



The Grove, St Leonards, East Sussex.

Dormouse Mitigation Strategy

Report for Miller Bourne Architects.

Version	Author	Checked by	Approved by	Date	Type
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1. Introduction

BACKGROUND

- 1.1 Miller Bourne Architects, working on behalf of East Sussex County Council have submitted an outline planning application, for the redevelopment of The Grove, hereafter referred to as the site, a disused former secondary school. The site lies on the western edge of Hastings and is accessed via Darwell Close and covers an area of 9.29 hectares (ha). The site is centred on Ordnance Survey National Grid reference TQ 784104.
- 1.2 Ecology surveys were carried out between 2014-2016 and the site comprises habitats including bare ground, intensively managed semi-improved grassland (former playing field), field margins of less intensively managed semi-improved grassland, intermittent patches of scrub and tall ruderal vegetation and an area of broadleaved woodland (The Ecology Consultancy, 2014).
- 1.3 A dormouse *Muscardinus avellanarius* survey was carried out in 2016 and has confirmed the presence of a small population of dormice at the site (The Ecology Consultancy, 2016).
- 1.4 Following submission of an outline planning application for re-development of the site for the provision of 210 new homes, the county ecologist; Murray Davidson has requested further detailed information on the proposed dormice mitigation strategy for the site, to enable a final decision on the planning application to be made by Hastings Borough Council.
- 1.5 This report sets out the dormouse mitigation strategy proposed for the site and will later be transcribed into a dormouse European Protected Species Mitigation (EPSM) licence application, prior to any habitat clearance works commencing.

2. Existing Baseline

- 2.1 Within the development site there is a total of 21,195m² (2.1195ha) of suitable dormouse habitat comprising ancient broadleaved woodland and scattered scrub, located to the north and western section of the site. Under the current development proposals for the site, the majority of the existing woodland, located within the north, north-west and south west corner of the site is to be retained in-situ.
- 2.2 In the absence of suitable mitigation, a total of 5,817m² (0.5817 ha) of suitable dormouse habitat would be lost as a result of the proposed development. The majority of the loss will be as a result of the removal of a narrow fragmented section of woodland that is located to the east of the existing access.
- 2.3 The majority of the loss would be associated with the removal of a narrow fragmented strip of woodland located to the east of the access track. No evidence of dormice was recorded within this section of the woodland. Due to the presence of the existing access track/drive, there is currently no direct connectivity between the narrow strip of woodland and the extensive block of ancient woodland located opposite and located to the south-west. However, the potential for dormice to cross the track cannot fully be discounted and therefore the narrow strip despite being fragmented has been calculated as suitable dormouse habitat for the purpose of this assessment.
- 2.4 Other habitats present upon the site were assessed as unsuitable for dormice and will be lost as a result of the proposed development.
- 2.5 In the absence of mitigation, clearance of areas of suitable vegetation will reduce the amount of habitat available to dormice and operations have the potential to kill, injure or disturb any animals present. There may also be some minimal, temporary disturbance during site clearance operations to any dormice on site. Works are unlikely to further isolate populations or affect habitat connectivity to other known populations.

3. Existing Dormouse Population Assessment

- 3.1 It is not possible to obtain an accurate population count for dormice using nest tube survey methodologies, which merely indicates the presence or likely absence of dormice. Where presence of dormice is confirmed at a site, dormice should be considered as potentially present within all suitable habitats.
- 3.2 Therefore assuming a density of up to 10 dormice per hectare in optimal habitat of “*diverse deciduous woodland with abundant scrub and vigorous understorey*” (Bright et al. 2006), the dormouse population has been calculated and the site is likely to support a total population of 20 individual dormice, within all suitable habitats present across the site. Based upon the site wide population estimate the proposed development is likely to result in the displacement of up to 5 individual dormice from Areas 1,2 and 3, however the majority of the loss will affect Area 1.
- 3.3 The **population of dormice on the development site** has been assessed and is considered to be of a **local level of importance** given the current population estimate.

4. Habitat Creation

- 4.1 To compensate for a loss of 0.5817 ha of suitable dormouse habitat as a result of the proposed development, it is proposed to provide 0.5835 ha of new or enhanced planting to existing habitats, to improve the site in terms of its suitability for dormice and ensure no net loss.
- 4.2 In advance of any clearance works, a programme of habitat creation would be undertaken within Areas A, C, D and E (refer Dormouse Habitat Changes Plan) and habitat enhancements in Areas 2 and 3, to increase the area of suitable dormouse habitat present and enhance habitat that already exists. The overall aim of the management would be to create and maintain structurally-diverse areas of woodland with trees and shrubs of a variety of species and ages that have an open, well-lit canopy with arboreal linkages. To create this, there would be a programme of planting with favourable species to increase the diversity of understorey, the selective felling of mature ash *Fraxinus excelsior* or oak *Quercus* sp. to reduce shading where appropriate and the creation of log piles to provide potential hibernation sites.
- 4.3 At present existing trees located within Areas A, C, D and E (refer Map 1) are devoid of a woodland understorey and lower shrub layer. Woodland understoreys and shrub layers provide important habitats for dormice which use different food resources at different times of the year. Dormice primarily feed at the top of the canopy in spring and are reliant on species including oak and sycamore *Acer pseudoplatanus*, whilst woodland understoreys comprising species including field maple *Acer campestre*, hazel *Corylus avellana* and hawthorn *Crataegus monogyna* and species rich shrub layers which include bramble *Rubus fruticosus*, honeysuckle *Lonicera periclymenum*, spindle *Euonymus europaeus*, guelder rose *Viburnum opulus* and blackthorn *Prunus spinosa* provide a wide range of berries and nuts throughout summer and autumn months, prior to hibernation in autumn, at ground level.
- 4.4 New planting is therefore proposed within existing woodland in Areas A, C, D and E, to increase the amount of woodland understorey and shrub layer present at the site. A total of 0.5835 ha of new habitat to include a mix of the following species: field maple,

hazel, hawthorn, bramble, honeysuckle, spindle, guelder rose, blackthorn, hawthorn
bramble and honeysuckle will be planted in Areas 2 and 3.

- 4.5 To ensure the existing woodland canopy is opened up slightly within Areas, A, C, D and E, the removal of individual decaying trees of low ecological value are proposed be removed, to enable light to reach the understory and enable the vegetation to become established. Any existing trees, proposed to be removed are to be section felled and the cut trunks are to be left upon the woodland floor to provide log piles and additional habitat for dormice, hibernating reptiles and terrestrial invertebrates, thereby further increasing biodiversity at the site for a range of species.
- 4.6 New planting and habitat creation will be undertaken in the spring of year 1 (subject to approval of the dormouse mitigation strategy), bare root stock would be planted in winter of the same year, to ensure the habitat becomes established, prior to development commencing and the removal of 0.5835 ha of fragmented woodland, located to the east of the access track.
- 4.7 In addition to the creation of new planting, a total of 50 permanent wooden nest boxes are to be provided across the site. The boxes are to be located upon the same transect survey grid locations as the current nest tubes (refer to Map 1). The boxes will provide additional habitat for dormice and increase the amount of available suitable breeding habitat at the site. The boxes are to be monitored under the National Dormouse Monitoring Programme which is run by the Peoples Trust for Endangered Species (PTES). The data is collected by licensed dormouse volunteers on behalf of PTES and will contribute to the national dormouse monitoring database which enables the conservation status of dormice across the UK to be monitored, to ensure dormice within the UK are maintained at a favourable conservation status. The boxes are to be erected upon completion of the new habitat creation and enhancement works, and prior to any site clearance works commencing.

5. Habitat Manipulation and Timings for EPSM Licence

- 5.1 A detailed dormouse method statement will form part of the dormouse EPSM licence application. This will need to be submitted and a dormouse EPSM licence granted by Natural England, prior to any site clearance works commencing.
- 5.2 The habitat to be lost is of variable quality. Area 1 comprises a fragmented narrow strip of woodland which is separated from the main block of woodland due to the presence of the existing access track. However, despite Area 1 being fragmented from the rest of the suitable habitat present upon the site, all habitats within Areas 1, 2 and 3, are considered as potential suitable habitat for dormice.
- 5.3 On the sale of the land for development, it will be clearly communicated, in writing, to the purchasers that these areas may support dormice and that they should be protected during construction and post-construction (where permanently retained) in perpetuity by maintaining the fencing and consulting a suitably qualified ecologist wherever appropriate. Areas of habitat to be retained on site will be clearly demarcated by Heras fencing or similar to prevent damage or accidental incursion by vehicles or personnel.
- 5.4 In line with current guidance habitat clearance is to be undertaken in two phases, to enable any dormice, if present, to be able to disperse into suitable adjacent habitats, to be retained. The removal of suitable dormouse habitat will not exceed a total of 1.5 ha and no more than 50m width of suitable habitat in one single stage.
- 5.5 The timings proposed for the habitat clearance on site will remove above ground vegetation in winter to encourage dormice emerging from hibernation in April or May to move to suitable habitat nearby, before the second stage clearance is undertaken in June and will remove the remaining vegetation to ground level including all tree stumps, log piles and root plates. This two-stage clearance will be undertaken within Areas 1, 2 and 3 as indicated upon the plan (refer Map 2).

- 5.6 **The first stage clearance** will commence in all areas proposed to be lost and carried out under the supervision of a suitably experienced ecologist between December of year one and February of year 2 inclusive, whereby all dormouse habitat (including scrub, bramble, trees and any log piles) will be reduced to no less than 50cm above ground level thus avoiding potential dormouse hibernation habitat.
- 5.7 Clearance at the first stage will be undertaken using hand held tools and in a sensitive manner to avoid disturbing or killing/injuring any hibernating dormice. As a precaution, all vegetation will be checked by an ecologist prior to removal. This will involve a detailed hand search of all scrub for nests using a long-handled mirror where necessary to penetrate into deeper areas. All trees will be viewed with binoculars for potential dormouse nest locations e.g. tree holes and old squirrel dreys. Where necessary, trees will be soft-felled by taking them down in sections such that potential nest locations can be checked.
- 5.8 Any mature trees that require removal at this stage will be felled such that they fall onto areas of low or no hibernation potential and following a check by an ecologist. Material will be left in situ until the second stage or the material will be chipped in an area on site not suitable for hibernating dormice. Trees will not be dragged along the ground to minimise impacts to hibernating dormice.
- 5.9 If active dormice are observed by the ecologist during the check ahead of clearance or if summer nests containing dormice are found, works will cease in the area and the habitat retained and left undisturbed until the second stage of clearance (see below). If necessary (depending on the location of the nest within the site), a corridor of suitable habitat will also be retained linking the area with the nest to other retained habitat with wider connective habitat off-site. This methodology aims to prevent severance from hibernation sites. All suitable hibernation sites (e.g. stumps, roots and any piles of brash or wood) will be left undisturbed until the second phase of clearance at the beginning of June in year one, upon which time these features would be carefully checked by an ecologist prior to removal using hand held tools where necessary.
- 5.10 As a further precaution, in the unlikely event that dormice are still active at this time but go unobserved during the check by the ecologist, clearance work will be undertaken gradually, starting in the south-west corner of Area 1 (see Map 2). Clearance will progress north and north-eastwards in Area 1 with the aim of displacing any

unobserved active dormice into the nearest area of suitable habitat within 50m of the works clearance area.

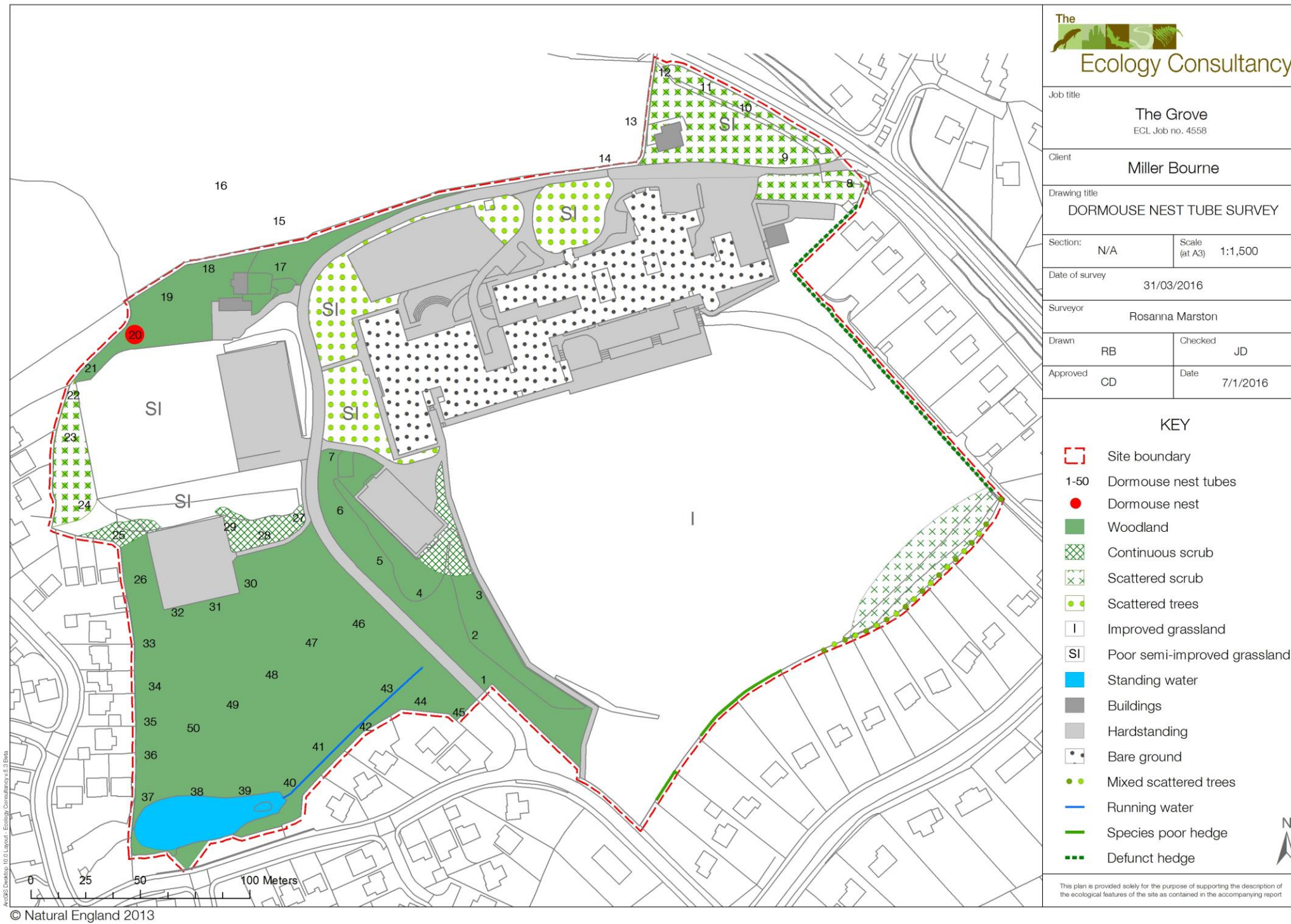
- 5.11 **The second clearance stage** will be carried no earlier than the 1st June in year 2, to ensure all dormice have emerged from hibernation. The second stage clearance would involve all formerly cut material being carefully checked, lifted and removed from works site. Stumps where present would be removed using a stump grinder and the cleared area would be subject to a surface scrape to prevent dormice moving back into the works area. The direction of habitat clearance will be carried out east – west and south – north within Area 1 (refer Map 2), to encourage dormice to move towards retained ancient woodland located to the west of the site and within 50m of the clearance zone.
- 5.12 Following proposed site clearance works, the site will maintain good habitat connectivity with Dog Kennel Wood, located to the north of the site. New proposed planting within Area A will further increase the connectivity at the site, by closing an existing gap within the vegetation and providing a continuous length of suitable dormouse habitat from the south west corner to the far north east corner of the site. The connectivity will further enable dormice to move between the site and Dog Kennel wood, which will help to increase the potential of dormouse distribution at the site through improved connectivity and increased food resource resulting from new enhancement planting.
- 5.13 Any small areas of habitat retained during Stage 1 (because of the presence of summer nests) will also be cleared (during the second stage clearance) to ground level following methods for summer clearance detailed in Bright et al. 2006. The clearance of these areas will be done by hand and combined with searches for nests (both dormice and birds). Only a small amount of such habitat will be removed on successive days to allow any active animals to respond.
- 5.14 It is considered likely that with increased new planting, the provision of new nest boxes and log piles and the phased vegetation clearance approach dormice can be retained at the site at a favourable conservation status and the proposed development will result in a net increase of suitable dormouse habitat.

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Appendix 1: Plans

Map 1: Dormouse Survey Plan



The Ecology Consultancy

Job title
The Grove
ECL Job no. 4558

Client
Miller Bourne

Drawing title
DORMOUSE NEST TUBE SURVEY

Section: N/A Scale (at A3) 1:1,500

Date of survey
31/03/2016

Surveyor
Rosanna Marston

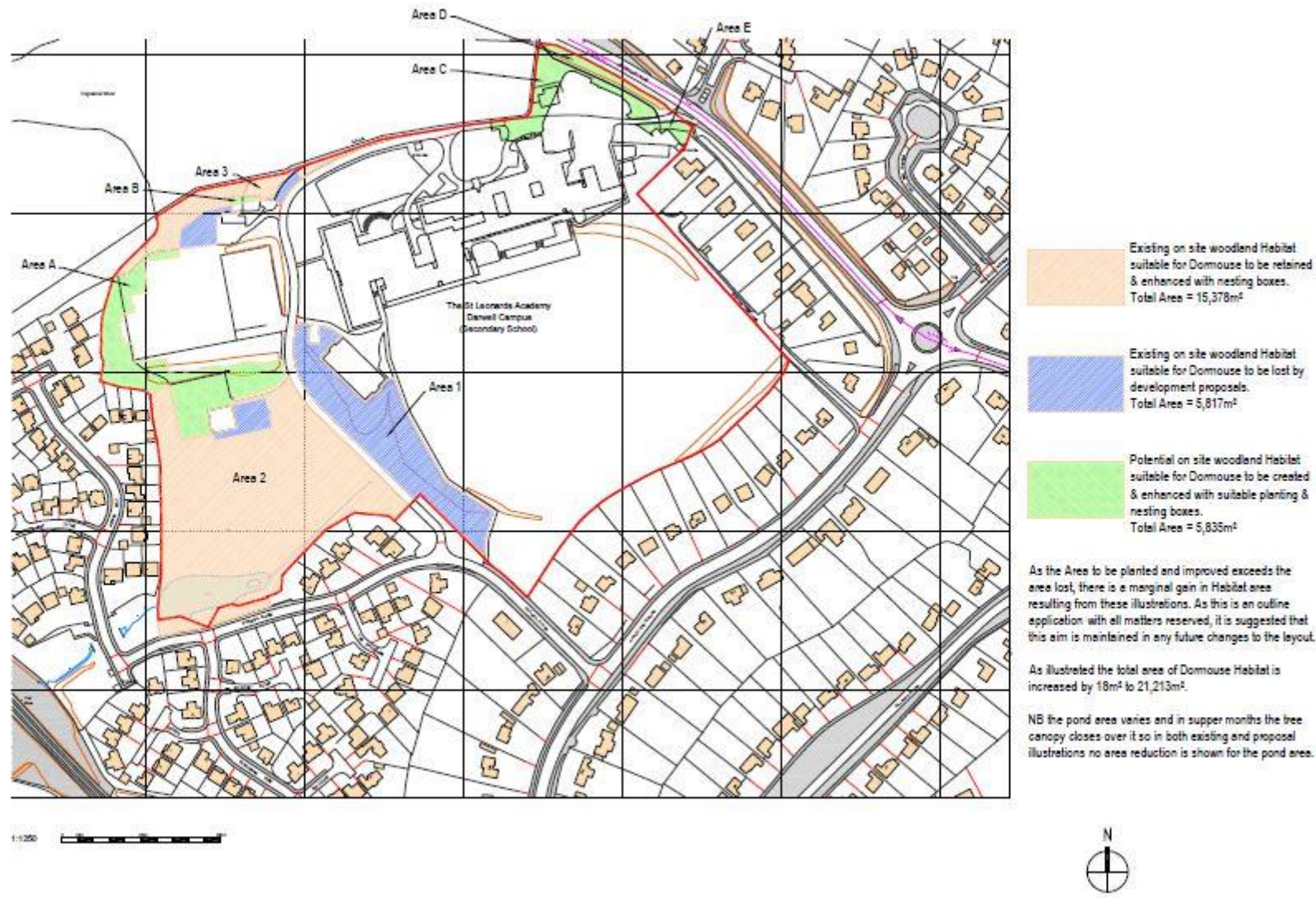
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Approved CD Date 7/1/2016

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Map 2: Dormouse Habitat Changes Plan



<p>Notes</p> <p>1. This drawing is a site plan.</p> <p>2. It is not intended to be used for any other purpose.</p> <p>3. It is not intended to be used for any other purpose.</p> <p>4. It is not intended to be used for any other purpose.</p> <p>5. It is not intended to be used for any other purpose.</p> <p>6. It is not intended to be used for any other purpose.</p> <p>7. It is not intended to be used for any other purpose.</p> <p>8. It is not intended to be used for any other purpose.</p> <p>9. It is not intended to be used for any other purpose.</p> <p>10. It is not intended to be used for any other purpose.</p> <p>11. It is not intended to be used for any other purpose.</p> <p>12. It is not intended to be used for any other purpose.</p> <p>13. It is not intended to be used for any other purpose.</p> <p>14. It is not intended to be used for any other purpose.</p> <p>15. It is not intended to be used for any other purpose.</p> <p>16. 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It is not intended to be used for any other purpose.</p>	<p>Scale</p> <p>1:1000</p>	<p>North Arrow</p>	<p>Project Name</p> <p>The Grove School</p> <p>St Leonards, Hastings.</p> <p>Site Plan as existing over marked with dormouse habitat changes proposed.</p>	<p>Client</p> <p>Miller Bourne Architects</p>	<p>Miller Bourne Architects</p> <p>100 High Street</p> <p>St Leonards, Hastings</p> <p>Tel: 01323 411111</p> <p>www.millerbourne.co.uk</p>



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