275 Sandycombe Road, Kew, London

Bat Assessment Report

On behalf of Maven Plan

V1 February 2016

This report does not purport to provide legal advice. This report provides baseline ecological conditions for the aforementioned site and is considered relevant for a period of no more than 12 months.

Prepared by S. Mardell of Practical Ecology Ltd, Reviewed by C. Rusted

Practical Ecology Ltd

Practical Ecology Ltd, The Roost, Bungay Road, Scole, Norfolk Tel: 01379 740098 Email: info@practical-ecology.co.uk

Contents

1 Introduction

1.1 Project Background

1.1.1.1 Practical Ecology Ltd was commissioned by Maven Plan to undertake a bat assessment of 275 Sandycombe Road, Kew, London, TW9 3YL.

1.1.1.2 This report presents information on an assessment undertaken to determine the suitability of the building for roosting bats, along with details of any evidence of bat activity.

1.1.1.3 An initial site survey undertaken in December 2015, found that the suspended ceiling inside Building 1 (B1) was not weight bearing and unsafe to walk on to carry out a full internal inspection of the building. It was therefore recommended that a return visit by a licenced bat worker was carried out to undertake a more intrusive internal inspection of the building.

1.1.1.4 This report documents the findings from both of these survey visits.

1.1.1.5 The purpose of these surveys was to establish whether any further survey work or mitigation may be required with regards to bats. Recommendations have been provided based on the findings of these surveys.

1.2 The Site

1.2.1.1 The proposed development site is 275 Sandycombe Road, Kew, London, TW9 3YL (central OS grid reference: TQ 19120 76420). The site contains a large corrugated tin building (B1) that is approximately 7m tall at the apex, with a double pitched corrugate tin roof. It is understood that the building was a former 'pop-up' church, which is now used for leisure purposes. There is a corrugated tin extension with a single pitched tin roof built out from the eastern aspect of B1, which is referred to as B2. There is also a brick built, flat roofed storage and toilet block (B3) built out from southern aspect of B1 and B2, as well as hardstanding pathways and introduced shrub planting at the western and southern aspects of the building.

1.2.1.2 Adjacent to the site to the north, south and west are established residential and retail buildings, while immediately to the east is the London District railway line.

1.2.1.3 Beyond the established residential suburban area that the site is set in, there is Kew Royal Botanical Gardens to the north and west, North Sheen Cemetery to the east and Richmond Park to the south. The River Thames also loops beyond these areas to the north, east and west.

1.3 Proposals

1.3.1.1 It is proposed that the buildings will be demolished and a new community facility building and flats built within the existing footprint. A plan of the proposals had been included in Appendix 1 (Drawing no. 3852-103-F).

2 Methods of Assessment

2.1 Legislation

2.1.1 Bats

2.1.1.1 All species of bat and their breeding sites or resting places (roosts) are protected under Regulation 41 of The Conservation of Habitats and Species Regulations 2010 and Section 9 of the Wildlife and Countryside Act. Under the aforementioned legislation it would constitute an offence, without a licence from Natural England, to:

- Deliberately capture, injure or kill a bat;
- Deliberately disturb bats in such a way as to be likely to significantly affect;
  - (1) The ability of any significant group of animals of that species to survive, breed, or nurture their young; or
  - (2) The local distribution or abundance of that species.
- Deliberately or recklessly damage, destroy or obstruct access to any place that a bat uses for shelter or protection. This is taken to mean all bat roosts whether bats are present or not.

2.2 Desk Study

2.2.1.1 Records for bats within 1km of the site were requested from Greenspace Information for Greater London (GIGL)[1] as part of a desk based study. Records provided by the record centre that were more than ten years old were only reported on if they were deemed to still be relevant. Context of the site in the surrounding landscape was also assessed from aerial photographs; looking at its connectivity in the landscape and its attractiveness to bats.

[1] http://www.gigl.org.uk/

2.3 Field Survey

2.3.1.1 The initial external and internal assessment of the building was undertaken on the 16th December 2015 by Cyrise Rusted who has over thirteen years' ecological surveying experience and is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM), as well as Sam Mardell who has 2 years' survey experience and a BSc (Hons) in Ecology. The survey was conducted in accordance with the methods outlined in the Bat Conservation Trust[2] and Natural England guidelines[3].

2.3.1.2 External features which may provide suitable entry points for bats were noted, such as cracks in roof panels, gaps and crevices around eaves etc. were identified and any external clues of activity noted. External clues to bat activity can include scratch marks and oily marks around entry points and droppings stuck to vertical surfaces.

2.3.1.3 Where accessible, the internal structure of the building was appraised for its suitability to support roosting bats and a search for evidence of bat activity was undertaken. This evidence may include droppings, feeding remains, the presence of bats themselves and urine staining.

2.3.1.4 The return visit was then undertaken by Jonathan Durward, who holds a Natural England Class Survey Licences WML CL19 & WML CL20 (Bat Survey Levels 3 & 4) on the 12th February 2016, to carry out a more intrusive inspection of the building.

2.3.1.5 During this return visit, a number of suspended ceiling panels throughout B1 were removed, which allowed access to the restricted areas of the loft with the use of a ladder. The internal structure of the building including the internal apex and wooden sarking were then inspected using an endoscope and high powered torch to search for any evidence of roosting bats.

2.4 Limitations to Survey

2.4.1.1 Locating bat roosts is challenging, with the visual clues to roost sites often difficult to see or absent. Bats are known to change roost sites in response to environmental conditions so evidence of use may, at times, be hard to find, particularly if use is infrequent and seasonal.

[2] Hundt L (2012) Bat Surveys: Good Practice Guidelines, 2nd edition, Bat Conservation Trust

[3] Mitchell-Jones, A.J. (2004). Bat mitigation guidelines. English Nature

2.4.1.2 During the initial inspection in December 2015, the suspended ceiling inside B1 was found to be not weight bearing and therefore was deemed unsafe to walk on. As there was only one loft hatch within the building, the internal inspection was therefore limited to what could be viewed from the loft hatch (i.e. 3m radius in Section 1 of B1). This limitation however, was overcome during the return visit in February 2016.

2.4.1.3 The position of the railway also prevented a full external inspection of the eastern aspects of B2 and B3. The external inspection of the eastern aspects of these buildings therefore was limited to what could be seen through binoculars from the other side of the railway track.

3 Results

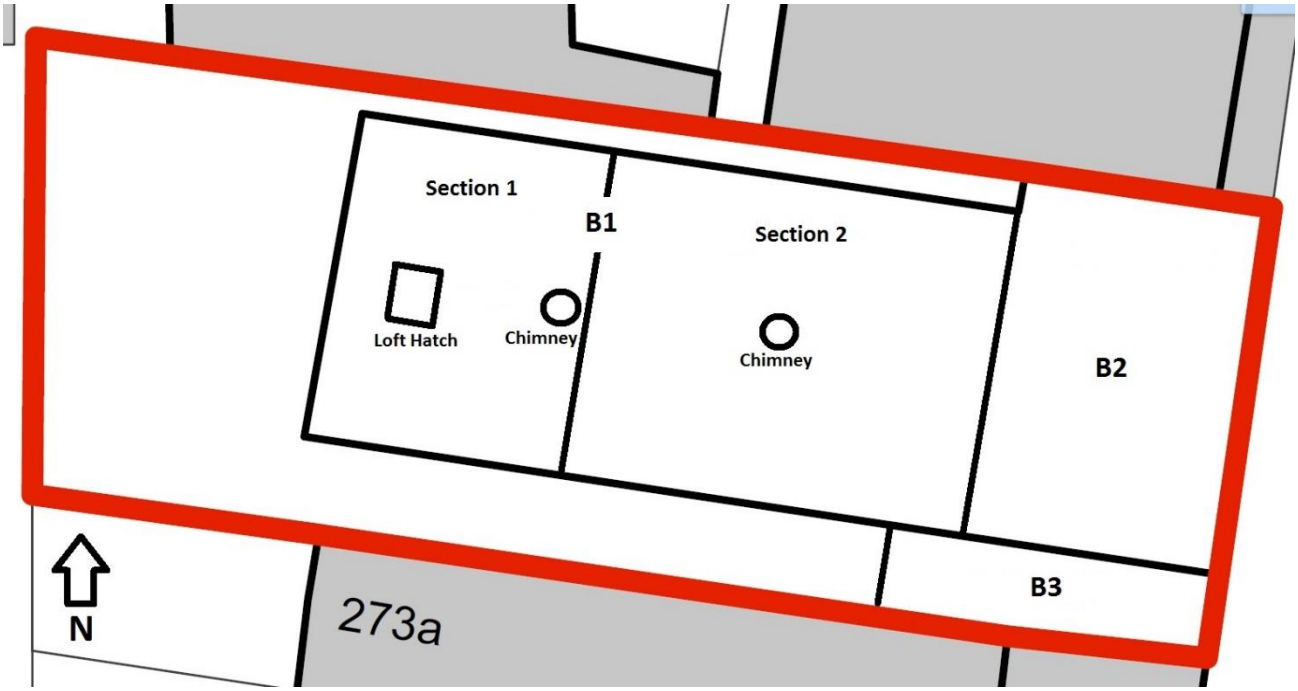
3.1.1 Desk Study

3.1.1.1 Records of common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), common noctule (*Nyctalus noctula*) and brown long-eared (*Plecotus auritus*) bats were returned within 1km of the site.

3.1.2 Field Survey

3.1.2.1 Figure 1 overleaf, shows a layout plan of the buildings. The main building is split into two parts, labelled B1 and B2, while the storage shed has been labelled B3. B1 had two internal loft sections which have been labelled Section 1 and Section 2.

Figure 1: Building Layout



3.1.3 Building Assessment

Building 1 (External Assessment)

3.1.3.1 B1 is a single storey corrugated tin building with a double pitched corrugated roof that contains two chimney vents (see Fig.1 on page 6 and Photo 1 below).

Photo 1- B1 External

3.1.3.2 Gaps were noted underneath the soffit and apex of the western gable end, which could allow bats access into the loft space (see Photo 2 and 3 below).

Photo 2- Gap underneath Soffit

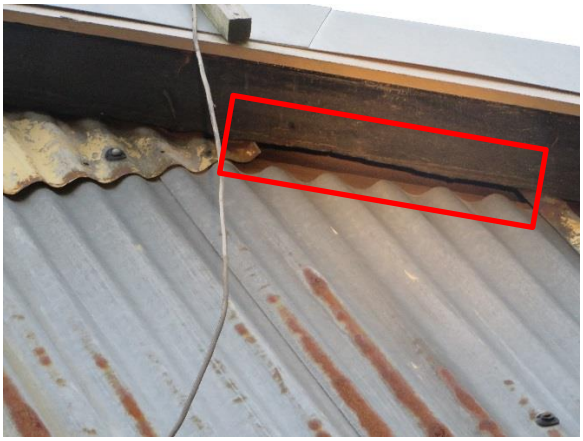


Photo 3- Gap underneath Western Gable

3.1.3.3 The westernmost chimney vent was noted to be open which could again potentially permit bats access into the loft (see Photo 4 below). There was also a 'chink' in the ridge between the two chimneys may also allow bats access into the building (see Photo 5 overleaf).

Photo 4- Open Chimney on Western Aspect

3.1.3.4 The eastern aspect of B1 was assessed from the roof of B3 (see Photo 5 below). This revealed no additional external features or evidence of bats.

Photo 5- Eastern Aspect of B1

Building 1 (Internal Inspection)

3.1.3.5 The loft space of B1 was split into two sections that were partitioned by an internal wooden boarding that had a crude door cut in (see Section 1 and 2 on Fig. 1, page 7).

3.1.3.6 The loft interior was large and spacious (around 7.5m x 10m), wooden framed structure, clad with corrugate tin externally and lined with pine panelling on both the walls and the roof (see Photo 6 overleaf).

Photo 6- B1 Section 1 Loft Interior

3.1.3.7 A large arched church door aperture (around 3.5m) had been cut out of the internal panelling walls on the western gable end which could permit bats to access the loft space from the external access features noted at this end of the building.

3.1.3.8 A small access hatch which leads to the westernmost external chimney was also noted which would allow bats to access the loft thought the open chimney vent (see Photo 7 below).

Photo 7- Small Access Hatch Leading to Open Chimney Vent

3.1.3.9 The wooden sarking was is in good condition with no gaps or other roosting features. No other internal roosting features such as crevices were noted throughout the rest of the loft interior.

3.1.3.10 A thorough inspection was undertaken following removal of some ceiling panels and, no evidence of bats such as droppings, urine splatters, staining or scratch marks was noted throughout the whole of the loft interior.

3.1.3.11 The only suitable roosting space for bats therefore was considered to be between the external corrugated tin and the internal wooden sarking that bats could access through the features noted at the western gable end. As such, further recommendations with regards to B1 are provided in Section 4.

Building 2 (External Assessment)

3.1.3.12 B2 is adjoined onto B1's eastern aspect. It has corrugated tin walls and a single pitched felt roof (see Fig.1 on page 7 and Photo 8 overleaf).

3.1.3.13 The roof and southern aspect of B2 were assessed from the roof of B3. No external access features were recorded and the roof appeared to be in good condition (see Photo 7 overleaf). No external features were noted on the eastern aspect of the building, although this assessment was limited to what could be seen through binoculars from the other site of the railway track.

Photo 8- Roof and Southern Aspect of B2

Building 2 (Internal Inspection)

3.1.3.14 The interior of Building 2 had no loft space and was open to the vaulted ceiling. No suitable access points, roosting features or evidence of bats was noted within the building interior. As such, no further recommendations with regards to B2 are required.

Building 3 (External Assessment)

3.1.3.15 B1 is a small brick built corrugated flat roofed block that is built out from the southern aspect of Building 1 and 2.

3.1.3.16 Two potential access points were noted above the door on the buildings western aspect (see Photo 9 and 10 overleaf). However, the access points appeared cobwebbed during the survey which suggests a lack of recent bat activity.

Photo 9 and 10- Potential Access Points above Door on Western Aspect

Building 3 (Internal Inspection)

3.1.3.17 The interior of building did not have a loft space and was open to the ceiling. There was bitumastic felt lining the roof that was noted to be in good condition, with no suitable roosting features for bats. In addition, no evidence of bats was noted in the building interior. As such, no further recommendations with regards to B3 are required.

3.1.4 Surrounding Habitat

3.1.4.1 Although the site is situated in a suburban area, there are several local features within the landscape that provide important foraging and commuting habitat for urban bats. In close proximity to the site, the local tree lined streets and residential gardens provide valuable foraging habitat, while the railway line to the east, featuring bankside trees and hedging, provides an important linear connecting corridor for bats.

3.1.4.2 In addition to this, the local area contains many pitch tiled roofed buildings and trees that would provide more suitable roosting opportunities for bats. This presence of more suitable roosting sites in the local area reduces the likelihood of bats using the building on site as roost.

3.1.4.3 In the wider landscape meanwhile, Kew Royal Botanical Gardens, North Sheen Cemetery and Richmond Park, as well as additional areas of open public space, all provide valuable foraging habitat for bats. In addition to this, the River Thames further north also provides valuable foraging habitat for bats.

4 Recommendations

4.1.1.1 A roost is defined as 'any structure or place which (a bat) uses for shelter or protection'. As bats tend to reuse the same roosts, legal opinion is that a roost is protected whether or not bats are present at the time of survey.

4.1.1.2 B1 was considered to have low roost potential for bats due to the building containing limited internal roosting features and no evidence of bat activity. The only suitable roosting space for bats was considered to be between the external corrugated tin roofing material and the internal wooden sarking. This was only considered to have low roosting potential as the corrugated tin would be subject to heating and cooling throughout the day/night, which would make this roost space less suitable for bats. Bats prefer dark environments of constant temperature in which to roost.

4.1.1.3 Building 2 meanwhile, was considered to have very low roost potential given that there was no loft space or suitable external access features. Building 3 was also considered to have very low roost potential as it contained cobwebbed external access features and a flat roof.

4.1.1.4 To mitigate any low/residual risk of harming bats when B1 is demolished, it is recommended that the external corrugated tin panels are removed by hand by the contractor prior to the demolition of the building, to mitigate the low potential risk of encountering a bat. If any bats or evidence of bats are found during the removal of the external corrugated tin panels, work should cease immediately and a licensed bat ecologist should be contacted for advice on how to proceed.

4.1.1.5 In order to achieve a net gain in site biodiversity (in line with recommendations put forth in the governments National Planning Policy Framework 2012[4]) further recommendations to enhance the site for bats are provided in Section 5 of this report.

[4] http://www.communities.gov.uk/documents/planningandbuilding/pdf/2116950.pdf.pdf

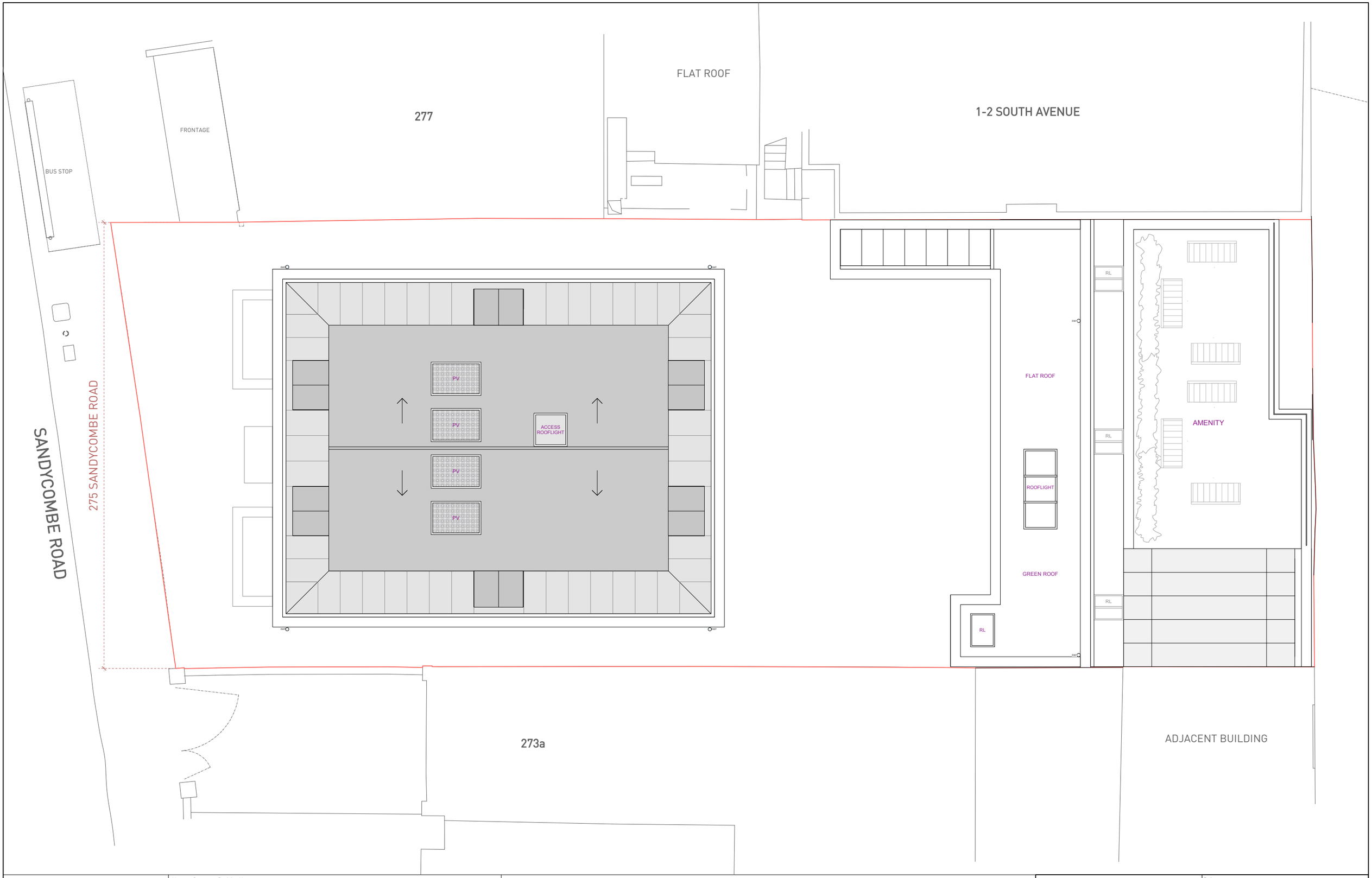
5 Enhancement

5.1.1.1 In line with recommendations put forth in the governments National Planning Policy Framework to achieve a net gain in site biodiversity, enhancement measures with regards to bats, post development, are recommended so that the biodiversity of the site can be preserved whilst taking into account legal requirements and best practice with regards to protected species.

5.1.1.2 A bat tube should therefore be incorporated into the material design of the proposed building on the eastern aspect. The bat tube is designed to be built into the masonry of an external wall. It can either be built flush with the wall or beneath a rendered surface. A suitable bat tube recommended: http://www.nhbs.com/title/162812/2fr-schwegler-bat-tube. The bat tube should be installed at least 4 or 5m above the ground.

5.1.1.3 In addition to this, native night scented plants and trees should be included in the planting scheme for the site to attract moths and other insects that bats prey on. Native night scented plant and tree species recommended include; honeysuckle (*Lonicera periclymenum*) (climbing plant), ivy (*Hedera helix*) (climbing plant), bladder campion (*Silene vulgaris*) (bedding plant), night-scented catchfly (Silene noctiflora) (bedding plant), Guelder rose (*Viburnum opulus*) (shrub), silver birch (*Betula pendula*) (tree) and hazel (*Corylus avellana*).

Appendix 1- Proposal Plans



GENERAL NOTES:
Do not scale from this drawing.
Check drawing on receipt and immediately report any discrepancies to the Architect.
Verify all dimensions and levels on site prior to construction.
The contents of this drawing are Stiff + Trevillion Architects LLP copyright and shall not be re-used without their written permission.

No.	Date	Revision Notes
A	13/8/15	REVISED ROOF DESIGN
B	3/9/15	ROOFLIGHTS ADDED
C	9/11/15	REVISED INDICATING MANSARD ROOF
D	10/12/15	SET BACK TO SOUTHERN FLANK
E	21/1/16	NEW REVISIONS TO ANTRA ZINC STANDING SEAM ROOF.
F	29/1/16	1200mm SPACE BETWEEN 275 + 273 SANDYCOMBE ROAD

PLANNING

0 1 2 3 4 5m

Stiff + Trevillion
Stiff + Trevillion Architects Ltd
16 Woodfield Road
London W9 2BE

T +44(0)20 8960 5550
F +44(0)20 8969 8668
mail@stiffandtrevillion.com
www.stiffandtrevillion.com

Project **275 SANDYCOMBE ROAD**

Drawing **ROOF PLAN AS PROPOSED**

Project No	Drawing No	Revision
3852	**103**	**F**
Scale 1:100 @ A3 @	Date JUNE/2015	Revised 00/00/0000