

## **Appendix 3: Tree Photographs**

**Photograph 1: Tree 4**



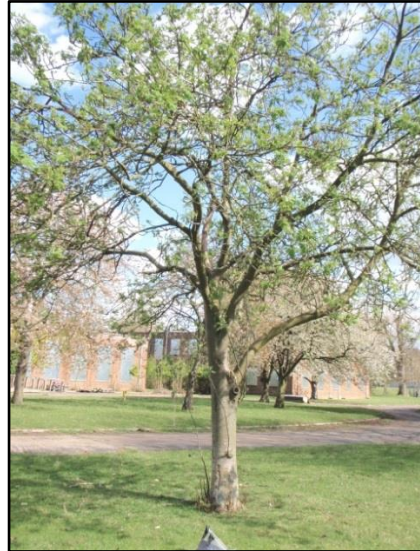
**Photograph 2: Tree 17, feature 2**



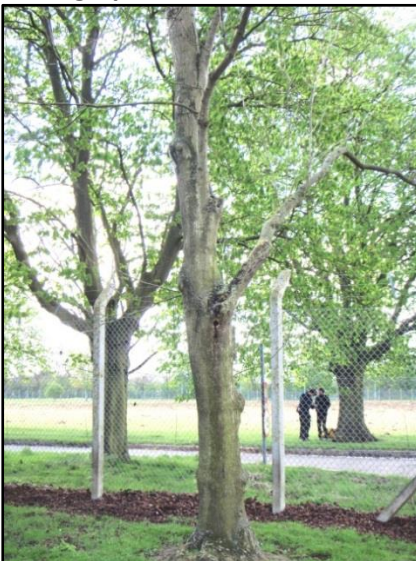
**Photograph 3: Tree 23**



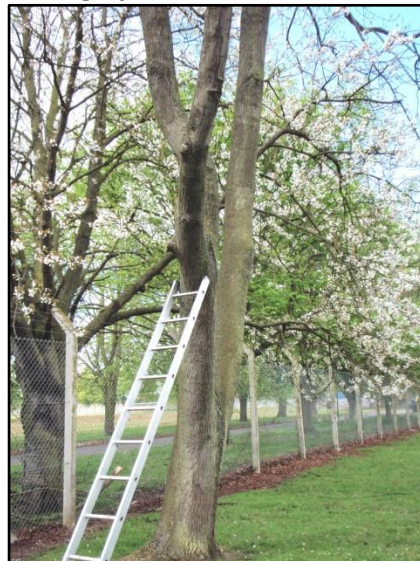
**Photograph 4: Tree 34**



**Photograph 5: Tree 36**



**Photograph 6: Tree 37**

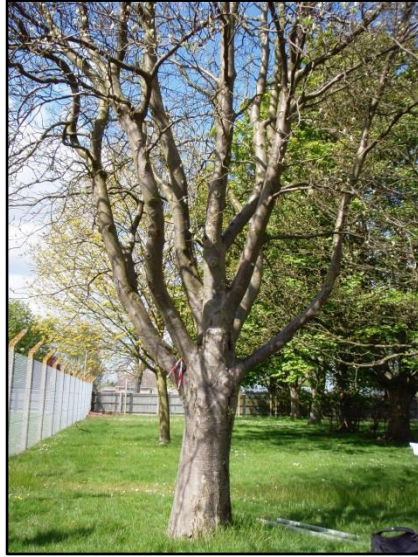




**Photograph 7: Tree 40**



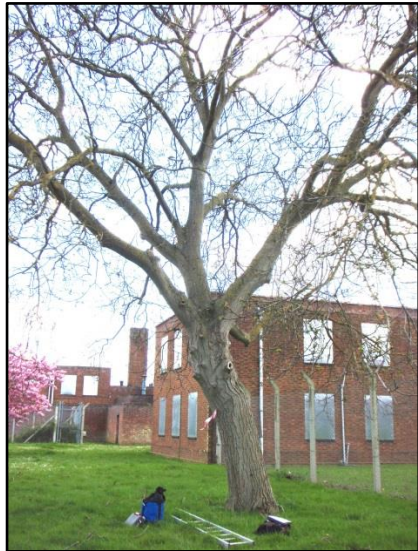
**Photograph 8: Tree 41**



**Photograph 9: Tree 42**



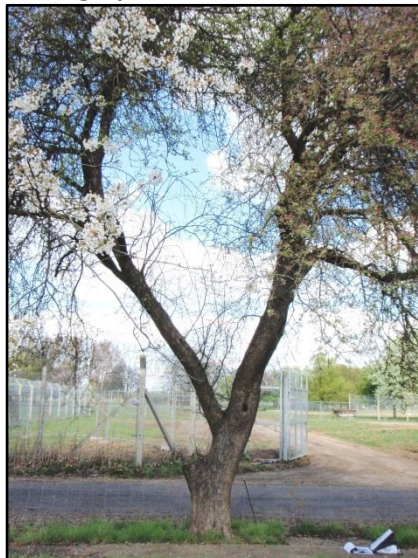
**Photograph 10: Tree 46**



**Photograph 11: Tree 47**



**Photograph 12: Tree 48**





**Photograph 13: Tree 49**



**Photograph 14: Tree 52**



**Photograph 15: Tree 54, feature 1**



**Photograph 16: Tree 60, feature 2**



**Photograph 17: Tree 64, feature 1**



**Photograph 18: Tree 65 feature 3**





**Photograph 19: Tree 66 feature 2**



**Photograph 20: Tree 68**



**Photograph 21: Tree 70 feature 1**



**Photograph 22: Tree 71 feature 1**



**Photograph 23: Tree 113**



**Photograph 24: Tree 116**





**Photograph 25: Tree 119**



**Photograph 26: Tree 120**



**Photograph 27: Tree 121**



**Photograph 28: Tree 122 feature 1**



**Photograph 29: Tree 123**



**Photograph 30: Tree 125**





**Photograph 31: Tree 126 feature 1**



**Photograph 32: Tree 127 feature 3**



**Photograph 33: Tree 129 feature 1**



**Photograph 34: Tree 172 feature 3**



**Photograph 35: Tree 173**



**Photograph 36: Tree 174**





**Photograph 37: Tree 175**



**Photograph 38: Tree 242**



**Photograph 39: Tree 246**



**Photograph 40: Tree 247**



**Photograph 41: Tree 248**



**Photograph 42: Tree 255, feature 1**





**Photograph 43: Tree 357, feature 1**



**Photograph 44: Tree 260, feature 2**



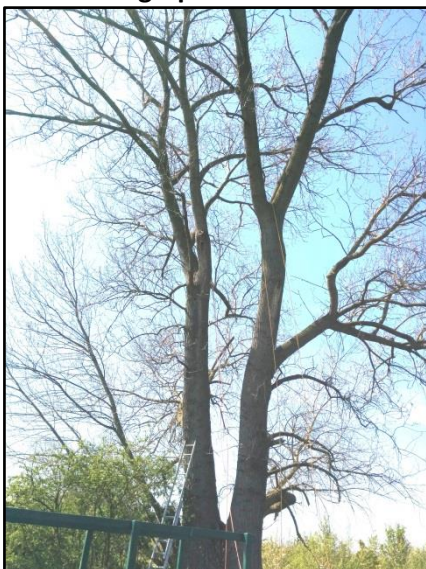
**Photograph 45: Tree 332, feature 1**



**Photograph 46: Tree 333, feature 1**



**Photograph 47: Tree 335**



**Photograph 48: Tree 340, feature 2**





**Photograph 49: Tree 342, feature 4**



**Photograph 50: Tree 343, feature 1**





## Appendix 4: Summaries of Relevant Legislation, Policy and Other Instruments

4.1 This section briefly summarises the relevant legislation, policy and related issues that are mentioned in the main text of the report. The following text does not constitute legal advice.

### National Planning Policy Framework

4.2 The government published the National Planning Policy Framework (NPPF) on 27<sup>th</sup> March 2012. The NPPF states that, “*the planning system should contribute to and enhance the natural and local environment by:*

- a. *Protecting and enhancing valued landscapes, geological conservation interests and soils;*
- b. *Recognising the wider benefits of ecosystem services;*
- c. *Minimising impacts on biodiversity and providing net gains in biodiversity, where possible contributing to the Government’s commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;*
- d. *Preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability; and*
- e. *Remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.”*

### Planning applications and biodiversity

4.3 “When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

- a. *If significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- b. *Proposed development on land within or outside a Site of Special Scientific Interest likely to have an adverse effect on a Site of Special Scientific Interest (either individually or in combination with other developments) should not normally be permitted. Where an adverse effect on the site’s notified special interest features is likely, an exception should only be made where the benefits of the development, at this site clearly outweigh both the impacts that it is likely to have on the features of the site that make it of special scientific interest and any broader impacts on the national network of Sites of Special Scientific Interest;*
- c. *Development proposals where the primary objective is to conserve or enhance biodiversity should be permitted;*
- d. *Opportunities to incorporate biodiversity in and around developments should be encouraged;*
- e. *Planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss; and*
- f. *The following wildlife sites should be given the same protection as European sites:*
  - i. *potential Special Protection Areas and possible Special Areas of Conservation*
  - ii. *listed or proposed Ramsar sites; and*
  - iii. *sites identified, or required, as compensatory measures for adverse effects on European sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.”*



- 4.4 “The presumption in favour of sustainable development (paragraph 14 [of NPPF]) does not apply where development requiring appropriate assessment under the Birds and Habitats Directives is being considered, planned or determined.”
- 4.5 In paragraph 125 the NPPF stipulates that ‘by encouraging good design, planning policies and decisions should limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.’

### **Species and Habitats of Principal Importance**

- 4.6 The NPPF (paragraph 117) indicates that local authorities should take measures to “promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species” linking to national and local targets through local planning policies. Priority species are those species shown on the England Biodiversity List published by the Secretary of State under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Planning authorities have a duty under Section 40 of the NERC Act to have regard to priority species and habitats in exercising their functions including development control and planning.

### **European and National Legislation**

#### ***European protected species (including bats)***

- 4.7 The Conservation of Habitats and Species Regulations 2010 consolidates the various amendments that have been made to the Regulations. The original (1994) Regulations transposed the EC Habitats Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Council Directive 92/43/EEC) into national law.
- 4.8 “European protected species” (EPS) are those which are present on Schedule 2 of the Conservation of Habitats and Species Regulations 2010. They are subject to the provisions of Regulation 41 of those Regulations. All EPS are also protected under the Wildlife and Countryside Act 1981 (as amended). Taken together, these pieces of legislation make it an offence to:
- a. Intentionally or deliberately capture, injure or kill any wild animal included amongst these species
  - b. Possess or control any live or dead specimens or any part of, or anything derived from a these species
  - c. deliberately disturb wild animals of any such species
  - d. deliberately take or destroy the eggs of such an animal, or
  - e. intentionally, deliberately or recklessly damage or destroy a breeding site or resting place of such an animal, or obstruct access to such a place
- 4.9 For the purposes of paragraph (c), disturbance of animals includes 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. in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
  - b. to affect significantly the local distribution or abundance of the species to which they belong.
- 4.10 Although the law provides strict protection to these species, it also allows this protection to be set aside (derogation) through the issuing of licences. The licences in England are currently determined by Natural England (NE) for development works. In accordance with the requirements of the Regulations (2010), a licence can only be issued where the following requirements are satisfied:
- a. The proposal is necessary ‘to preserve public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment’
  - b. ‘There is no satisfactory alternative’



- c. The proposals 'will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.



## **Appendix D**

### **Detailed Bat Survey Results**

## D1 6<sup>th</sup> to 7<sup>th</sup> May (Dusk and Dawn) - B5

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The first bat recorded during the survey was a common pipistrelle seen flying towards and over the building from the northeast at 20:57, 24 minutes after sunset. Social calls were recorded at this time. Continuous common pipistrelle foraging activity was then recorded around the southwest and northwest façades of the building until 21:11. This was followed by some occasional faint common pipistrelle calls and further foraging activity in the same location from 21:25 until 21:40. Activity then decreased throughout the remainder of the survey.

Noctule was also recorded at 21:03. Soprano pipistrelle was recorded at 21:25, 21:43, 21:48, with foraging activity also observed to the northwest of the building at 21:53. A *Myotis* sp. or brown-long eared bat was also recorded at 22:08.

During the dawn survey, common pipistrelle was recorded frequently between 03:35 and 04:50, including foraging activity around the southwest and northwest façades of the building. At 04:50, 28 minutes before sunrise, a common pipistrelle was observed flying along the southwest façade of the building towards the northwest, but was not seen to return to the building. The surveyor located at the northwest corner of the building did not record this bat, with the last call recorded by this surveyor being a soprano pipistrelle recorded at 03:47. Soprano pipistrelle was also recorded at 04:11. Brown long-eared bat and a *Myotis* sp. were also recorded early on during the dawn survey, between 03:25 and 03:37.

## D2 7<sup>th</sup> to 8<sup>th</sup> May (Dusk and Dawn)- B91

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Low levels of bat activity were recorded during the dusk survey, with no activity observed around B91. The first bat was recorded at 21:22; this was a Leisler's bat. Further Leisler's bat passes were recorded at 21:23, 21:24 and 21:33. Common pipistrelle was also recorded at 21:45. None of these bats were seen. No bats were recorded during the dawn survey.

## D3 12<sup>th</sup> May (Dusk) - WB 4

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Common pipistrelle was recorded by all four surveyors at 21:15. The first was seen by the surveyor stationed at the northwest side of the woodland, circling around T158 (Photograph 1). The surveyor at the southwest side of the woodland then saw the bat fly through the woodland towards the southeast. This was a common pipistrelle. The surveyors at the northeast and southeast sides of the woodland recorded a common pipistrelle pass at 21:15, but this bat was not seen.

Common pipistrelle activity was recorded frequently throughout the rest of the survey, although the majority of this activity was not observed. This was mainly brief passes, although some foraging was recorded also, with social calls also noted at 21:31. Noctule passes were recorded at 21:12, 21:17 and 21:28, as well as occasional soprano pipistrelle passes between 21:22 and 21:48. A *Myotis* sp. pass was also noted at 21:34.



## D4 13<sup>th</sup> May (Dawn) - WB 5

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A low level of bat activity was recorded, comprising occasional common pipistrelle calls between 03:36 and 03:56 and brown long-eared bat calls between 03:31 and 04:04. Soprano pipistrelle was also recorded at 03:42. No bats were seen during the survey.

## D5 13<sup>th</sup> May (Dusk) - B10

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A very low level of bat activity was recorded, comprising a single common pipistrelle pass heard by both surveyors at 21:39. This bat was not observed, but was thought to have been commuting nearby, possibly along the Cambridgeshire Guided Busway or the site boundary.

## D6 14<sup>th</sup> May (Dawn) - WB 10

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Two large bats (likely *Nyctalus* sp.) were seen flying to the north of the road at 04:01, followed shortly after by a small bat (such as a pipistrelle bat) at 04:03. A large bat was also observed flying around the surveyor adjacent to T237. None of these bats were recorded by the detectors. No further bat activity was observed.

## D7 20<sup>th</sup> to 21<sup>st</sup> May (Dusk and Dawn) - B56

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Frequent common pipistrelle calls were recorded during the surveys, with the first bat being recorded at 21:18 on 20<sup>th</sup> May. Much of this activity was recorded to the west of B56, between B56 and B59. These were mainly passes between these buildings, although occasional foraging activity was noted also. During the dawn survey on 21<sup>st</sup> May, the surveyor located between B56 and B59 recorded a common pipistrelle circling to the southwest of B56, under the eave, at 04:22 and then again at 04:23, before flying northwest and away from the building. Holes in the wooden cladding below the eave were noted (Photograph 1).

On 20<sup>th</sup> May, a soprano pipistrelle bat was recorded flying northwest at 21:28. Leisler's bat was then recorded at 21:37, foraging over B64 before flying towards the north (Figure 1). Noctule was also recorded at 21:53 on the same date. A brief *Myotis* sp. bat or brown long-eared bat was also noted at 03:59 on 21<sup>st</sup> May by the surveyor stationed between B56 and B59, although this bat was not seen. A possible brown long-eared bat was heard, but not recorded on the Anabat, at 04:09. The other surveyor stationed to the east of B56 observed a bat flying towards B59 at 03:36. This was a brown long-eared bat, but was not recorded by the detector. The surveyor was not located close enough to B59 to confirm whether or not this bat returned to this building.

A blue tit *Parus caeruleus* was seen flying to the southwest of B56 and accessed the building via a hole in the wooden cladding below the eave soon after dusk. A blue tit was also observed emerging from this hole shortly before dawn. Starlings *Sturnus vulgaris* also access the roof void via a hole below the roof on the northwest façade (tenant, personal communication). Great tits *Parus major* were also observed nesting in a bird box on the southeast façade of B56.

## D8 21<sup>st</sup> May (Dusk) - B59

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A low level of bat activity was recorded, comprising a soprano pipistrelle call at 21:42 (which was the first bat recorded), followed by occasional common pipistrelle calls at 21:50, 21:55, 22:04, 22:21 and 22:25. Noctule was also recorded at 22:01. Common pipistrelle was seen commuting northwest at 21:50, the others were not observed.

## D9 28<sup>th</sup> May (Dusk) - WB 2

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There was a low level of bat activity, with the first pass being recorded at 21:43. This was a common pipistrelle bat recorded from the northern corner of WB2. Further common pipistrelle passes were recorded at 22:07, 22:36 and 22:37. A noctule was recorded at 21:47 and 21:50, as well as soprano pipistrelle at 22:12 and Daubenton's bat at 22:30. None of the bats recorded were seen by the surveyors.

## D10 29<sup>th</sup> May (Dawn) - WB 6

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Common pipistrelle was recorded occasionally, between 03:24 and 03:56. The majority of activity was recorded by the surveyor located at the far northwestern corner of the woodland; this was mainly foraging activity, but no bats were seen. Soprano pipistrelle was also recorded by all four surveyors commuting northwest along the northeastern woodland edge at 03:40. Noctule was also recorded at 04:08; analysis of this call indicated this bat was likely commuting over the site. No bats were recorded near to sunrise.

## D11 29<sup>th</sup> to 30<sup>th</sup> May (Dusk and Dawn) – B64 and B66

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Frequent common pipistrelle commuting and foraging activity was recorded from 21:25 to 22:53. The first four calls were associated with commuting activity along the track towards the northeast, with subsequent passes towards the southeast. *Nyctalus* sp. calls were heard at 22:10 and 22:11, but these were not recorded and no bats were seen. Commuting activity continued, including a pass along the track towards the southwest, followed by foraging activity up and down the track. Soprano pipistrelle was also recorded at 22:53. A barn owl *Tyto alba* was also seen flying across the farm track to the southwest of B64 at 21:13. It was thought to have flown out of one of the farm buildings, but this could not be confirmed.

During the dawn survey, common pipistrelle was recorded commuting up and down the track from 03:36 until 04:17, also foraging to the northeast of B66. Two common pipistrelles were observed at any one time. Brown long-eared bat was also recorded at 03:45, an hour before dawn, but was not seen. No bats were seen to emerge from or return to B64 or B66.



## D12 2<sup>nd</sup> June (Dusk) - WB 8

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Common pipistrelle was recorded commuting through the woodland towards the east at 21:38 and 21:48. Pipistrelle foraging activity was recorded from 21:57 along the northern side of the woodland between 21:59 and 22:16. These calls were common or Nathusius' pipistrelle, with Nathusius' pipistrelle being confirmed at 22:17. Soprano pipistrelle was also recorded commuting at 21:59 as well as Leisler's bat at 22:25, but these bats were not seen. No bats were seen emerging from the woodland or from any of the surveyed trees.

## D13 3<sup>rd</sup> June (Dawn) - WB 7

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Occasional pipistrelle activity was recorded from 03:16 until 04:08, including common pipistrelle foraging along the northeastern edge of the woodland at 03:53 and 03:57. Soprano pipistrelle was recorded at 03:39 and 04:08. A noctule was recorded at 03:52. Furthermore, *Myotis* sp. or brown long-eared bat was heard at 04:07, but was not recorded. No bats were seen returning to the woodland and no activity was recorded near to sunrise.

## D14 3<sup>rd</sup> June (Dusk) and 10<sup>th</sup> June (Dawn) – WB 9

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During the dusk survey on 3<sup>rd</sup> June, the earliest bat was recorded at 21:23, nine minutes after sunset, by a surveyor located within the woodland, to the west of the trees being surveyed. Soprano pipistrelle passes were recorded between 21:23 and 21:31, but no bats were seen. A common pipistrelle was then recorded at 21:31 and 21:35, when it was seen flying from the east towards the surveyor within the woodland and then looping back towards the east.

The surveyor located to the south of the woodland observed a common pipistrelle flying east along the woodland edge at 21:39. A soprano pipistrelle then seemed to appear at the eastern end of the woodland at 21:42, possibly emerging from the woodland; this bat then foraged along the eastern woodland edge. Soprano pipistrelle was then seen foraging along the southern edge at 21:43 and commuting south along the eastern edge at 21:53 and 21:54. Common and soprano pipistrelle was seen foraging along the eastern and northern edges between 21:44 and 21:48 and the southern and northern woodland edge between 21:53 and 21:59. Pipistrelle activity ceased after 21:59, apart from a faint pass at 22:38. Occasional noctule passes were recorded between 21:43 and 22:03.

Lower levels of bat activity were recorded during the dawn survey on 10<sup>th</sup> June. Occasional common pipistrelle commuting and foraging activity was recorded between 03:05 and 03:50, with some activity being observed at the eastern end of the woodland. Noctule was also recorded at 03:21 and 03:54, as well as soprano pipistrelle at 03:17, 03:37, 03:49 and 03:55.

## D15 4<sup>th</sup> June (Dawn) - B55

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Common pipistrelle calls were heard between 03:26 and 04:21. The majority of this activity was not seen, with the exception of a pass towards B55 from the north

at 04:03. This bat was foraging to the north of B55 and was not thought to have returned to the building. Some foraging activity was recorded prior to 04:03, including two bats being recorded at the same time at 03:55.

## **D16 4<sup>th</sup> June (Dawn) – WB 1**

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Constant common pipistrelle foraging activity was recorded along the woodland edge from 03:15 to 03:50, at which point the survey had to be abandoned.

## **D17 4<sup>th</sup> June (Dawn) and 9<sup>th</sup> June (Dusk) – B2**

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During the dawn survey, common pipistrelle was recorded occasionally between 04:03 and 04:29, with the final recording being associated with a return on the northeast façade of the building (Photographs 1 and 2). This bat returned to a gap in the brickwork on a southeast facing wall, where the brick was damaged and some mortar was missing.

During the dusk survey, common pipistrelle was recorded at 21:49 and 22:26, with a *Myotis* sp. also recorded at 21:53 and brown long-eared bat at 22:38. None of these bats were seen.

## **D18 9<sup>th</sup> June (Dusk) – WB 3**

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A low level of bat activity was recorded, with the first bat recorded during a break in the rain at 21:57, which was common pipistrelle foraging along the northern end of the woodland north of T155. Common pipistrelle foraging activity was then recorded between 22:14 and 22:16 in the same location. A probable Daubenton's bat was recorded at 22:25 and 22:45, which was confirmed as Daubenton's at 22:29.

The surveyor adjacent to T156 also recorded a soprano pipistrelle as 21:57, which was not seen, with an unseen common pipistrelle also recorded at 22:15.

## **D19 10<sup>th</sup> June (Dawn) – T52**

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Common pipistrelle commuting and foraging activity was recorded between 02:56 and 03:53, with most activity noted between 03:36 and 03:46. A Daubenton's bat was recorded at 03:17, as well as a *Nyctalus* sp. and probable brown long-eared bat at 03:35. A noctule was also noted at 03:46. No bats were seen during the survey and no activity was recorded near to dawn.

## **D20 10<sup>th</sup> to 11<sup>th</sup> June (Dusk and Dawn) – B26**

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No bats were recorded during dusk or dawn surveys.



## **F9      AECOM B22 Bat Survey Results 2014**

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## Gemma Russell

---

**From:** Girvan, Martina <Martina.Girvan@aecom.com>  
**Sent:** 07 July 2014 17:43  
**To:** Gemma Russell  
**Cc:** Lipscomb, Kenneth; Jeal, Alexandra; Walker, Cath; Cryer, Russell; Smith, Clare; Murray, Brandon  
**Subject:** FW: A14 - B.24 results  
**Attachments:** B24 Map A14.ppt

Hello Gemma, results for the building you requested that overlaps with Northstowe.

Rough mapping of results attached also.

Weather will follow.

Best

Martina

Building surveyed	Date of survey	Dusk (PM) or Dawn (AM)	Species recorded	Contact time closest to sunset / sunrise	Proximity to sunset or sunrise (minutes)	Activity type	Summary of activity	Approximate number of passes / activity level	No. of bats	Roost?	
B.24	08/05/14	PM	Common pipistrelle	21.05	28	Commuting	Four commutes not seen during the survey.	<ul style="list-style-type: none"> <li>- Single pass at 21.05</li> <li>- Two passes between 21.43 and 21.49</li> <li>- One pass at 22.06.</li> </ul>	1	No	
			Noctule	21.04	29	Commuting	Two commuting passes. The first was seen, the second was not.	<ul style="list-style-type: none"> <li>- One pass at 21.04.</li> <li>- A second pass at 21.19.</li> </ul>	1	No	
B.24	09/05/14	AM	No activity recorded								No





**Building 24 (#4)**  
**8/5/2014 Dusk**  
**Survey**

**Key**

- Surveyor positions
- HNS Pipistrelle sp. (commuting)
- HNS Noctule (commuting)
- HNS Common Pipistrelle (commuting)
- ↔ Common Pipistrelle path (commuting/foraging)

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## Gemma Russell

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**From:** Smith, Clare <Clare.Smith2@aecom.com>  
**Sent:** 23 July 2014 09:53  
**To:** Gemma Russell  
**Cc:** Murray, Brandon  
**Subject:** A14 - B.24 results

Dear Gemma,

The weather data for Building 24 is as follows:

<b>Building</b>	<b>Date</b>	<b>Temperature</b>	<b>Humidity</b>	<b>Wind Speed</b>	<b>Rain?</b>	<b>Cloud cover</b>
24	8/5	14	94	20.4	No	Scattered clouds
24	9/5	11	82	24.1	No	Scattered clouds

Apologies for the delay.

Kind regards,

Clare

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