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## Preliminary Ecological Appraisal and Roost Assessment

Survey site:

Hartshill Bungalow, Thong Lane, Gravesend, Kent, DA12 4AD

Client:

National Highways

Survey date:

23<sup>rd</sup> June 2025

Project:

This report is prepared to inform a planning application with Gravesham Borough Council. The proposal is described as:

[The] *demolition of one residential dwelling and change of use of the land for storage purposes associated with the construction of the Lowe Thames Crossing.*

[20250108]

PEA survey methodology and legislation can be found in the Arbtech Supplement: [PEA Methodology and Legislation - 2024.](#)

PRA survey methodology and legislation can be found in the Arbtech Supplement: [PRA Methodology and Legislation - 2024.](#)

The site survey was undertaken by Helen Worlock PGDip PGCE BA (Hons). Accredited Agent on Natural England Bat Licence Number: 2018-33540-CLS-CLS					
Date of survey	Temperature (°C)	Humidity (%)	Cloud Cover (%)	Wind (km/h)	Rain
23/06/2025	21	39	25	17	None

Ecological Survey Factor	Detailed using desk study and site survey (carried out under good weather conditions). Any specific limitations noted within relevant section. This table may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.				
Conclusion, Impact or Recommendations					
Habitats and plants (see habitat map in appendix 1, location plan in appendix 2, photos in appendix 3 and proposal plan in appendix 4). Botanical species are described with reference to the DAFOR scale (D = Dominant; A = Abundant, F = Frequent, O = Occasional, R = Rare).					
Summary of Survey Findings  (UKHab codes used)	The survey area is centred on National Grid Reference TQ 67287097 and has an area of approximately 0.21ha.				
	The survey area comprises of a brick-built bungalow (designated as building B1), surrounded by areas of grass lawn and gravel car park, with a cypress screen to the north. Arable fields and areas of woodland can be found around the site, including Shorne and Ashenbank Woods SSSI 150m to the east and North Kent Woods and Downs (NNR) 500m to the southeast. A golf course is 280m to the north, with the A2 and a trainline running approx. 1km to the south.				
	No previous ecology surveys for the site are known.				

	<p><b><u>Site habitats</u></b></p> <p><b><u>Developed, sealed surface (buildings) [u1b5]</u></b></p> <p>B1 is a brick-built bungalow with a cross-hipped roof of clay tiles, and an attached mansard-edged flat roof extension to the north and east. The flat roof appears to be covered in roofing felt. B1 has no internal loft space, as there is a habitable room in place.</p> <p><b><u>Developed, sealed surface [u1b6]</u></b></p> <p>Areas of hardstanding can be found directly around B1, in the form of a paved patio and pathways.</p> <p><b><u>Unsealed surface [u1b]</u></b></p> <p>An area of unsealed surface can be found to the south and centrally. This consists mainly of gravel and is used as driveway and for parking. In some of these areas, vegetation has started to grow through the stones, such as willowherb, cow parsley and dandelion.</p> <p><b><u>Scattered trees [32]</u></b></p> <p>The survey area contains 4 small (less than 30cm) lime trees to the west.</p> <p><b><u>Non-native and ornamental hedgerow (h2b)</u></b></p> <p>A large cypress hedgerow can be found along the northern site boundary and centrally. A hedge of ornamental shrubs runs the western boundary by the road.</p> <p><b><u>Modified grass [q4]</u></b></p>
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	<p>There is a main area of modified grass to the east and north of the site. This is a frequently mown grass lawn, dominated by typical rank species such as perennial rye grass, dandelions, creeping buttercup, silver plantain and morning glory. Species diversity is consistently less than 6/square metre.</p> <p><b><u>Sparsely vegetated urban land [u1f]</u></b></p> <p>There is a section of sparsely vegetated urban land, towards the northwest of the site. This area is dominated by mugwort. Also present are cow parsley, willowherb, ox eye daisies, thistle and dandelions.</p>
<i>Foreseen Impacts</i>	The habitats on site are widespread and not notable. No direct impact on adjacent or nearby habitats off site is foreseen from their removal.
<i>Recommendations</i>	<p>If more than 25m<sup>2</sup> of area habitat with non-zero value, and/or 5m of linear habitat is to be being removed for the proposal a Biodiversity Net Gain (BNG) report would be required.</p> <p>Any net loss would need compensation for following the BNG hierarchy.</p>
<b>Locality and Designated Sites</b>	
<i>Summary of Survey Findings</i>	<p>The site is not subject to any statutory or non-statutory designation.</p> <p>Shorne and Ashenbank Woods SSSI is 150m to the east and North Kent Woods and Downs (NNR) is 500m to the southeast.</p>
<i>Foreseen Impacts</i>	None foreseen due to distance and lack of functionally linked habitat.
<i>Recommendations</i>	None required.
<b>Invasive / Non-native species</b>	
<i>Summary of Survey Findings</i>	No problematic species were found.

<i>Foreseen Impacts</i>	None foreseen.
<i>Recommendations</i>	No further surveys.
<b>Invertebrates</b>	
<i>Summary of Survey Findings</i>	No habitat for protected or notable invertebrates is found on site.
<i>Foreseen Impacts</i>	None foreseen.
<i>Recommendations</i>	No further surveys.
<b>Bats</b>	
<i>Summary of Survey Findings</i>	<p>The local area is of good bat habitat value with areas of woodland, fields and water sources in the immediate vicinity. B1 has a low bat habitat value due to a small amount of suitable crevice-dwelling roosting features such as loose clay tiles, and gaps underneath sections of roofing material. No internal loft space is present. Although B1 is not a confirmed roost at this stage as no evidence was found – this would not necessarily be present if bats were only roosting under external features.</p> <p>B1</p> <ul style="list-style-type: none"> <li>➤ A small number of clay tiles are lifting, particularly around the skylights on the roof.</li> <li>➤ A small section of roofing felt is lifting, creating crevices.</li> </ul> <p>There are no known local European Protected Species Licence (EPSL) nearby (within 2km).</p>
<i>Foreseen Impacts</i>	As the proposals include the alteration of B1, any bat roosts within it will be destroyed. This could also result in death or injury of bats.
<i>Recommendations</i>	B1 is a suspected bat roost of low value.

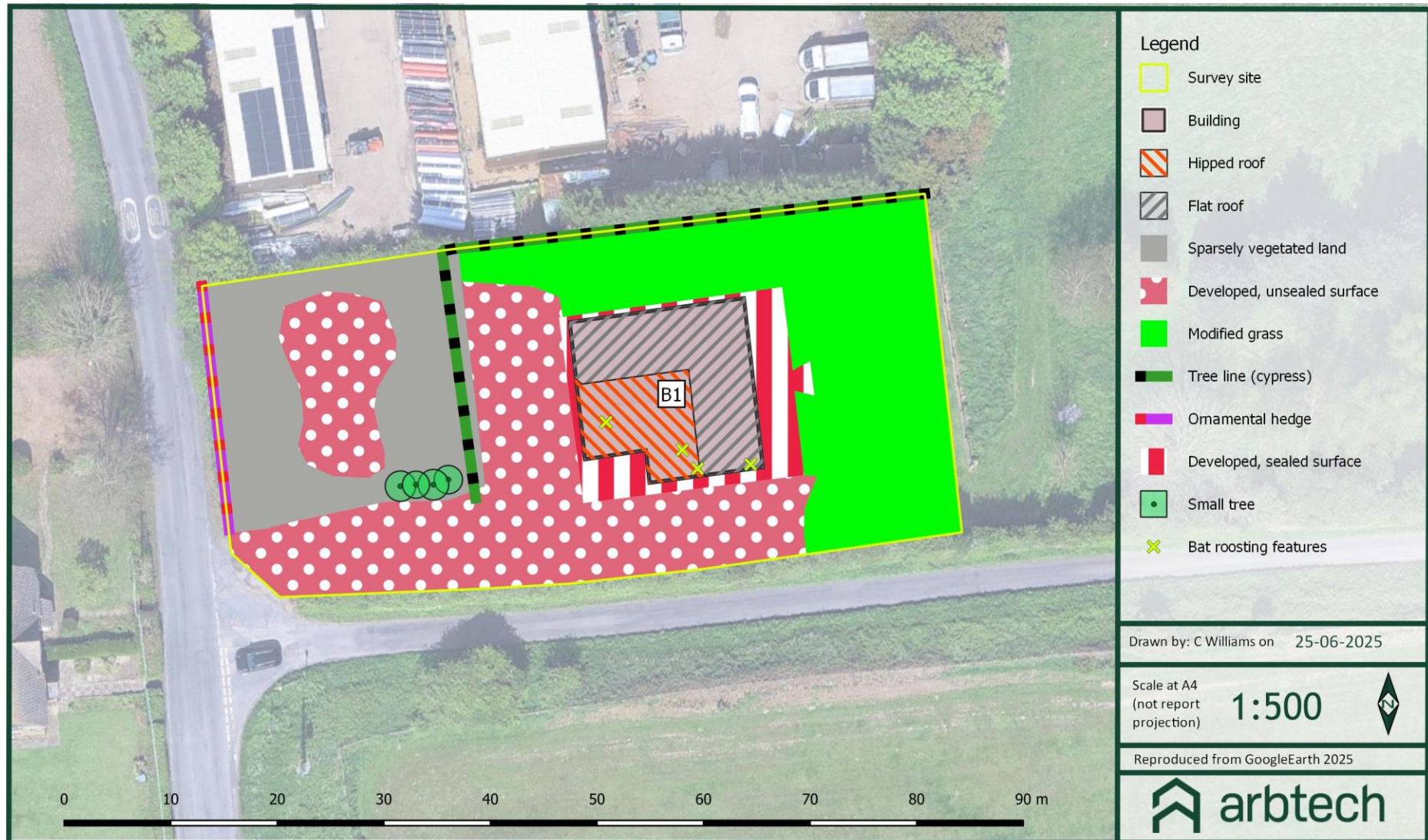
	<p>One bat emergence/re-entry survey is required during the active bat season (May – September) to confirm presence/likely-absence of bats roosting in or on the building.</p> <p>This survey visit should be completed during the optimal survey period mid-May to August inclusive.</p> <p>Sub-optimal: early May and September. Would require greater justification of timing e.g., weather conditions, known local bat activity.</p> <p>The survey could be a dawn re-entry survey, or can be at dusk if supported by night vision aids (NVA).</p> <p>Three surveyors are required to provide full coverage of the building's elevations to look for emerging/re-entering bats. An infrared camera should also be employed as part of the survey to see where any specific roost locations are located.</p> <p>Lighting mitigation may be required based on the outcome of the night bat survey(s).</p> <p>If any bat roosts are confirmed from this survey schedule, further night surveys and a bat license would be required to alter the roof tiles in this area (as for the proposed works) as it would involve the destruction of roosts. This is applied for with the help of a class 2 licensed bat ecologist after planning permission is granted and conditions are discharged, but before commencement of works.</p>
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	Enhancements are dependent on the outcome of further surveys.
<b>Birds</b>	
<i>Summary of Survey Findings</i>	No significant habitat for schedule 1 birds was observed, although birds may nest on the building in the active season.
<i>Foreseen Impacts</i>	The proposed development could result in the disturbance and subsequent abandonment of active bird nests.
<i>Recommendations</i>	<p>Any building work should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the building and vegetation should be undertaken immediately prior to the commencement of work. All active nests will need to be retained until the young have fledged.</p> <p>Precautions should be taken with machinery and noise levels when working close to any retained nests so as not to disturb any nearby nesting birds during construction works. At least a 3-5m buffer should be created between any machinery and active nests until the young have fledged.</p>
<b>Reptiles</b>	
<i>Summary of Survey Findings</i>	The site has a parcel of sparsely vegetated urban land which could provide reptile foraging habitat and cover, and hardstanding areas which could offer basking habitat. However, the size of the vegetated area was not significant and not connected to other habitat, so that it is unlikely to be used by reptiles.
<i>Foreseen Impacts</i>	No impacts on reptile populations are foreseen.
<i>Recommendations</i>	No further surveys are required.
<b>Amphibians</b>	

<i>Summary of Survey Findings</i>	<p>No terrestrial amphibian habitat is present within the site interior.</p> <p>Amphibians also require suitable aquatic habitat in which to breed, and none are known from OS maps present in the local area (within 250m). Therefore, protected amphibians are likely be absent from the interior of the survey site year-round.</p> <p>No previous amphibian European Protected Species Licence (EPSL) is known nearby (within 2km of the site), although the species is known locally through 3 licence returns, all approx. 1.3km to the southeast.</p>
<i>Foreseen Impacts</i>	None foreseen.
<i>Recommendations</i>	No further surveys are required.
<b>Badger</b>	
<i>Summary of Survey Findings</i>	No evidence of badgers was found onsite.
<i>Foreseen Impacts</i>	None foreseen
<i>Recommendations</i>	<p>Basic precautionary mitigation during works is recommended:</p> <ul style="list-style-type: none"> <li>• An update survey carried out within 3 months of the work commencing.</li> <li>• Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.</li> <li>• The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to habitats which badgers could use.</li> <li>• Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.</li> </ul> <p>In the unlikely event that a badger sett is identified within 30m, works must cease and advice must be sought from a suitably qualified ecologist.</p>



<b>Riparian animals</b>	
<i>Summary of Survey Findings</i>	No waterways are present on or adjacent to the site.
<i>Foreseen Impacts</i>	No impacts are anticipated on riparian animals as a result of the proposed development.
<i>Recommendations</i>	N/A
<b>Hazel dormouse</b>	
<i>Summary of Survey Findings</i>	One historic dormouse EPSLs is found in the vicinity, (2020-50171-EPS-NSIP1) 1.1km to the southwest. However, no native hedgerows are found on site, making the presence of the species highly unlikely.
<i>Foreseen Impacts</i>	None foreseen.
<i>Recommendations</i>	No further surveys are required.
<b>Other e.g. hedgehog</b>	
<i>Summary of Survey Findings</i>	The presence of hedgehogs is not imposable in the areas of hedgerow is sparsely vegetated land.
<i>Foreseen Impacts</i>	None foreseen.
<i>Recommendations</i>	<p>Similar to the badgers, a precautionary working method will be implemented during construction, including the following measures:</p> <ul style="list-style-type: none"> <li>Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.</li> <li>The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to retained habitats which hedgehogs could use.</li> <li>Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.</li> </ul> <p>If any hedgehogs are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a sheltered, vegetated area away from disturbance.</p>

**Appendix 1: Survey/Habitat map**



**Appendix 2: Location map**

### **Appendix 3: Proposed plan**

None received at the time of writing but known to be demolition of the existing dwelling and then use of the site as storage.



## Appendix 4: Photos



Photo 1: The southern and western elevations of B1.



Photo 2: The southern and eastern elevations of B1.





Photo 3: The eastern elevation of B1.



Photo 4: Looking west at the site entrance.





Photo 5: Loose tiles on the southern elevation of B1.



Photo 6: Loose tiles on the western elevation of B1.



Photo 7: Lifting felt on the southern elevation of B1.



Photo 8: Looking south across the site.





Photo 9: Looking north across the site at the area of sparsely vegetated urban land.



Photo 10: The loft room of B1.

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Version control			
Status	Issue	Name	Date
Draft	0.1	Helen Worlock PGDip PGCE BA (Hons), Ecological Consultant	24/06/2025
Final	1.0	Craig Williams, MSc, DIC, MRSB Principal Ecologist	25/06/2025
Update	2.0	Craig Williams, MSc, DIC, MRSB Principal Ecologist	07/07/2025