Appendix 2

Broadway Malyan Parameter Plans

- Development Boundary
- Residential
- Commercial
- Education
- Mixed Use (Includes Retail, Food Store, Leisure, Community, Residential and Other Uses)
- Cemetery
- Allotments (including parking)
- Parkway Station
- Existing Commercial
- Sport Hub
- Green Infrastructure
- Neighbourhood Play Areas (including buffers)
- Woodland
- Water Course
- Education Expansion

Drawing based on information by BDB Design

Project: Land North of Horsham, Horsham, West Sussex	Drawing: Parameter Plan: Land Use
Scale: 1:5000 @ A1	Drawn By: AWW
Date: Nov 2020	Drawing No.: 2153A - 100O

0 100 200 300 400 500

Land North of Horsham

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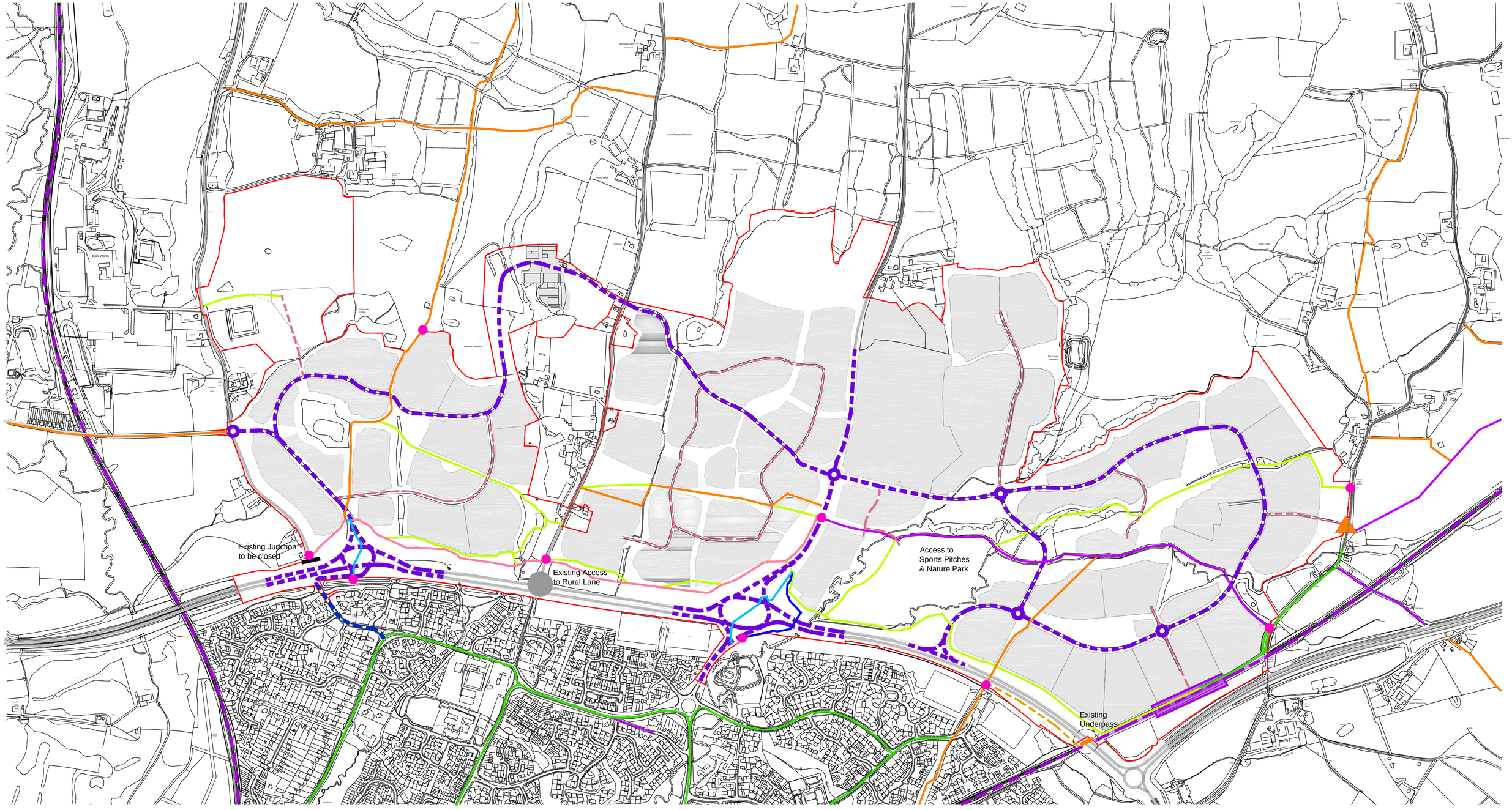

Development Boundary

Existing Roads

Existing Railway Line

Proposed Station

Proposed Primary Roads

Proposed Secondary Streets

Existing Designated Cycle Route

Existing PROW Footpath

Existing Bridleway

Proposed Equestrian Route

Proposed Cycle and Pedestrian Paths

Proposed Emergency Vehicle Access Only

New Footbridge Crossing

New At Grade Crossing

Pedestrian and Cycle Site Access

Improved Pedestrian Link

Improved Bus Link

Note: For the purposes of this plan, the alignments of the roads indicated are approximate. Flexibility is reserved for detailed design development at a later stage.

0 100 200 300 400 500

Drawing based on information by BDB Design

Project: Land North of Horsham, Horsham, West Sussex

Drawing: Parameter Plan: Movement and Access

Scale: 1:5000 @ A1

Drawn By: AWW

Date: Nov 2020

Drawing No.: 2153A - 103Q

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- Development Boundary
- Proposed Development Parcels
- Woodland
- Ancient Woodland
- Cemetery
- Sports Hub
- Neighbourhood Play Area (including buffers)
- Natural Greenspace
- Acoustic Attenuation Buffer
- Allotments (including Parking)
- Water Course
- Existing Ponds
- Attenuation Ponds

0 100 200 300 400 500

Drawing based on information by BDB Design

Project: Land North of Horsham, Horsham, West Sussex

Drawing: Parameter Plan: Green Infrastructure

Scale: 1:5000 @ A1

Drawn By: AWW

Date: Nov 2020

Drawing No.: 2153A - 105N

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Appendix 3

Dormouse License Application

Appendix A: Land North of Horsham
Chennells Brook Dormouse Compensation Site Management
30th June 2020
Bioscan (UK) Ltd.

A.1 Introduction

To compensate for the net loss of hedgerow, scrub and landscape planting within the Land North of Horsham site (primarily in relation to dormice, but also in relation to the wider biodiversity), the delivery of a compensation area of new hedgerow and scrub planting will be provided adjacent to the western arm of Chennells Brook.

In October 2019 an area of established landscape planting and hedgerow along the A264 and part of Rusper Road was removed under a dormouse derogation licence (Natural England reference: 2019-42626-MIT). This was required in order to allow initial Principal Access Works (PAW1) around the A264/Rusper Road Roundabout to commence over the winter of 2019/20. Further vegetation clearance is currently underway (as of March 2020) along Rusper Road and the A264 and is being carried out under a separate second dormouse derogation licence (Natural England reference: 2019-44250-EPS-MIT).

The first dormouse licence application stated the following in respect of the compensation planting:

> "*The aim of the planting alongside Chennells Brook is to provide a compensatory area for the benefit of hazel dormice for the loss of hedgerow and landscape planting within the PAW area. This area has been identified to fulfil this compensatory function as it comprises 'difficult' corners of the field (the Brook meanders along this stretch) to develop. In order to provide a level of protection and to act as a barrier to lighting a hedgerow will be planted out from the Brook. This hedgerow will comprise hawthorn (to comprise c. 50% of the whips), blackthorn (20%), hazel (20%), wayfaring-tree (5%), and dogwood (5%). Where the meanders create wider distances between the hedgerow and the brook, the small areas adjacent to the brook will be planted with hazel. Honeysuckle and bramble will be planted between the hedgerow and the brook and /or hazel planting. In summary, the order of habitats from the Brook to the field will be: hazel pockets/ bramble and honeysuckle, bramble and honeysuckle, then finally hedgerow. The hedgerow will be 215m in length, while the bramble and hazel planting area will cover 0.35 ha*."

Further the licence stated the following in respect of the management of the compensation planting:

> "*<u>Dormouse Compensation Area</u>*
> *The land for the dormouse compensation area will be drawn down and in the ownership of the applicant prior to the compensatory habitat being installed, providing long-term security and future management.*
> *The hedgerow and scrub planting will be appropriately protected during its period of establishment.*
> *These areas will be managed for the benefit of hazel dormice, and the general management will be as follows:*
> - *The hedgerow will be largely left to become outgrown (although hedge laying in sections may be required in the future to prevent it from becoming leggy);*
> - *The hazel pockets will be subject to rotational seven to ten year coppicing;*
> - *Ongoing management of the bramble/honeysuckle will be undertaken as appropriate (in consultation with an ecologist), and informed by future monitoring visits.*

> *Management operations will only take place during the winter, to minimise any impacts on dormice.*

Approaches will be made to local wildlife groups to try to set up a programme of monitoring and maintenance (e.g. box emptying over winter) for the dormouse boxes."

In respect of the post-development monitoring the licence application stated the following:

"*The licensed ecologist (or accredited agent) will undertake a walkover survey of the new hedgerow planting and the dormouse compensation area 1 year and 5 years after the planting has taken place, to ensure it is establishing appropriately for dormice. Results of the monitoring visits will be used to tweak the management plan as required.*

The dormouse boxes within the Chennells Brook (adjacent to the dormouse compensation area) will be checked by the licensed ecologist (or accredited agent) in tandem with these visits in years 1 and 5 after the planting has taken place. Dormouse box checks will also take place in the first two years post completion of the highways works, as specified by the EMMP.

A repeat dormouse nest tube survey covering the dormouse compensation area and adjoining Chennells Brook will be carried out 10 years after planting has taken place to investigate dormouse presence within this area, and tweak the management plan as appropriate based on survey findings.

The nest tube survey will not incorporate the site for dormouse welfare reasons, in case members of the public interfere with dormice in nest tubes (which will be difficult to conceal post-development).
Years 1 & 5 post completion of planting – walkover surveys to assess establishment of new planting, dormouse box checks at dormouse compensation area
Years 1 & 2 post completion of highways works – dormouse box checks
Year 10 post completion of planting – nest tube survey to investigate uptake of dormouse compensation area by dormice
(N.B. Monitoring years in works schedule assumes latest planting dates, but these checks will be brought forward if planting can take place sooner – the aspiration is for planting to be carried out asap to accelerate its establishment)."

The second dormouse licence application provides compensatory habitat either side of Chennells Brook, with the section of new planting on the western side of the brook continuing northward from the compensatory planting required for the first dormouse licence application. The management of planting required for the second dormouse licence on the western side of Chennells Brook will follow that of the first dormouse licence (as provided above). Figure 1 provides the locations of these two adjoining compensation planting areas.

The detailed management prescriptions for the eastern side of Chennells Brook will be provided as part of a reserved matters application for this part of the site at a later date.

The following appendix focusses on the delivery and management of the compensation planting alongside Chennells Brook.

L&G, who own this part of the site, will appoint an appropriately qualified management company who would be responsible for maintenance of the compensation areas.

For further information regarding the location and design of the compensation areas please refer to **Appendix 1.**

A.2 Hedgerow and scrub planting design

The planting scheme for the dormouse compensation planting is based primarily on locally typical species and those known to be utilised by hazel dormice, such as hazel, bramble, honeysuckle, hawthorn, blackthorn, and dogwood. The three former species are widely considered to be three of the best food species for dormice. Hawthorn provides food early in the season, whilst bramble and honeysuckle help to fill the mid-season food lull, and hazel and bramble are both excellent sources of food in the autumn. The planting will consist of three main components: a mixed native hedgerow; pockets of hazel plantings; and a wide strip of bramble and honeysuckle planting.

The hedgerow delimiting the western extent of the compensation planting will comprise hawthorn (to comprise c. 50% of the whips), blackthorn (20%), hazel (20%), wayfaring-tree (5%), and dogwood (5%). Along the eastern side of the hedgerow a stock and barbed wire fence (or similar) will be erected to prevent local residents and dogs entering this area.

Some of the area between the new hedgerow and the existing mature vegetation of Chennells Brook will be planted with approximately five pockets of hazel whips. These will be planted in the semi-improved grassland which comprises the field margin on an approximate 2m x 2m grid. Where existing scrub has already encroached into the compensation area from the vegetation along Chennells Brook, these will be retained as far as possible. Further, where possible and feasible existing hazel along the Brook will be layered into the compensation area to provide additional plants.

In addition, the area between the hedgerow and Chennells Brook will be planted with bramble and honeysuckle. These will be supported with natural stakes in the form of varying sizes of suitable branches from the vegetation clearance in other parts of the site to enable these two species to grow over. The inclusion of bramble not only provides a suitable foraging resource for dormice but will also act as a deterrent for cats accessing this area. Due to the eventual need for contractors to access the hazel to carry out coppicing no planting will be carried out along a small pathway through this area.

The planting mix of the above three components is provided within the Planting Schedule produced by MacGregor Smith.

A.5. Planting

The whips should be planted from November to March and before they come into bud. The season can be extended from October to May by using cell grown stock. Planting late in the season increases the risk of tree mortality. This is particularly critical with bare root trees as they are prone to drying out.

A.4 Site Preparation

It is recommended that the compensation site is mown to a minimum height of 100mm to allow for the whip planting and the application of chemical weeding (herbicides) or chippings.
The planting area grid should then be marked out to locate the boundaries of the plantings. This can be achieved using canes or marking paint and encourages the correct stocking rates. The whips should then be hand planted using a notch or pit planting technique.

A.5 Weed Protection

Weed protection is an essential part of tree care. It is important that this is carried out immediately after planting and again each year after that in order to reduce competition for water and nutrients from weeds and grasses. As a general rule a minimum area of 1.2 m diameter around each planted hazel should be kept weed free from April–September, for 3–5 years after planting, or until trees are well established. Following this it is anticipated that the hazel will form a dense canopy which will suppress growth of competing weeds and grasses.

A.6 Animal Protection

New trees are very attractive to animals looking for young growth to browse and they need protection against common mammals, including deer, rabbits, hares and voles. The three main methods of protection are fencing, tree shelters, and grass cutting are:

- Fencing: The compensation area will be fenced along its western boundary with post and rail fencing, with stock wire used to prevent dogs and local residents from accessing the compensation area.
- Tree Shelters: Used to protect the tree from pest attack and enhances growth by acting as a 'greenhouse'. The current specification is for trees to be individually staked and protected with spiral rabbit guards. Individual protection methods have the added bonus of clearly marking tree locations, offering a barrier against pests and giving a degree of protection to the trees when spraying weeds or cutting unwanted vegetation.
- Grass Cutting: This is important in areas of high vole populations, as by keeping the grass short between the rows they are deprived of cover and more easily seen by predators such as kestrels and owls. Grass cutting should take place on a monthly rotation and as a general rule mowing should be avoided between April to mid-August to prevent disruption to nesting birds. The mowing height should be set to minimum height of 100mm to avoid undue harm to wildlife.

A.7 Replacing Dead Trees/Shrubs

Tree/shrub numbers need to be counted in August to assess success rate and calculate numbers required for restocking (beating-up). Any loses should be replaced during the appropriate season. Any natural regeneration can be used to offset the number of new trees planted.

A.8 Ongoing Management

This involves regular – quarterly - checking the site by the appointed management company to monitor the progress of tree growth and looking out for potential problems.

The following brief checklist should be observed:

- Weed infestation observed and controlled.
- Growth rate of grass and other competing vegetation monitored.
- Stock proof fences repaired if damaged or collapsed.
- Tree guards and stakes repaired, replaced or removed.
- General site maintenance.

The following provides a breakdown of the management of the three components of the compensation planting:

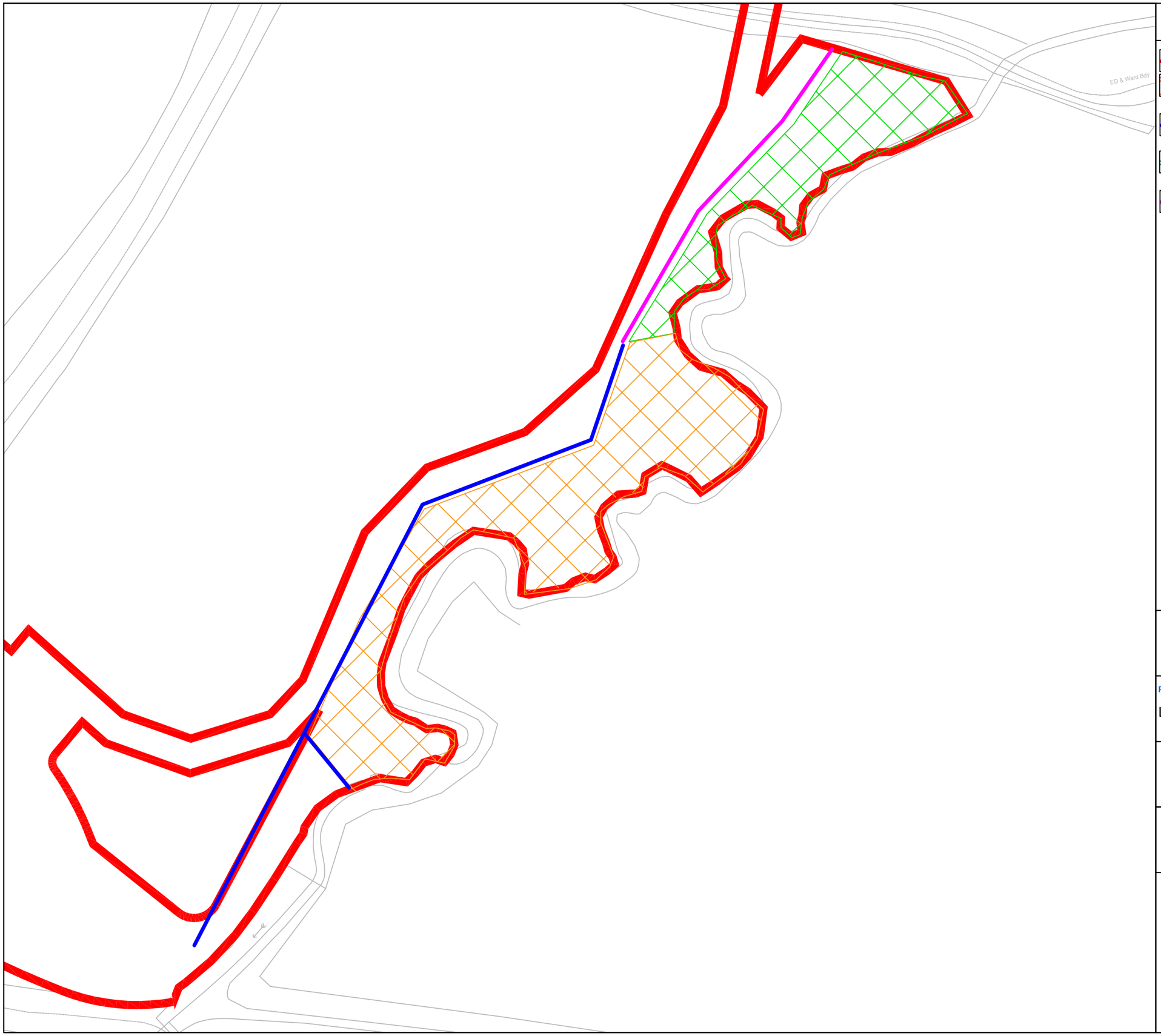
<u>Hedgerow.</u> The management of the hedgerow will involve the following:

- As far as possible 65% of the length of the hedgerow will be 2m and 3m high, with the remaining 35% between 3m and 5m high in order to create a variety of heights.
- Trimming of the hedgerow will not take place more than once every three years, and no more than one third of the hedgerow in any one year.
- Trimming should take place in late January/February in order to avoid the nesting bird season and to ensure that berries and nuts are present for the benefit of *inter alia* foraging birds during the autumn and early winter.
- The height of each trim should be increased by approximately 10cm high (and wide) compared to the previous cut, to promote greater berry production on hawthorn, blackthorn and bramble.
- Exceptions to the above prescriptions will be permitted where necessary in respect of the proposed footpath to the west of the hedgerow.

Hazel Pocket Planting. The hazel plantings will be managed on a rotational coppice. A rotation of 15-20 years is generally accepted as the optimum period for the benefit of dormice as it allows the hazel to mature and produce hazelnuts. However, to avoid all the hazel being coppiced at approximately the same time (which would deprave dormice of a hazel foraging resource for a few years), the coppicing will commence in the 10th year after planting within one of the pockets. Three years following this another pocket will be cut, and so on until the final and fifth pocket is coppiced 21 years after planting. The cut brash as a result of the coppicing will be used to create dead hedging around the hazel pockets to reduce opportunities for deer to browse the new hazel shoots, and to provide opportunities for birds to nest.
The coppicing will be carried out over winter (December to February inclusive) to avoid impacts on dormice.
Note: The initial phase of the scrub and hedgerow planting and establishment will be covered by the dormouse licence. After this point no licence will be required so long as the management takes place over winter. Natural England takes the view that if the planting is being managed for dormice, and is undertaken at an appropriate time of year, then it is acceptable to carry out management works without a licence.

Bramble and honeysuckle planting. With the exception of creating temporary paths through this area to allow contractors to access the hazel pockets to carry out the coppicing, a *laissez-faire* approach will be taken to the management of this area. Nevertheless, the need for management will be undertaken as appropriate based on site visits by an ecologist.

A.9 Dormouse Boxes
In total, fifteen dormouse boxes have been installed within the mature existing vegetation alongside Chennells Brook in October 2019 and March 2020 to increase dormouse carrying capacity, and to provide a suitable location to release any dormice encountered as part of the licenced vegetation clearance. Following establishment of the compensation planting there will be collaboration with local conservation groups to attempt to establish an ongoing box monitoring and maintenance scheme.



Key

- Application site boundary
- Compensation planting under 1st dormouse licence application
- Hedgerow planting under 1st dormouse licence application
- Compensation planting under 2nd dormouse licence application
- Hedgerow planting under 2nd dormouse licence application

DO NOT SCALE

Title

Dormouse Compensation Planting Plan

Project	Client
Land North of Horsham	LGSLNH

Drawing No.	Revision	Project No.
Figure 1	A	E1585

Drawn	Date
BC	June 2020

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FUTURE DEVELOPEMENT PLOT

UTILITIES CORRIDOR

PUMP STATION

FUTURE DEVELOPEMENT PLOT

AREA WITHIN PAW APPLICATION

FUTURE FOOTBRIDGE

A 264

KEY

- **Application Boundary**
- **Existing Tree / Hedge to be Retained**
  Refer to arboricultural consultant drawings
- **Tree Planting**
  Refer to DWG 200 series for details
- **Feature Shrub Planting**
  Refer to DWG 200 series for details
- **Native Hedge Planting**
  Refer to DWG 200 series for details
- **Native Shrub Planting**
  Refer to DWG 200 series for details
- **Dormouse Compensation Planting**
  Refer to DWG 200 series for details
  Planting area to be enclosed by secure dog fence
- **Highways Verge Grass Mix**
  Refer to DWG 200 series for details
- **Wildflower Grass Mix**
  Refer to DWG 200 series for details
- **Damp Grass Mix**
  Refer to DWG 200 series for details
- **Proposed Marginal Planting**
  Refer to DWG 200 series for details
- **Proposed Bulb Planting**
  Refer to DWG 200 series for details
- **Area of Grasscrete**
  Refer to Engineer's detail and specification
- **Gravel Maintenance Path**
  With timber edging
- **Dog Fence**
  Refer to DWG 400 series for details
- **Boundary treatment to Pumpstation**
  Refer to Engineer's detail and specification
- **Headwall**
  Refer to Engineer's detail and specification
- **Future Footbridge & Path**
  Location indicative. Subject to future design
- **Landform & Contouring**
  Indicative. Refer to Engineer's drawing for detailed information

Revision	Description	Drawn by	Checked by	Date
P1	RMA Submission - Draft	KR	JT	07.02.2020
P2	RMA Submission - Draft	KR	JT	14.02.2020
P3	RMA Submission - Draft	KR	JT	13.03.2020
P4	RMA Submission - Draft	KR	JT	31.03.2020
P5	RMA Submission	KR	JT	19.06.2020

0 10m 20m 30m 40m 50m

This drawing is protected by copyright. Contractors must check all dimensions on site. Only figure dimensions are to be worked from. Discrepancies must be reported to architect before proceeding.
Christopher House, 11-12 High Street, Bath, BA1 5AQ Tel:01225 464 690 hello@macgregorsmith.co.uk

Macgregor ▪ Smith
Landscape Architecture

project	Land North of Horsham	drawn by	KR
status	RMA Submission	checked by	JT
title	Landscape GA Plan 1 of 2 - Utilities Corner & Dormouse Compensation	date	07.02.20
Xref	-	scale	1:500@A1 1:1,000@A3
drawing No	1236-04-003	revision	**P5**