

Preliminary Ecological Appraisal and Roost Assessment

Survey site:

31st Gravesend Scout Hut, Hampton Crescent, Gravesend, DA12 4HZ

Client:

Corstorphine & Wright

Survey date:

7th October 2024

Project:

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

‘The demolition of the existing building, to be replaced with a new hut.’

The survey results and recommendations contained within this report are valid for 18 months. An updated site visit may be required if the report is to be used any longer than 18 months after completion.

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 Elodie Noyes-Gouan BSc (Hons), Accredited on Bat Licence 2018-33540-CLS-CLS					
Date of survey	Temperature (°C)	Humidity (%)	Cloud Cover (%)	Wind (km/h)	Rain
07/10/2024	15	60	50	12	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, PRA plan in appendix 2, location plan in appendix 3, proposal plan in appendix 4 and photos in appendix 5).	
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: • u1b5 – buildings. • u1b – developed land; sealed surface. • g4 – modified grassland, 848 ground level planters, 32 scattered trees,	Site Context The site, situated at National Grid Reference TQ 66095 72644, spans approximately 55m². It comprises a communal cabin and garden, with a storage container, located within an urban area of Gravesend. The local landscape is characterized by residential development and dwelling areas. The northeastern landscape is characterised by coastal and floodplain grazing marsh, whilst the southern landscape includes various playing fields and gold courses. The nearest named watercourse, the Thames and Medway Canal, is approximately 1.6km north of the site. A landscape map is provided in appendix 2. On-site habitat descriptions <u>u1b5 – buildings.</u> There is one building on site, a house and an attached shipping container [see figure 1, appendix 5]. A more detailed description of this building can be found in the bat section of the report. <u>u1b – developed land: sealed surface.</u> There are paving slabs to the east and north, leading from the entrance of the site to the two entrances of the building [see figure 5, appendix 5]. <u>g4 – modified grassland. (848) ground level planters. (32) scattered trees</u> The managed modified grassland surrounds B1. It is dominated by perennial rye grass, and further populated with dandelion (<i>Taraxacum officinale</i>) (A), wall rocket (<i>Diplotaxis tenuifolia</i>) (A), cotoneaster (<i>Cotoneaster sp.</i>) (F), Ivy

	(<i>heder sp.</i>) (O), common daisy (<i>Bellis perennis</i>) (O), common nettles (<i>Urtica dioica</i>) (R), bramble (<i>Rubus fruticosus</i>) (R). Nasturtium (<i>Nasus tortus</i>), mallow (<i>malva sylvestris</i>), clematis (<i>clematis sp.</i>) and other ornamentals could be found in the ground level planters. There are two scattered trees located on the eastern boundary, a cotoneaster to the north of the boundary and a mountain ash (<i>Sorbus aucuparia</i>) to the south. The cotoneaster (DBH of 14cm, height of 2m) is young and the ash is multi-stemmed and early mature (DBH 31cm, height 8m), further information can be found in the tree survey report completed by Arbtech Consulting Ltd in October 2024. ➤ Modified grassland habitat condition assessment: a) There are not 6 vascular plant species present per m². b) Sward height is between 5-7cm. c) Scrub accounts for 2% of the habitat. d) There is no physical damage to the area. e) There is no bare ground. f) There is no bracken (<i>Pteridium aquilinum</i>). g) Invasive and non-native Cotoneaster is present on site. Local notable habitats There are six local notable habitats within 2km of the site, with the closest being coastal and floodplain grazing marsh located approximately 1.1km northeast. The is separated from the site by rows of residential dwellings and the A226. Other notable habitats include deciduous woodland (~1.1km south), traditional orchards (~1.3km east), coastal saltmarsh (~1.6m north), mudflats (~1.6km north) and ancient woodland (~1.9km south).
Foreseen Impacts	On-site habitats The modified grassland on site is widespread and not notable. However, the removal of any vegetation and felling of trees will result in a net loss for biodiversity.
Recommendations	Any new landscaping plan should include wildlife friendly planting schemes and ensure a gain for biodiversity. Suggested biodiversity enhancements Native flora should be incorporated to encourage the use of the garden by invertebrates, bats, and other wildlife. Any vegetation that may need replacing or adding to the site should be UK native. These species could include:

	- Wild Privet (<i>Ligustrum vulgare</i>) - Blackthorn (<i>Prunus spinosa</i>) - Dog rose (<i>Rosa canina</i>) - Hazel (<i>Corylus avellana</i>) - Hawthorn (<i>Crataegus monogyna</i>)
Locality and Designated Sites	
Summary of Survey Findings	On-site designations None. Statutory designated sites (within 2km) A review of the magic.gov database shows there is one statutory site within 2km of the site. Its distance and reasons for designation are listed below: - <u>South Thames Estuary and Marshes SSSI</u> – 1.3km northeast – ‘<i>The South Thames Estuary and Marshes SSSI from Gravesend to the eastern end of the Isle of Grain forms a major component of the Greater Thames Estuary. The site consists of an extensive mosaic of grazing marsh, saltmarsh, mudflats and shingle characteristic of the estuarine habitats of the north Kent marshes. Freshwater pools and some areas of woodland provide additional variety and complement the estuarine habitats.</i>’ - European statutory designated sites (within 10km) A review of the magic.gov database shows there are three statutory sites within 2km of the site. Their distance and reasons for designation are listed below: - <u>North Downs Woodlands SAC</u> – 1.2km northeast – ‘<i>This site consists of mature Asperulo-Fagetum beech forests and also yew 91J0 Yew Taxus baccata woods on steep slopes. Yew Taxus baccata woodland at this site is associated with 9130 Asperulo-Fagetum beech forests, scrub and small areas of unimproved grassland on thin chalk soils. Where the shade is not too dense dog’s mercury Mercurialis perennis predominates in the ground flora. The site is the most easterly of those selected.</i>’ - <u>Thames Estuary & Marshes RAMSAR & SPA</u> – 2.6km northeast - ‘<i>The site is predominantly characterised by extensive intertidal mudflats that are visible at low tide. Additionally, there is saltmarsh, for example around the Isle of Grain, and complex channel systems such as the Yantlet Inlet. A series of disused quarry pits have been transformed to create an extensive series of ponds and lakes at Cliffe Pools. The intertidal areas are</i>

	<i>bound mostly by levees and seawalls, such as those at Cooling Marshes and Yantlet, occasionally featuring small beaches, such as those around the Isle of Grain and cooling marshes. There are important habitats that lie above the highest astronomical tide, such as flooded mineral works and large areas of grazing marsh, and birds may use habitat outside of the SPA boundary too, such as at Holehaven Creek SSSI.'</i>
<i>Foreseen Impacts</i>	On-site designations None foreseen. Statutory designated sites Due to the sites distance form statutory designated sites, no impacts are foreseen.
<i>Recommendations</i>	On-site designations N/A Statutory designated sites None.
Invasive / Non-native species	
<i>Summary of Survey Findings</i>	Cotoneaster was identified along the western and northern border, it is listed as an invasive, non-native species under Schedule 9 of the Wildlife and Countryside Act 1981 [see figure 6, appendix 5].
<i>Foreseen Impacts</i>	Construction could result in the spread of cotoneaster.
<i>Recommendations</i>	Any plants present on Schedule 9 of the Wildlife and Countryside Act 1981 are prohibited from release into the wild due to their capacity to cause ecological, environmental or socio-economic harm. Where Schedule 9 species are grown in private gardens, larger scale gardens, estates and amenity areas reasonable measures will be taken to confine them to the cultivated area so as to prevent their spreading to the wider environment and beyond the landowner's control. As such, not preventing the spread of cotoneaster currently present on site, into the wild (i.e. the western verge), this could constitute an offence. As such it is recommended that cotoneaster is be dug up, including roots, and disposed of in line with appropriate controlled waste measures, or controlled during construction works to prevent the spread off-site.
Invertebrates	
<i>Summary of Survey Findings</i>	On-site habitats The habitats present on-site, including modified grassland, raised planters, and scattered trees likely provide common invertebrates with opportunities to forage and shelter. The site contains no further notable habitats which may provide niches for specialised or protected invertebrates.
<i>Foreseen Impacts</i>	On-site habitats

	Habitat types will be removed during construction. The loss of such habitats is likely to be inconsequential to local invertebrate populations owing to their low value and the presence of more extensive habitat locally.
<i>Recommendations</i>	On-site habitats None. Suggested biodiversity enhancements The incorporation of an insect house or bug hotel to a retained tree or fixed to the new building would provide sheltering opportunities for invertebrates. These should be installed 0.5m above ground level on a south-facing elevation with no obscuring vegetation. The site could be further enhanced via the provision of native wildflowers or wildflower turf, which would provide foraging opportunities for invertebrates.
Bats	
<i>Summary of Survey Findings</i>	EPSL data A review of the Magic.gov database returned no granted EPSL records or class licence returns for bats within 2km of the site. Roosting habitat [Buildings] No evidence of bats was found on or within B1, however B1 has moderate suitability to support roosting bats. <i>Exterior</i> B1 is a one storey pitched-roof cabin, with an attached storage container extension to the west. The cabin is constructed from timber boarding on all elevations, though on the southernmost elevation the boarding is particularly damaged and lifted, allowing space for crevice dwelling bats to roost [see figure 8, appendix 5]. The other three elevations also have areas of lifted timber board, and the western elevation has a gap of missing timber. The storage container's roof is flat, and the extension itself is intact. B1 has felt roofing on both the container and the cabin. There are small windows that line each elevation, these have wooden frames that are often lifted; however, the gaps will not keep the bats safe from weather impacts, light or predators. There are two entrances to the building, one to the north and one to the south of B1, the doors are wooden and intact, but there is a gap in the timber panelling above the southern door that would be suitable for a crevice dwelling bat [see figure 9, appendix 5]. There is one loft space within the interior of B1. It can be found in the eastern part of the building. <i>Interior</i>

	Loft 1 The interior of L1 [see figure 3, appendix 5] is partly clad in wooden panelling, as some areas are damaged or missing. The floor is constructed of timber beams and supports various items in storage, due to the floor being covered, the surveyor was unable to enter the loft and evidence of bats may have been missed. The light ingress is minimal, coming only from the gaps along the eastern elevation [see figure 3, appendix 5]. These gaps are large enough to allow void dwelling bats to enter. The loft temperature at the time of the survey was 18°C and the humidity was at 65%. The loft space measures approximately 3m x 1.5m. No evidence of bats was found in L1. Whilst no evidence of roosting bats was found, due to the suitability for void dwelling bats to enter the loft space and the gaps in the timber boarding on all elevations, B1 is assessed to be of moderate value to support roosting bats. Roosting habitat [Trees] The two scattered trees on-site do not present any roosting features for bats.
<i>Foreseen Impacts</i>	Roosting habitat [Buildings] The proposed development will result in the demolition of B1. This could result in the destruction of any bat roosts present and could cause disturbance, death or injury to bats. Roosting habitat [Trees] None foreseen. Artificial lighting The proposed development may lead to an increase in the amount of current lighting of surrounding habitats or the retained building without mitigation. This may disturb commuting bats.
<i>Recommendations</i>	Roosting habitat [Buildings] Two bat emergence/re-entry surveys are required on B1 during the active bat season (May – September) to confirm presence/likely-absence of bats roosting in or on the building. These survey visits should be completed during the optimal survey period mid-May to August inclusive. The survey visits should be at least three weeks apart. Sub-optimal: early May and September. Would require greater justification of timing e.g., weather conditions, known local bat activity. One of the surveys could be a dawn re-entry survey, or both can be at dusk if supported by night vision aids (NVA).

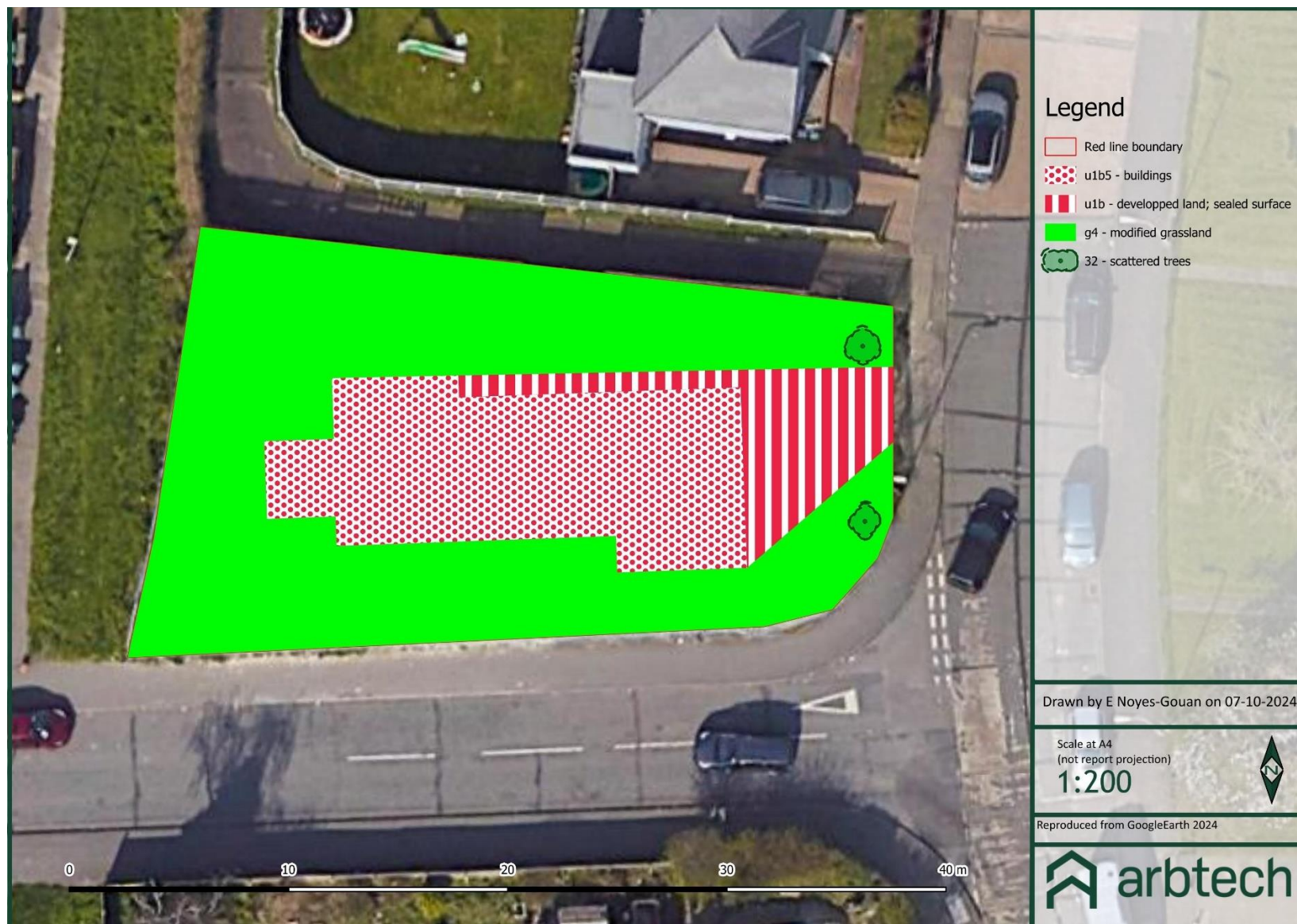
	Three surveyors are required to provide full coverage of the building's elevations to look for emerging/re-entering bats. Lighting mitigation may be required based on the outcome of the night bat survey(s). If any bat roosts are confirmed from this survey schedule, a third emergence/re-entry survey will be necessary and a bat license would be required to alter the building 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, but before commencement of works. Roosting habitat [Trees] In the unlikely event that a bat or evidence of bats is discovered during the development all work must stop and a bat licensed ecologist contacted for further advice. Artificial lighting A low impact lighting strategy will be adopted for the site during post-development which outlines the areas of the site that will be retained as dark corridors. Parameters can be found on the Bat Conservation Trust website: Artificial Lighting Guidance - Buildings, planning and development - Bat Conservation Trust (bats.org.uk)
Birds	
<i>Summary of Survey Findings</i>	Buildings No bird nests were identified on or within B1. Trees No bird nests were identified on either of the scattered trees present on site, though they offer nesting opportunities and nest-building resources for birds. Barn Owls The site does not provide any suitable nesting sites for barn owls.
<i>Foreseen Impacts</i>	No impacts are anticipated on nesting birds as a result of the proposed development, due to the more extensive habitat locally and due to the trees not being impacted as part of the proposed works.
<i>Recommendations</i>	None. Suggested biodiversity enhancements The incorporation of one bird box fixed onto an elevation will provide additional nesting habitat for birds e.g.

	Schwegler No 17 Swift Nest Box (buildings) Schwegler 1SP Sparrow Terrace (buildings) Or a similar alternative brand. Swift and sparrow boxes should be positioned at the eaves of a building and can be incorporated into the fabric of the building during construction.
Reptiles	
<i>Summary of Survey Findings</i>	EPSL data A review of the Magic.gov database returned no granted EPSL records or class licence returns for reptiles within 2km of the site. On-site habitats There is limited suitable habitat present on site for reptiles due to a lack of habitats such as scrub and rank grassland which would offer refuge for these species. Further, the site is surrounded by urban development (i.e. roads and buildings) which is considered sub-optimal for reptile migration, though the northern and eastern boundaries could be used by individual reptiles to forage and commute.
<i>Foreseen Impacts</i>	Construction activities could result in the death of transient individuals if not mitigated for.
<i>Recommendations</i>	A precautionary working method will be implemented for widespread reptiles during construction, including the following measures: • Vegetation will be maintained at a short sward (5cm) to discourage reptiles. • Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape. • Best practice pollution prevention measures will be implemented to minimise impacts to nearby habitats. • Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. • If any reptiles 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. • In the unlikely event that a reptile is identified, works must cease and advice must be sought from a suitably qualified ecologist. Suggested biodiversity enhancements The site could be enhanced for reptiles' post development with the inclusion of log piles and a compost heap.
Amphibians	

<i>Summary of Survey Findings</i>	EPSL data A review of the Magic.gov database returned no granted EPSL records or class returns for great crested newts within 2km of the site. Habitat suitability No ponds are present on site or within 500m of the site. The areas of sealed surface and amenity grass offer sub-optimal habitat for terrestrial amphibians and given the urban nature of the surrounding landscape (i.e. dominated by roads and hard standing which are sub-optimal for amphibians) it is unlikely that amphibians will migrate on to site.
<i>Foreseen Impacts</i>	Given the lack of suitably connected breeding ponds within 500m of the site, the presence of GCN on-site is considered unlikely and therefore impacts to amphibians as a result of the proposed development are deemed to be acceptably low.
<i>Recommendations</i>	None required. Suggested biodiversity enhancements The site could be enhanced for amphibians' post-development through creation of amphibian hibernacula using rubble and logs from site clearance. Information on how to construct a hibernaculum can be found here: https://www.wiltshirewildlife.org/hibernaculum
Badger	
<i>Summary of Survey Findings</i>	On-site habitats No evidence of badgers (e.g. latrines, snuffle holes, hairs or mammal trails) or badger setts were identified on site or within 30m. There is no suitable habitat on site to support badgers.
<i>Foreseen Impacts</i>	None foreseen
<i>Recommendations</i>	None.
Riparian animals	
<i>Summary of Survey Findings</i>	There are no watercourses on or connected to the site. Off-site ditches are found to the east along the road and north beyond the tree line.
<i>Foreseen Impacts</i>	No impacts are anticipated on riparian animals as a result of the proposed development.
<i>Recommendations</i>	N/A
Hazel dormouse	
<i>Summary of Survey Findings</i>	EPSL data

	A review of the Magic.gov database returned no granted EPSL records or class licence returns for hazel dormice within 2km of the site. On-site habitat Dormice typically utilise a three-dimensional habitat structure as to commute between feeding and breeding sites whilst avoiding predation. As such habitats on site are considered unsuitable for hazel dormice and therefore the likelihood of this species being present on site is considered acceptably low.
<i>Foreseen Impacts</i>	On-site habitat No impacts are anticipated on hazel dormice as a result of the proposed development.
<i>Recommendations</i>	None.
Other e.g. hedgehog	
<i>Summary of Survey Findings</i>	On-site habitat The site provides limited hibernation habitat, but individual foxes, hedgehogs and other urban mammals may be found commuting along the boundary of the site where the vegetation has been allowed to grow.
<i>Foreseen Impacts</i>	On-site habitat Construction activities could result in the death or injury of transient individuals.
<i>Recommendations</i>	A precautionary working method will be implemented during construction, including the following measures: - Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape. - 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. - Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. 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.

Appendix 1: Habitat map



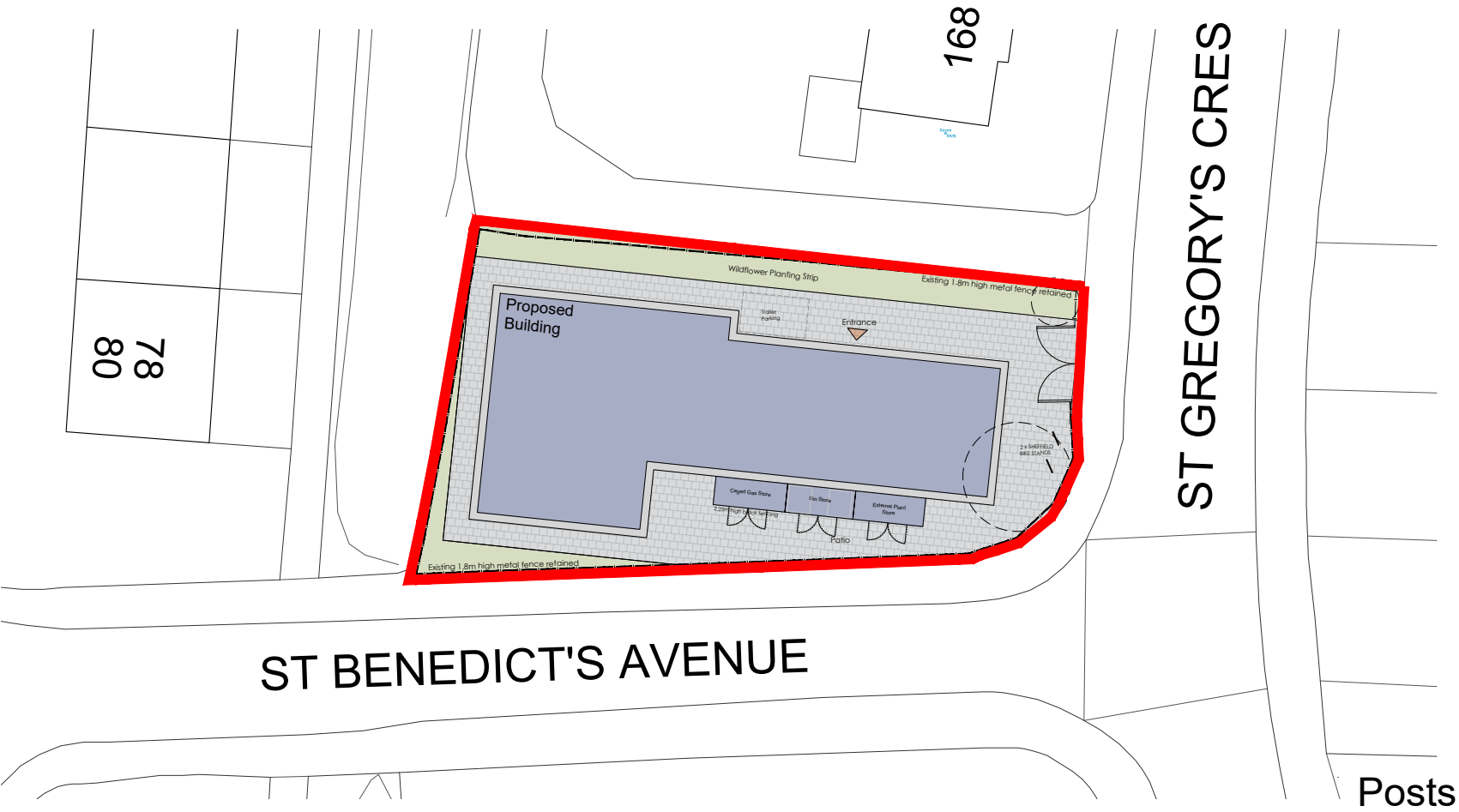
Appendix 2: PRA plan



Appendix 3: Location map



Appendix 4: Proposed plan



 0 1.0 2.0 3.0 4.0 5.0 10.0m This copyright of this drawing is vested with Corstorphine & Wright Ltd and must not be copied or reproduced without the consent of the copyright owner.	P-02: Landscaping notes added to plan P-01: Updated layout on and user comments 2020 Planning Issue 2020 Construction 18.10.24 LC CH 26.10.24 LC CH 13.03.24 LC CH 19.03.24 LC CH	Demolish existing tree to be removed.	Client: YIF Youth Investment Fund Project: Modular Youth Hub Gravesend St Aids Hut Drawing Title: Proposed Site Plan Drawing No: 23519-0317 Drawing Status: PLANNING Corstorphine & Wright Ternworth Studio 5 Aldgate, Ternworth, B79 7DU 01827 671 23 corstorphine-wright.com Drawn: SK Checked: LC Plan Size: A1 Scale: 1:100 Date: 19.03.24 Revision: P-02
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Appendix 5: Photos

Figure 1: B1 overview



Figure 2: Inside B1



Figure 3: L1 interior



Figure 4: Modified grassland



Figure 5: Sealed surface



Figure 6: Cotoneaster along the western border



Figure 7: (32)
scattered trees



Figure 8: Damage and gaps under timber boarding



Figure 9: Gap under the timber of the southern entrance, above the door.



Version control			
Status	Issue	Name	Date
Draft	0.1	Elodie Noyes-Gouan BSc (Hons), Accredited on Bat Licence 2018-33540-CLS-CLS	07/10/2024
Proof	0.2	Callum Taylor, Senior Ecologist	10/10/2024
Amendments	0.3	Elodie Noyes-Gouan BSc (Hons), Accredited on Bat Licence 2018-33540-CLS-CLS	30/10/2024
Review	0.4	Leah Cook, Consultant Ecologist	11/11/2024
Final	1.0	Elodie Noyes-Gouan BSc (Hons), Accredited on Bat Licence 2018-33540-CLS-CLS	11/11/2024
Additional amendments	1.0	Elodie Noyes-Gouan BSc (Hons), Accredited on Bat Licence 2018-33540-CLS-CLS	28/11/2024

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