

Boorley Green Gateway

BIODIVERSITY MITIGATION AND ENHANCEMENT PLAN

784-B034998

Vistry Homes Limited

June 2022

Document control

Document:	Biodiversity Mitigation and Enhancement Plan
Project:	Boorley Green Gateway
Client:	Vistry Homes Limited
Job Number:	784-B034998
File Origin:	\\ds-dc-vm-101\Data\Projects\784-B034998 Boorley Green Gateway\60 Project Output\61 Work in Progress\

Revision:	1	Status:	Final
Date:	June 2022		
Prepared by: Harriet Kimber Assistant Ecologist		Checked by: Ann Bailey Senior Ecologist	Approved By: Kevin Wood Principal Ecologist
Description of revision:			

Revision:	2	Status:	Final
Date:	10/08/22		
Prepared by: Harriet Kimber Assistant Ecologist		Checked / Approved by: Kevin Wood Principal Ecologist	
Description of revision: Amend following consultation comments			

CONTENTS

1.0 INTRODUCTION	5
1.1 Background	5
1.2 Site Location	5
1.3 Development Proposals	6
2.0 BASELINE ECOLOGICAL FEATURES.....	7
2.1 Previous Surveys	7
2.1.1 Designated Sites	7
2.1.2 Habitats	7
2.1.3 Desk Study Information on Protected and Notable Species	7
2.1.4 Survey Data on Protected and Notable Species	8
3.0 RELEVANT LEGISLATION AND PLANNING POLICY	9
3.1 Legislation	9
3.2 Revised National Planning Policy Framework	9
3.3 Local Plan	10
4.0 MITIGATION AND ENHANCEMENT: HABITATS.....	11
4.1 Mitigation.....	11
4.2 Enhancement.....	11
5.0 MITIGATION AND ENHANCEMENT: PROTECTED AND NOTABLE SPECIES.....	12
5.1 Nesting Birds.....	12
5.2 Bats	13
5.2.1 Mitigation	13
5.2.2 Enhancement	14
5.3 Other Protected and Notable Species	15
5.3.1 Mitigation	15
5.3.2 Enhancement	15
6.0 REFERENCES.....	17
FIGURES.....	19
APPENDIX A – REPORT CONDITIONS.....	20
APPENDIX B – PROPOSED HARD LANDSCAPE PLANS.....	21
APPENDIX C – PROPOSED SOFT LANDSCAPE PLANS	22

GLOSSARY

BMEP	Biodiversity Mitigation and Enhancement Plan
EA	Ecological Appraisal
ECoW	Ecological Clerk of Works
EPSL	European Protected Species License
ILP	Institution of Lighting Professionals
LPA	Local Planning Authority
MRM	Modern Roofing Membranes
NPPF	National Policy Framework
SAC	Special Areas of Conservation
SPA	Special Protection Areas
SSSI	Site of Special Scientific Interest
W&CA	Wildlife & Countryside Act 1981 (as amended)

1.0 INTRODUCTION

1.1 BACKGROUND

Tetra Tech was commissioned by Vistry Homes Limited on 30th May 2022 to produce a Biodiversity Mitigation and Enhancement Plan (BMEP) for the site known as Boorley Green Gateway. This report is a requirement of discharging Condition 4 of the projects consent which reads as follows:

*'A BMEP is required as part of the following pre-commencement condition to discharge:
A Biodiversity Mitigation and Enhancement Plan (BMEP) shall be submitted to and approved in writing by the Local Planning Authority prior to the commencement of development. The BMEP shall contain full details of how the ecological mitigation measures and biodiversity enhancement recommended in the Ecological Appraisal report by WYG (Jan 2019) and the Bat Emergence /Return Survey report by WYG (Nov 2018), plus any additional measures required to secure Biodiversity Net Gain, shall be implemented and the following shall be included in the BMEP:*

- An annotated map showing the location of all mitigation and enhancement features*
- A lighting plan with modelled lux levels prepared according to best practice guidelines in the Bat Conservation Trust Bats and Artificial Lighting Guidance Note (2018). Any external lighting, both permanent and during construction, must be kept to a minimum, be of low level and directional away from the perimeter planting and other planted areas.*
- During construction all excavations on site must be covered nightly and/or include a suitable escape ramp for the protection of wildlife. A suitable ramp can be a wooden plank or a sloping end wall that does not exceed a 45-degree angle. Any temporarily exposed open pipe systems must be checked and then suitably capped when not in use to prevent access by wildlife.*
- Any permanent fencing that is erected at the individual plot boundaries must have periodic holes (locations and dimensions to be confirmed in the BMEP) at its base to allow the movement of animals, such as hedgehogs, to promote habitat connectivity and extended foraging ranges.*

The development shall then be undertaken in accordance with the approved details'.

This report addresses the following items with a view to maintaining and enhancing the biodiversity value of the site in the long-term:

- Mitigation for the protected and notable habitats and species that may be impacted during the construction phase of the development;
- Details of enhancement measures to be incorporated into the site for protected and notable species.

Please note that the BMEP is intended to be a working document that will be updated as further information is collected regarding ecology either pre-commencement or during the construction phase. This document will be agreed with the Local Planning Authority (LPA) prior to the commencement of works on site. If, before or during implementation of this BMEP the development proposals are altered substantially, or significant new ecological information comes to light, then the BMEP should be revised accordingly by the project ecologist.

This report has been prepared by Assistant Ecologist Harriet Kimber and the conditions pertinent to it are provided in Appendix A.

1.2 SITE LOCATION

The site is located at Boorley Green in Hampshire and is centred at Ordnance Survey National Grid Reference SU 50472 15059. The site is shown in Figure 1 and is comprised of a small business park

located within renovated farm buildings alongside a residential property with surrounding hardstanding. Areas of grassland, scrub and a small wooded area are located within the wider site.

1.3 DEVELOPMENT PROPOSALS

The current proposals illustrated by the Hard Landscape Proposals (ACD Environmental, 2022a-d), shown in Appendix B, are for the development of 67 dwellings, retail space, gardens, means of access and associated works.

2.0 BASELINE ECOLOGICAL FEATURES

2.1 PREVIOUS SURVEYS

The details of this BMEP have been prepared following the results from the following ecological surveys undertaken at the site:

- Ecological Appraisal (EA) (WYG, 2019)
- Bat Emergence / Return Survey Report (WYG, 2018)

2.1.1 Designated Sites

There are 31 designated sites of nature conservation identified within 2km of the site (WYG, 2019). The nearest is Alder Strip Site of Importance to Nature Conservation (SINC) which is located 0.31 km NNW of the site. The closest statutory designated site is the Moorgreen Meadows SSSI, located approximately 1.8km west of the proposed site. Due to the distance from the proposed site, direct impacts from the construction phase are not anticipated. The SSSI has no public rights of way, making indirect impacts from recreational pressure unlikely.

Additionally the Solent and Southampton Water SPA and the Solent Maritime SAC are located approximately 2.6km to the south-south-east. The site therefore lies within the Solent Recreation and Mitigation Strategy (Birds Aware Solent, 2017) 5.6km buffer zone and requires mitigation in the form of a financial contribution to support the conservation aims of the partnership.

2.1.2 Habitats

The habitats recorded on site during the EA (WYG, 2019) included:

- Mixed semi-natural woodland.
- Dense scrub.
- Scattered scrub.
- Broad-leaved scattered trees.
- Species-poor hedgerows.
- Poor semi-improved grassland.
- Tall ruderal.
- Dry ditch.
- Bare ground.
- Buildings.

None of the habitats recorded were of particular conservation value, however they did have the potential to support populations of protected and notable species which is discussed further below.

2.1.3 Desk Study Information on Protected and Notable Species

The desk study undertaken during the EA returned records of protected species within 2km of the site. The records relevant to this BMEP are provided below:

- There were 13 records of four reptile species.
- There were 67 records of up to 12 bat species and one EPSL granted.
- There were 10 records of badgers.
- A single EPSL for dormice was granted. No records were returned.
- There were seven records of otter.
- There were 238 records of 51 bird species.
- There were six records of hedgehogs.

2.1.4 Survey Data on Protected and Notable Species

- Due to the sites lack of connectivity to suitable reptile habitat, reptiles were considered unlikely to be present on site. However, in accordance with best practice, it was recommended that a precautionary approach to site clearance was followed in order to minimise the risk of harm to any reptiles in the unlikely instance that they are present.
- Buildings on site were assessed as providing high to moderate suitability for roosting bats. The site was assessed as providing low suitability for foraging and commuting bats. During the subsequent bat emergence / return surveys, common pipistrelles were confirmed to be roosting in buildings 2 and 4. Mitigation, compensation and enhancement measures were recommended (WYG, 2018).
- Evidence of badgers were identified on site. A precautionary approach involving a pre-construction badger check was recommended.

3.0 RELEVANT LEGISLATION AND PLANNING POLICY

3.1 LEGISLATION

Based on the findings of our assessment, it is considered that the proposals will need to consider the following legal provisions:

- The W&CA – Disturbance of nesting wild birds, disturbance or killing of reptiles; and
- Habitats Regulations – Disturbance, killing or habitat loss affecting a European Protected Species (EPS), i.e., bats.

3.2 REVISED NATIONAL PLANNING POLICY FRAMEWORK

A revised NPPF was issued on 20th July 2021 (Ministry of Housing Communities and Local Government, 2021) and currently supplements government Circular 06/2005, *Biodiversity and Geological Conservation: Statutory Obligations and their Impact within the Planning System* (Office of the Deputy Prime Minister, 2005).

Circular 06/2005 states that the presence of protected species is a material consideration in the planning process. Paragraph 174 of the NPPF also states that:

'Planning policies and decisions should contribute to and enhance the natural environment by:

- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan)*
- b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland*
- c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate*
- d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures*
- e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and*
- f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.*

Paragraph 185 is also relevant as;

'Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:...

- c) limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation'.*

3.3 LOCAL PLAN

The current adopted Local Plan is the Eastleigh Borough Local Plan 2016-2036 (adopted 2022).

Policy DM1 of the Local Plan states that:

'1. All new development should (as relevant):

a. not have an unacceptable impact on, and where possible should enhance:

i. residential amenities of both new and existing residents; the character and appearance of urban areas, the countryside and the coast;

ii. biodiversity (avoiding significant adverse impacts); and

iii. the significance of heritage assets

...d. not involve the loss of or damage to trees, woodlands, hedgerows, ponds, priority habitats or other landscape features of value to the character of the area, for appearance or biodiversity unless they can be replaced with features of equivalent or enhanced value, (recognising that some species and habitats may be irreplaceable)

...g. provide satisfactory management arrangements for all landscape, green infrastructure and biodiversity enhancement'.

4.0 MITIGATION AND ENHANCEMENT: HABITATS

The development of the site will retain some of the current habitats present in addition to the creation and enhancement of new habitats (ACD Environmental, 2022e-h).

4.1 MITIGATION

- The line of trees to the south-west of the site shall be retained and protected by BS5837:2012 barrier fencing, as described in the Arboricultural Impact Assessment and Method Statement (Middlemarch Environmental, 2019).

4.2 ENHANCEMENT

- Meadow grassland mixes shall be sown along the retained tree line as well as the wider site boundary and open spaces.
- Native shrub planting featuring the following species shall feature in the south-east of the site.
 - *Corylys avellana*, Hazel 35%
 - *Ilex aquifolium*, Holly 15%
 - *Lonicera periclymenum*, Honeysuckle 5%
 - *Sambucus nigra*, Elder 15%
 - *Viburnum opulus*, Guelder rose 30%
- Native hedgerow planting featuring the following species shall feature in the south-east of the site:
 - *Acer campestre*, Field Maple 15%
 - *Carpinus betulus*, Hornbeam 15%
 - *Crataegus monogyna*, Hawthorn 15%
 - Elder 10%
 - Honeysuckle 5%
 - *Prunus avium*, Wild cherry 10%
 - *Prunus spinosa*, Blackthorn 15%
 - *Rosa canina*, Dog rose 5%
 - *Viburnum Lantana*, Wayfaring tree 10%

5.0 MITIGATION AND ENHANCEMENT: PROTECTED AND NOTABLE SPECIES

5.1 NESTING BIRDS

The EA (WYG, 2019) recorded suitable habitat for nesting birds within the boundary habitats, which consisted of lines of trees and species-poor hedgerows. Existing, small stretches of hedgerow in the centre and to the east of the site will be removed to allow access and development of the site.

5.1.1 Mitigation

Any removal of vegetation will be undertaken outside nesting bird season, which runs from March to September inclusive. If this is not possible, then a thorough check for nesting birds will be made prior to site clearance by an experienced ecologist. If any active nests are found, they must remain in situ until all the young have fledged under their own accord and an appropriate buffer zone around the active nest must be established.

5.1.2 Enhancement

To enhance the site for nesting birds, it is recommended that five bird boxes are to be placed on trees or within hedgerows along the boundaries. These will include a combination of entrance hole bird boxes or open fronted bird box, as seen in Plate 1 and 2. In addition, thirty-two integral swift nest boxes/bricks will be installed on properties within the development. The proposed locations for the installation of bird boxes and integral swift boxes/bricks are shown on the site plan in Figure 2.



Plate 1 – Entrance hole bird box



Plate 2 – Open fronted bird box

When placing nest boxes, the following recommendations need to be considered:

- Boxes for tits, sparrows or starlings should be fixed two to four metres up a tree;
- Unless there are trees which shade the box during the day, face the box between north and east, thus avoiding strong sunlight and the wettest winds;
- Make sure that the birds have a clear flight path to the nest without any clutter directly in front of the entrance. Tilt the box forward slightly so that any driving rain will hit the roof and bounce clear; and
- Two boxes close together may be occupied by the same species if they are at the edge of adjoining territories and there is plenty of natural food. The exceptions to this are house

sparrows and house martins, which are colonial nesters. By putting up different boxes, several species can be attracted.

5.2 BATS

The EA (WYG, 2019) established the site as having low suitability to support foraging and commuting bats. However, due to small size of the site, the limited amount of connected habitat and lack of activity previously recorded on site, no activity surveys were recommended. It is likely that the site supports a low population of common bat species and measures have been recommended to minimise the impact of the proposals to bats.

A day roost for common pipistrelle was recorded in buildings 2 and 4 on site. The demolition of these buildings will result in the direct loss of these roosts and could cause disturbance, killing or injury of roosting bats in the absence of mitigation.

5.2.1 Mitigation

The existing treeline along the sites south-western boundary will be retained and protected by tree protection fencing in accordance with BS5837:2012. This will protect the commuting habitat during construction.

European Protected Species Licence

The proposals will result in the direct loss of bat roosts, therefore in order to proceed in accordance with legislation a bat licence will be required for demolition works to proceed. A bat license has been applied for and granted using the Bat Earned Recognition (BER) pilot scheme which offers a streamlined licensing process.

The BER will include an assessment of how the potential impacts to bats during demolition will be mitigated. Mitigation works for the demolition of the building will include:

- A toolbox talk given to contractors prior to the beginning of works to disseminate the method statement. This talk will include information on the bats roosting on site, bat signs and what to do if bats are found during works.
- The removal of any potential roosting features by hand or with hand tools under the supervision of a suitably experienced and licenced ecologist. Once all features with the potential to support roosting bats have been removed, the remaining demolition will take place.
- Details of compensation and enhancement roost features to be created as part of the proposals. In this instance it will include the installation of four bat boxes on retained trees within the site boundary (Schwegler 2FN or similar) prior to demolition.
- Measures for relocating any bats found during works. If active (i.e. not torpid) and temperatures are above 5°C, each bat found will be given a health check and relocated to a bat box (Schwegler 2FN or similar) installed prior to works commencing. The bat box will be installed within a suitable retained tree within the site boundary which will be retained in perpetuity once construction is complete. If the bats are injured they will be taken to the nearest bat hospital. Should torpid bats be encountered they will be taken to an appropriate bat carer until a period of suitable weather conditions to be released on site.

All survey, mitigation and development information must be included in the licence application to be submitted to Natural England for determination. A site can only be registered under a BER application once full planning permission is obtained and can only be granted:

“... for the purpose of preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment, to allow people to carry out activities which would otherwise be illegal.”

Full details of the ‘derogation tests’ that must be applied by the Local Planning Authority (LPA) prior to granting planning permission and again by Natural England when deciding whether to grant a license for activity which would harm a European Protected Species (such as bats) can be found in the Bat Emergence / Return Report (WYG, 2018).

Lighting

Artificial lighting is well documented as having an adverse effect on bats. A series of measures to avoid or reduce this impact are recommended by Institution of Lighting Professionals (2018).

It proposed lighting for the development site comprise LED lamps, with a low colour correlated temperature – preferably below 3500K (warm white). Lighting is directed groundward to avoid light spillage and away from boundary habitat. No external lighting will be directed at the retained vegetated boundaries.

During the construction phase, it is recommended that construction activity ceases 30 minutes before sunset between April and October, to avoid delaying the emergence of locally roosting bats because of artificial lighting. It is also recommended that construction activity commences again after sunrise to ensure that impacts to bats returning to local roosts does not occur.

A lighting plan for the site (MJA Consulting, drawing number: 6663-MJA-SW-XX-DR-C-005) illustrating modelled lux levels has been developed according to the best practice guidelines in the Bat Conservation Trust ‘Bats and Artificial Lighting Guidance Note’ (2018).

Modern Roof Membranes

In new buildings or where re-roofing / repair is required, best practice should be considered and the use of Modern Roofing Membranes (MRMs). Research by Waring *et al.* (2013) found that many roofing membranes pose a risk to bats. This was due to bats becoming trapped in loose fibres that are freed as membranes degrade and by the action of bats using them for roosting. Trapped bats are then unable to escape and will dehydrate and starve to death. As well as posing a risk to bats, many roofing membranes were also found to be damaged by bats, impairing their efficiency.

In research by Waring *et al.* (2013), these membranes were referred to as Breathable Roofing Membranes (BRM). Since this research was published, several other membrane types are available on the market, including Modern Roofing Membranes (MRM).

In the latest advice from the Bat Conservation Trust (2022), the terminology has therefore been changed to ‘Non-Bitumen-Coated Roofing Membranes’ so that all potentially hazardous materials are included. However, the guidance is unchanged, and the use of Non-Bitumen-Coated Roofing Membranes should be avoided. Instead, it is recommended that Type 1F bitumen and hessian underfelt should be considered as an alternative. Natural England will not grant an EPSL for a building with a bat roost where Non-Bitumen-Coated Roofing Membranes are used.

5.2.2 Enhancement

To enhance the site for bats, bat tubes or bricks shall be included in the development. In addition to the four compensatory bat boxes for the bat licence discussed in section 5.2.1, fifteen integral bat tubes (Schwegler 1FR or similar) or bricks shall be installed in new buildings. Lighting shall be directed away from these new potential roosting locations.

The locations of these tubes may change dependant on the practicalities of installing bat tubes or bricks in the built structures, but the minimum numbers for the site will not change.

5.3 OTHER PROTECTED AND NOTABLE SPECIES

5.3.1 Mitigation

The proposed development site contains habitat suitable for supporting hedgehogs. The dismantling of log piles and debris on site should be undertaken with frequent, precautionary checks for hedgehogs, under the supervision of an ECoW (Ecological Clerk of Works). Longer grass and other vegetation on site should be cut in stages to allow for escape.

To protect wildlife including hedgehog and badger on site during the construction process, all excavations must be covered nightly and / or include a suitable ramp to allow for escape in the unlikely event an animal falls into the excavation. A suitable ramp can be a wooden plank or a sloping edge at an angle of no more than 45-degrees. Any open pipe systems should be carefully checked and then capped when not in use to prevent wildlife accessing and becoming trapped.

A precautionary approach is recommended for reptiles, which are considered unlikely to be present. This will involve the delivery of a toolbox talk by a suitably qualified ecologist, informing all contractors of the low risk of finding reptiles. During the displacement works, vegetation will be strimmed to 150mm, in a uniform direction towards the site's eastern boundary. Destructive searches will follow during the reptile active season (March-October inclusive). An ECoW will be required to supervise both the displacement works and the destructive searches. In the event of a reptile being located, works will stop and the ECoW will relocate the reptile to the designated area of suitable habitat east of the site.

A pre-construction badger check is recommended due to possible evidence of badgers on site (mammal runs and snuffle holes). This shall be completed prior to any construction works and will involve a suitably qualified ecologist searching the site for evidence of newly created badger setts.

5.3.2 Enhancement

To enhance the site for protected and notable species, the following enhancements will be incorporated.

- A log pile created from cleared vegetation shall be placed within the boundary habitats;
- An 'insect hotel' shall be erected in a similar location to the log pile; and
- Hedgehog highways shall be installed into fences / gravel boards of the residential gardens. These will be placed, where suitable between all gardens and areas of open spaced to provide full connectivity between the residential plots on the site and the surrounding area. Locations of these highways are presented in Figure 2.

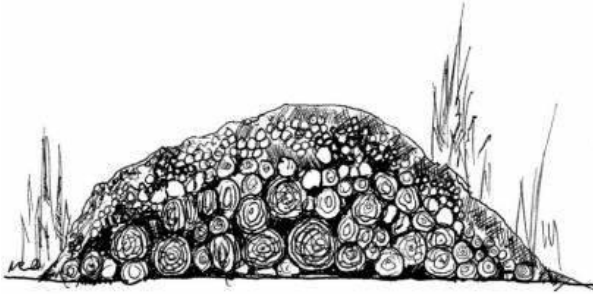


Plate 3 – Example of a natural log pile (from ARG UK, 2018).



Plate 4 – Example design for an Insect Hotel

6.0 REFERENCES

- ACD Environmental, (2022a) *Hard Landscape Proposals (sheet 1)*. ACD Environmental: Malmesbury
- ACD Environmental, (2022b) *Hard Landscape Proposals (sheet 2)*. ACD Environmental: Malmesbury
- ACD Environmental, (2022c) *Hard Landscape Proposals (sheet 3)*. ACD Environmental: Malmesbury
- ACD Environmental, (2022d) *Hard Landscape Proposals (sheet 4)*. ACD Environmental: Malmesbury
- ACD Environmental, (2022e) *Landscape Proposals (sheet 1)*. ACD Environmental: Malmesbury
- ACD Environmental, (2022f) *Landscape Proposals (sheet 2)*. ACD Environmental: Malmesbury
- ACD Environmental, (2022g) *Landscape Proposals (sheet 3)*. ACD Environmental: Malmesbury
- ACD Environmental, (2022h) *Landscape Proposals (sheet 4)*. ACD Environmental: Malmesbury
- ARG UK, (2018), *Managing Habitats for Adders: Advice for Land Managers*. Available at: <https://www.arguk.org/downloads-in-pages/resources/advice-notes/416-11-advice-note-11-managing-habitat-for-adders-advice-for-land-managers-may-2018/file>, Accessed June 2022.
- Bat Conservation Trust, (2018) *Bats and artificial lighting guidance note*. Available at: <https://www.bats.org.uk/our-work/buildings-planning-and-development/lighting>, Accessed June 2022.
- Bat Conservation Trust, (2022) *Things to consider when planning works: roofing membranes*. Available at: <https://www.bats.org.uk/advice/im-working-on-a-building-with-bats/things-to-consider-when-planning-works/roofing-membranes>, Accessed June 2022.
- Birds Aware Solent, (2017) *Solent Recreation Mitigation Strategy*. Available at https://birdaware.org/solent/wp-content/uploads/sites/2/2021/10/Solent_Recreation_Mitigation_Strategy.pdf, Access June 2022.
- Eastleigh Borough, (adopted 2022) *Eastleigh Borough Local Plan 2016-2036*, [online] Available at <https://www.eastleigh.gov.uk/media/11234/eastleigh-borough-local-plan.pdf>, Accessed June 2022.
- ILP, (2018), *Bats and artificial lighting in the UK: Bats and the Built Environment series*, [online] Available at <https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>, Accessed June 2022
- Middlemarch Environmental, (2019) *Boorley Green Development Phase 2 (non-residential), Boorley Green, Hampshire Arboricultural Impact Assessment and Method Statement*. Middlemarch Environmental: Coventry
- Ministry of Housing Communities and Local Government, (2021), *National Planning Policy Framework*, [online] Available at

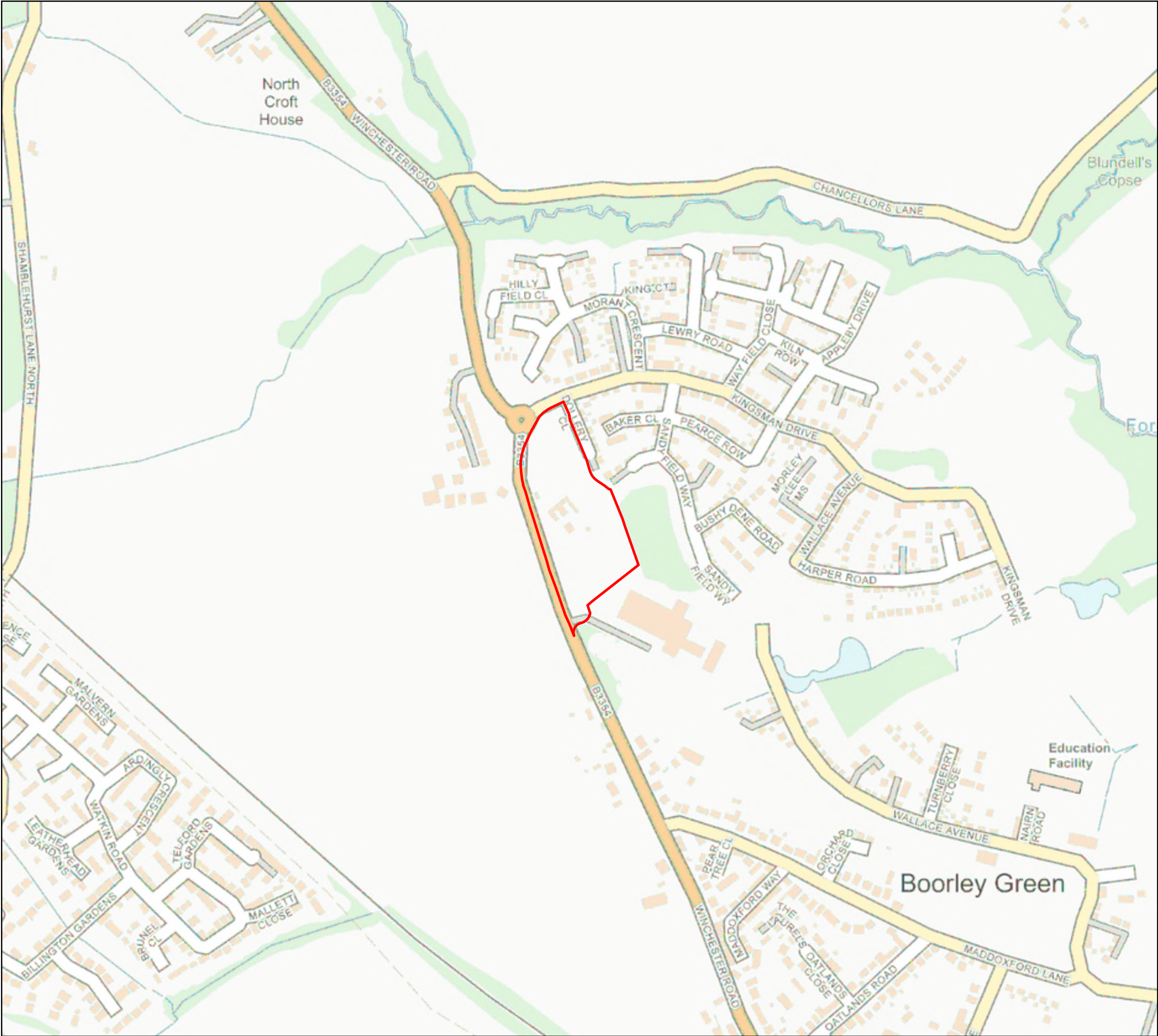
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005759/NPPF_July_2021.pdf, Accessed June 2022

- Office of the Deputy Prime Minister, (2005), *Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System*, [online] Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/7692/147570.pdf, Accessed June 2022
- Waring, S. D., Essah, E. A., Gunnell, K., Bonser, R. H. C., (2013), Double jeopardy: The potential for problems when bats interact with breathable roofing membranes in the United Kingdom, *Architecture and environment*, 1(1):1-13.
- WYG, (2019), *Braxells Farm, Ecological Appraisal*. On behalf of Boorley Green Consortium.
- WYG, (2018), *Braxells Farm, Bat Emergence / Return Survey Report*. On behalf of Boorley Green Consortium.

FIGURES

Figure 1 – Site Location Plan

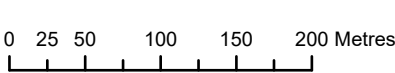
Figure 2 – Post-development Enhancement Map



Rev	Date	Notes
A	17/06/22	Initial map production

Legend

Site boundary



Site Location Plan

**Boorley Green Gateway
Vistry Homes Limited**

Scale at A3: 1:5,000	Project No: 784-B034998	Drawing No: Figure 2	Revision: A
Drawn by: Jade Bowling	Drawn date: 20/06/2022	Approved by: Harriet Kimber	

Contains Ordnance Survey Data © Crown copyright and database right 2017. © Northern Ireland Environment Agency.
Open Government Data reproduced contains public sector information licensed under the Open Government Licence v3.0
Other Credits: OS, Open_Raster: Contains OS data © Crown Copyright and database right 2020



Rev	Date	Notes
A	17/06/22	Initial map production

Legend

- Site boundary
- Ditches / SuDS - Urban
- Gardens - Urban
- Houses/ pavements/ roads etc - Urban
- Hedge planting - Formal
- Native hedge planting - Mixed
- Native shrub planting - Mixed
- Shrub planting
- Meadow grassland seed mix - Woodland
- Meadow grassland seed mix - General purpose
- Grass areas
- Retained existing treeline, to be protected by fencing
- Bat tube or brick
- Bird box
- Hedgehog highway
- Insect hotel
- Log pile
- Integral swift nest boxes

0 5 10 20 30 40 50 Metres



Post-Development Enhancement Plan

Boorley Green Gateway
Vistry Homes Limited

Scale at A3: 1:1,250	Project No: 784-B034998	Drawing No: Figure 2	Revision: A
Drawn by: Jade Bowling	Drawn date: 10/08/2022	Approved by: Harriet Kimber	

Contains Ordnance Survey Data © Crown copyright and database right 2017. © Northern Ireland Environment Agency.
Open Government Data reproduced contains public sector information licensed under the Open Government Licence v3.0
Other Credits: World Imagery: Maxar, Microsoft

APPENDIX A – REPORT CONDITIONS

This Report has been prepared using reasonable skill and care for the sole benefit of [Vistry Homes Limited] (“the Client”) for the proposed uses stated in the report by [Tetra Tech Limited] (“Tetra Tech”). Tetra Tech exclude all liability for any other uses and to any other party. The report must not be relied on or reproduced in whole or in part by any other party without the copyright holder’s permission.

No liability is accepted or warranty given for; unconfirmed data, third party documents and information supplied to Tetra Tech or for the performance, reliability, standing etc of any products, services, organisations or companies referred to in this report. Tetra Tech does not purport to provide specialist legal, tax or accounting advice.

The report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections’. Environmental conditions can vary and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times. No investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather-related conditions. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions. The “shelf life” of the Report will be determined by a number of factors including; its original purpose, the Client’s instructions, passage of time, advances in technology and techniques, changes in legislation etc. and therefore may require future re-assessment.

The whole of the report must be read as other sections of the report may contain information which puts into context the findings in any executive summary.

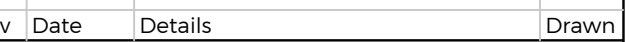
The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. Tetra Tech accept no liability for issues with performance arising from such factors.

APPENDIX B – PROPOSED HARD LANDSCAPE PLANS

NOTES:
DO NOT SCALE FROM DRAWING
NOT FOR CONSTRUCTION, FOR PLANNING
PURPOSES ONLY

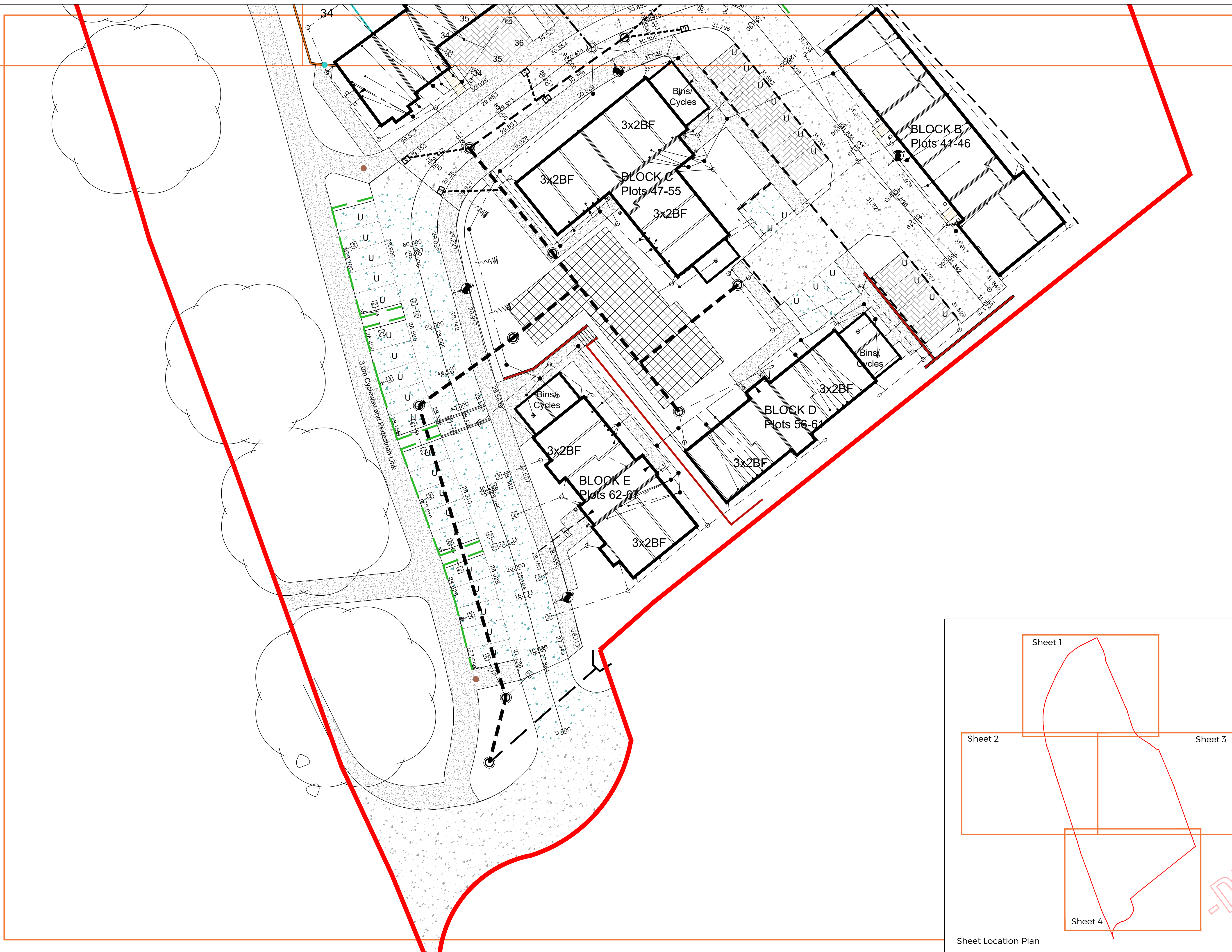
	Tarmac to road and footpaths. Laid in line with engineer's details
	Impermeable Tarmac to road and footpaths. Laid in line with engineer's details
	Keylock paving to private drives/hard parking areas in charnock. Laid in herringbone pattern, from Marshalls or similar and approved. Laid in line with engineer's details.
	Keylock paving to adoptable finished carriageway and shared surfaces in brindle. Laid in herringbone pattern with white blocks to demarcate parking pattern, from Marshalls or similar and approved. Laid in line with engineer's details.
	Proposed rubble strip to delineate surface change. made from concrete slabs 100x100mm in light grey. From Marshalls or similar and approved.
	Charcoal Buff River concrete paving slabs 450x450mm. laid in stack bond from Marshalls or similar and approved. Laid in line with engineer's details.
	Priora permeable paving to private drives /hard parking areas in charnock. Community / shared parking areas in Brindle, laid in herringbone pattern, from Marshalls or similar and approved. Laid in line with engineer's details.

	1.8m High Brick wall to engineers specification
	1.8m High Closeboard fence, with integrated hedgehog holes 1 per section of fence
	1.8m High Larch Lap fence, with integrated hedgehog holes 1 per section of fence
	Gate Position, all gates to be Closeboard gate unless otherwise specified
	0.45m High Timber Knee Rail
	0.6m High Timber Bollards
	Stainless Steel Sheffield Cycle Stand by Marshalls or similar and approved
Services Proposed position of Storm Water Sewer & Inspection Chamber. See drainage engineer design for details. Proposed position of Foul Sewer & Inspection Chamber. See drainage engineer design for details. Proposed position of Underground Attenuation Tank. See drainage engineers design for details. Proposed position of Foul Drain. See drainage engineers design for details. Proposed position of Street Lighting Column. See lighting engineers design for details.	



scheme: Boorley Green Gateway
 Winchester Road, Botley
 client: Vistry Homes
 drawing: Hard landscape Proposals
 date: May 2022
 scale: 1:200@A1
 drawing no: VYH23647 12 Sheet 1
 drawn: RH checked: DKM

Copyright of ACD Environmental Ltd. All rights described in Chapter IV of the Copyright, Designs and Patents Act 1988 have been generally asserted: 2011. Copyright of this plan remains with ACD until all fees have been paid in full.



SPECIFICATION
All works generally, to comply with the written Soft
Landscape Specification.

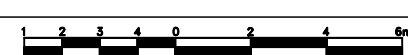
NOTES:
DO NOT SCALE FROM DRAWING
NOT FOR CONSTRUCTION, FOR PLANNING
PURPOSES ONLY

Legend

- | | |
|---|--|
|  | Tarmaco to road and footpaths. Laid in line with engineer's details |
|  | Impermeable Tarmac to road and footpaths. Laid in line with engineer's details |
|  | Keylock paving to private drives/shared parking areas in charcoal, laid in herringbone pattern, from Marshalls or similar and approved. Laid in line with engineer's details. |
|  | Keylock paving to adoptable finished carriageway and shared surfaces in private drives in herringbone pattern with white blocks to demarcate parking spaces, from Marshalls or similar and approved. Laid in line with engineer's details. |
|  | Proposed rumble strips to delineate surface of proposed, made up of concrete slabs 100x100mm in silver grey. From Marshalls or similar and approved. |
|  | Charcoal Buff River concrete paving slabs 450x450mm, laid in stack bond from Marshalls or similar and approved. Laid in line with engineer's details. |
|  | Priora permeable paving to private drives /shared parking areas in charcoal, Community Hub shared parking areas in Brindle, laid in herringbone pattern, from Marshalls or similar and approved. Laid in line with engineer's details. |

Enclosure

- | | |
|---|--|
|  | 1.8m High Brick wall to engineers specification |
|  | 1.6m High Closeboard fence, with integrated hedghog holes 1 per section of fence |
|  | 1.8m High Larch Lap fence, with integrated hedghog holes 1 per section of fence |
|  | Gate Position, all gates to be Closeboard gate unless otherwise specified |
|  | 0.45m High Timber Knee Rail |
|  | 0.6m High Timber Bollards |
|  | Stainless Steel Sheffield Cycle Stand by Marshalls or similar and approved |
| Services | |
|  | Proposed position of Storm Water Sewer & Inspection Chamber. See drainage engineer design for details. |
|  | Proposed position of Foul Sewer & Inspection Chamber. See drainage engineer design for details. |
|  | Proposed position of Underground Attenuation Tank. See drainage engineers design for details. |
|  | Proposed position of Foul Drain. See drainage engineers design for details. |
|  | Proposed position of Street Lighting Column. See lighting engineers design for details |



Rev	Date	Details	Drawn
-----	------	---------	-------



HEAD OFFICE
Rodbourne Rail Business Centre, Grange Lane,
Malmesbury, SN16 0ES
Tel: 01666 825646

4 & 5 The Old Mill, Fry's Yard, Bridge Street,
Godalming, GU7 1HP
Tel: 01483 425714

Suite 6, Crescent House, Yonge Close,
Eastleigh, SO50 9SX
Tel: 02382 026300

email: mail@acdenv.co.uk
www.acdenvironmental.co.uk

Vistry Homes

scheme: Boorley Green Gateway
Winchester Road, Botley

client: Vistry Homes

drawing: Hard landscape Proposals

date: May 2022

scale: 1:200@A1

Drawing no: VYH23647 12 Sheet 4

drawn: RH checked: DKM

Copyright of ACD Environmental Ltd. All rights described in Chapter IV of the Copyright, Designs and Patents Act 1988 have been generally asserted: 2011. Copyright of this plan remains with ACD until all fees have been paid in full.

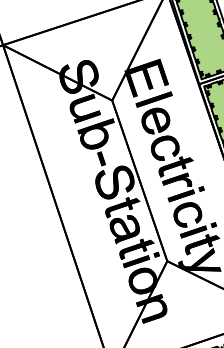
APPENDIX C – PROPOSED SOFT LANDSCAPE PLANS

Species Name	Girth	Height	Density	Specification	No.
<i>Crataegus monogyna</i>	100-125cm	0.4Cr	Double Staggered at 0.3m offset	Transplant	60
<i>Carpinus betulus</i>	100-125cm	0.4Cr	Double Staggered at 0.3m offset	Transplant	60
<i>Juniperus communis</i>	200-250cm	0.4Cr	Double Staggered at 0.3m offset	Feathered 2x 1R	75
<i>Carpinus betulus</i>	200-250cm	0.4Cr	Double Staggered at 0.4m offset	Feathered 2x 1R	75
<i>Acer campestre</i>	8-10cm	250-300cm	0.4Cr Double Staggered at 0.3m offset	Standard B	60
<i>Prunus aria</i> 'Maelsica'	12-14cm	400-450cm	Counted	Heavy Standard Clear Stem min. 200 : 5 brks : 3x 1R	60
<i>Prunus calleryana</i> 'Chanticleer'	12-14cm	350-425cm	Counted	Heavy Standard Clear Stem min. 200 : 5 brks : 3x 1R	60
<i>Betula pendula</i>	18-20cm	450-500cm	Counted	Extra Heavy Standard Clear Stem min. 200 : 10 brks : 3x 1R	60
<i>Acer campestre</i>	10cm	450-500cm	Counted	Extra Heavy Standard Clear Stem min. 200 : 10 brks : 3x 1R	60
<i>Corylus colunda</i>	20-25cm	500-600cm	Counted	Semi-Mature Clear Stem min. 200 : 3x4x 1R	17

Shrubs						
Species Name	Height	Pot Size	Specification	Density	No.	
Cornus sanguinea	30-40cm	5-7.5L	Bushy	C	4/m ²	155
Cornus sanguinea 'Midwinter Fire'	30-40cm	5-7.5L	Bushy	C	4/m ²	23
Euonymus fortunei 'Dart's Blanke'	30-40cm	3L	Bushy	5 brks	C 4/m ²	174
Euonymus fortunei 'Emerald Gaiety'	30-40cm	3L	Bushy	5 brks	C 4/m ²	136
Hebe 'Midsummer Beauty'	30-40cm	3L	Bushy	C	0.5Ctr	101
Hebe albicans 'Red Edge'	30-40cm	3L	Bushy	C	0.5Ctr	381
Hebe brachycephala 'White Gem'	30-40cm	3L	Bushy	C	0.5Ctr	279
Hydrangea macrophylla 'Zebra'	30-40cm	3L	Bushy	C	0.5Ctr	117
Osmanthus burkwoodii	30-40cm	3L	Bushy	4 brks	C 0.5Ctr Double Staggered at 0.4m offset	517
Pachysandra terminalis	15-20cm	3L	Bushy	C	0.5Ctr	46
Prunus spinosa	80-100cm		Branched		0.4Ctr Double Staggered at 0.3m offset	60
Rosa canina	80-100cm		Branched		0.4Ctr Double Staggered at 0.3m offset	20
Rosa rugosa	60-80cm		Branched		0.4Ctr Double Staggered at 0.3m offset	20
Skimmia confusa 'New Green'	30-40cm	3L	Bushy	C	0.5Ctr	423
Skimmia japonica 'Rubella'	30-40cm	3L	Bushy	C	0.5Ctr	43
Viburnum davidii	40-60cm	5-7.5L	Bushy	C	0.5Ctr	129
Viburnum lantana	80-80cm		Bushy		0.4Ctr Double Staggered at 0.3m offset	29
Viburnum opulus	60-80cm	5-7.5L	Bushy	C	0.5Ctr	162
Viburnum opulus 'Compactum'	30-40cm	3L	Bushy	4 brks	C 0.5Ctr Double Staggered at 0.4m offset	568
Viburnum tinus	40-60cm	5-7.5L	Bushy	C	0.5Ctr	162

Climbers					
Species Name	Height	Pot Size	Specification	Density	No.
<i>Lonicera periclymenum</i>	60-80cm		Several Shoots	0.4Ctr Double Staggered at 0.3m offset	20 -

Herbaceous	Species Name	Height	Pot Size	Specification	Density No.
	<i>Deschampsia cespitosa</i>	3L	Full Pot	0.5Cr	393
	<i>Geranium 'Johnson's Blue'</i>	3L	Full Pot	0.5Cr	394
	<i>Geranium renardii</i> 'Brookside'	3L	Full Pot	0.5Cr	467
	<i>Heuchera micrantha</i> 'Palace Purple'	3L	Full Pot	0.5Cr	162
	<i>Periscaria affinis</i> 'Dareeling Red'	5-7.5L	Full Pot	0.5Cr	142
	<i>Sedum spectabile</i> 'Brilliant'	5-7.5L	Full Pot	0.5Cr	65
	<i>Stipa tenuissima</i>	5-7.5L	Full Pot	0.5Cr	122
	<i>Verbena bonariensis</i>	5-7.5L	Full Pot	0.5Cr	99



- NOTES:
DO NOT SCALE FROM DRAWING
NOT FOR CONSTRUCTION, FOR PLANNING
PURPOSES ONLY

- | | |
|---|---|
|  | Existing trees to be retained and protected during construction |
|  | Proposed tree planting within soft landscape. See detail on sheet 1 |
|  | Proposed tree planting within hard landscape. See detail on sheet 1 |
|  | Proposed formal hedge planting to be planted in a double staggered row 300mm apart and at 400mm centres in each row. To be maintained at 1m height. |
|  | Proposed mixed native hedge planting to be planted in a double staggered row 300mm apart and at 400mm centres in each row. To be maintained at 1m height and 1.5m height adjacent to site boundaries. Stranded wire fences, to be erected to run through the centre of the proposed hedgerow. |
|  | Proposed shrub planting to receive 75mm bark mulch after planting operations |
|  | Proposed native mix shrub planting to be planted in groups of 5-7m, of each species and as above |
|  | Proposed meadow grassland to be seeded with EM2 Mixture as supplied by Emorsgate and sown at 4 grams per msq, or similar and approved. |
|  | Proposed meadow grassland to be seeded with EW1 Woodland Mixture as supplied by Emorsgate and sown at 4 grams per msq, or similar and approved. |
|  | Proposed grass areas to receive good quality amenity grass turves laid in line with good horticultural practices |
|  | Proposed SuDs to be to be seeded with EM8 seed mix as supplied by Emorsgate Seeds and sown at 4 grams per msq, or similar and approved |
|  | Proposed self-binding gravel through open space and natural green areas and (Breedon Golden Amber, or similar and approved) |
|  | Proposed 400mm wide 75mm depth bark mulch strip over weed proof membrane to about planting adjacent to sides or ends of parking bays |
|  | Proposed timber bench & bin RBA8 & J2822 from Protolitic or similar and approved |
|  | Cut lines - See sheet location plan on sheet 4 |
| Services | |
|  | Proposed position of Storm Water Sewer & Inspection Chamber. See drainage engineer design for details. |
|  | Proposed position of Foul Sewer & Inspection Chamber. See drainage engineer design for details. |
|  | Proposed position of Underground Attenuation Tank. See drainage engineers design for details. |
|  | Proposed position of Foul Drain. See drainage engineers design for details. |
|  | Proposed position of Street Lighting Column. See lighting engineers design for details |

[illegible]

HEAD OFFICE
Rodbourne Rail Business Centre, Grange Lane,
Malmesbury, SN16 0ES
Tel: 01666 825646

**4 & 5 The Old Mill, Fry's Yard, Bridge Street,
Godalming, GU7 1HP
Tel: 01483 425714**

**Suite 6, Crescent House, Yonge Close,
Eastleigh, SO50 9SX
Tel: 02382 026500**

**email: mail@acdcenv.co.uk
www.acdcenvironmental.co.uk**

Vistry Homes

scheme: Boorley Green Gatewa
Winchester Road, Botley
client: Vistry Homes
drawing: Landscape Proposals
date: May 2022
scale: 1:200@A1
rawing no: VYH23647 11 Sheet 2
rawn: RH/RK checked: DKM

Copyright of ACD Environmental Ltd. All rights described in Chapter IV of the Copyright, Designs and Patents Act 1988 have been generally asserted: 2011. Copyright of this plan remains with ACD until all fees have been paid in full.



Vistry Homes

scheme: Boorley Green Gateways
Winchester Road, Botley
client: Vistry Homes
drawing: Landscape Proposals
date: May 2022
scale: 1:200@A1
drawing no: VYH23647 11 Sheet 3
drawn: RH/RK checked: DKM

Copyright © Vistry Environmental Ltd. All rights described in Chapter IV of the Copyright, Designs and Patents Act 1988 have been generally assigned 2011. Copyright of this plan remains with ACD until all fees have been paid in full.



Mixed Native Hedge
60No Acer campestre 15%
20No Rosa canina 5%
60No Crataegus monogyna 15%
40No Prunus avium 10%
60No Prunus spinosa 15%
Gaiety Sambucus nigra 10%
40No Carpinus betulus 15%
20No Lonicera periclymenum 5%
40No Viburnum lantana 10%

SPECIFICATION
All works generally, to comply with the written Soft
Landscape Specification.

NOTES:
DO NOT SCALE FROM DRAWING
NOT FOR CONSTRUCTION, FOR PLANNING
PURPOSES ONLY

Legend

- | | |
|---|---|
|  | Existing trees to be retained and protected during construction |
|  | Proposed tree planting within soft landscape. See detail on sheet 1 |
|  | Proposed tree planting within hard landscape. See detail on sheet 1 |
|  | Proposed formal hedge planting to be planted in a double staggered row 300mm apart and at 400mm centres in each row. To be maintained at 1m height. |
|  | Proposed mixed native hedge planting to be planted in a double staggered row 300mm apart and at 400mm centres in each row. To be maintained at 1m height and 1.8m height adjacent to site boundaries. Strained wire fences, to be erected to run through the centre of the proposed hedgerow. |
|  | Proposed shrub planting to receive 75mm bark mulch after planting operations |
|  | Proposed native mix shrub planting to be planted in groups of 5-7no. of each species and as above |
|  | Proposed meadow grassland to be seeded with EM2 Mixture as supplied by Emorgate and sown at 4 grams per m ² , or similar and approved |
|  | Proposed meadow grassland to be seeded with EW1 Woodland Mixture as supplied by Emorgate and sown at 4 grams per m ² , or similar and approved |
|  | Proposed grass areas to receive good quality amenity grass turves laid in line with good horticultural practices |
|  | Proposed SuDs to be seeded with EM8 seed mix as supplied by Emorgate Seeds and sown at 4 grams per m ² , or similar and approved |
|  | Proposed self-binding gravel through open space and natural green areas and (Breedon Golden Amber, or similar and approved) |
|  | Proposed 400mm wide 75mm depth bark mulch strip over weed proof membrane to about planting adjacent to sides or ends of parking bays |
|  | Proposed timber bench & bin RBA8 X 2822 from Proloucic or similar and approved. |
|  | Cut lines - See sheet location plan on sheet 4 |
| Services | |
|  | Proposed position of Storm Water Sewer & Inspection Chamber. See drainage engineer design for details. |
|  | Proposed position of Foul Sewer & Inspection Chamber. See drainage engineer design for details. |
|  | Proposed position of Underground Attenuation Tank. See drainage engineers design for details. |
|  | Proposed position of Foul Drain. See drainage engineers design for details. |
|  | Proposed position of Street Lighting Column. See lighting engineers design for details |

Planting Schedule on Sheet 2

[illegible]

HEAD OFFICE
Rodbourn Rail Business Centre, Grange Lane,
Malmesbury. SN16 0ES
Tel: 01666 825646

4 & 5 The Old Mill, Fry's Yard, Bridge Street,
Godalming, GU7 1HP
Tel: 01483 425714

Suite 6, Crescent House, Yonge Close,
Eastleigh, SO50 9SX
Tel: 02382 026300

email: mail@acdenv.co.uk
www.acdenvironmental.co.uk

Vistry Homes

scheme: Boorley Green Gateway
Winchester Road, Botley

client: Vistry Homes

drawing: Landscape Proposals

date: May 2022

scale: 1:200@A1

drawing no: VYH23647 11 Sheet 4
drawn: RH/RK checked: DKM

Copyright of ACD Environmental Ltd. All rights described in Chapter IV of the Copyright, Designs and Patents Act 1988 have been generally asserted: 2011. Copyright of this plan remains with ACD until all fees have been paid in full.