*.

C2 Status of the bat species: Detail conservation status at the local, county and regional levels. Please complete the following table, justifying your assessment, and add additional lines where necessary. If the status is unknown then please enter 'unknown'.

Species	Conservation status assessment		
	Local	County	Regional
Common Pipistrelle	This species is common and frequent within and around Richmond.	This bat species is one of the most commonly recorded species within London.	This bat species is one of the most commonly recorded species within the south-east region.
Soprano Pipistrelle	This species is common and frequent within and around Richmond.	This bat species is one of the most commonly recorded species within London.	This bat species is one of the most commonly recorded species within the south-east region.

***Please note that you can add more rows to the table: right click in any cell outside the grey box area. Choose Insert > Insert rows below.*

C3 Objectives of the survey to inform this proposal: Please complete the following table, entering 'Yes', 'No' or N/A' to indicate the objective of your survey and provide comments/explanation where necessary:

Survey objective	Yes / No / N-A	Comments
Determine presence / absence of bats	Yes	To determine the presence of bats using the buildings and where they are roosting.
Determine bat usage of site (e.g. maternity, hibernation, night roosts in various structures)	Yes	The surveys were designed to establish if any roosts were present within any of the buildings and to establish the status of any roost present.

(specify)).		
Identify foraging, commuting or swarming sites (explain)	N/A	Not required as no areas of potential foraging and commuting habitat will be lost through the development proposals
Other (explain)	N/A	N/A

C4 Site/habitat description: Please provide:

- Brief descriptions of the site, including total size of the development site (ha) (most often within the red line planning boundary) and areas of the site with potential value to bats (ha).

The Latchmere House site is approximately 4.5 ha in total and consists of thirteen buildings (including a Victorian House, prison cells and workshops) set within amenity grasslands, ornamental shrubbery, a pond, scattered trees and broadleaved woodland (Site location can be seen in *Figure C5a*). Potential roosting habitat was identified within three of the buildings and some of the mature trees in the eastern and southern parts of the site. The buildings on site provide potential commuting routes and sheltered foraging for bats particularly Pipistrelle species. The tree lines and hedges around the edges of the site provide suitable foraging and commuting routes from the site to the wider landscape Ham common and other wooded areas that are likely to provide important foraging areas.

- Brief descriptions of the structures on site, differentiating between those surveyed and not surveyed, with an explanation why. Ensure structures are referenced and consistently indicated on relevant figures and tables.

There are thirteen buildings on site which were previously used as part of the Young Offenders Institute (building locations *Figure C5b*):

1. Main House (Building 1)

The main house is a three-storey house constructed of brick with a pitched and hipped roof covered with slate tiles. There are a total of four roof voids. Parts of the roof have been renovated in recent years and have Tyvek lining beneath the slates. Other parts of the roof have either F1 bitumastic felt or no lining. There are slipped and missing tiles throughout the roof covering and this is evident internally where light penetrates into the roof void. The main house has three dormers on the front elevation all with hanging tiles and these are lifted in places that could allow bats to enter the space between the hanging tiles and the walls of the dormers. There are soffits on most elevations of the building and most of these are in good condition. They do not however fit flush to the wall and the gaps are of sufficient size to allow bats to enter the roof void or use the wall plates for roosting. This building was the subject of an initial internal survey and two bat emergence/dawn re-entry surveys. No bats were found using this building hence is not the subject of this licence application.

2. Building 2

This building was the subject of an initial external and internal survey for bats. This building is located at the far south-western corner of the site and the building is orientated north-west to south-east. This building is a two-storey brick building with a flat cement roof. There are no gaps in the brickwork and the roof has no vents or other gaps where bats could access the interior of the building. There is no loft void present. There is a single-storey modern extension at the south-east corner, which is of modern construction using plastic and metal. This extension has no roof void and no other gaps where bats could enter the building. There are no gaps or voids on or within this building where bats can gain access to roost and therefore has negligible bat roost potential. No additional surveys were carried out on this building.

3. Building 3

This building was the subject of an initial external and internal survey for bats. This building is a two-storey building on the south-eastern side of the site. The building is orientated south-east to north-west. It is a brick with a flat roof. The building is in a generally good condition but there is a single gap in the brickwork on the front elevation of the building. This gap is where a single brick has been removed alongside a first floor window. Though bats could perhaps enter through the missing brick in the front elevation of the building, the void between the two wall skins has insulation that fills the void and is therefore unsuitable for bats. No other voids or crevices exist in the building that could be used by bats. This building has negligible bat roost potential. No additional surveys were carried out on this

building.

4. Building 4

This building was the subject of an initial external and internal survey for bats. This is a single-storey rectangular shaped workshop on the south-east side of the site. The building is orientated south-west to north-east. It is constructed of brick with single skin walls. It has a pitched roof of corrugated metal sheets with light panels and corrugated metal gable ends. The roofline and the gable ends are sealed along their edges to the brick walls so that there are no gaps into the interior of the building. The building does not have a loft void. There are no gaps or voids on or within this building where bats can gain access to roost and therefore has negligible bat roost potential. No additional surveys were carried out on this building.

5. Building 5

This building was the subject of an initial external and internal survey for bats. This is a single-storey rectangular workshop on the south-eastern side of the site. The building is orientated south-west to north-east. It is brick with single skin walls and a pitched roof constructed of corrugated asbestos-type sheets. The roofline and the gable ends are sealed along their edges so that there are no gaps into the interior of the building. The building does have a void above a suspended ceiling. There are no gaps or voids on or within this building where bats can gain access to roost and therefore has negligible bat roost potential. No additional surveys were carried out on this building.

6. Building 6

This building was the subject of an initial external and internal survey for bats. This is a single-storey 'L'-shaped, modern workshop on the south-eastern side of the site. The building is orientated south-east to north-west. It has brick walls and a pitched corrugated metal roof, gables and wall tops. The metal coverings are sealed to the brick wall tops throughout with no gaps that would allow bats entry to the interior. The interior extends to the ridge with no void. There are no gaps or voids on or within this building where bats can gain access to roost and therefore has negligible bat roost potential. No additional surveys were carried out on this building.

7. Building 7

This building was the subject of an initial external and internal survey for bats. This building is identical in construction to Building 6. It is rectangular, in the centre of the site, and is orientated south-east to north-west. There are no gaps or voids on or within this building where bats can gain access to roost and therefore has negligible bat roost potential.

8. Building 8

This building was the subject of an initial external and internal survey for bats. This building is identical in construction to Buildings 6 and 7. It is rectangular, on the north-western side of the site and is orientated south-west to north-east. There are no gaps or voids on or within this building where bats can gain access to roost and therefore has negligible bat roost potential.

9. Building 9

This building was the subject of an initial external and internal survey for bats. This building is the height of a three-storey building although it has only a single-storey internally. The building is a rectangular building and is in the north-eastern corner of the site. The building is constructed of brick and has a steeply-pitched roof covered with slate tiles. There are single-storey extensions at both ends of the building. The roof of the building is covered with slates. The roof is in poor condition with slipped and missing tiles on both slopes. The two gable ends are not mortared and there are gaps along the whole of the lengths of the gables. The gaps beneath the roof covering lead to a narrow void that is created between the tiles and the internal timber cladding. This building was additionally surveyed with bat emergence/dawn re-entry surveys.

10. Building 10

This building was the subject of an initial external and internal survey for bats. This is a two-storey, irregular-shaped building at the north-eastern end of the site immediately to the south-west of the Main House. It is orientated south-west to northeast with a single-storey extension at the north-western corner. It is constructed of brick in good condition with mostly pitched and hipped roofs that are

covered with slate tiles. The roof has been well-maintained and there were no gaps into the roof void. The eaves of the roof are sealed against the walls of the building. Access was gained to all roof voids of this building, and no light penetration was evident anywhere within the void. The small areas of flat roof associated with some areas of the single-storey extensions were of concrete construction with no gaps. This building has an intact roof with no potential access to the internal roof voids. These voids would be suitable for bats if they could gain access. Because there is no bat-access to any sheltered voids this building has negligible bat roost potential.

11. Building 11

This building was the subject of an initial external and internal survey for bats. This building is a large, irregular-shaped building in the north-western corner of the site. It is aligned along a south-west to north-east axis and is brick and has sections that are two-storey and single-storey. The roof of the two-storey sections is pitched and covered with slates. Internally there are no sheltered crevices or voids suitable for roosting and the building is light and draughty. Because there are no sheltered voids, this building has negligible roost potential.

12. Building 12

This building was the subject of an initial external and internal survey for bats. This is a single-storey building in the north-western corner of the site. The building is aligned south-west to north-east. It is brick with an asbestos-type sheet roof. There are gaps along the gable edges that could allow entry by bats. This building was additionally surveyed with bat emergence/dawn re-entry surveys.

13. Building 13

This building was the subject of an initial external and internal survey for bats. This is a square, single-storey, modern building located in the far north-western corner of the site. It is brick with a flat, felt roof. Around all elevations of the buildings at the top of the walls are plastic barge boards that are sealed along their lower edges to the brickwork. This building has a suspended ceiling internally that creates a void between that and the roof. There are no gaps on the exterior of the building that would allow bats to enter the building to access this void; therefore this building has negligible bat roost potential.

All buildings were inspected internally and externally for their bat roost potential. Following the outcome of the initial inspection Buildings 1 (Main House), 9 and 12 were subject to bat emergence/dawn re-entry surveys. All three buildings were inspected in 2013 and 2015.

- A description of adjacent areas/offsite habitats, specifying any relevance to bats, including descriptions of habitat/s relevant to bat commuting/foraging behaviour.

Broadleaved woodland borders the site to the east (Ham Common Local Nature Reserve) and extends all the way to Richmond Park. This woodland is likely to provide important foraging, commuting and roosting habitat for local bats.

To the north, south and west of site is residential housing which may provide roosting opportunities for species that use buildings (i.e. Common and Soprano Pipistrelles).

- Please also include annotated (cross reference the structures) and dated photographs (showing both internal and external survey areas) as these are very useful as an assessment aid. These can be inserted below or submitted as a separate (referenced) document.

Photos were taken during the initial inspection 05/04/13 and during the 2015 emergence surveys.



Plate 1. North facing aspect of the Building 1 (Main House)



Plate 2. North facing aspect of Building 12 (workshop)



Plate 3. Bat access point at gable end of Building 12, re-entered 06/08/13.

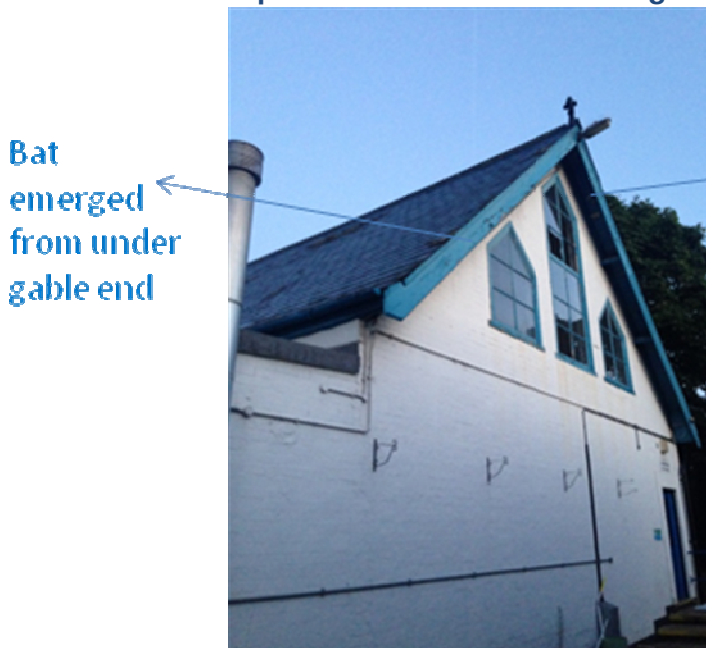


Plate 4. North-east aspect of Building 9 (gymnasium)



Bat emerged from underneath tile

Plate 5. Bat access point western end of building 9 along tile edges, emerged 30/07/15.



Bat emerged from under gable end

Bat re-entered building

Plate 6. Bat access point eastern gable end of building 9, re-entered 25/06/15 & emerged 08/07/15 and 30/07/15.

C5 Field survey(s):

Please complete the following tables and add additional lines where necessary (*right click in any cell outside the grey box area. Choose Insert > Insert rows below*). Please enter 'N/A' if the table is not applicable to your survey:

Visual inspection

Date of each survey visit (e.g. format 01/06/13)	Structure reference / location	Equipment used (e.g binoculars, endoscope)	Weather – (Include temps, precipitation, Beaufort wind scale etc)
5/04/13	Main House (Building 1)	500, 000 candle power torch, headtorches, a ladder, a digital camera, an endoscope and binoculars.	8°C with no rain and little wind (2 Beaufort scale). Sunny with clouds (6 Octas scale).
05/04/13	Building 2	500, 000 candle power torch, headtorches, a ladder, a digital camera, an endoscope and binoculars.	8°C with no rain and little wind (2 Beaufort scale). Sunny with clouds (6 Octas scale).
05/04/13	Building 3	500, 000 candle power torch, headtorches, a ladder, a digital camera, an endoscope and binoculars.	8°C with no rain and little wind (2 Beaufort scale). Sunny with clouds (6 Octas scale).
05/04/13	Building 4	500, 000 candle power torch, headtorches, a ladder, a digital camera, an endoscope and binoculars.	8°C with no rain and little wind (2 Beaufort scale). Sunny with clouds (6 Octas scale).
05/04/13	Building 5	500, 000 candle power torch, headtorches, a ladder, a digital camera, an endoscope and binoculars.	8°C with no rain and little wind (2 Beaufort scale). Sunny with clouds (6 Octas scale).
05/04/13	Building 6	500, 000 candle power torch, headtorches, a ladder, a digital camera, an endoscope and binoculars.	8°C with no rain and little wind (2 Beaufort scale). Sunny with clouds (6 Octas scale).
05/04/13	Building 7	500, 000 candle power torch, headtorches, a ladder, a digital camera, an endoscope and binoculars.	8°C with no rain and little wind (2 Beaufort scale). Sunny with clouds (6 Octas scale).
05/04/13	Building 8	500, 000 candle power torch, headtorches, a ladder, a digital camera, an endoscope and binoculars.	8°C with no rain and little wind (2 Beaufort scale). Sunny with clouds (6 Octas scale).
05/04/13	Building 9	500, 000 candle power torch, headtorches, a ladder, a digital camera, an endoscope and binoculars.	8°C with no rain and little wind (2 Beaufort scale). Sunny with clouds (6 Octas scale).
05/04/13	Building 10	500, 000 candle power torch, headtorches, a ladder, a digital camera, an endoscope and	8°C with no rain and little wind (2 Beaufort scale). Sunny with clouds (6 Octas scale).

		binoculars.	
05/04/13	Building 11	500, 000 candle power torch, headtorches, a ladder, a digital camera, an endoscope and binoculars.	8°C with no rain and little wind (2 Beaufort scale). Sunny with clouds (6 Octas scale).
05/04/13	Building 12	500, 000 candle power torch, headtorches, a ladder, a digital camera, an endoscope and binoculars.	8°C with no rain and little wind (2 Beaufort scale). Sunny with clouds (6 Octas scale).
05/04/13	Building 13	500, 000 candle power torch, headtorches, a ladder, a digital camera, an endoscope and binoculars.	8°C with no rain and little wind (2 Beaufort scale). Sunny with clouds (6 Octas scale).
Comments (to include # of surveyors used for each visit): Three surveyors (one licensed bat ecologist and two assistants) carried out the initial bat survey of each building.			

Please provide surveyors names (*including Class Licence registration number if applicable*) and ensure the above table states the number of surveyors used for each survey visit undertaken.

David Cove of RSK (Class Licence CL19- Registration No CLS00727. Current licence No 2015-14432-CLS-CLS) led the survey with assistance from Jessica Breeze and Emily Eaton of RSK.

Dusk survey

Date of each survey visit (e.g. format 01/06/13)	Start and end times and time of sunset	Structure reference / location	Equipment used (include make of bat detectors and logging equipment)	Weather – (Include start and end temps, precipitation, Beaufort wind scale etc)
08/06/13	Start: 21:15, end: 23:30, sunset: 21:21	Main house (Building 1)	Bat Box Duet or EchoMeter 3 with stereo recorders (Edirol)	Start: 17°C, End: 12°C, no rain, Beaufort 1, Octas 4-8.
Comments (to include # of surveyors used for each visit): Four surveyors positioned so that all elevations of the building could be seen and all emerging bats were seen				
08/07/13	Start: 21:30, end: 23:05, sunset: 21:47	Building 9	Bat Box Duet or EchoMeter 3 with stereo recorders (Edirol)	Start: 21.5°C, End: 19.1°C, no rain, Beaufort 0, Octas 2/3.
Comments: Four surveyors positioned so that all elevations of the building could be seen and all emerging bats were seen				
09/07/15	Start: 21:30, end: 23:05, sunset: 21:47	Building 12	Bat Box Duet or EchoMeter 3 with stereo recorders (Edirol)	Start: 20.2°C, End: 18°C, no rain, Beaufort 0, Octas 0/1
Comments: Four surveyors positioned so that all elevations of the building could be seen and all emerging bats were seen				
05/08/15	Start: 20:30, end: 22:30, sunset: 20:41	Building 9	Bat Box Duet or EchoMeter 3 with stereo recorders (Edirol)	Start: 18°C, End: 16.6°C, no rain, Beaufort 1, Octas 4-8
Comments: Four surveyors positioned so that all elevations of the building could be seen and all emerging bats were seen				
03/09/15	Start: 19:30, end: 21:30, sunset:	Building 12	Bat Box Duet or EchoMeter 3 with	Start: 23.5°C, End: 19.7°C, no

	19:42		stereo recorders (Edirol)	rain, Beaufort 0, Octas 1-8.
Comments: Four surveyors positioned so that all elevations of the building could be seen and all emerging bats were seen				
09/06/15	Start: 21:00, end: 22:45, sunset: 21:15	Building 12	Bat Box Duet or EchoMeter 3 with stereo recorders (Edirol)	Start: 13.1 °C, End: 12.5 °C, no rain, Beaufort 1, Octas 6-7
Comments: Two surveyors positioned so that all elevations of the building could be seen and all emerging bats were seen				
24/6/15	Start: 21:05, End: 22:52, sunset: 21:22	Main House (Building 1)	Bat Box Duet or EchoMeter 3 with stereo recorders (Edirol)	Start: 18.8 °C, End: 17.3 °C, no rain, Beaufort 1, Octas 1
Comments: Four surveyors positioned so that all elevations of the building could be seen and all emerging bats were seen				
08/07/15	Start: 21:00, End: 23:00, sunset: 21:17	Building 9	Bat Box Duet or EchoMeter 3 with stereo recorders (Edirol)	Start: 17 °C, End: 15 °C, no rain, Beaufort 3, Octas 3-6
Comments: Four surveyors positioned so that all elevations of the building could be seen and all emerging bats were seen				
23/07/15	Start: 21:00, end: 22:33, sunset: 21:03	Main House (Building 1)	Bat Box Duet or EchoMeter 3 with stereo recorders (Edirol)	Start: 19.7 °C, End: 17.5 °C, no rain, Beaufort 1, Octas 8.
Comments: Four surveyors positioned so that all elevations of the building could be seen and all emerging bats were seen				
30/07/15	Start: 20:40, End: 23.00, Sunset: 20:57	Building 9	Bat Box Duet or EchoMeter 3 with stereo recorders (Edirol)	Start: 16.6 °C, End: 14 °C, no rain, Beaufort 0, Octas 4.
Comments: Four surveyors positioned so that all elevations of the building could be seen and all emerging bats were seen				

Please provide surveyors names (*including Class Licence registration number if applicable*) and ensure the above table states the number of surveyors used for each survey visit undertaken.

David Cove of RSK (Class Licence CL19 - Registration No CLS00727. Current licence No 2015-14432-CLS-CLS), Victoria Gilbey, Rosy Benbow, Laura Murray, Jess Breeze, Errol Ibrahim, Jonathan Mitchley, Sarah Allman, Lindsay Stronge, Nathan Jenkinson, Jessie Hine, Mark Norris, David Prys-Jones and Emily Eaton. Apart from licensed surveyors, all other surveyors employed on this project have received specific training on how to carry out emergence / re-entry surveys.

Dawn survey

Date of each survey visit (e.g. format 01/06/13).	Start and end time and time of sunrise	Structure reference / location	Equipment used (include make of bat detectors and logging equipment)	Weather – (Include start and end temps, precipitation, Beaufort wind scale etc)
09/07/13	Start: 03:25, end: 04:53, sunrise: 04:53	Main House (Building 1)	Bat Box Duet or EchoMeter 3 with stereo recorders (Edirol)	Start: 13.9 °C, End: 15.2 °C, no rain, Beaufort 2, Octas 0.
Comments (to include # of surveyors used for each visit) : Four surveyors positioned so that all elevations of the building could be seen and all emerging bats were seen				
06/08/15	Start: 03:30, end: 05:40, sunrise: 05:32	Building 12	Bat Box Duet or EchoMeter 3 with stereo recorders (Edirol)	Start: 11.6 °C, End: 14 °C, no rain, Beaufort 0, Octas 0.

Comments: Four surveyors positioned so that all elevations of the building could be seen and all emerging bats were seen				
25/06/15	Start:03:15, end: 04:44, sunrise: 04:44	Building 9	Bat Box Duet or EchoMeter 3 with stereo recorders (Edirol)	Start: 12.5°C, End: 12.8°C, no rain, Beaufort 1, Octas 1.
Comments: Four surveyors positioned so that all elevations of the building could be seen and all emerging bats were seen				
23/07/15	Start: 03:12, end: 05:12, Sunrise: 05:12	Building 12	Bat Box Duet or EchoMeter 3 with stereo recorders (Edirol)	Start: 16.1°C, End: 14.9°C, no rain, Beaufort 0, Octas 8
Comments: Two surveyors positioned so that all elevations of the building could be seen and all emerging bats were seen				
31/07/15	Start: 03:20, end: 05:10, sunrise: 05:00	Building 12	Bat Box Duet or EchoMeter 3 with stereo recorders (Edirol)	Start: 8.9°C, End: 9.5°C, no rain, Beaufort 2, Octas 0
Comments: Two surveyors positioned so that all elevations of the building could be seen and all emerging bats were seen				

Please provide surveyors names (including Class Licence registration number if applicable) and ensure the above table states the number of surveyors used for each survey visit undertaken.

Dave Cove of RSK (Class Licence CL19- Registration No CLS00727. Current licence No 2015-14432-CLS-CLS)Victoria Gilbey, Rosy Benbow, Laura Murray, Jess Breeze, Errol Ibrahim, Jonathan Mitchley, Sarah Allman, Lindsay Stronge, Nathan Jenkinson, Jessie, Mark Norris, David Prys-Jones and Emily Eaton. Apart from licensed surveyors, all other surveyors employed on this project have received specific training on how to carry out emergence / re-entry surveys.

'Other' survey (please specify e.g. hibernation, remote, etc)

Date of each survey visit (e.g. format 01/06/13).	Start and end times	Structure reference / location	Equipment used (include make of bat detectors and logging equipment)	Weather – (Include start and end temps, precipitation, Beaufort wind scale etc)
N/A	N/A	N/A	N/A	N/A

Please provide surveyors names (including Class Licence registration number if applicable) and ensure the above table states the number of surveyors used for each survey visit undertaken.

N/A

Please explain any constraints on the survey/s undertaken (time of year, cold weather, refused access, safety issues preventing access etc – justify as necessary and include evidence where required). If access was refused please provide evidence (letter/email) to demonstrate this.

The loft spaces in Buildings 9 and 12 and the Main House (Building 1) were not fully inspected during the initial survey due to lack of available access points. These buildings were all subject to emergence and re-entry surveys. Otherwise, there were no constraints to the survey.

Also complete the following:

- If DNA analysis of droppings has been undertaken, please indicate below (Yes, No, N/A) and ensure that **Figure C5b** (if applicable – see below) details the locations where the samples were taken.

N/A

- Please confirm (Yes, No, N/A) that a walk over survey/check has been carried out within 3 months prior to application submission to ensure that conditions have not changed since the most recent survey was undertaken. Provide details of any changes to conditions and habitats and/or structures on site since the surveys were undertaken. If no walk-over survey/check has been undertaken please explain why.

Yes- emergence/ re-entry surveys were conducted June-July 2015. No changes to habitats or buildings were noted.

C6 Survey results: Summarise your findings in the tables below and cross reference to **Figure C6** (which must also include flight lines, access points, dimensions of existing roosts, locations of surveyors etc). If you did not undertake a specific survey type please add N/A to the relevant table/s. Raw data is to be appended to the Method Statement (including sonograms, DNA analysis results etc).

Roost types to be referenced as: Day, Night, Feeding Perch, Transitional, Satellite, Maternity, Hibernation, Foraging Area, Commuting Route, Swarming Site, Other. See end of document for “Definitions” of these roosts.

When completing “Notes/observations” include reference to direct observations, extent and age of droppings, presence of field signs, emergence or re-entry, echolocation analysis. Also include DNA results if applicable and include nil results)

Visual inspection results

Date (e.g. format 01/06/13)	Species	Roost type (to be consistent with the above listed types)	Structure reference (consistent with relevant figures and other text)	Roost location	Access points (include # of them)	Dimensions of existing roosts or explanation of where the roost is (as appropriate)
N/A	N/A	N/A	N/A	N/A	N/A	N/A
Notes/observations:						

Provide further (brief) comments/explanation if required:

N/A

Dusk survey results

Date (e.g. format 01/06/13)	Start and end times	Species	Roost type (to be consistent with the above listed types)	Structure reference (consistent with relevant figures and other text)	Roost location	Access points (include # of them)	Dimensions of existing roosts or explanation of where the roost is (as appropriate)
08/07/15	Start: 21:30, end: 23:05	Common Pipistrelle x 2	Day roost	Building 9	Gable end	Gable end	North-east side of building from beneath roof tile at edge of gable end.
Notes/observations: Bats emerged from the gable at the north-east side of the building from between the roof tiles and the gable edge flew west along northern site boundary (see <i>Figure C6</i>).							
30/07/15	Start: 20:40, End: 23.00	Soprano Pipistrelle x 2	Day roost	Building 9	Roof void	Through gaps in roof tiles and Gable end	1 bat from north-east side of building underneath lowest part of gable and 2nd bat emerged

							from gable end from beneath roof tile on south-western edge
Notes/observations: Bat emerged from the gable end and flew west along northern site boundary, and bat from tile flew east along northern site boundary (see <i>Figure C6</i>).							

Provide further (brief) comments/explanation if required:

N/A

Dawn Survey results

Date (e.g. format 01/06/13)	Start and end times	Species	Roost type <i>(to be consistent with the above listed types)</i>	Structure reference <i>(consistent with relevant figures and other text)</i>	Roost location	Access points <i>(include # of them)</i>	Dimensions of existing roosts or explanation of where the roost is <i>(as appropriate)</i>
06/08/13	Start: 03:30, end: 05:40	Soprano Pipistrelle	Day roost	Building 12	Gable end	Gable end	North side of building on edge of gable

Notes/observations: Flew straight down into gap in gable end, on the eastern end of the building (see *Figure C6*).

25/06/15	Start: 03:15, end: 04:44	Common Pipistrelle	Day roost	Building 9	Gable end	Gable end	North-east side of building underneath lowest part of gable end
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Notes/observations: Re-entry on lowest part of north-east gable end (see *Figure C6*).

Provide further (brief) comments/explanation if required:

N/A

'Other' results – please specify.

Date (e.g. format 01/06/13)	Species	Roost type <i>(to be consistent with the above listed types)</i>	Structure reference <i>(consistent with relevant figures and other text)</i>	Roost location	Access points <i>(include # of them)</i>	Dimensions of existing roosts or explanation of where the roost is <i>(as appropriate)</i>
N/A	N/A	N/A	N/A	N/A	N/A	N/A

Provide further (brief) comments/explanation if required:

N/A

C7 Interpretation/evaluation of survey results (also see the Bat Mitigation Guidelines section 5.8 and Figure 4 for conservation significance of roost type): Please complete the following table:

Structure	Species	Count /	Site status assessment	Conservation	Use and
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reference (ensure consistency with other text and Figures)		estimate of number of individuals	(e.g. hibernation, maternity, feeding roost, swarming site etc)	significance of roost	importance of the site throughout the year (e.g. used by different species at different times, hibernation potential, etc)
Building 9	Common and Soprano Pipistrelle	Small group 2-3 individuals	Day roost	Low	It is likely the space between the roof tiles and the internal cladding of the roof is used by a low number of bats sporadically throughout the active season
Building 12	Soprano Pipistrelle	Single bats	Day roost	Low	It is likely the building is used sporadically by individual bats throughout the active season

Provide further (brief) comments / explanation if required:

It is clear from the results of the surveys that these roosts are infrequently used day roosts of probably male or non breeding female bats.

Important Advice:

Survey maps that must be included in this section of the Method Statement, or as separate documents if preferred, are listed in *section I "Map checklist" at the end of this document.*

Insert survey figures, photographs etc below here if not submitting them as separate documents:

D Impact assessment in absence of mitigation or compensation for each species / roost type

(also see section 6 of the Bat Mitigation Guidelines). Where appropriate you must take into consideration cumulative impacts of your proposals on the bat species and populations identified in your survey in each section.

D1 Initial impacts: The impact/s of activities undertaken on site pre-development and during works must be considered and explained. **Consider disturbance** (such as human presence, noise, vibration, dust, lighting, access obstruction due to scaffolding and plastic sheeting etc), **temporary damage and temporary loss of roosts and injuring/killing.**

E.g. Unsupervised contractor removing roof tiles has the potential to crush 3 common pipistrelle bats using the roof tiles as day roosts. Major negative impact at a site level; Demolition of an extension to a building will take place adjacent to a maternity roost of common pipistrelle bats situated under the soffit board of the retained building. Potential for significant disturbance if demolition works are undertaken during the maternity period through vibration, noise and dust. Medium negative impact on a local level.

Unsupervised contractors removing roof tiles and barge boards on buildings 9 and 12 have the potential to disturb/ injure/ kill individual Common and Soprano Pipistrelle bats using the roof tiles as a roost. Moderate negative impact on a site level only (see *Figure D* for impacts map).

Demolition of these buildings has the potential to disturb/ destroy roosting areas used by individual Common and Soprano Pipistrelle bats. Low negative impact on a site level only.

D2 Long-term impacts: Consider and explain the impacts of the proposed works on the different species populations at a site, local, regional, and national level.

D2.1. Roost modification: e.g. changes to roosts/access points, new entrances (including human access e.g. for servicing/maintenance etc), change in size of roost space, changes in air flow, temperature and humidity, light etc. Please detail the access points into each roost and the type/s of roosts which will be modified.

E.g. Non-mitigated changes to the roof structure, which requires replacing, will lead to the modification of 3 access points into a common pipistrelle maternity roost which will result in bats being unable to enter or exit the roost. Moderate negative impact on a local level.

N/A

D2.2. Roost loss: Loss or deterioration of roosting sites, access points, habitat, etc must be considered. Please detail the access points into each roost and types of roost/s which will be lost.

E.g. Demolition of building reference X in June will lead to the loss of a night roost in the porch used by 1 lesser horseshoe bat and the loss of a maternity brown-long eared bat roost in the loft space. This will lead to the death and/or injury of bats including dependent young and permanent destruction (loss) of both roosts. Moderate negative impact at a site level for lesser horseshoe bats and moderate negative impact at a local level for brown-long eared bats.

Demolition of buildings 9 and 12 will lead to the permanent loss of access points and day roosts used by individual Soprano and Common Pipistrelle bats. Will lead to the permanent loss of all the roosts listed above. Low negative impact for Common and Soprano Pipistrelle bats at Site level.

D2.3. Fragmentation and isolation: Will the proposed works results in these impacts? E.g. loss of linear features such as hedges, tree lines, increased lighting, severance of flight lines by roads/rail lines, separation of breeding/hibernation sites from feeding grounds, etc.

E.g. In addition to the removal of common pipistrelle day roosts in trees along the proposed road, removal of hedgerows, shown on Figure D, and the construction of the new road will fragment a significant commuting and foraging route for a lesser horseshoe maternity roost. This may cause a reduction in the long term success of the breeding colony of lesser horseshoes by restricting existing foraging range or killing bats on the road. Potentially major negative impact at a site and local level.

Proposed works will not result in fragmentation and isolation, proposed access for the development will be provided using existing roads. Habitat loss will be minimal and includes immature trees, ornamental planting and amenity grassland all of which is considered of low ecological value to bats. Existing hedgerows and boundary trees currently used for foraging and commuting will be retained.

D3 Post-development interference impacts: e.g. extra street lighting or other external lighting, use of loft space as storage, increased noise. Please also consider other direct or indirect post development impacts which may include disturbance/ injuring/killing.

E.g. Security lighting being installed will shine on the brown-long eared bat maternity roost access points which may affect emergence patterns and lead to a reduction in foraging times. This may cause a reduction in the long term success of the breeding colony or cause the roost to be abandoned. Moderate to high negative impact at a site and local level.

Increased lighting on site will occur as a result of the development. This could disturb flight lines of bats and cause a reduction in the long term success of bat species using the site by restricting commuting route to avoid well lit areas. Potentially low negative effect at the site level. The positioning of new roosting locations (10 bat boxes) within the site will be located away from all lighting so that bats will not be disturbed.

Increased noise and disturbance on site will occur during demolition and construction that could interrupt areas used for commuting and foraging once the buildings are occupied areas however the majority of the surrounding Low negative impact at a site level.

D4 Predicted scale of impact of this development/activity on species status (also see section 6.5 of the Bat Mitigation Guidelines and the BCT's Bat Survey Good Practice Guidelines): Please complete the following table to explain what this is likely to be at the site, local/county and regional levels for each roost type and species. Add additional lines when necessary

Roost types to be referenced as: Day, Night, Feeding Perch, Transitional, Satellite, Maternity, Hibernation, Foraging Area, Commuting Route, Swarming Site, Other.

Species & #s (which will be affected at	Roost type	Predicted scale of impact (<i>place X in relevant column</i>)			Notes (include impact on roost – damage / destruction /modification etc)
		Site	County	Regional	

the time works will be undertaken)					
Soprano Pipistrelle	Day roost	X			Destruction of roosts and access points will have a low negative impact at a site level
Common Pipistrelle	Day roost	X			Destruction of roosts and access points will have a low negative impact at a site level

* *Please note that you can add more rows to the table: right click in any cell outside the grey box area. Choose Insert > Insert rows below.*

Provide further comments/explanation as required (this helps understand how the impacts will be mitigated or compensated for when assessing section E):

N/A

Important Advice:

Please ensure that a separate 'Impact map' is provided (Figure D) which must show all structures or habitats (clearly referenced) that will be disturbed, damaged or destroyed, detailing where the roosts and access points are etc. Also see section I "Map checklist" at the end of this document.

E Mitigation and Compensation (please also see section 7 and 8 of the Bat Mitigation Guidelines)

E1 The mitigation solution being proposed in the method statement should be the one that delivers the 'need' with the least impact on the bat population.

Please explain why this design was chosen over other potential solutions - set out what other designs were considered and why they were not feasible (e.g. if the proposal is to construct a new stand-alone roost, explain why it is not possible to retain the roost in the existing structure etc).

The buildings which contain roosts of Common and Soprano Pipistrelle roosts require demolition to facilitate the development. Mitigation will involve the installation of ten Schwegler roost boxes (1FF, 2F, 1FD) on mature trees to the east and south of site. These boxes are designed for crevice dwelling bats. This will assist in compensating for the loss of roosting beneath roof tiles and gable ends within the buildings. It was felt that this was the better way forward as permanent roosts constructed in new buildings were more likely to be impacted by any works carried out by the new home owners after purchase from the developer.

E2 Capture and exclusion (If not applicable to your proposals please state 'N/A' in the relevant text boxes):

Include details on:

- The methods proposed - to include timings, effort, methods (please clearly state what will be used, e.g. use of endoscopes, one way excluders, capture by hand (and state in which referenced structures), disturbance by noise or light, destructive search by soft demolition etc) and equipment to be employed.

It is proposed to use the following soft demolition process (see Figure E2a for buildings undergoing exclusion):

1. Prior to works commencing on site all staff will undergo a safety briefing which will include a tool box talk. This tool box talk will include details of the bats likely to be encountered, where they are likely to be encountered and the methods to be employed in the removal of roof tiles so that bats are not injured or killed.
2. During demolition works, removal of all roof coverings (roof tiles, gables) on buildings 9 and 12 would be supervised by an appropriately qualified ecologist.
3. The supervising ecologist will undertake an internal inspection of both buildings immediately prior to demolition starting, for any visible bats within the building. Where appropriate and possible any visible bats will be captured either by hand (using gloves) or hand-net. Any bats captured in this way will be relocated to the bat boxes pre-erected on the site.
4. The roof tiles and gable on buildings 9 and 12 will then be stripped by hand. Each tile will be lifted commencing with the ridge tiles and working down the roof slopes. Each tile will be lifted directly upwards so that no bats roosting beneath are injured or killed as a result of crushing. Each tile will be inspected for bats clinging to the tile before disposal.
5. If a bat is discovered the tile will be carefully placed back over the bat and the ecologist will

supervise the removal of the bat by hand (using gloves) and then relocated into one of the pre-erected bat boxes on the east and south of site.

6. The tile strip will continue until all tiles are stripped from the roof.
7. Demolition works will not commence before the grant of a licence and outside the hibernation period (which is mid-November through to mid-March).
8. No works will commence on any roost unless the weather in the preceding three days has had night time temperatures above 8°C. If temperatures are below this temperature the works will be delayed until they are achieved.

- Should your proposals include capture (taking) please specify numbers of each species that will be affected at the time the works are to be undertaken. Note: *this may be different in many cases to the number of bats using the roost at its optimum time as timings for works will be at a time when bats are least likely to be present.*

Common Pipistrelle- five, Soprano Pipistrelle- five

- Weather conditions during which licensed activities will be carried out, release sites, care of bats, unexpected discovery of bats, what would be done with any injured bats found etc.

All licensed activities will be conducted during periods of weather when bats are likely to be active:

Soft demolition:

1. All soft demolition will be undertaken during weather where the minimum temperature is 8°C or above allowing bats to be active.
2. All soft demolition works will be undertaken when there is no rain.
3. If bats are unexpectedly discovered all works should stop and be assessed by the supervising ecologist. Any bats exposed will be transferred to bat boxes which have been erected in trees to the east and south of site before works commence.
4. If any bat is injured during the demolition process, it will initially be examined by the supervising ecologist as to whether it is fit for release. If it is deemed unfit for release the bat will be taken to a licensed carer from the Surrey or London Bat Groups for care until it fit for release.

E3 Bat roost and access point retention, modification and creation: Please detail how all impacts to each species (as identified in sections C and D) will be mitigated. If not applicable to your proposals please state 'N/A' in the relevant text boxes.

E3.1 Retention of existing roost(s) – *Works may include, for example, maintenance works that result in no material changes to the roost but may cause disturbance or temporary damage e.g. temporary exclusion of a roost to allow investigative and repair works to a bridge.*
Provide details of all works including:

- Number and description of roosts to be retained, with an explanation of how they will be retained.

No roost will be retained.

- Number of access/entrance points to be retained and how this will be achieved. If enhancements to the roosts will be provided, such as through crevice provision, please detail.

N/A

- Mitigation for any other impacts e.g. new lighting at the site.

Bat boxes will be installed and lighting will be designed to face away from boxes to limit disturbance. No lighting will be positioned so that it interrupts bats along any of the boundary hedges or features used by commuting and foraging bats.

E3.2 Modification of existing roost(s) - *Works may include, for example, reduction in roof void height, change of tiles and roof lining (stating the type of membrane that will be used), alteration of access point through replacement of soffits etc.*

Provide the following:

- Dimension details of modified roosts or access points ensuring that it is clear what the original dimensions were and what the dimensions of the modified roost will be.

No roosts will be modified.

- Details of any other modifications to be made to roosts.

N/A

- Mitigation for any impacts of lighting on the modified roost/s if appropriate.

The lighting design proposals for the site do not include any lighting that would impact on the proposed roosts.

- Scale drawings of the modified roost and bat access points, orientation, location (including an 8-figure grid reference for the modified roost) – to be submitted as a Figure E2 – see below.

E3.3 New roost creation (including bat houses, cotes and bat boxes etc).

Note – creation of compensation for high impact cases (e.g. loss of a maternity roost) must be protected in the long term.

Any bat boxes or roost structures part of a licence proposal which do not show signs of bats must be retained for a minimum of 5 years from date of completion of the development/works. Typically this will be around 5 years for low conservation status roost compensation (e.g. bat boxes) and longer for other significant roosts (e.g. bat houses, lofts etc). The exact time period will be specified in any licence issued. For high conservation status roost loss, the compensation roost/s must still be protected in the long term by another means (such as a s106 agreement), which is particularly important if the structure is likely to change ownership.

Provide the following:

- New roost dimension details or features (to include bat tiles/boxes as applicable).
- Access points and size of access points.
- Location details (including an 8-figure grid reference for bat houses or bat lofts relating to the structure. 8-figure grid references are not required for positions of individual boxes, tiles etc).
- Aspect. Explain how the internal conditions of the roost will be created.
- Details of the materials to be used e.g. timber, sarking, felt etc.
- Justification for any variation from the original roost and/or deviations from recommendations in the Bat Mitigation Guidelines. (*Diagrams of widely available standard bat box designs are not required; just refer to bat box name and reference number, e.g. Schwegler 1FF*).
- Mitigation for any impacts of lighting if appropriate.
- Structures for access for monitoring / maintenance purposes (if applicable)

Ten Schwegler boxes (3 x 1FF, 5 x 2F, 2 x 1FD) will be erected in August 2015 in mature trees located on the southern and eastern boundaries of site, where disturbance will be lowest. Locations are given in the table below and shown in *Figure E3.1a* (descriptions of bat boxes used can be found in *Figure E3.2*).

Bat Box Number	Bat Box Type	Tree Species	Location
1	Schwegler 2F	Horse Chestnut	TQ 18473 71454
2	Schwegler 1FD	English Oak	TQ 18492 71424
3	Schwegler 1FF	Holm Oak	TQ 18502 71397
4	Schwegler 1FD	Holm Oak	TQ 18502 71397
5	Schwegler 1FF	Holm Oak	TQ 18531 71397
6	Schwegler 2F	Holm Oak	TQ 18531 71397
7	Schwegler 2F	Sycamore	TQ 18615 71357
8	Schwegler 1FF	Norway Maple	TQ 18583 71293
9	Schwegler 2F	Sycamore	TQ 18595 71284
10	Schwegler 2F	Norway Maple	TQ 18550 71259

E3.4 Other habitat re-instatement or creation (e.g. retention of existing flight lines, retention or creation of appropriate vegetation around roost entrances where applicable) – please include details of:

- Habitat replacement (following works resulting in temporary impacts) or creation not covered by sections E2 to E3 such as hedgerow/woodland planting or enhancement. State the length of hedgerow planting and areas (ha) of other planting to be provided such as woodland and anticipated establishment period etc.

There is limited foraging and commuting habitat on site and the majority will be retained.

- Creation of flight lines/routes of connectivity.

N/A

Foraging area enhancements, etc

N/A

- Mitigation for any impacts of lighting if appropriate.

Lighting will be designed to limit impacts on retained habitats and bat boxes

E3.5 Wider biodiversity gains:

Please indicate if enhancements, over and above what is necessary to mitigate the impact of the activity of the licence proposal, are being provided. Please indicate if enhancements are included to satisfy the requirement of a planning permission, and if so state the relevant planning condition, or other consents in your response below. Please also state if an applicant wishes to provide more than is typically required to mitigate for the impacts. Enter N/A if this is not applicable to your application.

Note: Any licence granted will only cover mitigation and compensation required to fulfill licensing requirements, but will acknowledge additional biodiversity enhancements.

N/A

Important Advice:

Scaled maps/plans of mitigation/compensation must be provided as separate maps/figures (also **see section 1 "Map checklist" at the end of this document**):

- **Figure E2a** to show the locations and structures where all capture and exclusion activities will be undertaken (ensure this is clearly labelled and consistent with other mandatory maps/figures).
- **Figure E2b** if non-standard capture and exclusion apparatus is proposed please include diagrams/photographs.
- **Figure E3** to show specifications for mitigation / compensation to be provided and annotate where it will be provided. Should the scheme be large or complicated it may be necessary to submit more than one figure.

NOTE: It must be possible to compare these with the survey results plan (**Figure C6**) and 'Impacts' Figure (**D**).

E4 Post-development site safeguard: Further guidance and explanation on post-development monitoring requirements are included within our 'How to get a licence' document http://www.naturalengland.org.uk/Images/wml-g12_tcm6-4116.pdf. Also see Section 8.7 of the Bat Mitigation Guidelines.

E4.1 Habitat/site management and maintenance: Is any specific post-development habitat management and site maintenance planned? If 'No'; state 'N/A'. If 'Yes' include the following:

- The period (years and months) for which habitat management and maintenance will take place. Ensure that this is consistent with the post development works detailed in section **E5b** of the **Work Schedule document, WML-A13-a-E5a&b**.

5 year maintenance of bat boxes (see *Figure E4*)

- Details of what will be undertaken in terms of site maintenance required to ensure long-term security of the affected population (e.g. maintain, repair or reinstate access points; maintain and repair heaters and /or data loggers; maintain, repair or restore bat feature / bat loft in good condition; repair or replace inspection hatches; management and maintenance of lighting regime, or bat boxes etc).

Maintenance of bat boxes to ensure they are still viable as bat roosts.

- Details of what will be undertaken in terms of habitat management (e.g. planting cover around roost structure, hedgerow management regime, checking establishment of habitat creation; reduction of shade around roosts, woodland management to maintain species and structural diversity etc). Ensure this relates to the relevant map.

No habitat management is proposed

Note – for phased or multi-plot developments a separate habitat management and maintenance plan is required, which must be submitted with the master plan: see guidance on phased developments.

Important Advice:

Please include **Figure E4** as a separate figure to show which structures and habitats will be managed, maintained and monitored post development as part of your proposal – also see *section I "Map checklist" at the end of this document*).

E4.2 Population monitoring, roost usage etc: This should be in line with the monitoring requirements detailed in the Bat Mitigation Guidelines section 8.7 and Figure 4, and, where required, should include details of:

- Timing – state the years and months post development monitoring or other will be undertaken. Ensure that is consistent with the post development works detailed in section **E5b** of the **Work Schedule document WML-A13-a-E5a&b**.

No monitoring is proposed as monitoring is not required for small numbers of common species where it is not a maternity roost (Ref: Bat Mitigation Guidelines, *Section 7.2. Figure 4*)

- The type of monitoring which will be undertaken – include survey methods and equipment to be used. If it is expected any bats are to be taken or disturbed during this period please state anticipated numbers per species against each licensable activity.

N/A

- Specify which compensation/mitigation measures will be subject to monitoring (as referenced on Figure E4).

N/A

Please include a commitment to undertake remedial action in your Method Statement should monitoring identify that further management/maintenance is required of any compensation/mitigation provided, to ensure that mitigation/compensation measures are working effectively and are fit for purpose.

Important advice: Please always consider whether any *post development* monitoring effort should be staggered over alternate years in cases where use of the compensation measures may not occur in the same year of provision.

E4.3 Mechanism for ensuring safeguard of mitigation/compensation and post-development management, maintenance and monitoring works:

Please explain what mechanism is in place to ensure safeguard of mitigation/compensation provisions (e.g. Restrictive Covenant, clause to relinquish future development rights in S106 agreement, NERC Act agreement, explicit recognition of site in local planning documents, designation as County Wildlife Site or similar.) The need for this, and the type of mechanism, will vary with the scheme and impact. For substantial impact schemes (e.g. destruction of a significant maternity roost, or important hibernation site), some mechanism is always required. If you offer no specific mechanism, explain how you believe the population will be free of threats as far as can be reasonably determined (the expectation of the granting of a licence should not be used for this purpose).

The applicant understands that by signing this application that he is signing a legal agreement and that all aspects of the licence must be fulfilled.

Explain how all post-development works (management, maintenance (including remedial action) and monitoring, as appropriate) will be ensured? Include a commitment that the monitoring, habitat management and maintenance work will be undertaken. Mechanism/s for ensuring delivery must be in place before applying for a licence (also see Section F).

The applicant understands that by signing this application that he is signing a legal agreement and that all aspects of the licence must be fulfilled.

E5 Timetable of works: Please complete the **work schedule document WML-A13-a-E5a&b** found on the 'bat' application form web page and append to your application pack.

Important Advice: Please note that from end of March 2014 a separate work schedule is a mandatory requirement to support a new bat licence application when using this template.

F Declarations

If the mitigation/compensation area/s is/are not owned by the applicant, you must have consent from the relevant land owner(s). You must have also secured details of how any measures to maintain the population in the long term will be achieved (e.g. a legal agreement).

F1 Declaration Statement(s) – You must include the following declarations within your Method Statement and include the appropriate answer (Yes/No/Not applicable):

F1.1 Re: section E1 - I confirm that relevant landowner consent/s has/have been granted to accept bats into roosts or access into roosts on land outside the applicant's ownership:

N/A

F2.2 Re: section E2 - I confirm that landownership consent/s has/have been granted to allow the creation of the proposed compensation on land outside the applicant's ownership

N/A

F2.3 Re: section E3 - I confirm that consent/s has/have been granted by the relevant landowner/s for monitoring, management and maintenance purposes on land outside the applicant's ownership

N/A

Comments if applicable:

N/A

Important Advice:

Unsecured consents statement:

If you have been unable to secure consents for any of the three declarations please explain why and detail any plans you have in place to obtain the consent(s) or provide details of any right(s) or agreement(s) that will enable the lawful implementation of the proposed mitigation, compensation and monitoring. Failure to provide the appropriate landowner consents means that the Method Statement is unlikely to meet the requirements for the FCS test to be met. It is therefore in your interest to ensure that the appropriate consents have been secured *before* applying for a licence.

G References: List any references cited, and include credits for source information.

Hundt, L (2012). Bat Surveys: Good practice Guidelines, 2nd edition. Bat Conservation Trust, London.

H Annexes (supporting documents please append to your application pack)

H1 Pre-existing survey reports;

H2 Raw survey data.

I Check list of figures to be submitted with each Bat Method Statement

With your Method Statement and supporting documents please submit the following maps/figures – see table below. Note that some can be included within the Method Statement itself (if preferred) and others must be submitted individually (i.e. separate documents). Maps/Figures must include the title, site name as referenced on your application form, date and figure reference. If a grid reference is more

applicable (e.g. a bat house is being provided please included this). Include a scale bar (appropriate to the situation e.g. 100m on site maps, 1km on location maps) and direction of North etc.

Additional maps, photographs or diagrams should be included where necessary to adequately explain the scheme.

Figure reference	Mandatory as will be included in the annexed licence, if applicable	Mandatory for assessment purpose only, but will not be included in the annexed licence	What it must show (also see details above on site reference, dating and naming).
Figure B2.1	-	Yes, if the application is part of a phased or multi-plot development	Master plan overview- note – this is not the same as a master plan document, for which you should follow the guidance as stated in section B2.1.
Figure B2.2	-	Yes, if applicable	Locations of other nearby bat licensed sites, or sites which will be impacted on by future development.
Figure C5a	-	Yes	Location map at an appropriate scale for the application (often 1:50,000 or 1:25,000)
Figure C5b	-	Yes	Survey area showing all buildings, structures and habitats that are within the survey area and distinguishing those that were surveyed and those that were not. Indicate where surveyors were located. Aerial photographs should be provided where possible (ensure you have permission to use copy righted maps). If automated detectors were used or transect routes, ensure that these are indicated as appropriate.
Figure C6	-	Yes	Survey results - provide clear, annotated and cross-referenced maps/plans/photographs to show the survey results (access points, location of roosts, flight lines, results of activity surveys where DNA samples were taken etc). Ensure Figure is at a suitable scale to show the results.
Figure D	Yes	-	Impacts plan – map/figure to show impacts and where licensable works will take place: clearly indicate areas of structures and habitats to be impacted by the works (damage, destruction (to include habitat types if applicable), and temporary impacts, disturbance.
Figure E2a	Yes	-	Locations and structures where all capture and exclusion activities will be undertaken (ensure this is clearly labelled and consistent with other mandatory maps/figures).
Figure E2b	Yes – but only if applicable to the application	-	Non-standard capture and exclusion apparatus. If these are proposed please include diagrams/photographs.
Figure E3	Yes	-	Specifications for mitigation / compensation (including all dimensions for bat lofts/houses/stand-alone structures and materials to be used etc and 8-figure grid reference). Mitigation / compensation (must show all habitat creation, restoration, boxes). It may be necessary to submit more than 1 figure if the proposal is large or complicated. Any temporary features to be used to relocate bats into during capture/exclusion must also be shown and annotated accordingly.
Figure E4	Yes – when monitoring and maintenance will	-	Monitoring, management and maintenance map. Please indicate the specific structures and habitat that are to be managed, maintained and monitored

	be included in the licence		as part of this licence proposal. Ensure that they are correctly referenced and are consistent with other parts of the Method Statement and figures.
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Definitions of roost types to be included in the application (further detail can also be found in the Bat Mitigation Guidelines and the BCT's "Bat Surveys Good Practice Guidelines"):

- a. **Day roost:** a place where individual bats, or small groups of males, rest or shelter in the day but are rarely found by night in the summer.
- b. **Night roost:** a place where bats rest or shelter in the night but are rarely found in the day. May be used by a single individual on occasion or it could be used regularly by the whole colony.
- c. **Feeding roost:** a place where individual bats or a few individuals rest or feed during the night but are rarely present by day.
- d. **Transitional / occasional roost:** used by a few individuals or occasionally small groups for generally short periods of time on waking from hibernation or in the period prior to hibernation.
- e. **Swarming site:** where large numbers of males and females gather during late summer to autumn. Appear to be important mating sites
- f. **Mating sites:** sites where mating takes place from later summer and can continue through winter.
- g. **Maternity roost:** where female bats give birth and raise their young to independence.
- h. **Hibernation roost:** where bats may be found individually or together during winter. They have a constant cool temperature and high humidity.
- i. **Satellite roost:** an alternative roost found in close proximity to the main nursery colony used by a few individual breeding females to small groups of breeding females throughout the breeding season.
- j. **Other** – please explain what the roost type is if not one of the above (we recognise that roost types are interchangeable and not always easy to classify according to the nuances of certain species).