

The Sizewell C Project

9.17 Bat Roost Surveys in Trees - Main Development Site

Revision: 2.0

Applicable Regulation: Regulation 5(2)(q)

PINS Reference Number: EN010012

June 2021

Planning Act 2008 Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009





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1 SUMMARY

1.1.1 This document provides the results of the 2021 bat tree inspection surveys conducted on the Sizewell C main development site in 2021. It provides the detail required to inform the required European Protected Species Licences (EPSL).

1.2 Receptor Status 2021 Overview

- 1.2.1 Bat tree inspections were undertaken on high and moderate potential trees previously identified in 2020 within the proposed vegetation removal zones of the main development site. An additional 36 newly identified trees were inspected; some of these were identified due to changes in proposed vegetation removal, some were inspected whilst surveying nearby trees and some new features were identified whilst conducting the aerial surveys. The inspections comprised the use of an endoscope from the ground or aerially inspected using a ladder or climbing equipment.
- 1.2.2 The results are summarised in **Table 1.1** below.

Table 1.1: Summary of trees with bat roost suitability identified and updated in 2021, within vegetation removal zones of the main development site.

Number of t	Number of trees with identified bat roost suitability in 2021										
Low	Moderate	High	Confirmed Roost	Total							
30	47	12	2	124							

2 OVERVIEW

2.1 The Aims of the 2021 Surveys

- 2.1.1 The aim of the 2021 bat surveys was to inform the required European Protected Species Licence (EPSL) to permit development to proceed.
- 2.1.2 Detailed bat tree roost inspection surveys were also undertaken on the Additional Development Sites. They were undertaken using the same methodology as the main development site surveys outlined in this report. The surveys for the Additional Development Sites have been reported separately (Ref.1).



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3 METHODS

- 3.1.1 The 2021 surveys consisted of detailed inspections of trees that were previously assessed through ground level tree assessments. The 2021 surveys comprised the use of an endoscope from ground or ladder and climbing assessments to assess the suitability of potential roosting features. Some additional ground level tree assessments were undertaken in 2021 and were then further informed by subsequent survey using an endoscope from ground, ladder or with climbing equipment.
- 3.1.2 Previous survey results within the **2020 Bat Tree Inspection Report** [AS-021]. were reviewed, and cross referenced with the proposed vegetation clearance plan to determine which trees with roosting bat potential were located within the proposed vegetation removal zones of the main development site.
- 3.1.3 Trees identified during ground-level roost assessments as having high or moderate roosting potential within the site were assessed internally for their suitability to support roosting bats. In accordance with standard bat survey methodology (Ref. 2) trees were assigned a level of roost suitability as set out in **Table 3.1** below.

Table 3.1 Potential bat roost suitability criteria

Suitability	Description
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain potential roost features but with none seen from the ground or
	features seen with only very limited roosting potential.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation



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Suitability	Description
	status, which is established after presence is confirmed).
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

- 3.1.4 The surveys were undertaken between January and April 2021, when broadleaved tree foliage was absent, and consisted of checks of features on trees with the use of ladders and endoscopes, where possible.
- 3.1.5 Where roost features were not reachable by other means, trees were climbed. Tree species, direct evidence of bats and a detailed description of potential features, such as diameter, height and aspect were recorded. Two qualified tree climbers (trained to the City & Guilds NPTC Level 2 Award in Tree Climbing and Aerial Rescue standard) accessed trees using a ladder or harness and ropes to carry out a detailed internal inspection of Potential Roost Features (PRFs) identified from ground level during ground level roost assessments. At least one of the tree climbers was a competent ecologist and a Natural England Class 2 bat licence holder, which allows the lawful use of a torch/endoscope to potentially disturb roosting bats. The inspections were aided by using torches, mirrors and endoscopes to verify features' suitability, compile information on their dimensions and to search for evidence of bats.

4 LIMITATIONS

- 4.1.1 A number of trees were unable to be climbed during the 2021 surveys due to tree health, a lack of safe access points or safe access to the tree itself; these trees have been identified separately in **Table 6 Appendix B**.
- 4.1.2 As the primary purpose of the aerial surveys was to determine the roost resource, where trees could not be climbed a precautionary assessment of the roost value was retained based on ground level inspections.
- 4.1.3 Due to the transitional nature of bat roosts, surveys undertaken to establish the nature of use by bats at any point in time do not exclude the potential for trees to be occupied in the future.
- 4.1.4 The survey results presented here document the findings at the time of each survey, however, any tree may gain/lose potential to tree-roosting bats as



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trees are dynamic living organisms and may change as a result of weather conditions, decay, disease etc.. For example, eight trees previously identified as having moderate bat roost suitability in Goose Hill Plantation were reassessed and no suitable features were identified.

5 RESULTS

5.1 Previous Survey/ Data Analysis

- 5.1.1 In 2020 the ground level tree assessments identified a total of 322 trees with low, moderate or high potential for roosting bats. One tree was identified as a confirmed roost.
- 5.1.2 These trees surveyed in 2020 contained an identified 626 PRFs. The results of the ground level tree assessments are summarised in **Table 5.1** below and detailed within the **2020 Bat Tree Inspection Report** [AS-021]. Of these, 238 trees were considered to be of high or moderate potential, including the confirmed roost. Following comparison with the proposed vegetation removal zones, a total of 96 trees of either high or moderate bat roost suitability including the previously confirmed roost were identified as requiring removal and therefore were included in further survey work in 2021.

Table 5.1: Summary of results of ground-level tree assessments conducted in 2020. The details of these surveys and the study area are presented in the 2020 Bat Tree Inspection Report.

Woodland		Tree	Roost Po	otential			
	Low	Moderate	High	Confirmed Roost	Total		
Kenton Hills (area along the northern track)	7	46	13	0	66		
Goose Hill Plantation	21	104	7	0	132		
Fiscal Policy	48	24	2	0	74		
Additional Features	9	33	8	1	51		



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Woodland	Tree Roost Potential									
	Low	Moderate	High	Confirmed Roost	Total					
(Hedgerows and scattered trees)										
Total	85	207	30	1	323					

5.2 2021 Field Survey

- In 2021 a total of 132 trees were identified for further survey these were trees of high or moderate suitability which are located within the proposed vegetation removal zones. These comprised the above-mentioned 96 trees from the 2020 surveys plus an additional 36 trees surveyed during additional ground level tree assessments and incidental field surveys in 2021. This included four trees that were identified for further survey following a winter ground level tree assessment of broadleaved trees previously categorised as having low suitability in summer, to ensure no PRFs were obscured by dense foliage; these were re-assessed as moderate.
- 5.2.2 Of the 132 trees, 35 trees were unable to be further assessed due to being inaccessible or unsafe to climb either as a result of tree health, a lack of safe access points or safe access to the tree itself; in several cases this was identified at the ground level tree assessment stage and alternative surveys will be fulfilled as required in 2021. Details of these trees are highlighted in **Appendix B**. A single tree was unable to be surveyed further as it supported a barn owl (*Tyto alba*) nest. For these trees, their bat roost suitability remains the same as identified in 2020 pending further survey and they are included in the summary below.
- 5.2.3 Of these 97 trees, eight trees previously identified as having moderate bat roost suitability in Goose Hill Plantation were reassessed and no suitable features were identified.
- Therefore, a total of 89 trees assessed from the ground as having high and moderate bat roost suitability were subject to aerial survey in 2021, following the methodology outlined in **Section 1** above. These 89 trees, in addition to the 35 which will require alternative survey methodology, are proposed for removal within the vegetation removal zones. A summary of tree roost potential for each area is provided in **Table 5.2** below. The results are provided in full in **Table 6 Appendix B** and shown on **Figure 1**.



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Table 5.2: Summary of tree roost potential in 2021

Woodland		Tree Roost Potential									
	Negligible	Low	Moderate	High	Confirmed Roost	Total					
Kenton Hills (area along the northern track)	0	0	2	0	0	2					
Goose Hill Plantation	37	17	14	1	1	70					
Fiscal Policy	2	4	6	0	0	12					
Additional Features (Hedgerows and scattered trees)	4	10	24	9	1	48					
Total	43	31	46	10	2	132					

- One new confirmed bat roost, was identified during the aerial inspection surveys, located within a field boundary to the north of Goose Hill Plantation, whilst a confirmed roost identified in 2020 within the Additional Features¹ was revisited and the tree confirmed to still support a roost. A total of two confirmed bat roosts have now been identified within the main development site, as follows:
 - Tree AF24 single soprano pipistrelle (*Pipistrellus pygmaeus*) day roost within hazard beam; droppings previously identified within alternative PRF on tree;
 - Tree G136 Natterer's bat (*Myotis nattereri*) hibernation roost within flute in stem.
- 5.2.6 The trees identified as having high bat roost suitability within the proposed vegetation removal zones were predominantly located within the Additional Features of the main development site, limited to field boundaries and scattered trees outside of the main woodland blocks. The high potential trees

¹ Additional Features are defined as hedgerows or trees not encompassed by woodland blocks.



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were located in isolated clusters of trees which also comprised moderate and low potential trees, or on the margins of more extensive homogenous areas of (predominately plantation) woodland. After the 2021 surveys, the overall bat roost suitability of a large number of trees was downgraded as a result of more detailed aerial inspections; full details are presented in Appendix B.

6 DISCUSSION

- 6.1.1 Surveys in 2021 identified two confirmed roosts of differing species within the main development site and outlining the presence of trees with high and moderate suitability to support roosting bats that are within the proposed vegetation removal zones.
- 6.1.2 Two confirmed roosts, a single soprano pipistrelle transitional roost and a Myotis hibernation roost, were identified within the Additional Features and Goose Hill Plantation areas of the main development site respectively. It should be noted that because tree roosts are highly transitional (a strategy thought to reduce parasitism and predation in tree roosting bats (Ref. 3)), the likelihood of roost detection in trees in comparison to other structures is reduced. The surveys also resulted in multiple trees being downgraded with regard to overall tree potential due to features being less suitable or unsuitable when inspected aerially in close proximity.
- 6.1.3 Ten trees with high bat roost suitability and 46 trees with moderate bat roost suitability were also identified following the 2021 surveys; this is a total of 56 high and moderate potential trees within the proposed vegetation removal zones in comparison with 96 identified following previous surveys. The total number of trees considered to be of low and negligible potential proposed to be removed has increased to 31 and 43, respectively, due to the reasons detailed above.
- 6.1.4 Trees of high, moderate and low potential have the potential to support the following tree roosting species, which have been recorded within the main development site through activity and static detector surveys; common pipistrelle (*Pipistrellus pipstrellus*), soprano pipistrelle, Nathusius' pipistrelle (*Pipistrellus nathusii*), serotine (*Eptesicus serotinus*), barbastelle (*Barbastella barbastellus*), *Myotis* sp., and *Nyctalus* sp.
- 6.1.5 Due to the transitional nature of tree roost use, it is assumed that a proportion of potential roosts may be used by roosting bats concurrently, demonstrated by a roost having been confirmed in two separate PRFs located within the same tree (AF24). Therefore, where proposed vegetation removal is likely to remove potential roost clusters, in locations such as north of Kenton Hills car park and the boundary features to the north of Goose Hill Plantation, the



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effect on the local bat population is likely to be greater than locations where a single potential roost resource in being lost.

- 6.1.6 The surveys conducted to date are considered sufficient to inform the status of the roost resource within the woodlands and trees surveyed. This information will inform a proposed Organisational Licence in relation to impacts to bats, an approach that has previously been discussed with Natural England. However, it will be necessary to safeguard individual bats during vegetation removal through further targeted survey to be completed during the enabling and construction phase.
- 6.1.7 After project approval, the following surveys will be undertaken prior to removal of trees, during the development of the scheme:
 - Further inspection and/or dusk emergence/ dawn re-entry surveys, on trees identified in this report where the inspection was constrained and all trees assessed as having moderate or high potential.
 - Pre-felling surveys for any tree where suitable features have been identified to confirm absence of bat presence.
 - For low roost potential trees, removal will follow best practice at the time of tree removal which may include soft/sectional felling.
- 6.1.8 The timing of these surveys will be dependent on the phasing of the development and the surveys will be conducted according to the prescriptions of the applicable bat licence, and as close to tree removal for each phase as is practicable.
- 6.1.9 Surveys undertaken to establish the nature of use at any point in time do not exclude the potential for trees to be occupied in the future. In the event that a tree to be felled is found to be occupied by a roosting bat, licensing and mitigation procedures would be followed.

7 CONCLUSION

7.1.1 A total of 124 trees, which are currently proposed for removal, were surveyed in 2021 for their bat roost potential resulting in 12 high potential trees and 47 moderate potential trees. Two confirmed active roosts were identified within the main development site vegetation removal zones. These data in addition to information on further surveys and mitigation will be incorporated into an Organisational Licence for bats to ensure no direct mortality and the favourable conservation status of these species.



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REFERENCES

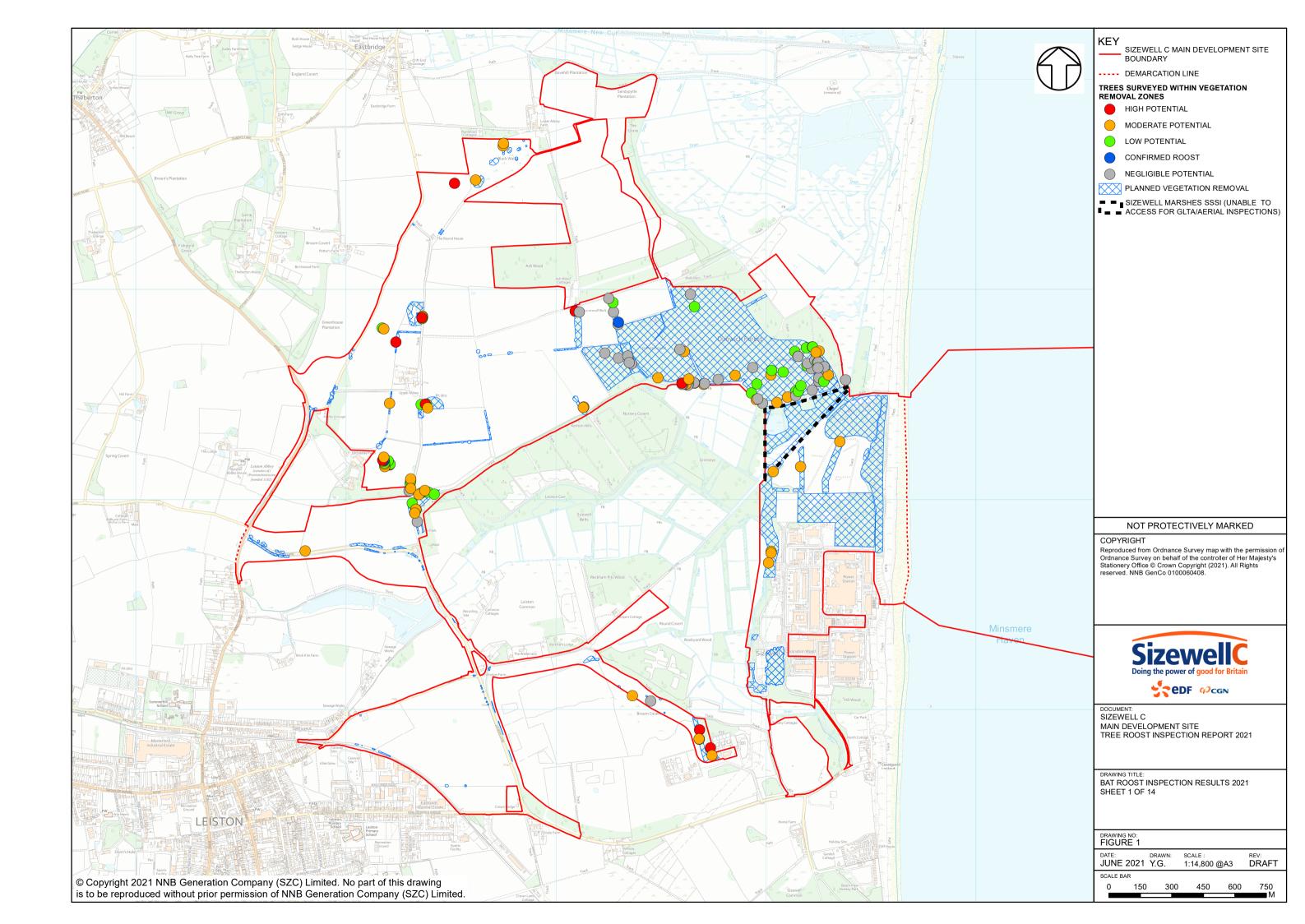
- 1. Sizewell C. 2021. Associated Development Site Tree Roost Inspection Report.
- 2. Collins. 2016. Bat Surveys for Professional Ecologists: Good Practice Guidelines. 3rd edition. London: The Bat Conservation Trust.
- 3. D. Russo. L. Cistrone. G.Jones and S. Mazzoleni. 2004. Roost selection by barbastelle bats (*Barbastella barbastellus*) in beech woodlands of central ltaly: Consequences for conservation. Biological Conservation, 117. 73-81.

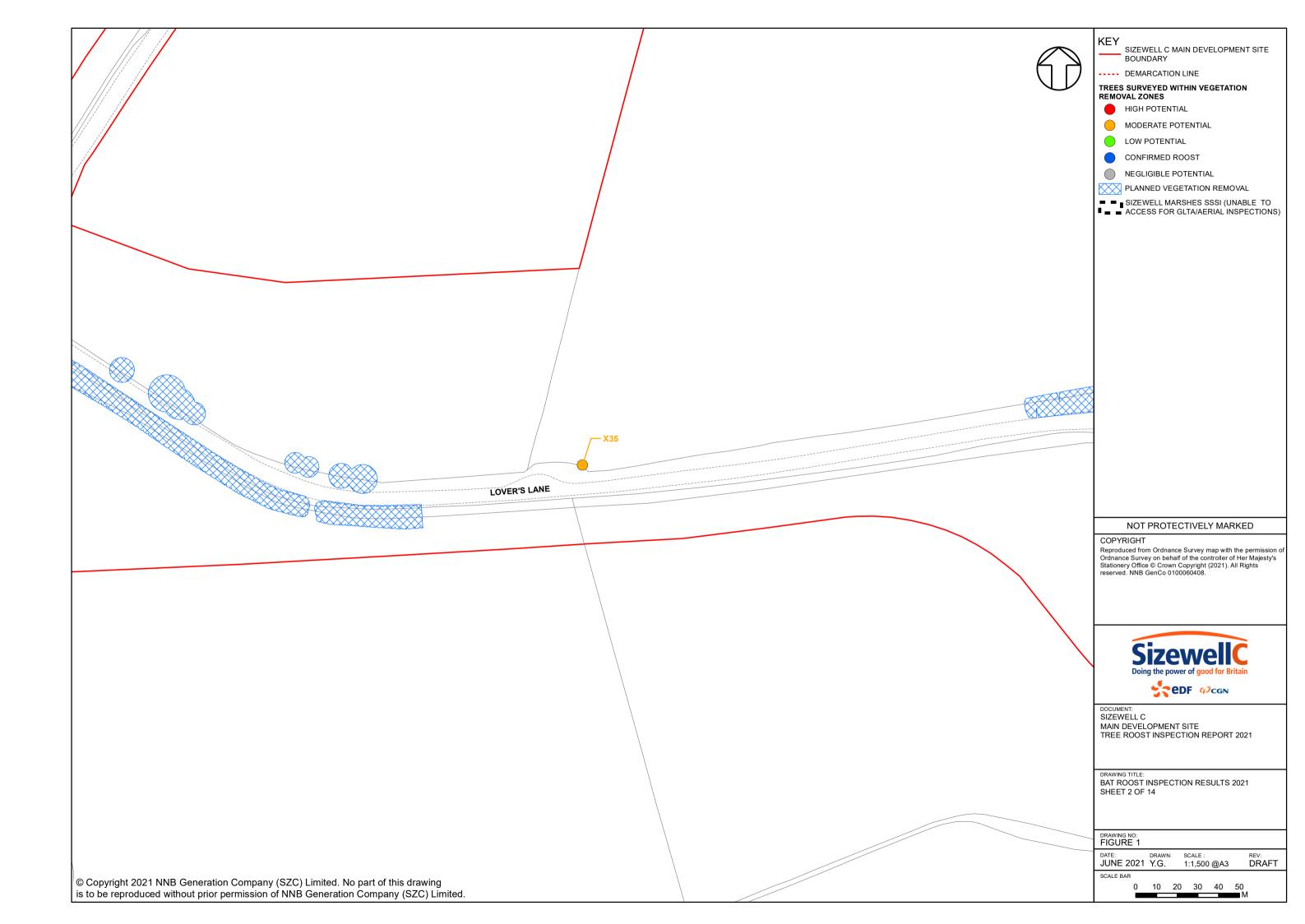


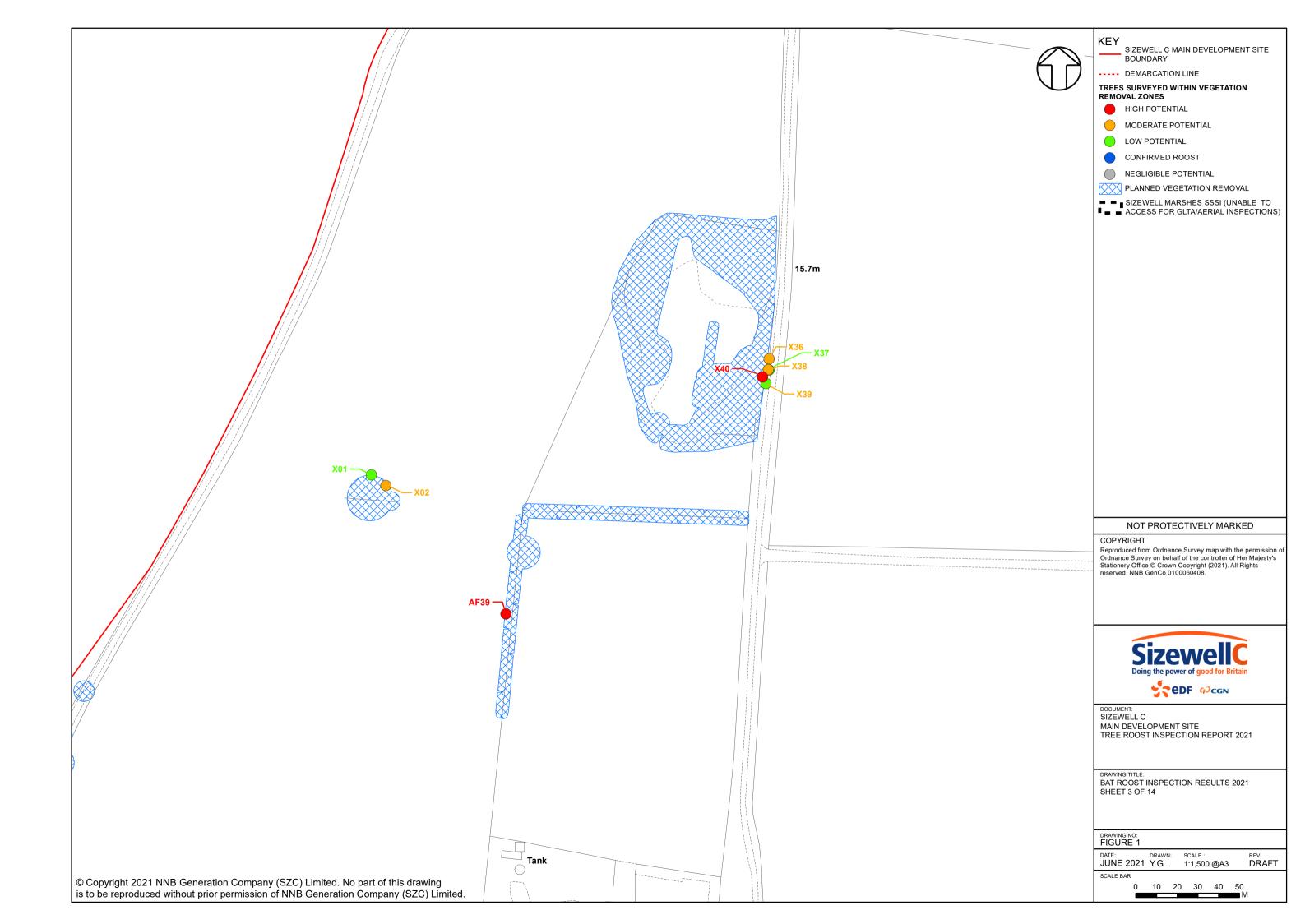
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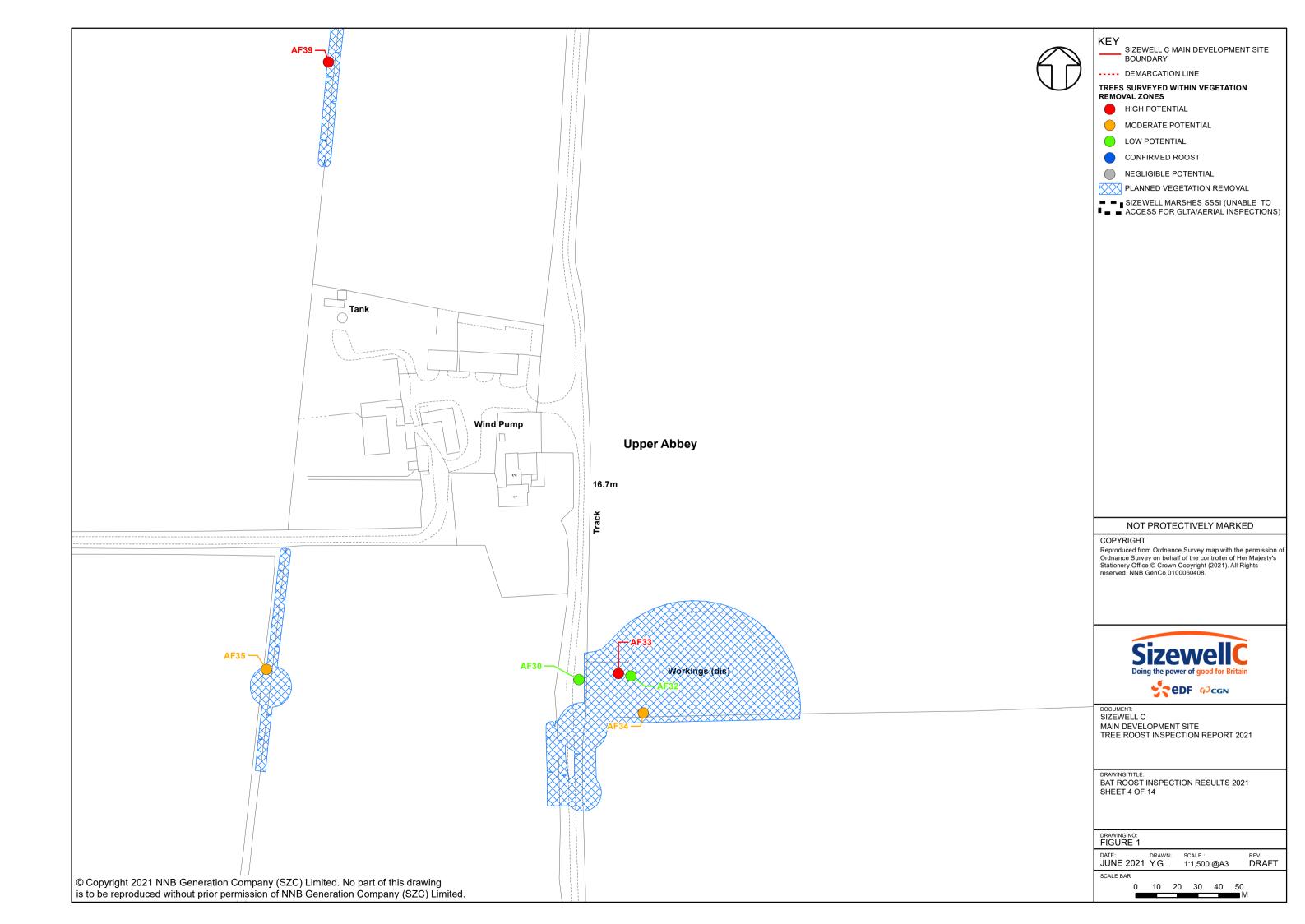
APPENDIX A: FIGURES

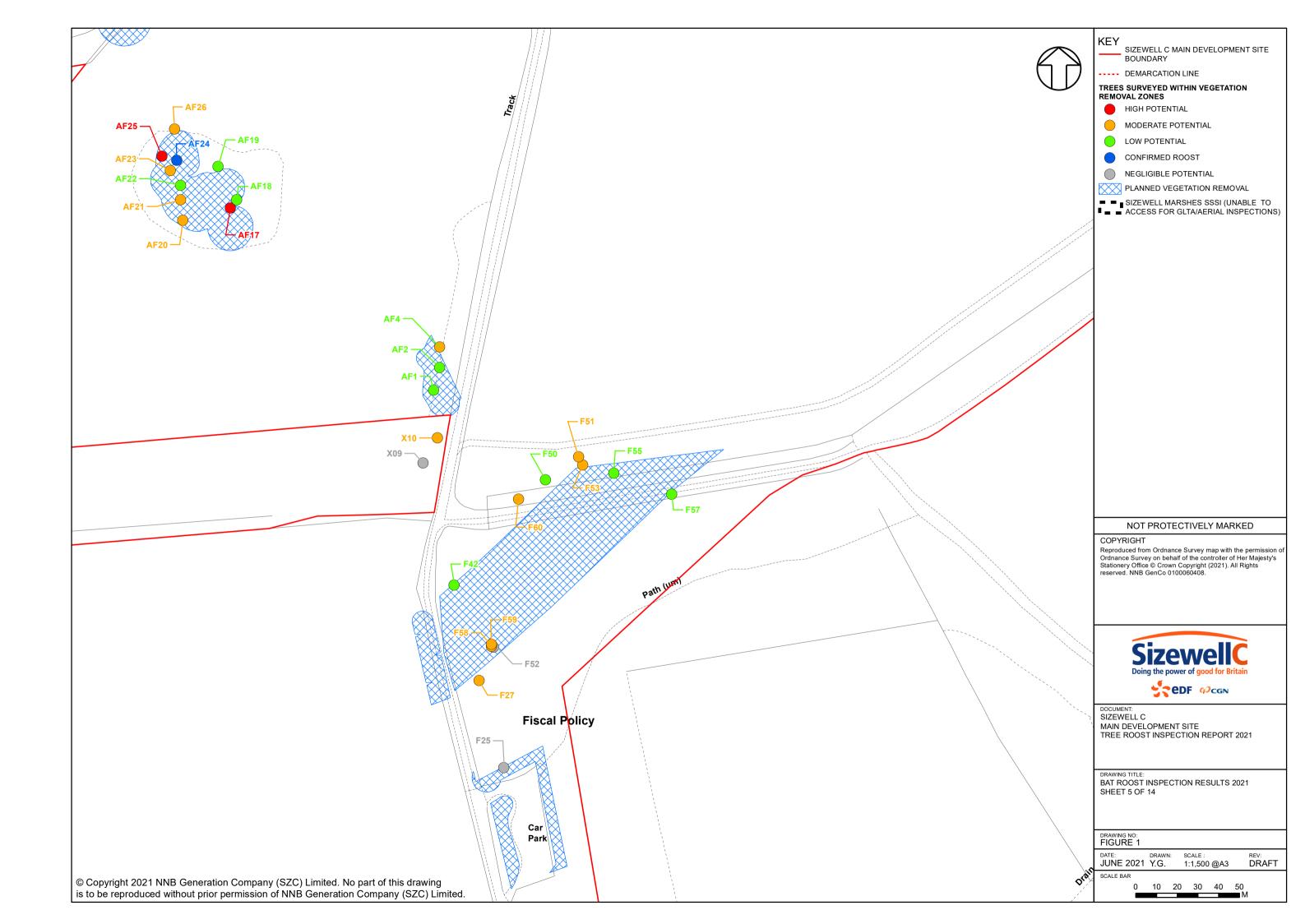
Figure 1: main development site Bat Tree Roost Inspection Results 2021

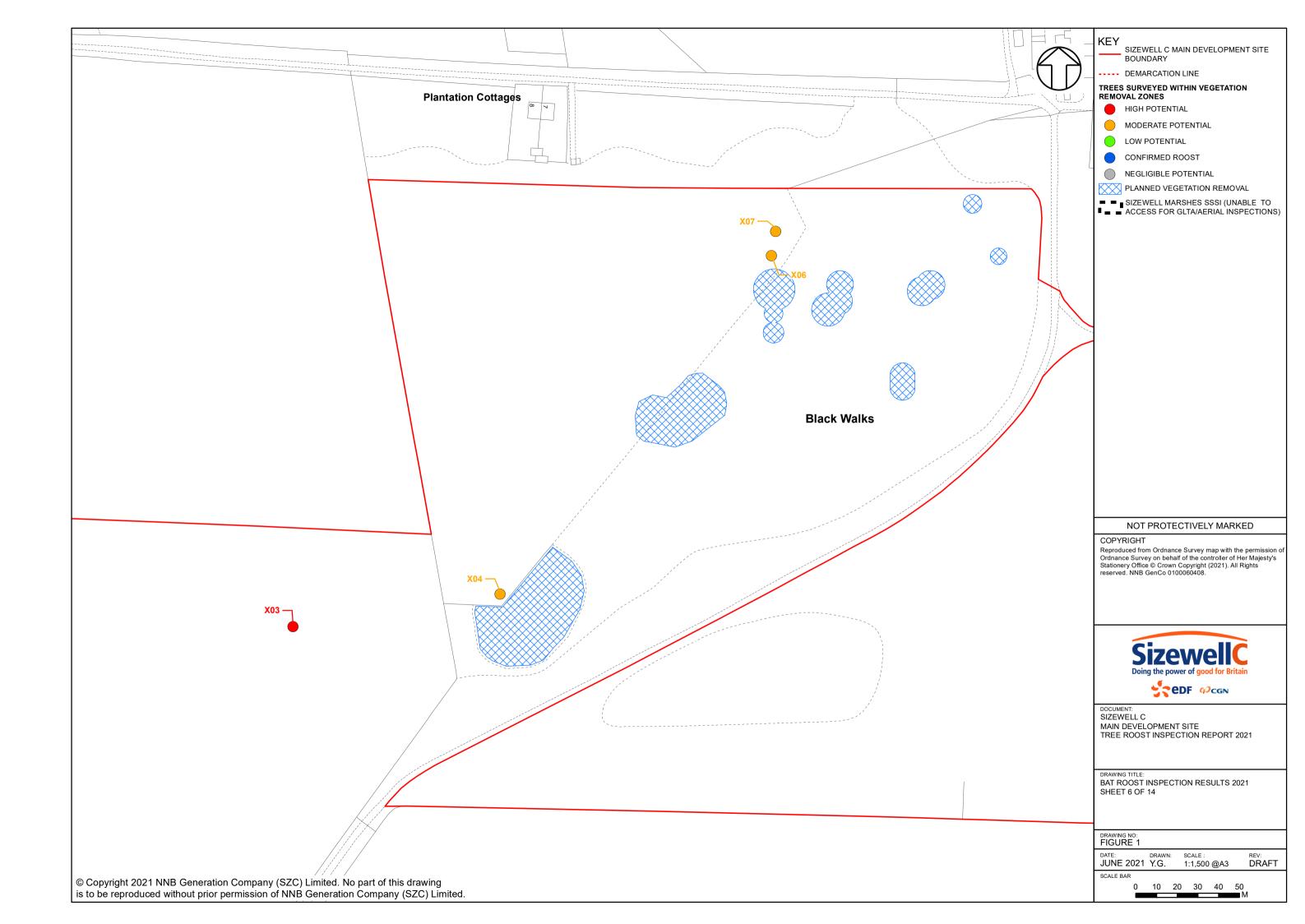


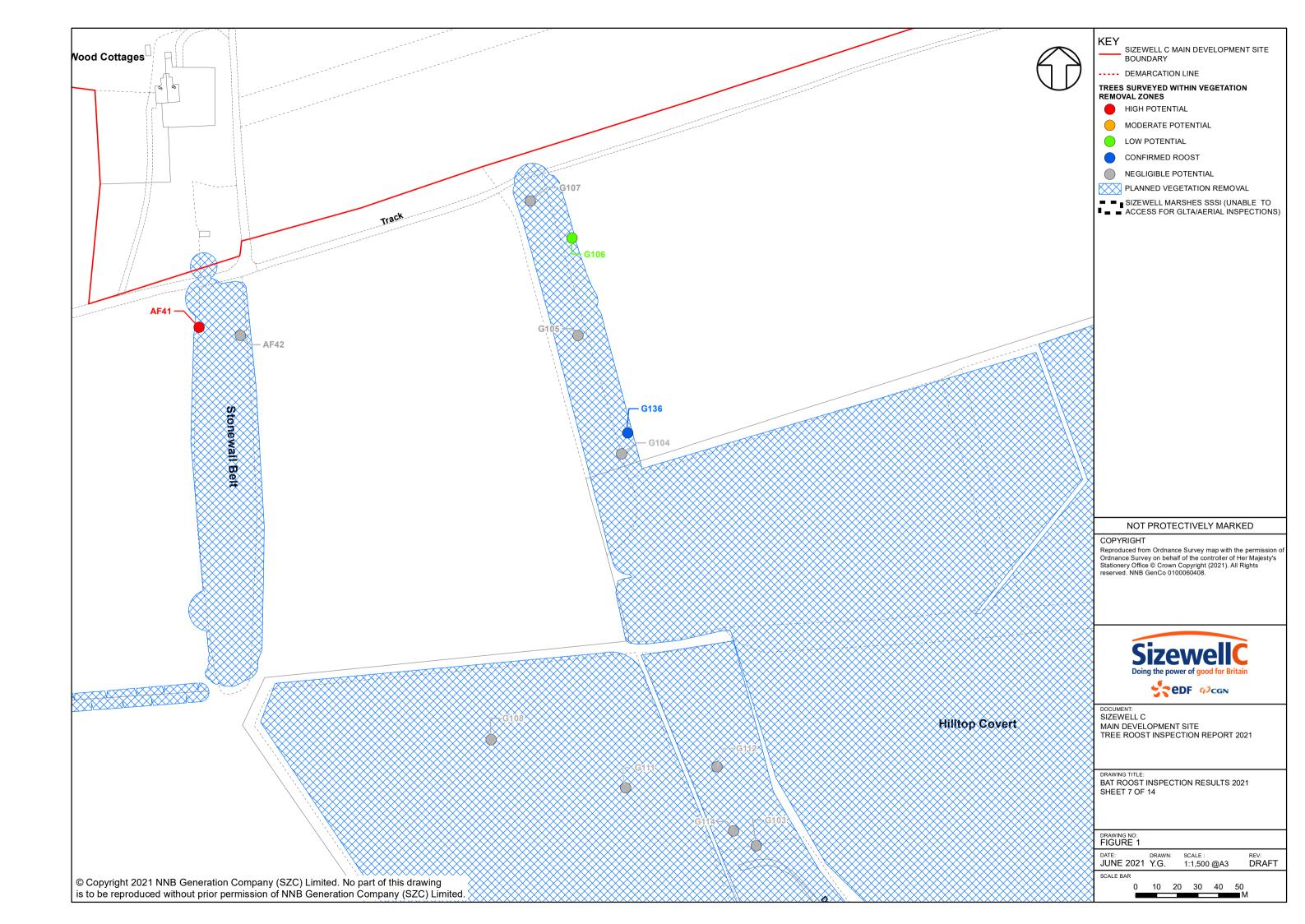


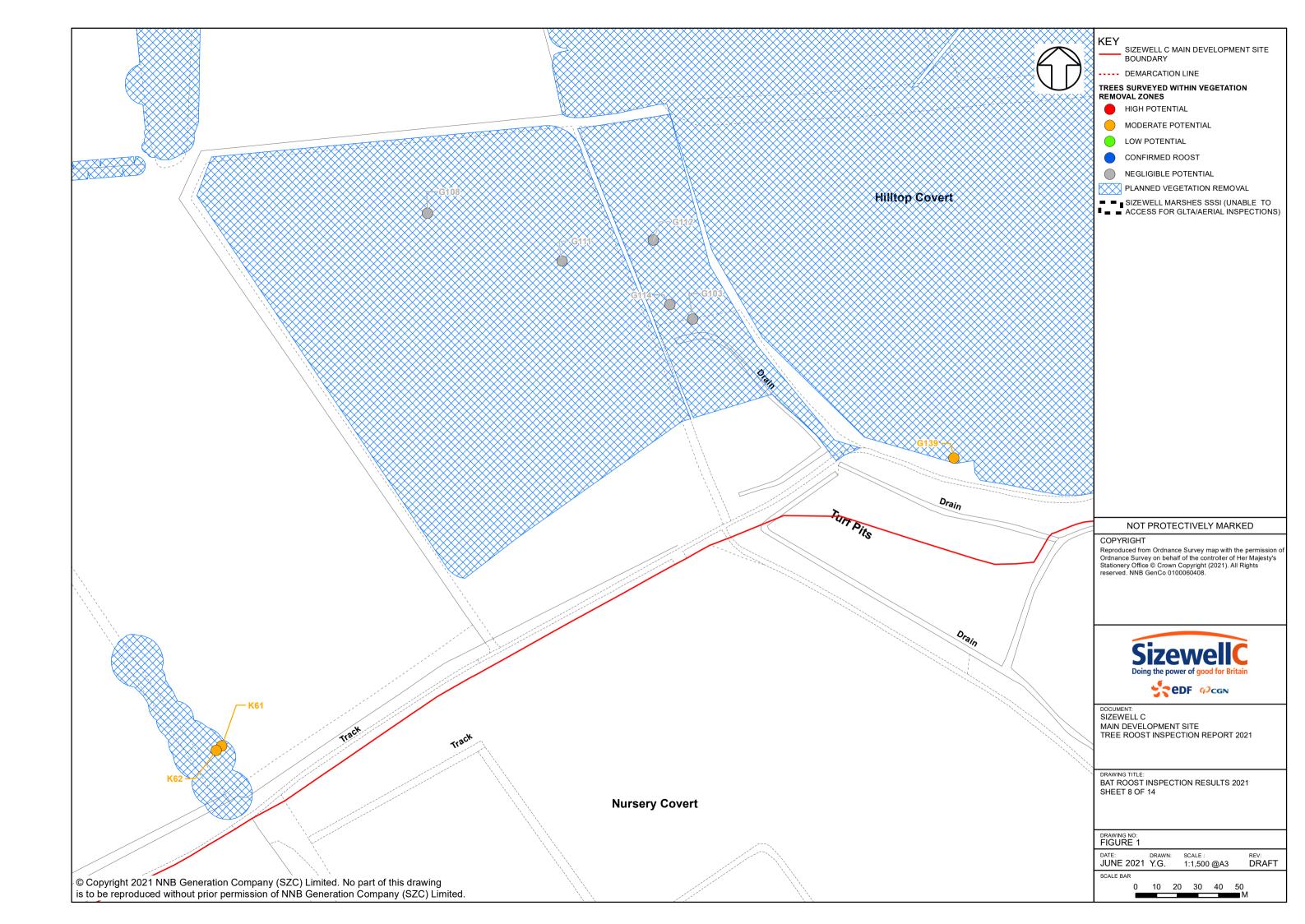


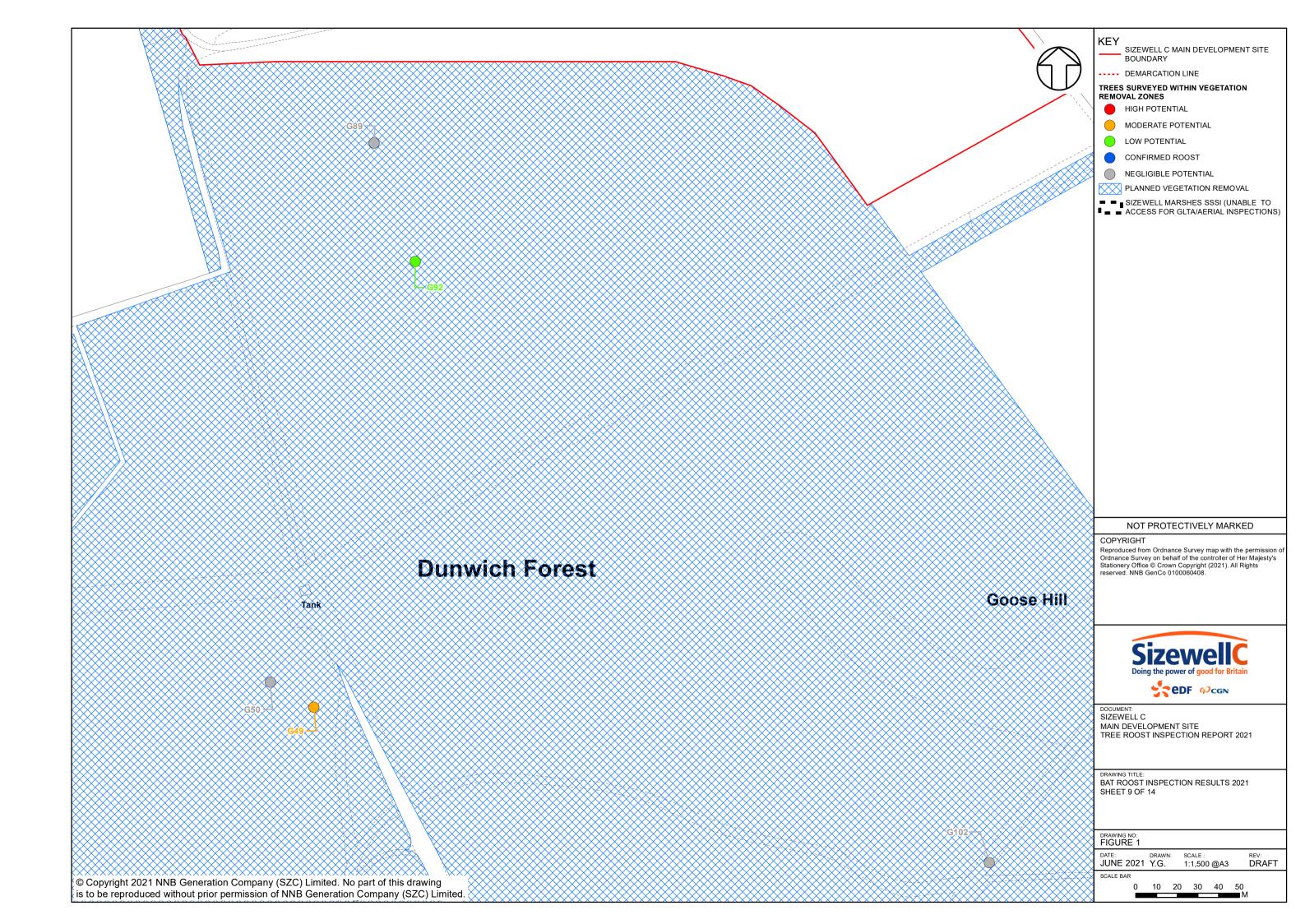


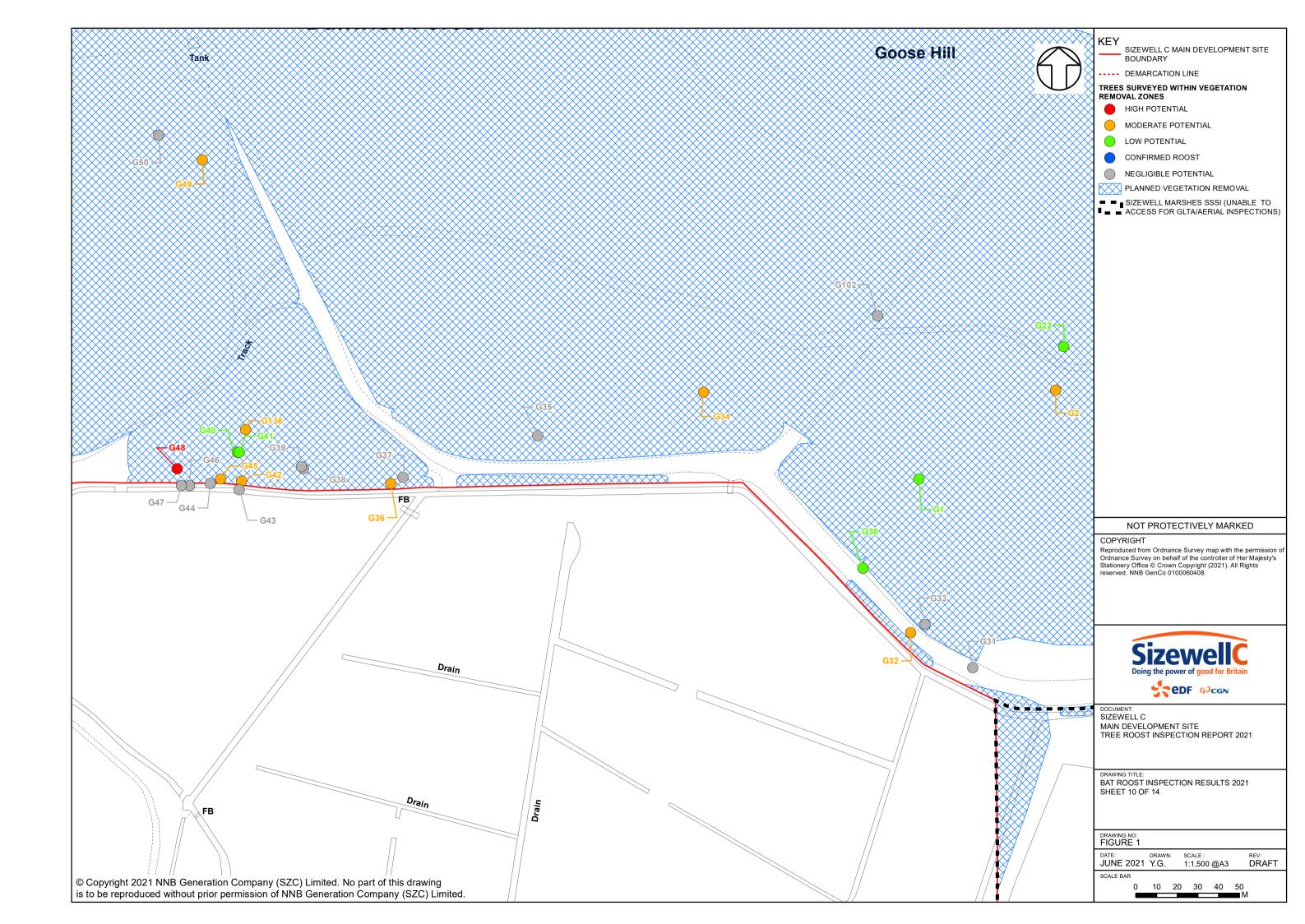


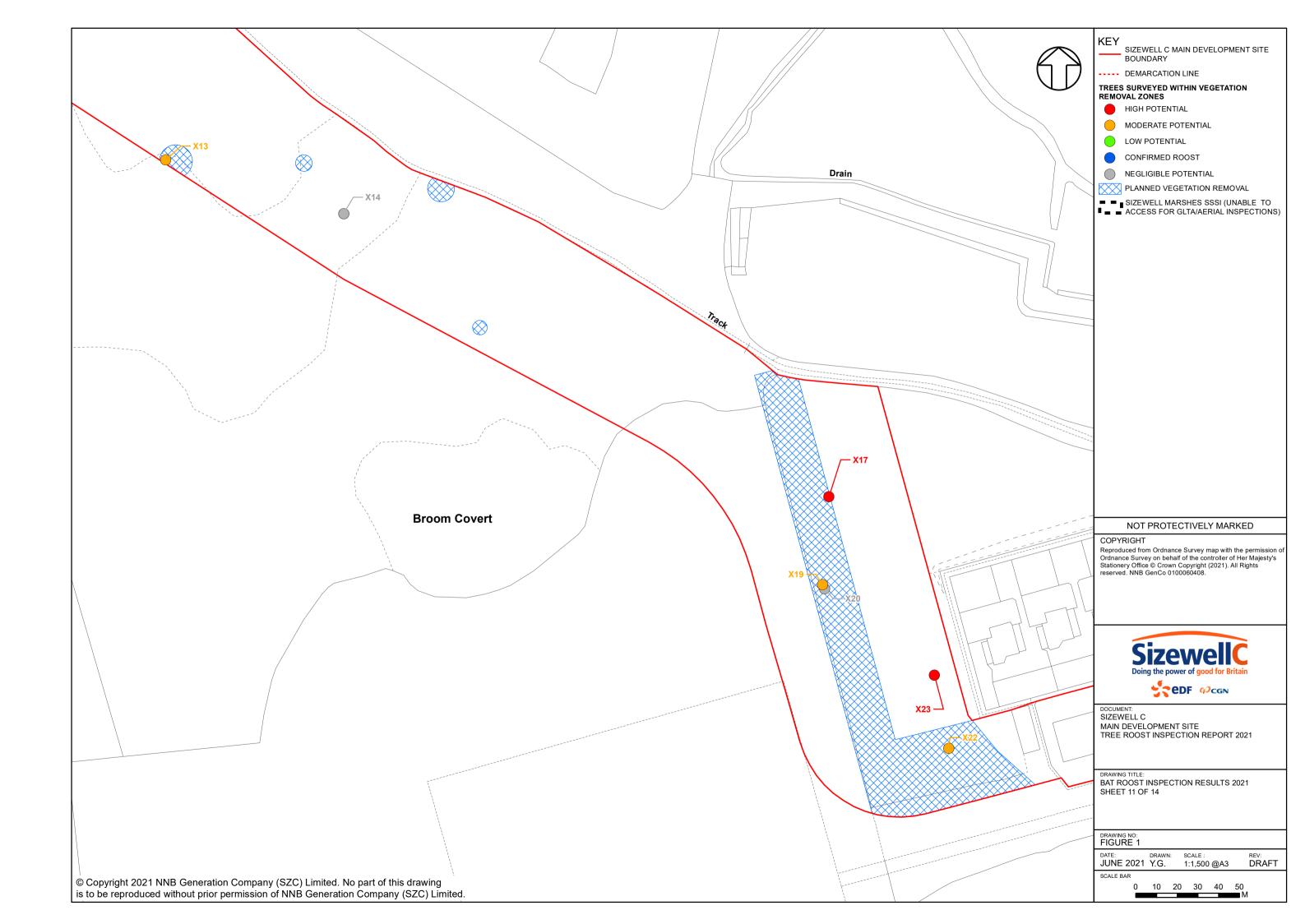


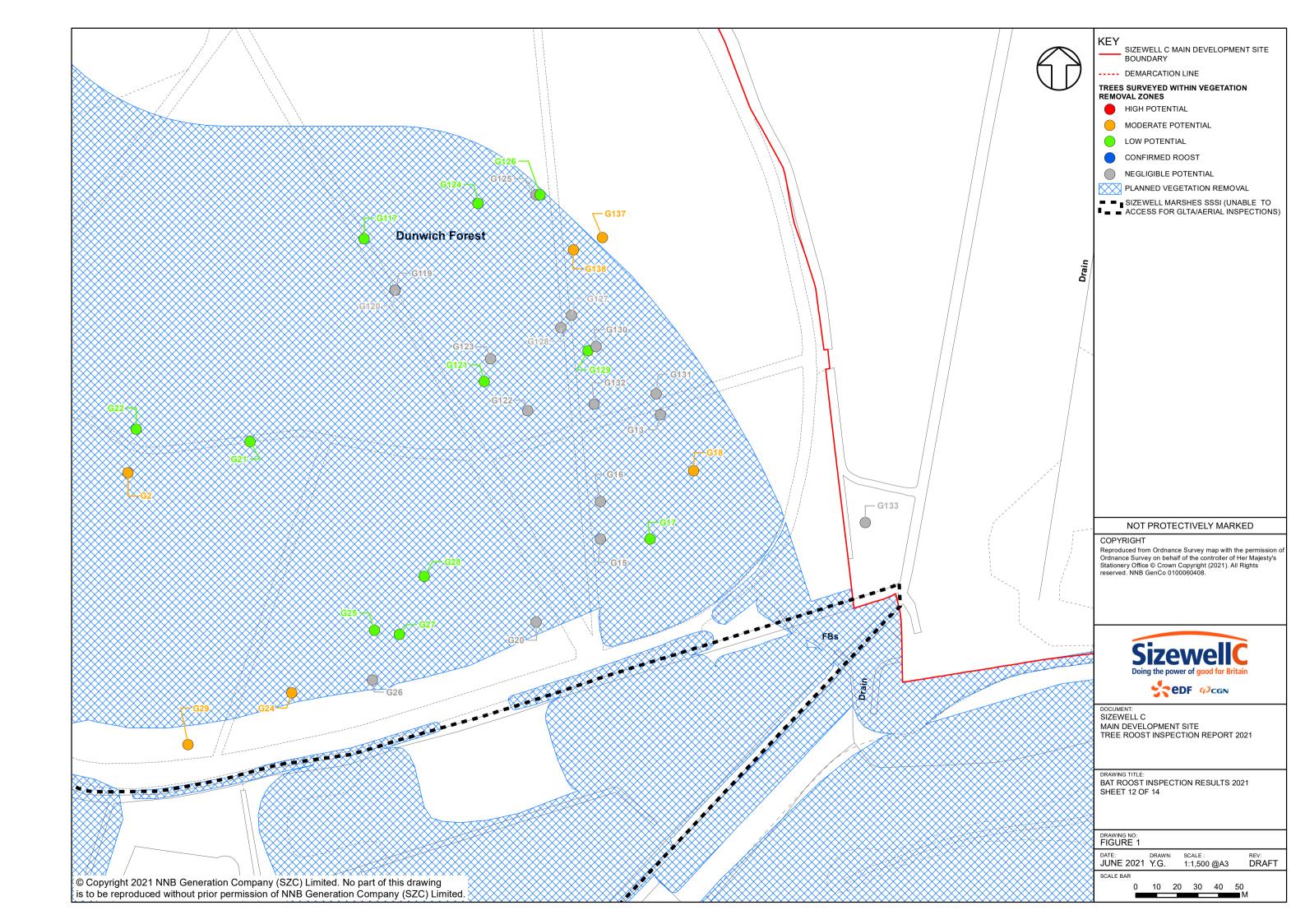


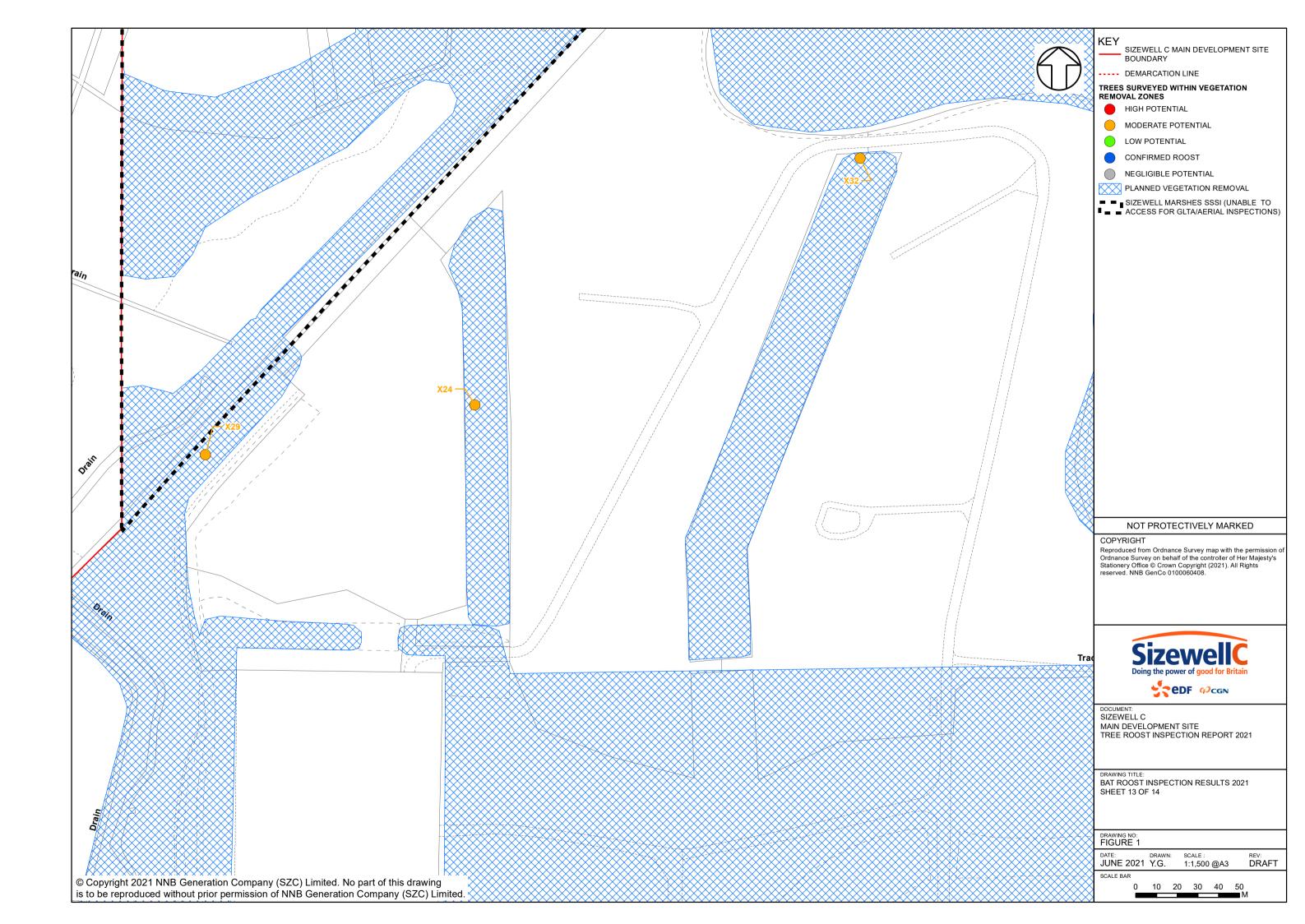


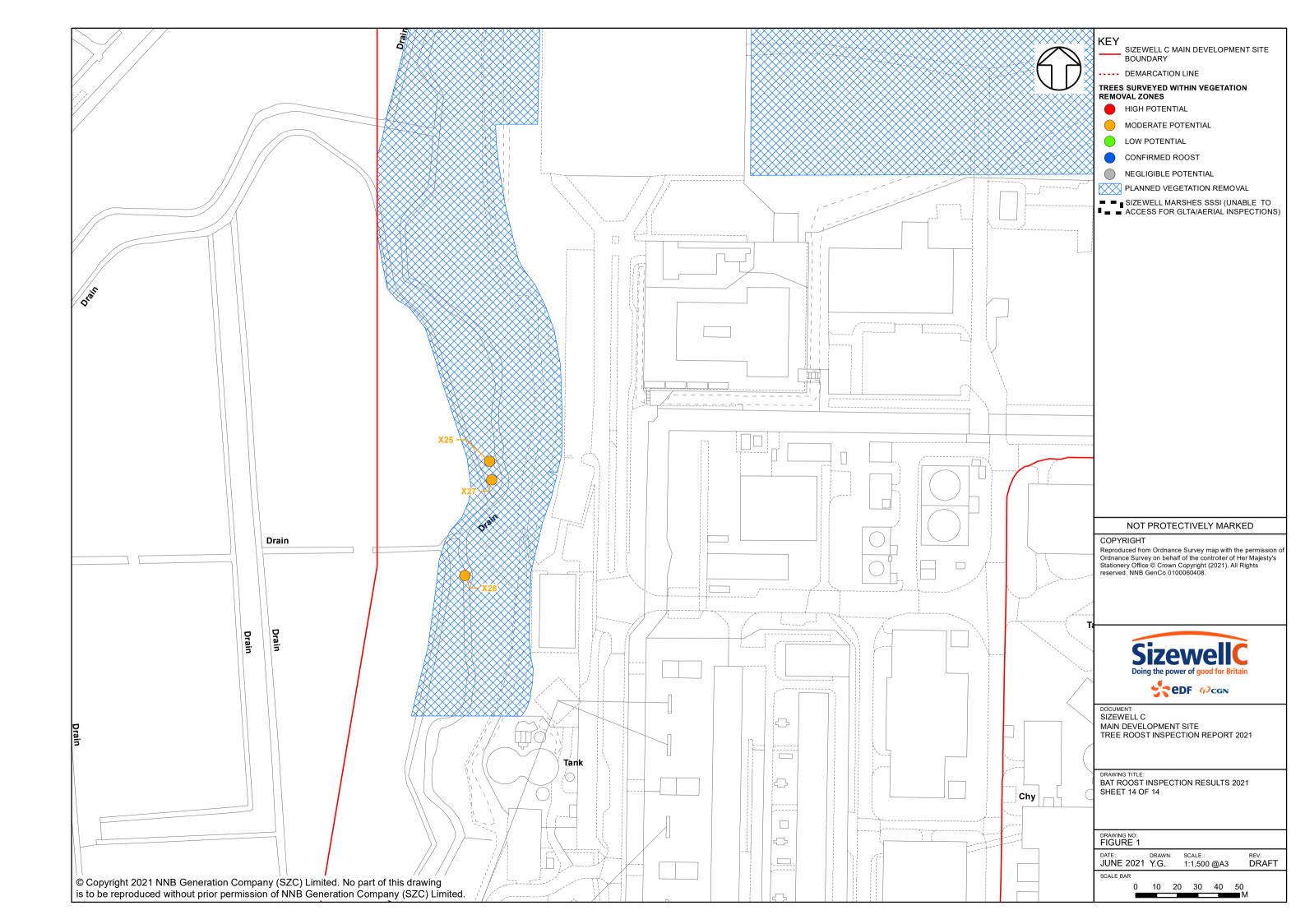














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APPENDIX B: TREE INSPECTION RAW DATA

Table 1: Results of 2021 bat tree roost inspections of moderate and high potential trees within the vegetation removal zones of the main development site

Tree no.	Tree species and description	Feature description	Initial feature potential	Initial tree potential	Further survey method	2021 feature description	2021 feature potential	2021 tree potential	Survey constraints
K61	Pedunculate Oak, Mature, 1.2m diameter,	Pruning Cut, between 2m - 4m, South, Stem - X4 pruning cuts	Moderate	High	Endoscope from ground	No entrance or internal crevice/cavity	Negligible	Moderate	None
	22m high, Single stem	Knot Hole, 2m, North-West, Stem	Moderate		Endoscope from ground	External: 12cm high, 10cm wide, Internal: 20cmx20cmx20cm, Smooth substrate, Point, Open to predators - Multi chambered feature, open entrance	Moderate		
		Transverse Snap, 5.5m, South, Limb	Moderate		Climbing	No entrance or internal crevice/cavity	Negligible		
		Hazard Beam, 5m, South, Limb	Moderate		Climbing	No entrance or internal crevice/cavity	Negligible		
		Impact Shatter, 3.5m - 4m, North-East, Stem - X2 impact shatter, one north east one south west	Moderate		Climbing	No entrance or internal crevice/cavity	Negligible		
K62	Pedunculate Oak, Mature, 1.3m diameter,	Pruning Cut, 2.5m, South- East, Stem - X2 pruning cuts. Gaps between bark.	Moderate	High	Climbing	Negligible, no crevices or cavities	Negligible	Moderate	None
	20m high, Single stem	Lifting Bark, 2.5m - 10m, East, Stem - Loose bark is present on the east side of two main stems.	High		Climbing	No crevices or cavities behind - either too open or too narrow, however peeling bark is v changeable	Low		
		Impact Shatter, 8m, East, Limb - Fairly exposed. Pointing upwards	Moderate		Climbing	No PRF within shatter	Negligible		
		Hazard Beam, 5m, South, Limb - Hazard beam on limb pointing west.	Moderate		Climbing	External: 3cm, 20cm, Internal: 3cm, 20cm, 10cm. Jagged, Wedge - Multiple fissure cracks with day roost potential	Moderate		
		Knot Hole, 10m, West, Limb - Small knot hole visible from west side of tree	Moderate		Climbing	No crevice or chamber - superficial entrance	Negligible		
		Impact Shatter, 3m - 17m, South, Limb - A number of impact shatters (>10) all around tree at various heights.	Moderate		Climbing	All negligible with no crevices extending in	Negligible		
G1	Pine, Mature, 30cm diameter, 25m high, Single stem	Compression Fork, 13m, South-East, Stem	Moderate	Moderate	Ground with binoculars	Can see back of crevice, could support single bat as day roost	Low	Low	None



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Tree no.	Tree species and description	Feature description	Initial feature potential	Initial tree potential	Further survey method	2021 feature description	2021 feature potential	2021 tree potential	Survey constraints
G2#	Pine, Mature, 40cm diameter, 25m high, Single stem	Compression Fork, 12m, North, Stem	Moderate	Moderate	Ground with binoculars	Unable to climb	Moderate	Moderate	Unable to survey further
G13	Pine Semi- Mature, 40cm diameter, 25m high, Single stem	Compression Fork, 7m, North, Stem - Small cavity at top of compression fork	Moderate	Moderate	Climbing	No entrance or internal crevice/cavity	Negligible	Negligible	None
G15	Pine, Semi- Mature, 30cm diameter, 25m high, Single stem,	Compression Fork, 7m, West, Stem	Moderate	Moderate	Ground with binoculars	No cavity, v wide entrance. Less than low potential based on surrounding woodland.	Negligible	Negligible	None
G16	Pine, Semi- Mature, 30cm diameter, 25m high, Single stem	Compression Fork, 18m, South, Stem	Moderate	Moderate	Ground with binoculars	No cavity or crevice	Negligible	Negligible	None
G17	Pine, Semi- Mature, 30cm diameter, 20m high, Single stem	Impact Shatter, 16m, West, Limb - Broken limb has rot on the inside.	Moderate	Moderate	Ground with binoculars	No upwards cavity, may have cavity downwards - very limited potential for bats	Low	Low	None
G18#	Pine, Semi- Mature, 30cm diameter, 25m high, Single stem	Compression Fork, 14m, South-West, Stem, Cavity hole at bottom of compression fork	Moderate	Moderate	Ground with binoculars	Potential for cavity at base	Moderate	Moderate	Unable to survey further
G20	Pine, Semi- Mature, 30cm diameter, 25m high, Single stem	Compression Fork, 13m, East, Stem - Cavity hole at bottom of open compression fork.	Moderate	Moderate	Ground with binoculars	No cavity or crevice, looks very wet	Negligible	Negligible	None
G21	Pine, Semi- Mature, 50cm diameter, 25m high, Single stem	Compression Fork, 4m, North-East, Stem, Cavity hole at bottom of open compression fork.	Moderate	Moderate	Endoscope from ladder	Dry, Wedge - Open wedge in compression fork, crevice at base. Two features with crevices with potential for day roost.	Low	Low	None
G22	Pine, Semi- Mature, 85cm diameter, 25m	Impact Shatter, 10m, East, Limb - Limb is shattered laterally to around 50cm from stem	Moderate	Moderate	Climbing	Open wedge could be used as day roost	Low	Low	None



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Tree no.	Tree species and description	Feature description	Initial feature potential	Initial tree potential	Further survey method	2021 feature description	2021 feature potential	2021 tree potential	Survey constraints
	high, Single stem	Impact Shatter, 9m, South- East, Limb - Large limb shattered	Moderate	potontial	mourou	No PRF	Negligible		
		Transverse Snap, 17m, North-East, Limb - Just above first prf. Limb has snapped and is hanging vertically down leaving potential cavities behind	Low			No PRF	Negligible		
		Transverse Snap, 18m, South-East, Limb - Limb is pointing south west but PRF facing south east	Low				Low		
		Impact Shatter,11m, South- East, Limb - Limb is above and in between the first 2 PRF	Low			No PRF	Negligible		
		Tear Outs, 10m, West, Stem - Not likely to be a PRF but cannot rule out from the ground	Low			No PRF	Negligible		
G24#	Pine, Semi- Mature, 40cm diameter, 25m high, Single stem	Compression Fork, 10m, West, Stem	Moderate	Moderate	Ground with binoculars	Potential split and cavity	Moderate	Moderate	Unable to survey further
G25	Pine, Semi- Mature, 40cm diameter, 25m high, Single stem	Compression Fork, 12m, South, Stem - Looks like a small hole in split	Moderate	Moderate	Ground with binoculars	Potential very narrow gap between stems; single bat	Low	Low	None
G26	Pine, Semi- Mature, 40cm diameter, 25m high, Single stem	Compression Fork, 12m, North-West, Stem - Looks like a small hole in split	Moderate	Moderate	Ground with binoculars	No crevice or gap between fork	Negligible	Negligible	None
G27	Pine, Semi- Mature, 40cm diameter, 25m high, Single stem	Compression Fork, 16m, South, Stem - Debris within split	Moderate	Moderate	Ground with binoculars	Potential narrow gap between two stems; cavity unlikely, potential to support single bat	Low	Low	None
G28	Pine, Semi- Mature, 40cm diameter, 25m	Compression Fork, 16m, South, Stem - Small hole at bottom of fork	Moderate	Moderate	Ground with binoculars	Dark area visible below fork	Low	Low	None



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Tree no.	Tree species and description high, Single	Feature description	Initial feature potential	Initial tree potential	Further survey method	2021 feature description	2021 feature potential	2021 tree potential	Survey constraints
	stem								
G29	Oak, Semi- Mature, 80cm diameter, 15m	Impact Shatter, 5m, South- East, Limb - On south east facing limb	Moderate	High	Endoscope from ladder	Internal: 1.5cm, 4cm, 5cm. Smooth, Dry, Point.	Moderate	Moderate	None
	high, Single	Impact Shatter, 1.5m, South-West, Limb - On south west facing limb	Moderate	Moderate	Endoscope from ground	External: 4cm, 5cm, Internal: 3cm, 4cm, 7cm. Smooth, Dry, Point - Various fescue splits where a pip could squeeze into, day roost only	Low		
		Subsistence Split, 1m, South-West, Limb, On south west facing limb	Moderate		Endoscope from ground	No PRF	Negligible		
		Subsistence Split, 6m, North-West, Limb - On south west facing limb	Moderate		Climbing	No PRF	Negligible		
		Transverse Snap, 5m, South-West, Limb - On south west facing limb	Moderate		Climbing	External: 1cm, 8cm, Internal: 1cm, 8cm, 4cm. Smooth, Dry, Wedge, Day roost only	Low	-	
		Impact Shatter, 7m, South- East, Limb - On south east facing limb	Moderate		Climbing	No PRF	Negligible		
		Tear Outs, 10m, South, Limb - On south east facing limb	Moderate		Climbing	No clear drop zone, can't access from climbing also hard for a bat to access	Low		
		Tear Outs, 8m, South, Stem	Moderate		Climbing	No PRF	Negligible		
G30	Pine, Semi- Mature, 60cm diameter, 20m high, Single	Welds, 8m, West, Stem	Moderate	Moderate	Ground assessment binoculars	Welds were well sealed, filled with debris - potential for conditions to change if debris moves hence low not neg.	Low	Low	None
G31	Silver birch, Semi-Mature, 50cm diameter, 15m high,	Knot Hole, 2.5m, West, Stem - 2x knot holes next to each other, one facing south one facing south east	Moderate	Moderate	Endoscope from ground	No internal features to both knotholes	Negligible	Negligible	None
	Single stem	Tear Outs, 8m, East, Stem, Long vertical tear out with hole at top	Moderate	-			Negligible	-	
G32	Dead, 10cm diameter, 10m high, Single stem	Impact Shatter, 6m, South, Stem – Long vertical split down dead stem	Moderate	Moderate	Ground assessment binoculars	Stem split considered negligible - feature is hollow cavity behind plate, facing west above last limb	Moderate	Moderate	Unable to climb due to tree health but no limitation considered to overall potential assessment



NOT PROTECTIVELY MARKED

Tree no.	Tree species and description	Feature description	Initial feature potential	Initial tree potential	Further survey method	2021 feature description	2021 feature potential	2021 tree potential	Survey constraints
G33	Dead, 10cm diameter, 10m high, Single stem	Impact Shatter, 4m, South, Stem – Long vertical split down dead stem	Moderate	Moderate	Ground assessment	Split is too narrow to support bats along whole length	Negligible	Negligible	None
G34#	Pine, Semi- Mature, 30cm diameter, 15m high, Single stem	Compression Fork, 10m, North, Stem - Hole at bottom of compression fork	Moderate	Moderate	Unable to fully assess		Moderate	Moderate	Unable to survey further
G35	Pine, Mature, 70cm diameter, 20m high, Single stem	Welds, 7m, South, Stem	Moderate	Moderate	Ground assessment	Welds inspected with binoculars - completely sealed with no sign of decay to create cavities or crevices	Negligible	Negligible	None
G36#	Alder, Mature, 60cm diameter, 8m high, Multi	Lifting Bark, 2m, South- East, Limb - Lifting bark on branch over water	Moderate	Moderate	Unable to climb	Too wet along ditch, unable to access for further survey	Moderate	Moderate	Unable to survey further
G37	Alder, Mature, 60cm diameter, 10m high, Single stem	Impact Shatter, 2m, South- East, Limb - Impact shatter decayed on limb	Moderate	Moderate	Endoscope from ground	Able to visually assess - no PRF, only superficial decay	Negligible	Negligible	None
G38	Alder, Mature, 60cm diameter, 10m high, Multi	Impact Shatter, 2m, North- West, Limb - Impact shatter decayed on limb	Moderate	Moderate	Endoscope from ground	No PRF - looks to have decayed further as there is no entrance or crevice	Negligible	Negligible	None
G39	Mature, 80cm diameter, 20m high, Single stem	Knot Hole, 10m, South-East, Stem	Moderate	Moderate	Binoculars from ground	Feature is superficial - does not lead to a suitable roost feature.	Negligible	Negligible	None
G40	Alder, Semi- Mature, 40cm diameter, 20m	Lifting Bark, 2.5m, North, Limb	Moderate	Moderate	Endoscope from ground	No bark plates with crevices, flaking off	Negligible	Low	None
	high, Multi	Knot Hole, 2.4m, North, Limb - Just below the loose bark around snap	Moderate		Endoscope from ground	External: 4cm, 4cm, Internal: 6cm, 6cm, 1.5m. Bumpy, Damp, Dome, Extends in to hollow stem, very open entrance and water running through	Low		
		Impact Shatter, 2.2m, North, Stem - Gaps within snap	Moderate		Endoscope from ground	No cavities or crevices, all open splits	Negligible		
G41	Alder, Semi- Mature, 40cm diameter, 18m high, Multi	Transverse Snap, 1m, South, Stem, One of the stems has fallen exposing a large cavity running through the centre.	Moderate	Moderate	Endoscope from ground	External: 5cm, 3cm, Internal: 10cm, 10cm, 30cm. Ragged, Dry, Dome, Mouse nest within. Very open entrance, no crevice	Low	Low	None
G42#	Alder, Mature, 50cm diameter, 18Multi	Knot Hole, 10m, North-East, Stem - Rotten branch still remaining in knothole.	Moderate	Moderate	Unable to climb	No suitable access points to climb, too high for ladder - emergence/re-entry	Moderate	Moderate	Unable to survey further



NOT PROTECTIVELY MARKED

Tree no.	Tree species and description	Feature description	Initial feature potential	Initial tree potential	Further survey method	2021 feature description	2021 feature potential	2021 tree potential	Survey constraints
		Potential cavity at the bottom							
G43	Alder, Mature, 50cm diameter, 20m high, Multi	Tear Outs, 6m, North, Stem - Fairly hidden. Located on the stem which overhangs the ditch. Hole at the top of the tear	Moderate	Moderate	Endoscope from ladder	External: 10cm, 5cm. No internal cavity or crevice	Negligible	Negligible	None
G44	Alder, Semi- Mature, 15cm diameter, 20m high, Multi	Knot Hole, 4m, East, Stem - X2 knotholes on thinner stem.	Moderate	Moderate	Endoscope from ground	Both knotholes are superficial	Negligible	Negligible	None
G45	Alder, Semi- Mature, 15cm diameter, 20m	Knot Hole, 6m, South-West, Stem - Knothole on stem leaning away from the ditch	Moderate	Moderate	Endoscope from ladder	Superficial feature, no crevices or cavities - hits internal wood	Negligible	Negligible	None
	high, Multi	Lifting Bark, 5m, South, Stem - Dead branch overhanging ditch with lifting bark and a number of cavities.	Moderate		Unable to climb and access	Unable to access due to being over water - flooded at time of survey	Moderate	Moderate	Unable to survey further
G46	Alder, Semi- Mature, 15cm diameter, 17m high, Multi stem	Transverse Snap, 6m, North-West, Stem - Stem which grows towards the east has snapped halfway up.	Moderate	Moderate	Ground assessment	Snapped limb has broken further - exposed upwards and is negligible	Negligible	Negligible	None
G47	Alder, Semi- Mature, 30cm diameter, 15m high, Multi stem	Impact Shatter, 2m, North, Limb - Dead limb which is hollow. Cannot see all the way into cavity.	Moderate	Moderate	Endoscope from ground	Hollow limb far too open for roosting bats, contains bird nesting material	Negligible	Negligible	None
G48	Pine, Mature, 80cm diameter, 25m high, Single stem	Lighting Strike, 4m, North- East, Stem - Rotting deadwood and lifting bark in centre of stem.	Moderate	Moderate	Endoscope from ladder	External: 15cm, 10cm, Internal: 50cm, 20cm, 15cm. Bumpy, Damp, Point - Highest entrance leads upwards within stem approx. 50cm	High	High	None
G49	Pine, Mature, 1.1m diameter, 23m high, Single stem	Dessication Fissure, 5m, North-East, Limb - Dead broken limb has large lateral fissure.	Moderate	Moderate	Endoscope with ladder	External: 15cm, 5cm. Other features unsuitable - superficial.	Negligible	Negligible	None
		Tear Outs, 5m, North, Stem - Tear out in main stem. Exposed and likely to have no cavity.	Low		Endoscope with ladder	No PRF	Negligible		
G50	Pine, Mature, 1m diameter, 25m high, Single stem	Lifting Bark, 4m, West, Stem, Loose bark inside tear out. Tear out doesn't appear to have cavities.	Moderate	Moderate	Ground assessment	Additional ground assessment re-classified both features as negligible.	Negligible	Negligible	None



NOT PROTECTIVELY MARKED

Tree no.	Tree species and	Feature description	Initial feature	Initial tree	Further survey	2021 feature description	2021 feature	2021 tree potential	Survey constraints
110.	description		potential	potential	method		potential	potential	Constraints
		Hazard Beam, 19m, North, Limb - Snapped limb	Moderate	P		Additional ground assessment re-classified both features as negligible.	Negligible		
G89	Pine, Semi- Mature, 60cm diameter, 25m high, Single stem	Impact Shatter, 12m, North- West, Limb	Moderate	Moderate	Ground assessment	Further ground assessment reclassified impact shatter as negligible	Negligible	Negligible	None
G92	Pine, Dead, 60cm diameter, 5m high, Single stem	Woodpecker hole, 4m - 5m, West, Stem	Moderate	Moderate	Endoscope from ladder	Woodpecker hole is negligible, lifting bark at 4m west is low.	Low	Low	None
G102	Semi mature, 0.4m diameter, 14m high, Multi stem	Tear Outs, 4m, South-West, Stem - Inspected on a back tracking survey, cavity does extend upwards however cannot see to end. Cavity between dead and living tissue	Moderate	Moderate	Endoscope from ladder	No PRF	Negligible	Negligible	None
G103	Semi-mature, 0.2m diameter, 10m high, Multi stem	Hazard Beam, 2m, South- West, Stem - Cavity extends upwards although can't see to end. Need endoscope with small head.	Moderate	Moderate	Ground assessment	No PRF	Negligible	Negligible	None
G104	Semi-mature, 0.4m diameter, 4m high, Single stem	Wounds, 1.5m, North-East, Stem - Cavity in dead stem from 1.5-3m high, fully enclosed at top and complex as dead heart wood still present. Cannot see all aspects of cavity. Endoscope from ground with small head endoscope	Moderate	Moderate	Endoscope from ground	No PRFs	Negligible	Negligible	None
G105	Pine, Mature, 0.6m diameter, 20m high, Single stem	Wound, 6m, South, Limb - Cavity in limb which looks like it extends in. Limb extends to southwest	Moderate	Moderate	Climbing	No cavities or crevices within deadwood, woodlice	Negligible	Negligible	None
G106	Dying, 0.2m diameter, 3.5m high, Single	Lifting Bark, 0.5-3.5m, Stem - On all aspects of tree	Low	Moderate	Endoscope from ground	Peeling bark offers few crevices or bark plates but may change over time	Low	Low	None
	stem	Wound, 1-3.5m, Stem - Hollow main stem which extends up and down, exposed but areas with potential	Moderate		Endoscope from ground	Completely hollow stem, open at top to elements - overly spacious inside	Negligible		



NOT PROTECTIVELY MARKED

Tree no.	Tree species and description	Feature description	Initial feature potential	Initial tree potential	Further survey method	2021 feature description	2021 feature potential	2021 tree potential	Survey constraints
G107	Holm oak, Semi mature, 0.25m diameter, 10m high, Single stem	Wound, 2m, Stem, Cavity extends 15cm where dead limb meets main stem	Moderate	Moderate	Endoscope from ground	No PRF - cavity is open at each end and too exposed for bats, very loose bark has probably degraded over time	Negligible	Negligible	None
G108	Pine, Dead	Hollowed out with potential cavity leading up. Starts at base on N side.	Moderate	Moderate	Ground with binoculars	No PRFs	Negligible	Negligible	None
G111	Pine		Moderate	Moderate	Ground with binoculars	No PRFs	Negligible	Negligible	None
G112	Pine		Moderate	Moderate	Ground with binoculars	No PRFs	Negligible	Negligible	None
G114	Pine		Moderate	Moderate	Ground with binoculars	No PRFs	Negligible	Negligible	None
G117	Pine, Semi mature, 0.3m diameter, 15m high, Single stem	Compression Fork, 7m, north-West, Stem - Compression fork with potential cavity	Moderate	Moderate	Ground assessment	Potential for cavity	Low	Low	None
G119	Pine, Semi mature, 0.4m diameter, 15m high, Single stem	Compression Fork, 7m, East, Stem - Compression fork with potential cavity	Moderate	Moderate	Climbing	No cavities	Negligible	Negligible	None
G120	Pine, Semi mature, 0.4m diameter, 15m high, Single stem	Compression Fork, 7m, North-East, Stem, Compression fork with potential cavity	Moderate	Moderate	Ground with binoculars	Negligible from ground - no crevices or cavities	Negligible	Negligible	None
G121	Pine, Semi mature, 0.25m diameter, 18m high, Single stem	Compression Fork, 8m, East, Stem - Compression fork with potential cavity	Moderate	Moderate	Ground with binoculars	Potential crevice visible from ground	Low	Low	None
G122	Pine, Semi mature, 0.25m diameter, 18m high, Single stem	Compression Fork, 6m, East, Stem - Compression fork with potential cavity	Moderate	Moderate	Ground with binoculars	No cavity or crevice at base	Negligible	Negligible	None
G123	Pine, Semi mature, 0.4m diameter, 18m	Compression Fork, 3m, North east, Stem -	Moderate	Moderate	Endoscope from ladder	Depression at base of compression fork, no crevice or cavity for a bat - too open	Negligible	Negligible	None



NOT PROTECTIVELY MARKED

Tree no.	Tree species and description	Feature description	Initial feature potential	Initial tree potential	Further survey method	2021 feature description	2021 feature potential	2021 tree potential	Survey constraints
	high, Single stem	Compression fork with potential cavity					Potomu		
G124	Pine, Semi mature, 0.75m diameter, 20m	Compression Fork, 2m, North, Stem - Compression fork with potential cavity	Moderate	Moderate	Endoscope from ground	External: 4cm, 2cm, Internal: 4cm depth. Wedge - Low potential for pipistrelle summer day roost	Low	Low	None
	high, Single stem	Compression Fork, 4m, North east, Stem - Compression fork with potential cavity	Moderate	Moderate	Endoscope from ladder	No crevices	Negligible		
G125	Pine, Semi mature, 0.5m diameter, 20m high, Single stem	Compression Fork, 5m, North-west, Stem - Compression fork with potential cavity	Moderate	Moderate	Endoscope from ladder	No crevices	Negligible	Negligible	None
G126	Pine, Semi mature, 0.5m diameter, 24m high, Single stem	Compression Fork, 10m, North-west, Stem - Compression fork with potential cavity	Moderate	Moderate	Ground assessment with binoculars	Potential cavity at base facing north east	Low	Low	None
G127	Pine, Semi mature, 0.4m diameter, 22m high, Single stem	Compression Fork, 9m, South, Stem - Compression fork with potential cavity	Moderate	Moderate	Ground with binoculars	No PRFs	Negligible	Negligible	None
G128	Pine, Semi mature, 0.4m diameter, 22m high, Single stem	Compression Fork, 12m, East, Stem - Compression fork with potential cavity	Moderate	Moderate	Negligible	Negligible	Negligible	Negligible	None
G129	Pine, Semi mature, 0.3m diameter, 22m high, Single stem	Compression Fork, 12m, East, Stem - Compression fork with potential cavity	Moderate	Moderate	Ground with binoculars	Potential cavity	Low	Low	None
G130	Pine, Semi mature, 0.3m diameter, 20m high, Single stem	Compression Fork, 10m, South east, Stem - Compression fork with potential cavity	Moderate	Moderate	Ground with binoculars	No openings or crevices	Negligible	Negligible	None
G131	Pine, Semi mature, 0.5m diameter, 24m high, Single stem	Compression Fork, 7m, South, Stem - Compression fork with potential cavity	Moderate	Moderate	Ground with binoculars	No openings or crevices	Negligible	Negligible	None



NOT PROTECTIVELY MARKED

Tree no.	Tree species and description	Feature description	Initial feature potential	Initial tree potential	Further survey method	2021 feature description	2021 feature potential	2021 tree potential	Survey constraints
G132	Pine, mature, 0.5m diameter, 24m high, single stem	compression fork, 13m, south east, stem - Compression fork with potential cavity	Moderate	Moderate	Ground with binoculars	Very open wedge visible, unsuitable conditions for even a single bat	Negligible	Negligible	None
G133	Pine, Mature, 0.5m diameter, 24m high, Single stem	Compression fork, 10m, South, Stem - Compression fork with potential cavity	Moderate	Moderate	Negligible	Negligible	Negligible	Negligible	None
G134	Silver birch, Semi mature 0.4m diameter,15m high, Single stem	Split stem, East, Stem - Stem split at base - cavity inside	Moderate	Moderate	Endoscope from ground	External: 30cm, 4cm, Internal: 30cm, 4cm, 20cm. Jagged, Dry, Wedge, Suitable hibernation roost	Moderate	Moderate	None
G135#	Silver birch, Semi mature, 0.3m diameter, 15m high, Single stem	Transverse snap, 5m, West, Stem, Cavity runs up east facing limb	Moderate	Moderate	Unable to climb due to tree health.		Moderate	Moderate	Unable to survey further.
G136	Elm, Semi mature, 0.2m diameter, 5m high, Single stem,	Flute, 1m, North, Stem - Cavity runs upwards in stem	Confirmed roost	Confirmed roost	Endoscope from ground	External: 12cm, 4cm, Internal: 15cm, 3cm, 3cm. Rough, Dry, Point - Myotis – Natterer's.	Confirmed roost	Confirmed roost	None
G137#	Pine, Dead, 0.35m diameter, 9m high, Single stem	Woodpecker hole, 8m, North west, Stem, Multiple woodpecker holes on stem, one larger hole high on stem	Moderate	Moderate	Unable to climb due to tree health.		Moderate	Moderate	Unable to survey further
G138#	Pine, Dead, 0.4m diameter, 3m high, Single stem	Tear out, 2.5m, South, Stem - Top of stem is torn off, crevice running down on south - suitable summer roost for 2/3 pips.	Moderate	Moderate	Unable to climb due to tree health.		Moderate	Moderate	Unable to survey further
G139#	Pine, Dead, 0.6m diameter, 6m high, Single stem	Plate, 4.5m, West, Stem - All features located on standing dead pine - on edge of track, lightning strike	Moderate	Moderate	Unable to climb due to tree health.		Moderate	Moderate	Unable to survey further
		Linear crack, 1-5m, West, Stem - All features located on standing dead pine - on edge of track, lightning strike	Moderate				Moderate		



NOT PROTECTIVELY MARKED

Tree no.	Tree species and description	Feature description	Initial feature potential	Initial tree potential	Further survey method	2021 feature description	2021 feature potential	2021 tree potential	Survey constraints
		Lifting bark, 0-5m, North, Stem - All features located on standing dead pine - on edge of track, lightning strike	Moderate				Moderate		
F25	Black pine	Lifting Bark, 1-6m, South- East, Stem - At least 6 small cavities beneath bark, between 1-6m high all around lower stem. One very nice cavity on SE of stem	Moderate	Moderate	Endoscope from ladder	No crevices behind bark with potential - all superficial	Negligible	Negligible	None
F42	Sycamore	Woodpecker hole, 7m, South-East, Stem - Cavity looks extensive cannot see from ground.	High	High	Climbing	External: 30cm, 5cm, Internal: 40cm, 10cm, 12cm. Smooth, Damp, Dome, Squirrel nest. Two features join - woodpecker hole is base of cylindrical chamber	Low	Low	None
		Wounds, 8m, East, Stem, Cavity looks extensive cannot see from ground.	High		Climbing				
F50	Pedunculate Oak	Pruning Cut, 3m, North, Stem - 2x pruning cuts with 0.5m of each other. Cavity between living and dead tissue, could be extensive on the pruning cut lower down. Hard to see on pruning cut which is located higher.	Moderate	High	Climbing	All features negligible with no cavities, only superficial entrances. Peeling bark considered low due to potential to change over time	Low	Low	None
		Lifting Bark, 7m, North, Limb - On west facing limb. Lifting bark all around dead stem. 5m from main stem on limb.	High		Climbing	All features negligible with no cavities, only superficial entrances. Peeling bark considered low due to potential to change over time			
		Wounds, 15m, North, Limb - Dead limb with tear out and north facing cavities leading to gap behind lifting bark.	Moderate		Climbing	All features negligible with no cavities, only superficial entrances. Peeling bark considered low due to potential to change over time			
		Dessication Fissure, 8m, South, Limb - North west facing dead limb, most of which are facing upwards and greater than 1cm wide	Moderate		Climbing	All features negligible with no cavities, only superficial entrances. Peeling bark considered low due to potential to change over time			
		Lifting Bark, 11-15m, North, Limb - Flaking bark all around dead limb.	Moderate		Climbing	All features negligible with no cavities, only superficial entrances. Peeling bark considered low due to potential to change over time			



NOT PROTECTIVELY MARKED

Tree no.	Tree species and description	Feature description	Initial feature potential	Initial tree potential	Further survey method	2021 feature description	2021 feature potential	2021 tree potential	Survey constraints
		Wounds, 13m, South-East, Limb - Upwards facing cavity into limb.	Moderate		Climbing	All features negligible with no cavities, only superficial entrances. Peeling bark considered low due to potential to change over time			
F52	Pedunculate Oak	Impact Shatter, 16m, North- East, Stem	Moderate	Moderate	Ground level assessment	Inspected with binoculars from ground - feature does not extend to cavity, split in wood only	Negligible	Negligible	None
F53#	Lime	Transverse Snap, 5m, North-East, Limb - Limb and hole facing north east.	Moderate	Moderate	Unable to climb – no suitable		Moderate	Moderate	Unable to survey further
		Transverse Snap, 7-8m, North, Limb - On north facing limb,2x transverse snap on same limb, both have cavities	Moderate		access points.		Moderate		
F55	Pedunculate Oak	Pruning Cut, 2m, North- West, Stem - Possible cavity between living and dead tissue. May extend in.	Low	Moderate	Climbing	All features have negligible potential, however the tree has changeable features - peeling bark may change in near future hence low potential.	Low	Low	None
		Tear Outs, 11m, North-East, Limb - Cavity extends into limb.	Moderate		Climbing				
		Knot Hole, 15m, North, Limb - On south east facing limb	Moderate		Climbing				
F57	Horse Chestnut	Tear Outs, 3.5m, North- West, Stem, Large tear. Doesn't appear to lead into a cavity looking from ground.	Low	Moderate	From ground	No PRF - opening does not lead anywhere. Oval knot hole on small limb north facing at 1m - low potential.	Low	Low	None
F58	Pedunculate Oak	Flute, 1.5m, South, Stem, Flute/tear out with cavity leading up stem.	Moderate	Moderate	Endoscope from ground	External: 20cm, 4cm, Internal: 20cm, 3cm, 15cm. Smooth, Dry, Point, New feature identified	Moderate	Moderate	None
F59	Sycamore	Wound, 6m, East, Stem, Open wound with bark occluding round edges	Moderate	Moderate	Climbed inspection	External: 10cm, 10cm, Internal: 4cm, 2cm. Smooth, Dry, Point, New feature identified - plate within wound goes upwards	Moderate	Moderate	None
F60	Alder	Flute with rams horns, 0-2m, South, Stem, Open hollow stem leading to cavity	Moderate	Moderate	Endoscope from ground	External: 4cm, 4cm, Internal: 1m, 4cm, 4cm. Smooth, Damp, Point, Snails present. New feature identified	Moderate	Moderate	None
AF1	Pine, Mature, 75cm diameter, 14m high,	Woodpecker hole, 6m- 7m, East, Stem - X3 woodpecker holes.	Moderate	High	Climbed inspection	External: 3cm, 2cm, Internal: 15cm, 1.5cm, 1.5cm. Jagged, Damp, Wedge. Only lowest woodpecker hole had potential. Top one could be little owl nest.	Low	Low	None
	Single stem	Impact Shatter, 3m - 10m, South, Limb - X 5 impact shatters all up and around stem.	High			All negligible - no cavities.	Negligible		



NOT PROTECTIVELY MARKED

Tree no.	Tree species and description	Feature description	Initial feature potential	Initial tree potential	Further survey method	2021 feature description	2021 feature potential	2021 tree potential	Survey constraints
		Tear Outs, 13m, South- West, Stem - Large tear out. Possibly hazard beam but unable to see from ground.	High			All negligible - no cavities.	Negligible		
		Tear Outs, 13m, South- East, Stem - Another large tear out	High			All negligible - no cavities.	Negligible		
AF2	Sweet Chestnut, Over- Mature, 1.2m diameter, 18m high, Single stem	Woodpecker hole, 10m, South-West, Limb - X3 woodpecker holes. X2 on dead limb. The third is on the 'living' stem pointing north east.	High	High	Climbing	External: 5cm, 4cm, Internal: 4cm, 4cm, 10cm. Smooth, Dry, Dome - No crevice or cavity within hole, wood within could deteriorate	Low	Low	None
		Impact Shatter, 4m - 16m, North-East, Limb - ~ 7 impact shatters on decaying branches. Most are on the north east side of tree.	Moderate		Climbing	No cavities to measure as PRFs	Negligible		
		Lifting Bark, 9m, North-East, Stem, Large plate of lifting bark on decaying stem	Moderate		Climbing	No cavities to measure as PRFs, however peeling bark has potential to change over time	Low		
AF4	Pedunculate Oak, Mature, 85cm diameter,	Tear Outs, 2m, West, Stem, Large tear out. Possible subsistence split.	Moderate	Moderate	Endoscope	External: 4cm, 2cm, Internal: 4cm, 2cm, 3cm. Bumpy, Damp, Dome, Inverts present - One small cavity - no potential	Negligible	Moderate	None
	10m high, Single stem	Tear Outs, 2m, South, Stem - X2 knot holes on same stem	Moderate		Endoscope	External: 5cm, 50cm, Internal: 4cm, 5cm, 40cm. Smooth, Dry, Point - Crevice continues along limb to east - eventually some daylight is visible.	Moderate		
		Impact Shatter, 2m, North, Limb - Impact shatter on north side of tree. Gap at bottom.	Moderate		Endoscope	External: 1cm, 30cm, Internal: 0.5-1cm, 15-25cm, 4cm. Soily, Damp, Wedge, Entrance is v narrow - too narrow even for smallest endoscope camera	Low		
AF17	Pedunculate Oak, Over- Mature, 1.8m	Tear Outs, 2.5m, North- East, Limb - Large tear out on limb pointing north east.	Moderate	High	Climbed inspection	External: 12cm, 20mm, Internal: 20mm, 12cm, 10cm. Dusty, Dry, Wedge	Moderate	High	None
	diameter, 20m high, Single stem	Hazard Beam, 2m, North, Limb - Limb has split on top due to weight / tension	Moderate		Endoscope from ladder	No cavities to measure as PRFs	Negligible	_	
		Tear Outs, 11m, North-East, Stem - Tear out in between a fork.	Moderate		Climbed inspection	15cm7cm30cm25cm3cmSmoothDryWedgeNoneSuitable maternity roost	High		
		Hazard Beam, 2m, East, Limb - Limb on south side of tree (also pointing south).	Moderate		Endoscope from ladder	No cavities to measure as PRFs	Negligible		
		Transverse Snap, 5m, South, Limb - Very large	High		Climbed inspection	No cavities to measure as PRFs	Negligible		



NOT PROTECTIVELY MARKED

Tree no.	Tree species and description	Feature description	Initial feature potential	Initial tree potential	Further survey method	2021 feature description	2021 feature potential	2021 tree potential	Survey constraints
		transverse snap. An additional dead branch is hanging over the break.							
		Impact Shatter, 8m - 10.5m, South, Limb - X2 south facing impact shatters	High		Climbed inspection	No cavities to measure as PRFs	Negligible		
		Tear Outs, 8m, South-East, Stem - Tear may not have cavities but cannot tell from ground	Moderate		Climbed inspection	No cavities to measure as PRFs	Negligible		
		Tear Outs, 3.5m, East, Stem - Tear out on eastern side of tree. May not have cavities but will need a ladder and endoscope to check	Low		Climbed inspection	No cavities to measure as PRFs	Negligible		
AF18	Pedunculate Oak, Semi- Mature, 65cm	Tear Outs, 8m, North-East, Stem - Large tear out on stem facing north east.	Moderate	Moderate	Climbed inspection	No cavities to measure as PRFs	Negligible	Low	None
	diameter, 17m high, Single	Impact Shatter, 10m, South- East, Stem	Moderate		Climbed inspection	External: 30cm, 1cm, Internal: 30cm, 1.8cm, 2.5cm. Smooth, Damp, Wedge, Inverts present	Low		
	stem	Wounds, 4m, South-East, Limb - X2 wounds with decaying barking and cracks in wood	Moderate		Climbed inspection	No cavities to measure as PRFs - peeling bark had fallen off	Negligible		
AF19	Pedunculate Oak, Semi- Mature, 75cm	Impact Shatter, 12m, South, Limb	Moderate	Moderate	Climbed inspection	External: 10cm, 5cm, Internal: 5cm, 4cm, 5cm. Jagged, Damp, Dome, Inverts present. No real crevice, faces upwards	Low	Low	None
	diameter, 17m high, Single stemmed	Impact Shatter, 4m, North, Limb, Smaller rotting limb. Cavities present	Low		Climbed inspection	External: 4cm, 3cm, Internal: 3cm, 2cm, 3cm. Bumpy, Damp, Dome, Inverts present, potential birds nest	Negligible		
		Tear Outs, 4.5m, East, Limb, Twisted limb with tear out/wound present	Moderate		Climbed inspection	External: 3cm, 7cm, Internal: 3cm, 3cm, 5cm. Jagged, Damp, Dome, Inverts present.	Negligible		
AF20	Pedunculate Oak, Mature, 90cm diameter, 17m high,	Hazard Beam, 8m, South, Limb – Hazard beam on dead decaying branch hanging down	Moderate	Moderate	Climbed inspection	External: 13, 80, Internal: 13, 80, 10. Smooth, Dry, Point, Inverts present - Tapers towards stem and limb	Moderate	Low	None
	Single stemmed	Tear Outs, 8.5m, South- East, Stem - Two tear outs adjacent to each other	Moderate		Climbed inspection	External: 3cm, 2cm, Internal: 3cm, 2cm, 7cm. Jagged, Dry, Point, Highest tear out is negligible-no need to resurvey	Low		
		Impact Shatter, 4m, South, Limb - Large crack going up a decaying branch	Low		Climbed inspection	External: 5cm, 3cm, Internal: 3cm, 2cm, 1-2cm. Jagged, Dry, Dome, Inverts present. Superficial, no crevice	Negligible		



NOT PROTECTIVELY MARKED

Tree no.	Tree species and description	Feature description	Initial feature potential	Initial tree potential	Further survey method	2021 feature description	2021 feature potential	2021 tree potential	Survey constraints
AF21	Pedunculate Oak, Mature, 1m diameter,	Tear Outs, 8.5m, North- East, Stem - Suitable as a day roost for a single bat	Moderate	Moderate	Climbed inspection	External: 4cm, 2cm, Internal: 3cm, 3cm, 10cm, Jagged entrance, Dry, Wedge, Woodlice present	Moderate	Moderate	None
	17m high, Single stemmed	Impact Shatter, 12m, South- West, Limb	Moderate		Climbed inspection	No crevices/entrances within feature	Negligible		
		Hazard Beam, 5m, South- East, Limb - Hazard beam on west side of tree - can't find on climbing survey	Moderate		Climbed inspection	No PRF	Negligible	Low	
AF22	Pedunculate Oak, Mature, 1m diameter, 17m high, Single stemmed.	Lifting Bark, 3m, West, Stem - Horizontal stem has lifting bark around dead branch	Moderate	Moderate	Endoscope from ladder	Lifting bark can change over time but would have day roost potential only, should be checked again	Low	Low	None
AF23#	Pine. Dead, 55cm diameter,	Woodpecker hole, 6m, West, Stem	Moderate	Moderate	Unable to climb -		Moderate	Moderate	Unable to survey
	15m high, Single stemmed.	Impact Shatter, 5m - 13m, South-West, Limb - X3 impact shatters up the stem. Mostly pointing south west	Moderate		dead		Moderate		further
		Transverse Snap, 6.5m, North-East, Limb, Dead branch resting on lower branches.	Moderate				Moderate		
AF24	Other, Sweet chestnut, Over- Mature, 1.5m diameter, 13m	Dessication Fissure, 1m, South, Limb - Dead limb to south of stem. Completely hollow	Confirmed Roost	Confirmed Roost	Climbed inspection	External: 3cm, 20cm, Internal: 3-4cm, 15-20cm, 5cm. Dry, Wedge. No evidence of bats, however has previously been used as a roost.	Confirmed roost	Confirmed Roost	None
	high, Single stemmed.	Butt Rot, 1m, East, Stem, Middle of stem is rotting and hollow	Moderate			External: Up to 50cm, 1-2cm, Internal: Up to 50cm, 2cm, 2cm, Smooth, Damp, Wedge, Inverts present	Low		
		Lifting Bark, 2m, South, Limb, Large plate sized loose bark on impact shatter point south west.	High			Multiple cracks approx 2cm max. External: 2-3cm, 2cm, Internal: 2-3cm, 7cm, Jagged, Dry, Point, Woodlice present	Moderate		
		Hazard Beam, 3.5m, West, Limb - Hazard beam on dead limb on west side pf tree	Moderate			External: 1cm, 15cm, Internal: 1.5cm, 30cm, 4cm, Smooth, Dry, Point, Probable soprano pip. x1	Confirmed roost		
		Knot Hole, 3.5m, West, Stem - Knot hole on same limb as hazard beam. Not fully exposed but gaps in the remaining limb coming out.	Moderate			External: 3cm, 2cm, Internal: 3cm, 2cm, 2cm, Bumpy, Wet, Dome, Inverts present	Negligible	le	



NOT PROTECTIVELY MARKED

Tree no.	Tree species and description	Feature description	Initial feature potential	Initial tree potential	Further survey method	2021 feature description	2021 feature potential	2021 tree potential	Survey constraints
AF25#	Pine, Dead, 45cm diameter, 7m high, Single stemmed.	Woodpecker hole, 1m - 7m, North-East, Stem - X9 significant woodpecker holes all around stem. Best on facing NE	High	High	Dead - unable to climb		High	High	Unable to survey further
AF30	Pedunculate Oak, Mature,	Knot Hole, 9m, South-West, Stem, Evidence of bird use	Moderate	Moderate	Climbed inspection	External: 6cm, 7cm, Internal: 7cm, 7cm, 10cm, Dry, Domed at rear, evidence of use by birds	Negligible	Low	None
	1.75m diameter, 17m high, Single stemmed.	Lifting Bark, 19m, West, Limb - Lifting at edge of limb where has been pruned	Low		Ground with binoculars	No access point to check peeling bark on any pruning cuts, although from ground look to have no PRF present	Low		
AF32	Pedunculate Oak, Mature, 1m diameter, 18m high, Single stemmed.	Lifting Bark, 5.5m, South, Limb - Lifting bark on limb point west.	Moderate	Moderate	Torch from ground	Assessed as low from ground, conditions with the bark will change rapidly. Should be ground assessed again if requiring felling.	Low	Low	None
AF33	Ash, Mature, 1.2m diameter, 16m high,	Knot Hole, 1m, West, Stem - Smaller knot hole potentially has further cavities	Low	Moderate	Endoscope	External: 5cm, 5cm, Internal: 5cm, 5cm, 7cm. Dry, Domed, two knot holes unsuitable	Negligible	High	None
	Single stemmed.	Tear Outs, 2.5m, West, Stem	Moderate		Endoscope	External: 2cm, 5cm, Internal: 15cm, 20cm, 30cm. Ragged, Dry, Hollow limb - Small opening at base of tear out - limb is hollow	High		
		Ivy, Stem - Ivy up whole tree	Low		Climbed inspection	Not possible to check entire tree for ivy, remains low due to potential for change over time	Low		
AF34	Elm, Semi- Mature, 45cm diameter, 10m	Ivy, Stem - Ivy up whole tree	Low	Moderate	Endoscope	Some small gaps approx. 3 in total between ivy and stem - provide limited shelter for single bats as day roost only	Moderate	Moderate	None
	high, Single stemmed.	Welds, 2m, West, Stem - Welding between ivy and stems has formed fairly good gaps.	Moderate			See above	Low		
AF35#	Pedunculate	Ivy, Stem - Ivy up whole tree	Moderate	Moderate	Extensive		Moderate	Moderate	Unable to
	Oak, Mature, 1.2m diameter, 20m high, Single stemmed.	Impact Shatter, 7m, North-West, Limb - X2 impact shatters on west side of tree. One is on the south side.	Moderate		epicormic growth - could not get suitable lines in for		Moderate		survey further
		Knot Hole, 10m, West, Limb	Moderate		climbing		Moderate		
AF41#	Pine, Over- Mature, 90cm	Hazard Beam, 5m, East, Stem	High	High	Dead - unable to		High	High	Unable to survey
	diameter, 13m high, Single stemmed.	Woodpecker hole, 5m, East, Stem - Same stem as hazard beam	Moderate		climb		Moderate		further



NOT PROTECTIVELY MARKED

Tree no.	Tree species and description	Feature description	Initial feature potential	Initial tree potential	Further survey method	2021 feature description	2021 feature potential	2021 tree potential	Survey constraints
		Subsistence Split, 8m, South-West, Limb - Large imploding split on limb	High				High		
		Transverse Snap, 6.5m, South-West, Stem - Large snap pointing south west	High				High		
AF42	Beech, Mature, 50cm diameter, 18m high, Single stemmed.	Tear Outs, 5m, South, Limb	Moderate	Moderate	Torch from ground	Tear out wound does not lead to a crevice or cavity - open wound. Additional knot holes facing west on main stem also checked; superficial	Negligible	Negligible	None
F27	Pedunculate Oak, Semi- Mature, 20m high, Single stemmed.	Knot Hole, 14-15m, South- East, Stem - 2x knotholes on main stem, can't see from ground if they extend in.	Low	Low	Ground level assessment	No suitable access points for climbing.	Moderate	Moderate	None
F51	Sycamore, Semi-Mature, 0.3m diameter, 15m high, Single stemmed.	Wounds, 9m, South-East, Stem - Wound likely caused by former weld, appears from ground to be shallow but difficult to determine if cavity between living and dead tissue.	Low	Low	Endoscope from ground	No suitable access points for climbing.	Moderate	Moderate	None
AF26	Sweet Chestnut, Over- Mature, 1.75m diameter, 13m high, Single stemmed.	Lifting Bark, 7m, North, Stem - Lifting bark on north facing stem as it forks.	Low	Low	Endoscope from ground		Moderate	Moderate	None
AF39#	Pedunculate Oak, Mature, 1.2m diameter, 20m high, Single stemmed.	Knot Hole, 6m, North, Limb	Low	Low	Ground with binoculars	Unable to climb due to presence of nesting barn owl (Schedule 1 licence required).	High	High	Unable to survey further
x01	pedunculate oak, mature, 1.5m diameter, 15m high, single stemmed.	Ivy all around till top, Stem	low	low	N/A	Newly identified low potential tree	Low	Low	None
x02#	pedunculate oak, mature, 1.5m diameter, 10m high,	Knot Hole, 2.5m, north-east, Stem – rams horns	Moderate	Moderate	Unable to climb due to lack of		Moderate	Moderate	Unable to survey further



NOT PROTECTIVELY MARKED

Tree no.	Tree species and	Feature description	Initial feature	Initial tree	Further survey	2021 feature description	2021 feature	2021 tree potential	Survey constraints
	description single stemmed.		potential	potential	method access points		potential		
x03#	Ash, Mature, 1.5m diameter, 14m high, single stemmed.	Tear Outs, 2m, North, Stem	High	High	Unable to climb due to tree health		High	High	Unable to survey further
x04#	Pedunculate Oak, Mature, 1.6m diameter, 16m high, single stemmed.		Moderate	Moderate	Unable to climb due to lack of access points		Moderate	Moderate	Unable to survey further
x06	Pedunculate Oak, Mature, 1.2m diameter, 12m high, Single stemmed.	Tear Outs, 2m, West, Limb, 6m north, stem	Low	Moderate	Climbing	External: 5cm, 10cm, Internal: 5cm, 10cm, 4cm, Bobbly, Dry, Dome. Also checked woodpecker hole 6m north on stem - evidence of bird use, very large open cavity but narrows to 3 points approx. 20cm upwards. No evidence of use.	Moderate	Moderate	None
x07#	Dead, 1.2m diameter, 12m high, single stemmed.	fissure cracks, multiple	Moderate	Moderate	Unable to climb due to tree health		Moderate	Moderate	Unable to survey further
x09	Horse Chestnut, Mature, 1m diameter, 20m high, Single stemmed.	Hazard Beam, 6m, North- West, Stem	Moderate	Moderate	Climbing	No feature - flat internal wood, no entrance.	Negligible	Negligible	None
x10#	Pedunculate Oak, Mature, 1m diameter, 20m high, Single stemmed.	Hazard Beam, 12m, South- West, Limb	Moderate	Moderate	Unable to climb due to lack of access points		Moderate	Moderate	Unable to survey further
x13#	Pedunculate Oak, Mature, 1.1m diameter, 9m high, Single stemmed.	Hazard Beam, 2.5m, East, Limb - hazard beam. partly closed again, another one same aspect.	Moderate	Moderate	Unable to climb due to lack of access points		Moderate	Moderate	Unable to survey further
x14	Pedunculate Oak, Mature, 1.4m diameter, 10m high,	Hazard Beam, 3m & 5m, South-West, Limb	Moderate	High	Climbing	All features on tree checked - no PRFs	Negligible	Negligible	None



NOT PROTECTIVELY MARKED

Tree no.	Tree species and description	Feature description	Initial feature potential	Initial tree potential	Further survey method	2021 feature description	2021 feature potential	2021 tree potential	Survey constraints
	Single stemmed.								
x17#	Corsican pine, Semi-Mature, 0.4m diameter, 16m high, Single stemmed.	Tear Outs, 6m, South, Stem - smoothed out	High	High	Unable to climb due to lack of access points		High	High	Unable to survey further
x19	Sycamore, Semi-Mature, 0.2m diameter, 10m high, Multi stemmed.	Flute, 3m, South, Stem	Moderate	Moderate	Climbing	External: 15cm, 10cm. Internal: 20cm, 10cm, 5cm. Blackened, Dry, Wedge – Woodlice No potential as maternity roost, moderate potential as transitional or summer day roost	Moderate	Moderate	None
x20#	Sycamore, Semi-Mature, 0.3m diameter, 10m high, Multi stemmed	Flute, 6.5m, East, Stem	Moderate	Moderate	Climbing	External: 7cm, 5cm. Internal: 3cm, 2cm, 2cm. Bumpy, Dry, Point.	Negligible	Negligible	Unable to survey further
x22#	Beech, Semi- Mature, 0.5m diameter, 18m high, single stemmed.	Tear Outs, 8m, South, Stem	Moderate	Moderate	Unable to climb due to ground conditions		Moderate	Moderate	Unable to survey further
x23#	Beech, mature, 0.6m diameter, 16m high, Multi stemmed.	Flute, 2m, South, Stem - May just be outside the felling area	High	High	Unable to climb due to ground conditions		High	High	Unable to survey further
x24#	Willow, young, 0.3m diameter, 10m high, single stemmed.	Flute, 3.5m, South-east, Stem - single stem becomes two at 0.5m	Moderate	Moderate	Unable to access due to ground conditions		Moderate	Moderate	Unable to survey further
x25#	Alder, Semi- Mature, 0.5m diameter, 10m high, single stemmed.	knot hole, 5-6m, North-East, Stem, Forked at approximately 1.5m	Moderate	Moderate	Unable to access due to ground conditions		Moderate	Moderate	Unable to survey further
x27#	Willow, mature, 0.5m diameter, 14m high, Multi stemmed.	Tear Outs, 7m, North-East, Stem	Moderate	Moderate	Unable to access due to ground conditions		Moderate	Moderate	Unable to survey further
x28#	Alder, Semi- Mature, 0.5m diameter, 9m	Subsistence Split, 3m, North-East, Stem	Moderate	Moderate	Unable to access due to ground conditions		Moderate	Moderate	Unable to survey further



NOT PROTECTIVELY MARKED

Tree no.	Tree species and description	Feature description	Initial feature potential	Initial tree potential	Further survey method	2021 feature description	2021 feature potential	2021 tree potential	Survey constraints
	high, single stemmed.								
x29#	Willow, Semi- Mature 0.3m diameter, 12m high, Multi stemmed.	Hazard Beam, 4m, East, Stem	Moderate	Moderate	Unable to access due to ground conditions		Moderate	Moderate	Unable to survey further
x32#	Willow, Semi- Mature, 0.25m diameter, 12m high, single stemmed.	split stem, 0.5m, south, Stem, Snapped near base	Moderate	Moderate	Unable to access due to ground conditions		Moderate	Moderate	Unable to survey further
x35#	Pedunculate oak, Mature, 1m diameter, 15m high, single stemmed.	Ivy, Stem, Ivy all over which may obstruct features that are likely to be present on a tree of this age class. Emergence survey with surveyors in the north and south field preferred.	Moderate	Moderate	Unable to climb due to surveyor safety on road.		Moderate	Moderate	Unable to survey further
x36#	Sycamore, Semi-mature, three stems	Ivy covered stem	Moderate	Moderate	Unable to climb due to surveyor safety.		Moderate	Moderate	Unable to survey further
x37	Ash, semi- mature, 15m high, 80cm diameter.	Densely clad stem with ivy.	Low	Low	N/A	Newly identified low potential tree	Low	Low	None
x38	Ash, single stem, diameter 20cm, 6m high.	Tear out wound on top of limb, 2m high, south facing. Extends 20cm towards main stem.	Moderate	Moderate	Endoscope from ground.	No evidence, feature has moderate potential.	Moderate	Moderate	None
x39	Mature oak, 15m high, 1.2m diameter, single stem.	Low potential due to size and age.	Low	Low	N/A	Newly identified low potential tree	Low	Low	None

Trees marked with a # are those that could not be climbed