



Land off the A363 White Horse Business Park

Trowbridge

DESIGN AND ACCESS STATEMENT
ADDENDUM

July 2023

Turley

Foreword

This Design and Access Statement (DAS) addendum document has been produced for Castlewood Property Ltd by Turley. It supports the revisions to the outline planning application for the proposed development on Land off the A363 White Horse Development Park (Application reference: 20/03641/OUT).

It has been produced in conjunction with a wider project team of environmental and technical consultants.

The document describes the proposals of the masterplan in response to the various site specific considerations undertaken by the wider consultant team, through post submission conversations with Wiltshire Council.

This Addendum should also be read in conjunction with the original DAS, Planning Statement, and other associated specialist reports and drawings which were submitted in support of the planning application.

Contact

Daniel Hilliard
Urban Designer
daniel.hilliard@turley.co.uk

Office Address

40 Queen Square
Bristol, BS1 4QP

Telephone

0117 989 7000

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Contents

Introduction	5	Landscape & Ecology Strategy	37
The Wider Site	6	Landscape Overview	38
Site Constraints & Opportunities	8	Landscape Strategy	40
Design	11	Ecology Overview	48
The Revised Proposals	12	Drainage Strategy	50
The Proposals	14	Conclusion	53
Land Use	16	Conclusion	54
Density	18		
Building Heights	20		
Access & Movement	22		
Street Hierarchy	24		
Pedestrian and Cycle Movement	30		
Noise	32		
Air Quality	32		
Lighting	32		
Appearance	34		





01

Introduction

The Wider Site

The wider site, extending from Bradley Road to Westbury Road is allocated in the Wiltshire Housing Site Allocations Plan (adopted February 2020) for development under Policy H2.2 Land off the A363 at White Horse Business Park. Residential development on the site is therefore supported in principle.

The development of this site for housing would result in a logical extension to the settlement of Trowbridge. Policy H2.2 states the following objectives for the development of the site:

- Core bat habitat will be protected and enhanced. Design and layout will be informed by appropriate surveys, impact assessments and the Trowbridge Bat Mitigation Strategy (TBMS);
- Appropriate mitigation to protect bats, including financial contributions towards management, monitoring and any off-site measures as necessary, as informed by the TBMS;
- Retention and enhancement of existing hedgerows and trees as part of wider landscaping and green infrastructure requirements;
- Incorporating open space provision. Development will be expected to enhance a key gateway approach to the town and retain visual separation between Trowbridge and North Bradley;
- Sensitive design and layout, which ensures the significance of heritage assets and their settings are not subject to unacceptable harm. This shall be informed by appropriate heritage and archaeological assessments. Development proposals will make a positive contribution towards conserving and enhancing the significance of the Baptist burial ground, its gateway and its setting; and
- A Flood Risk Assessment (incorporating an assessment of the predicted effects of climate change) and comprehensive drainage strategy to inform site layout and design so that surface water is controlled and does not exacerbate flooding off-site.
- A Noise Impact Assessment highlighting the impacts of traffic noise from the A363 and Woodmarsh on the dwellings within the site.

This DAS addendum will focus on Castlewood Property land (which will be referred to as 'The Site').



Bradley Road (A363)



White Horse
Business Park

Baptist Burial
Ground

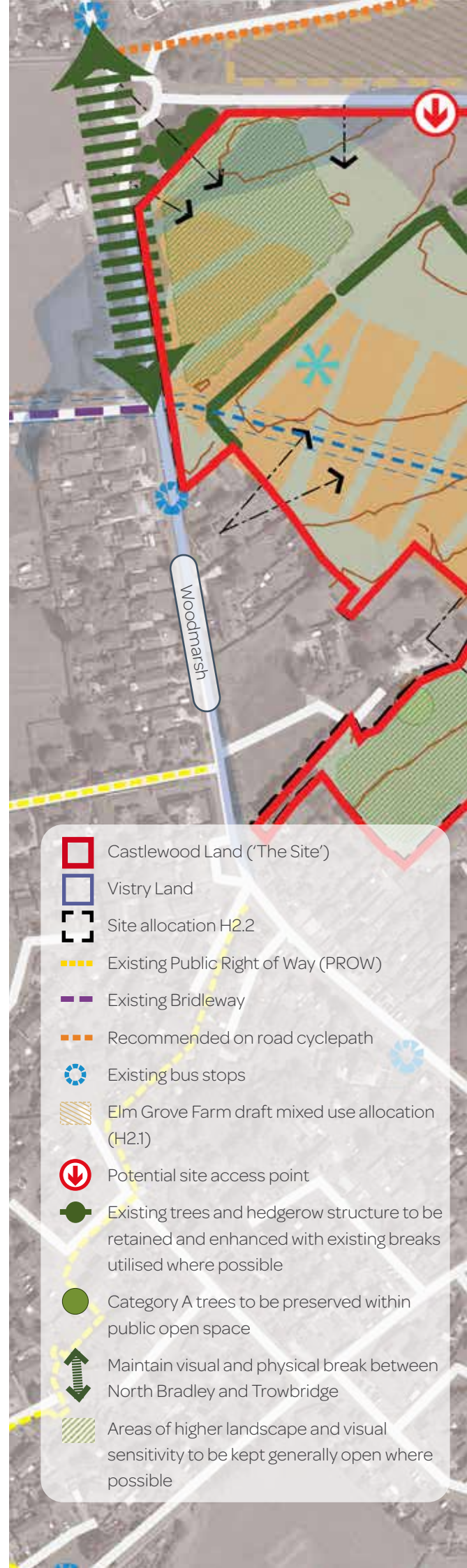
Hitachi Capital
Vehicle
Solutions

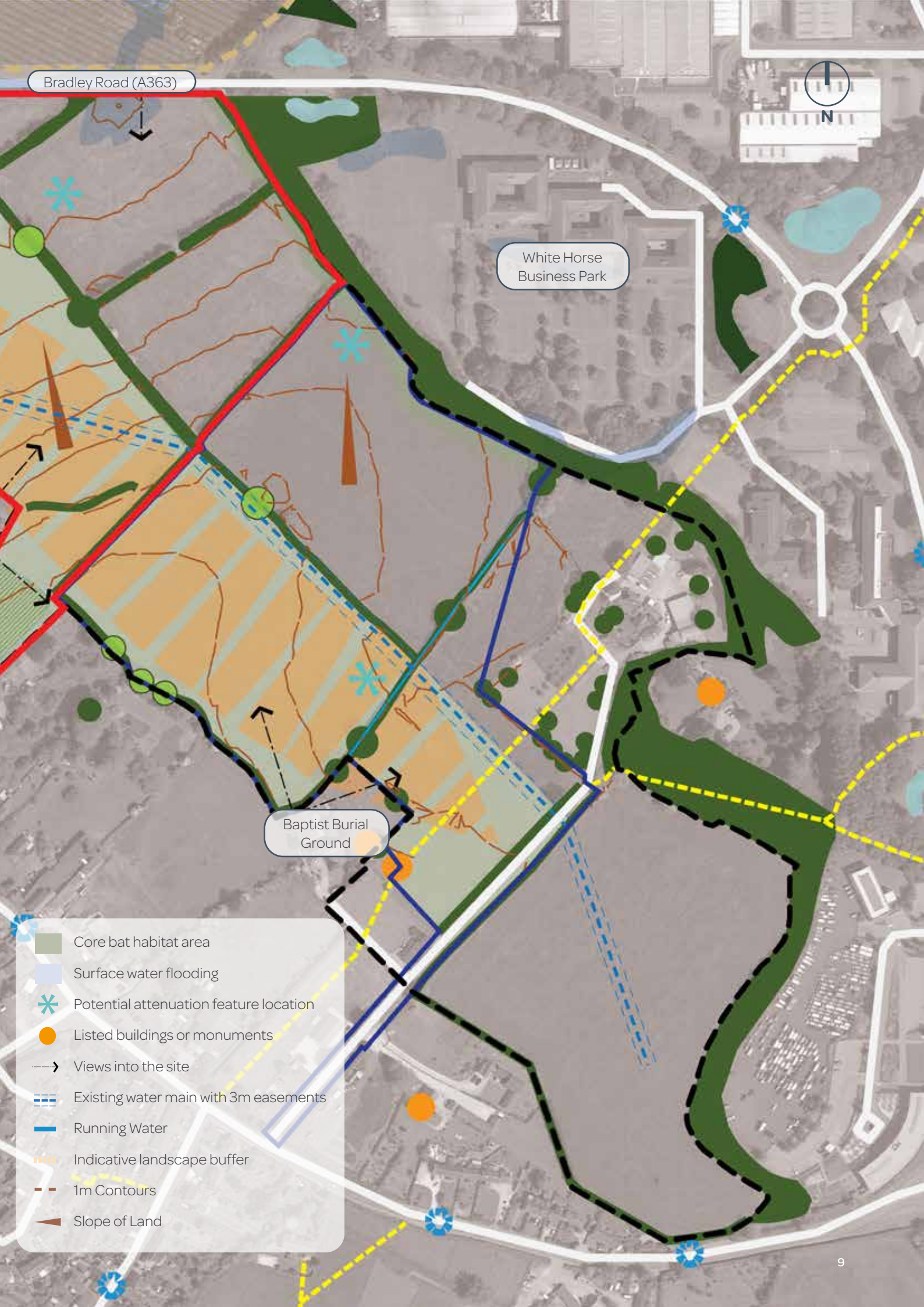
Site Constraints & Opportunities

The site assessment undertaken across both sites has identified site specific constraints and opportunities that will underpin the design elements for both Castlewood Properties land and Vistry Group land. Key considerations include:

- Core Bat Habitat to be protected and buffered where possible, but overall aim is maintain/provide a coherent/robust habitat for bats to move through the landscape.
- Retain areas of higher landscape and visual sensitivity as public open space.
- The woodland belts associated with the White Horse Business Park and the network of mature hedgerows and trees should be retained, where possible.
- The separation between North Bradley and Trowbridge should be respected and protected with a landscaped separation zone to provide an area of open space between the village and the development.
- New highway access via A363 Bradley Road that would connect through Castlewood Land into Vistry Group Land and onto Woodmarsh via Little Common.
- Connection point between developments to create a clear through route in the site allocation land.
- Maintaining privacy and security to rear garden boundaries of existing properties backing onto the site.
- The draft allocation for mixed use development at Elm Grove Farm to the north would potentially push the settlement edge of Trowbridge further south to abut the northern boundary of the Site.
- Make connections between the wider allocation site and existing Public Rights of Way (PROWs).
- There is potential for a crossing point along Woodmarsh in order to provide improved pedestrian connectivity to Trowbridge.
- Attenuation features for capturing surface water runoff should be incorporated within the site, preferably at the lowest topographical point of the site.
- Ensure no development takes place within the easement of the existing water main that crosses the allocation site.

NOTE: Constraints information for Vistry Land taken from submitted DAS (Application REF: 20/05805/OUT)





Bradley Road (A363)

White Horse
Business Park

Baptist Burial
Ground

- Core bat habitat area
- Surface water flooding
- Potential attenuation feature location
- Listed buildings or monuments
- Views into the site
- Existing water main with 3m easements
- Running Water
- Indicative landscape buffer
- 1m Contours
- Slope of Land



02

Design

The Revised Proposals

The original submitted outline planning application was for the development of 92 dwellings, a 64 bed care home and associated landscaping and infrastructure. Through a process of consultation with the Local Authority and Statutory Consultees, the development proposals have been revised.

The revised framework masterplan now demonstrates up to 70 dwellings and the removal of the care home to the north of the site, which has been replaced with open green space, which will contribute to the site's biodiversity.

Thorough landscape and ecology strategies has been provided. This demonstrates that the landscape and ecological contributions this proposal could deliver would achieve a 100% mitigation for all greenfield habitat loss within the site.

The revised framework masterplan also demonstrates effective use of the site providing shared amenity space as well as play spaces and how these would be integrated within the landscape, as requested by the Case Officer.

Fig. 1: Framework Masterplan





Bradley Road (A363)



White Horse
Business Park

Baptist Burial
Ground

The Proposals

The masterplan, on the next page, sets out the broad areas of land use, landscape connections and accessibility.

Design Evolution



Fig. 3: Evolution of Framework Masterplan

Submitted Framework Masterplan

The submitted framework masterplan has undergone an iterative design evolution to apply Case Officer comments, supported by the sites technical assessments, to present a well-considered and sensitive revised framework masterplan.

The revised framework masterplan seeks to demonstrate the delivery of a high quality, landscape-led scheme, providing biodiversity enhancements within the site and reducing adverse impact to existing habitats and species within the site.

-  Site Boundary
 -  Retained Trees and/or hedgerow
 -  Public Open Space
 -  Wildflower Meadow Planting
 -  Proposed Tree Planting
 -  Proposed Road
 -  Residential Area
 -  Local Area of Play (LAP) & Local Equipped Area of Play (LEAP)
- 1 Primary access point via a new junction on Bradley Road.
 - 2 Access into Vistry Land
 - 3 Pedestrian access to Woodmarsh
 - 4 Proposed pedestrian routes around the site
 - 5 Existing trees and hedges to be retained, where possible
 - 6 Woodland, tree and scrub planting, and grassland management to provide a green buffer between the proposed built development and the existing built development at North Bradley.
 - 7 Existing established tree to become focal a focal point of central green spaces
 - 8 New tree planting within landscape buffers
 - 9 Proposed orchard
 - 10 A series of flood attenuation features proposed within the lower parts of the site which would be designed to maximise their biodiversity value.
 - 11 Proposed pumping station
 - 12 Children's play area (LAP and LEAP)
 - 13 Amenity grassland

Fig. 2: Framework Masterplan



Bradley Road (A363)

Woodmarsh

Land Use

The gross development site area is 8.37ha (20.68ac). 1.65ha (4.08ac) of this land is proposed to be residential use for approximately 70 homes at an average net density of roughly 42dph.

The scheme provide a range of housetypes of varying sizes and tenure to ensure the delivery of a varied residential community.

Up to 30% of the total number of dwellings will be affordable homes in line with Wiltshire Council Core Strategy policy. Affordable housing will be dispersed throughout the proposal to encourage integration and social cohesion.

6.60ha (16.31ac) of the site will be classified as green infrastructure. This equates to 79% of the overall site area. This will include both formal and informal play areas, informal play areas, on-site attenuation features and landscape planting.

Housetype	Number
1 Bed Maisonette	8
2 Bed FOG	2
2 Bed Home	25
3 Bed Home	29
4 Bed Home	6
Total	70



Fig. 4: Land Use Plan



Bradley Road (A363)

Woodmarsh

Density

The development will provide a mix of densities to promote a varied development. For the purposes of the outline application, up to 45dph has been outlined on the plan.

This will generally be graded from highest along the primary road to the lowest along the park edges that front onto public open space. These characteristics are outlined in more detail within the street hierarchy section.

The density along the western edge will also be reduced due to its proximity to North Bradley, with larger gardens and building footprints.

The density distribution will be reflected within the dwelling typologies and car parking strategies. As well as density, architectural style and housetypes will provide a varied streetscape.



-  Site boundary
-  Up to 35dph
-  Up to 45dph

Fig. 5: Density Plan



Bradley Road (A363)

Woodmarsh

Building Heights

The majority of the proposal will predominantly be 2 storey with key nodes being up to 2.5 storey. These nodal spaces will be identified as key locations within the masterplan, such as gateways and key vista points. These will help to enclose spaces and terminate views to create an identifiable and legible development.

Development along the green edges will predominantly be 2 storey to respond to its open landscape character.

Varying ridge and eaves heights, as well as gables, architectural details such as chimneys, and materials will be used to diversify the visual appearance of properties, thus creating visual interesting and varied streetscape.



2 storey examples



2.5 storey housing example

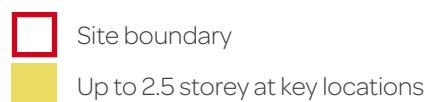


Fig. 6: Building Heights Plan



Bradley Road (A363)

Woodmarsh

Access & Movement

Primary access into the site will be taken from the A363 (Bradley Road). The junction will be designed to facilitate the delivery of the rest of the wider allocation to the south east. The primary road will form part of the wider proposed strategic movement network connecting to the wider allocation site. Secondary roads and park edges will connect the remainder of the masterplan.

Pedestrian routes will be integral to the development proposals, creating connections with the wider landscape. The masterplan creates a permeable pedestrian/cycle network, linking to Trowbridge Town Centre, White Horse Business Park and North Bradley. Pedestrian links will be made along streets and through public open space.

Parking provision will be determined at the reserved matters stage. Parking will be provided in accordance with Wiltshire Local Transport Plan, which identifies the following;

- 1 space per 1 bedroom unit
- 2 spaces per 2-3 bedroom unit
- 3 spaces per 4+ bedroom unit

Visitor parking should also be considered at 0.2 spaces per dwelling.

Cycle parking will be provided in accordance with Wiltshire Local Transport Plan, which states the requirement for 1-4 spaces per dwelling, dependant on dwelling size. Secure cycle parking will be provided within garages, sheds or other storage facilities.

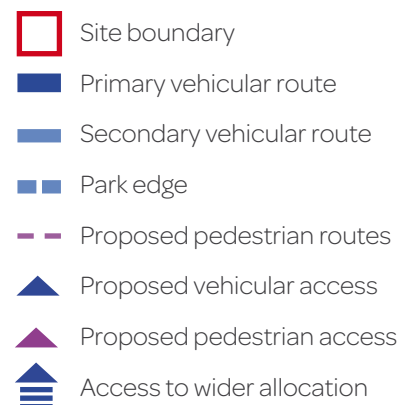


Fig. 7: Proposed Movement Plan



Street Hierarchy

The layout has been designed to provide a clear, simple street hierarchy comprising;

- **Primary Streets** which will serve the heart of the development. This will also connect to the wider allocation to the south.
- **Secondary Streets** will branch off from the primary route and will vary in character slightly from the primary route and;
- **Park Edges** will predominantly be located where development fronts onto public open space and will serve the remainder of the development..

The primary access point is proposed to be taken from the A363 Bradley Road.

All of the roads will be designed to encourage low vehicle speeds, helping to ensure that more vulnerable road users, such as cyclists, feel safe sharing the road with motorised traffic.

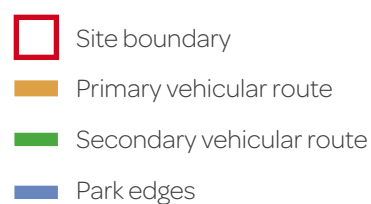


Fig. 8: Street Hierarchy Plan



Bradley Road (A363)

Woodmarsh

Primary Route

The primary street will form a central route through the development, connecting to the wider H2.2 allocation site.

The character of the primary route will be formal in manner with consistent or stepped frontage and will accommodate all traffic passing through the site.

Soft landscaping could be included with hedgerows and medium scale shrubs in front gardens.

Parking will be provided on plot or within dedicated on street parking bays.

Tree planting could be provided along the route to break up the dominance of cars on the streetscape.



Primary Route Design Principles

Total Corridor Width	Up to 16m
Carriageway Width	Up to 5.5m tarmac paved
Design Speed	30mph
Footway	2m footpath
Public Verge	up to 3m double-sided
Private Garden	Up to 2m
Parking Provision	On-plot allocated. Restricted on street parking
Vehicle Swept Path	Refuse Vehicle Passing
Direct Access to Properties	Yes

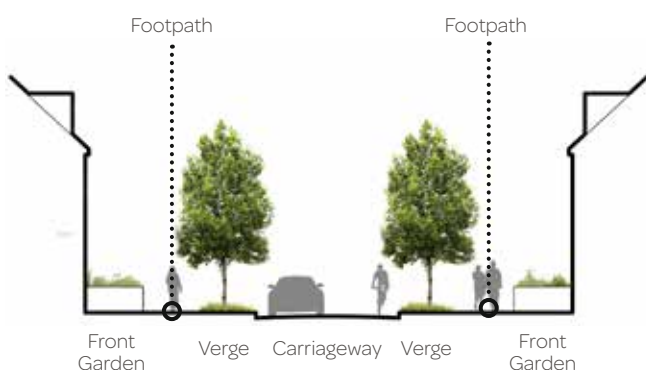


Fig. 9: Indicative Primary Route Section



Secondary Route

The secondary street will consist of reduced carriageway widths in comparison to the primary route and will have additional tree planting.

Parking will be provided either on-plot or within dedicated on street parking bays.

Properties fronting secondary routes will have and a consistent or slightly staggered urban form to define the streetscape.



Secondary Route Design Principles	
Total Corridor Width	Up to 13m
Carriageway Width	Up to 5.5m tarmac paved
Design Speed	20-30mph
Footway	2m footpath/shared surface
Public Verge	up to 3m single sided - Intermittent
Private Garden	Up to 2m
Parking Provision	On-plot allocated. Restricted on street parking
Vehicle Swept Path	Refuse Vehicle Passing
Direct Access to Properties	Yes

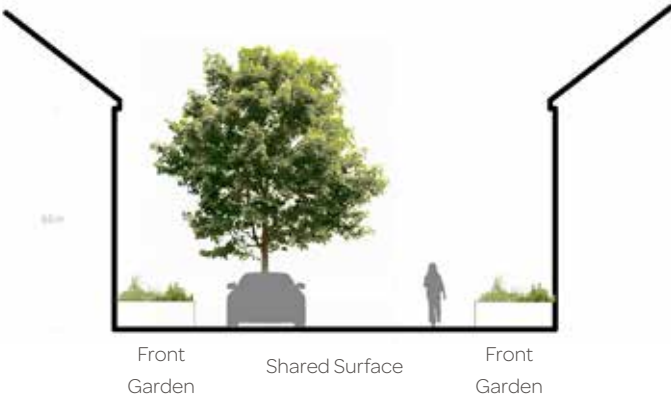


Fig. 10: Indicative Secondary Route Section

Park Edges

Private drives and lanes within the scheme will serve a small number of houses, predominantly detached or semi-detached, typically along the green edges.

The lanes will have a shared surface treatment to emphasise pedestrian priority. This change in surface material will help to identify change in street dynamic and further reduce vehicular speeds.

Properties will be more organically arranged along Park Edges/Lanes to provide larger front gardens with generous space for vegetation to soften the outward appearance of the development.

Parking will be predominately on plot with garages and visitor parking set within landscaping.



Park Edge Design Principles	
Total Corridor Width	Up to 7m
Carriageway Width	Up to 5.5m tarmac paved
Design Speed	10-20mph
Footway	Up to 4.8m shared surface + 2m service zone
Public Verge	N/A - Optional landscaped parking areas
Private Garden	Up to 3m
Parking Provision	On-plot allocated. Restricted on street parking
Vehicle Swept Path	Refuse Vehicle Passing & Turning Head Provision
Direct Access to Properties	Yes



Fig. 11: Indicative Park Edge Section



Precedent Images



Fig. 12: Precedent images for Primary and Secondary Street character



Fig. 13: Precedent images for Park Edge character

Pedestrian and Cycle Movement

The masterplan will deliver a considered pedestrian and cycle network which aims to maximise permeability within the site and into Trowbridge, enhancing opportunities for active travel and reducing dependency on private car ownership.

Key pedestrian routes are proposed to connect to Woodmarsh and Bradley Road - A363. The connection to Woodmarsh facilitates quick access to local bus services from Mash Tun bus stop. Bus routes from this stop provide direct connections to Trowbridge town centre, Bath, Frome and Warminster.

The link to Bradley Road will allow for active travel users to more easily reach the White Horse Business Park and amenities on the south side of Trowbridge. Bus stops within the business park provide connections to Trowbridge town centre, Bath, Warminster and Devizes.

Within the site the masterplan will deliver informal meandering pedestrian routes to allow for recreational activity such as dog walking, running and spaces to relax within the scheme, helping to promote a more active community and positively impact both mental and physical well-being.

All roads will be designed to encourage low vehicle speeds around the site, so that vulnerable road users, such as cyclists, feel safer sharing the space with motorised traffic.



-  Site boundary
-  Roads to be designed to accommodate cyclists & motorised traffic. 2m Pavements to also be included
-  Park Edge/Lanes to have pedestrian priority
-  Pedestrian/Cycle Paths
-  Informal Recreational Paths
-  Existing Highways Infrastructure
-  Bus Stops

Fig. 14: Proposed Movement Plan



To Trowbridge

Bradley Road (A363)

To Whitehorse Business Park

Cycle and
Pedestrian access to
White Horse Business
Park via existing
footways

Mash Tan
Bus Stop

Cycle and
Pedestrian access
onto Woodmarsh

To Yarnbrook

Noise Impact

SLR Consulting Ltd. has been commissioned to undertake a noise impact on the proposed development.

A Stage 1 assessment in accordance with Professional Practice Guidance on Planning and Noise (ProPG) has highlighted that the site is influenced most significantly by road traffic noise on aspects facing north and northwest.

Commercial noise and activity from the business parks to the north have not been readily observed at the development site.

A Stage 2 assessment in accordance with ProPG has reviewed a good acoustic design process (locating noise sensitive rooms away from sources of noise), the ambient noise levels within internal spaces and external amenity areas as well as potential acoustic design solutions.

It was determined that whilst the majority of the scheme would experience acceptable noise levels, properties along the northern development edge closest to the A363 would experience unacceptable levels of noise at night with fully open windows. To mitigate against this issue passive ventilation approaches including attenuated louvres, vents, or plenum windows could be adopted as possible design solutions to overcome external noise ingress during overheating conditions in these areas.

On the basis that design guidance from the Noise Impact Assessment is adopted, it follows that any significant adverse noise impacts will be avoided in the finished development allowing the proposal to accord with overarching national and local planning requirements for new residential development.

Air Quality

An Air Quality Technical Memorandum of the site and development proposal has also been carried out by SLR Consulting Ltd.

Following a review of the design changes undertaken in relation to the previous assessment (a reduction from up to 100 dwellings to 70), and consideration of updates to policy and guidance in the interim. The findings indicate that the previous assessment outcomes remain unchanged and no further assessment is required. As such, no additional mitigation measures than those presented in the previous air quality assessment are required.

Environment Health Officer (EHO) has requested that a scheme of Ultra Low Energy Vehicle infrastructure has been submitted to the Local Planning Authority

In response to this SLR Consulting's report states that electric vehicle charging facilities will be provided in accordance with local policy requirements. Transport related mitigation measures proposed within the transport assessment would reduce the impact of the proposed development on air quality. The Travel Plan will bring forward an array of measures to encourage sustainable travel including walking and cycling improvements together with financial commitments.

Lighting

A Lighting Strategy has been produced by Abley Letchford Partnership outlines the criteria for the lighting design of the Proposed Development to ensure that the lighting is fit for purpose, whilst maintaining sensitivity towards the environment through compliance with relevant British Standards and Guidance.

Specific attention within the lighting strategy has been paid to the recommendations contained within the Trowbridge Bat Mitigation Strategy SPD.

Further details can be found within the document A201-R004C Lighting Strategy which accompanies the application.



Fig. 15: Prediction of Daytime Road Traffic Noise Levels



Fig. 16: Prediction of Daytime Road Traffic Noise Levels

Appearance

A palette of materials will reflect the local character and take into consideration the context character appraisal undertaken in the original DAS. The appearance of the housetypes will reference local precedents to be respectful, sympathetic and fits in to the local area. A sample of local precedents the material palette could draw on are found below.

Materials will be determined at the reserved matters stage of the application. The palette will include brick and render. Roof tiles could either be recon slate or a red/brown tile.

The proposed houses will predominately be 2 storey in height, with some variation in roof heights to create a dynamic roofscape. There will be architectural changes in key locations such as nodal points and at end of street vistas. These could be in the form of 2.5 storey dwellings or with subtle architectural differences such as bay windows or chimney's.

Appropriate boundary treatments will be used within the scheme and will include close board timber fencing on rear boundaries and brick walling where rear boundaries face the public realm. Hedgerow and street trees will be used to delineate public and private spaces.







03

Landscape
& Ecology
Strategy

Landscape Overview

The previous framework masterplan included 5ha of green infrastructure. The layout retained and enhanced existing trees and hedgerows that characterised the site. The landscape throughout the site was designed as a legible network of formal and informal spaces providing an attractive environment for people to live.

The revised framework masterplan builds on this approach to green infrastructure and demonstrates further landscape-led strategies enhancing the proposal. This masterplan incorporates 6.60ha of green infrastructure and an integrated ecological strategy that works harmoniously with the landscape. Planting retention and additional habitat improvements have been carefully considered to contribute to biodiversity enhancements within the site.

North Bradley Landscape Separation Zone

A Landscape Separation Zone is proposed along the western boundary in order to create visual and physical separation between North Bradley and the proposed development. This would support a range of community facilities, including footpaths and a play space. Existing trees and hedgerows will be retained and enhanced with additional planting.

The previous framework masterplan proposed a western Landscape Separation Zone which provided an area of open space for the development. Existing trees and hedgerow were to be retained and a substantial offset was provided in order to allow the existing large tree in the central hedgerow to mature and create a feature of its own right.

The revised framework masterplan has enhanced this feature further, by providing a more extensive western Landscape Separation Zone with the existing hedgerow now defining the extent of the residential development. A development offset has been applied to the hedgerow that does not include rear gardens. This emphasises the hedgerow as a feature, retains it within public open space and ensures it is easily enhanced and maintained.

Play Spaces

The public open space strategy is based upon Wiltshire's Draft Open Space Study 2015 - 2026 policy requirements. 500m² of Children's Equipped Play Areas has been provided in the southern area of the development. This includes a Local Equipped Area of Play (LEAP) and a Local Area of Play (LAP). 660m² of Children's Informal Play Space, in the form of amenity



grassland has also been provided adjacent to the Children's Equipped Play Area. This play space is located within 480 metres or 10 minute walking distance from all the new homes.

-  Site boundary
-  Proposed public open space
-  Existing trees/hedgerows to be enhanced as appropriate
-  Proposed trees
-  Attenuation features
-  Proposed pedestrian routes
-  Proposed LEAP and LAP Location
-  Proposed informal play space
-  Minimum 30m Landscape Buffer

Fig. 17: Landscape Plan



Bradley Road (A363)

Woodmarsh



Landscape Strategy

This Landscape Strategy is informed by the Landscape and Visual Impact Appraisal undertaken by Turley Landscape and VIA and Ecological Impact Assessment and Biodiversity Net Gain Assessment undertaken by Nicholas Pearson Associates. It means the development proposals are landscape led, appropriate to the local landscape character context and conserve and, where possible, improve the biodiversity of the Site. Essentially, it optimises opportunities for landscape enhancement. The design objectives and principles below collectively form a cohesive Landscape Strategy for the Site.

Objectives

Conservation and enhancement of existing natural assets within and surrounding the Site is the primary objective of this landscape strategy. This is to protect and increase the ecological value of the retained habitats and biodiversity across the Site, to preserve the sense of the Site's semi-rural character and to visually integrate the proposed development. This coincides with the strategy for the Rolling Clay Lowland landscape type as set out in the Wiltshire Landscape Character Assessment.

The secondary objective is to establish a strong green infrastructure network of new and existing areas of high quality, multi-functional green space and other green features as an integral part of the development including public open spaces and habitat areas to meet the needs of species present. A key role of this green infrastructure network would be to retain visual and physical separation between the proposed development and North Bradley, preserving a gap with open characteristics between the two distinct areas of settlement.

Principles

North Bradley Landscape Separation Zone

1. The overriding approach to the proposal is to ensure this development is fundamentally an urban extension of Trowbridge and prevents the coalescence with North Bradley. A key part of this separate character to the village of North Bradley is the sense of leaving Trowbridge and arriving into North Bradley when travelling along Woodmarsh road which is contributed to by the roadside vegetation and open fields to either side. Two areas of higher

landscape and visual sensitivity to the eastern side of Woodmarsh were identified by the Landscape and Visual Impact Assessment. The proposal will retain these areas and integrate them within an extensive Landscape Separation Zone. These areas would be kept generally open where possible.

2. Built form will be located in the eastern extent of the site and away from Woodmarsh road, and the residential properties that line it, thus establishing a substantial green gap from the eastern extent of North Bradley. A Landscape Separation Zone along the entirety of the western boundary would preserve visual separation between the settlements and physical separation through the provision of an area of open space. This would contribute positively to the visual amenity experienced by residents of North Bradley and retain an open character to the landscape enclosing North Bradley. At its narrowest point, there is a c.137m gap between the proposed dwellings and the rear garden fence line of number 18 Woodmarsh. Whereas, at its largest there is a gap of c.290m between the proposed dwellings and Woodmarsh.
3. The Landscape Separation Zone would include a new area of woodland belt planting to maintain a degree of visual separation between the proposed development and North Bradley. The woodland belt would be mix of native species and be 25-30m in depth which would ebb and flow along its length. Proposed tree species could include: Oak, Beech, Alder, Field Maple, Hornbeam, Silver Birch, Rowan, Aspen, Grey Willow and shrubs Hazel, Spindleberry and Hawthorn.
4. Woodland extension planting would run alongside the proposed woodland belt to provide a defensive barrier to the woodland belt and ensure the woodland appears natural in form. Woodland extension planting would comprise of scattered, native small copses and dense under-storey planting set in swathes of long grassland and wildflower meadow. This area of ecotone would provide a species rich habitat. The mix of open areas of grassland and woodland copse would also retain an open character to the landscape that provides the setting to North Bradley that will be perceived by local residents as opposed to a dense visual screen.



Bradley Road (A363)

Woodmarsh

18 Woodmarsh

5. Open planting would maintain privacy and security to rear garden boundaries of existing properties backing onto the Site whilst preserving an open aspect to views.

Boundaries

6. The Site benefits from a strong boundary framework of mature hedgerows and a woodland belt associated with the White Horse Business Park along the eastern boundary. These are landscape and ecological assets which this proposal looks to retain and improve where possible.
7. To ensure the proposed development would be considered an extension of Trowbridge, visual connections into the proposed development will be founded from Bradley Road. To achieve this, boundary vegetation would be kept open and light yet sufficient enough to establish an entrance feature and sense of arrival. Proposed boundary planting would replace the post and rail timber fence and would be a native, species-rich hedgerow laid using traditional hedge-laying techniques and maintained at a low height. Proposed species to include: Blackthorn, Dog Rose, Field Maple, Hawthorn, Hazel and Holly. Additional native trees with attractive multi-seasonal qualities would be arranged in clusters within and adjacent to the hedgerow.
8. Retaining the existing and implementing additional boundary planting would help reinforce the existing landscape structure and soften the influence of built development. It would also retain and provide additional ecological habitat corridors connecting the proposed areas of open space with the adjacent countryside – a vital network for wildlife.

Hedgerows

9. The existing hedgerows typically contain a mix of native species and semi-mature trees where the species have grown out. These hedgerows show signs of intermittent management to control their lateral growth into the fields but are allowed to grow tall with most being of at least 3m in height. At some point along their length, each hedgerow has at least one break, allowing connectivity into the adjacent fields.

10. Breaks no longer required and gappy sections would be infilled with native, species-rich planting and all hedgerows would be enhanced and reinforced from their current composition through a sensitive management regime.

11. The number of proposed roads and footpaths passing through the existing hedgerows have been kept to a minimum. A maximum gap of 9.5m in width would be implemented for roads with trees planted either side of the break to minimise the gap by canopy spread.
12. A tall grass field margin with flowering species would run along the base of the hedgerows to increase their offering as habitat for wildlife.

Bats & Dark Habitat Corridors

13. The existing woodland edge and hedgerows currently offer suitable habitat for bats, birds and reptiles. The tree belts and hedgerows also have excellent connectivity to nearby off-site habitats. This proposal looks to retain, safeguard and improve these natural assets to deliver improved biodiversity.
14. A number of bat flight paths have been identified across the site. To provide a robust corridor for bats to commute through the site (including from the TBMS woodlands to the south to the SAC to the north) an entire field's width of habitat is proposed to be retained and enhanced.
15. Additionally a strong east-west bat corridor is proposed between Elm Grove in the east to Axe and Cleaver Lane in the west.
16. These habitats will be kept dark through the reduced development proposals and sensitive lighting proposals.
17. In addition to the dark habitat corridors, generous buffers have been applied to the north-south hedgerow and the hedgerow on the southern boundary to create distance between the natural features and the proposed development to establish further bat corridors.



New area of woodland belt planting



Woodland extension planting and light screening



Mixed species-rich hedgerows with long grass margins



Informal mown paths through areas of green space



Species-rich grassland to attract a range of fauna



Bat boxes to be tree mounted or within external walls

Tree Protection Orders

18. There are three mature trees within the Site that are subject to a Tree Preservation Order (TPO). Two are located along the central hedgerow which runs in a northwest to southeast direction, and the third is located in the southernmost field to the south of Woodmarsh Farm Cottage. In order to preserve these trees and hedgerow, a landscape buffer would be applied either side of the hedgerow.
19. The maturing northern TPO tree would provide a prominent arrival landscape feature to the development. The tree and landscape setting will offer the first glimpse of the new neighbourhood when arriving from the primary access off Bradley Road and would help to establish the identity and sense of place of the proposals.

Hydrology

20. To manage rainwater runoff from the development, a drainage strategy has been developed that routes surface water runoff via a sustainable drainage system (SuDS) and the Site's natural topography into attenuation basins. One attenuation basin would retain a low water presence throughout the year and have wetland planting upon its banks alongside water's edge pebble arrangements to allow access for wildlife. The attenuation basin would create an additional wet habitat which would encourage and support wildlife living within or passing through the Site. A water presence would contribute to the wider green infrastructure network and increase biodiversity.
21. The attenuation basins within the Site will provide suitable breeding habitat for Great Crested Newts. To support newts further, planting around the basins would be rough tussocky grassland and scrubby native species with wood piles. Warm ponds are favourable for amphibian growth and development. The existing hedgerow a few metres to the north of a pond would act as a windbreak that creates a warm microclimate around the pond.
22. A newt crossing point would be implemented along the entrance road aiding their movement.

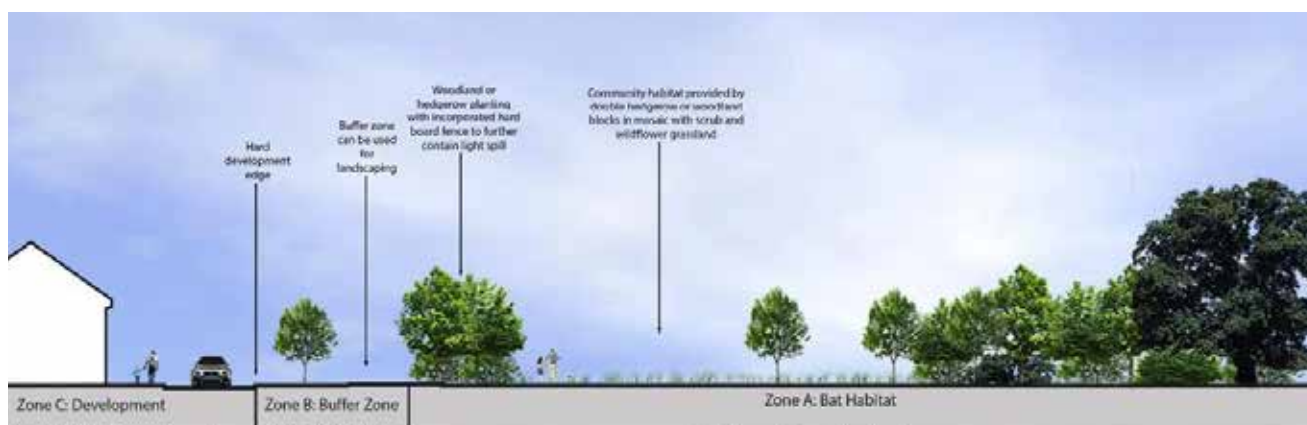


Fig. 18: Indicative Dark Corridor Section



Central green corridor with retained mature tree



Foot and cycle path connection North Bradley



Children's play equipment made from natural materials



Play equipment to form LAP for young children



Wet meadow planting within attenuation basins



Attenuation basins to be attractive landscape features

Additional Ecological Enhancements

23. Bird and bat boxes would be tree mounted at appropriate locations to increase bird nesting and bat roosting provision in the area. Logpiles of dead and decaying wood would provide essential habitats for wildlife by providing a home and source of food for many animals, a shelter for hibernating small mammals and insects and an ideal environment for mosses, lichens and fungi to grow. To further accommodate bats the proposal would avoid direct illumination of boundary vegetation and establish dark habitat corridors. These interventions would increase species diversity, improve habitat structure and raise the biodiversity value of the Site.
24. Additional enhancement throughout the site would be delivered through the inclusion of species rich grassland and additional native and wildlife beneficial tree planting in open spaces. This would increase foraging and shelter opportunities for a range of species including bats and reptiles.



Bird boxes to support wildlife

Public Open Space

25. Public open spaces are to be kept informal so the landscape appears to flow organically around the site; paths meander, grassland is only lightly managed, wildflowers and bulbs create a carpet of seasonal colour and tree planting is arranged in informal drifts. Generally the space is to be kept open to emulate the current field composition and local landscape character. The public open space would be multi-functional, not only providing for human interests through walking routes and a community space for residents to enjoy the landscape; but also accommodating ecological, hydrological and visual integration.
26. The planting proposals for public open spaces will utilise seasonally interesting, large and medium scale, native trees inclusive of fruit and nut bearing species which are attractive to wildlife. Proposed tree species to include: Crab Apple, Elder, Wild/Bird Cherry and Blackthorn.

Play

27. Play opportunities include a Local Area of Play (LAP) and a Local Equipped Area of Play (LEAP) alongside informal recreation opportunities in areas of public open space. Children will engage with and explore nature through play equipment of predominately natural materials including grassed mounds, sand, sculpted wood, logs and stone. The play area will also include planting to enable children to experience natural scent, colour and texture.



Logpiles provide essential habitats for wildlife

Streets & Paths

28. To establish a green and visually attractive scheme, trees, hedgerows and planting would be incorporated within the streetscape and front gardens to soften the built form. These elements would shape the character and sense of place of the proposal, provide focal points and aid orientation within the scheme, would help to integrate the built form into the wider landscape and would soften the appearance in the limited distant views from the surrounding area.
29. A foot and cycle path connection will be made onto Woodmarsh road to increase the schemes permeability and provide direct access to the surrounding PRoW network. A foot and cycle path connection will also be made into the Vistry development to the south.
30. Establishment of a footpath network across the Site would provide residents with active recreation opportunities such as walking and running.



Green and visually attractive streetscene

Residential Landscaping

31. The planting proposals for the front of the residential properties will utilise a combination of native and ornamental shrubs, hedges and lawns. Occasional tree planting of small to medium sized species will be used throughout with some larger growing species being included where space is available.
32. Hedgerows throughout the development are to use a common native, species-rich mix to unify and define the street scape.



Use of native and ornamental shrubs, hedges and lawns

Ecology Overview

The previous framework masterplan proposed a number of mitigation and enhancement measures to safeguard habitats and species within the proposed scheme. These included provision of green corridors to aid wildlife movement through the site, creation of new habitats of ecological value, additional planting and appropriate design of lighting.

The revised masterplan now proposes a reduced extent of development to allow for an entire field's width to be retained and enhanced to provide a provide a robust corridor for bats to commute through the site, including from the TBMS woodlands to the south to the SAC to the north.

Additionally, a strong east-west bat corridor is proposed between Elm Grove in the east to Axe and Cleaver Lane in the west and 10m buffer along boundary with the woodland belt of the White Horse Business Park.

These habitats will be kept dark through the reduced development proposals and sensitive lighting proposals.

Planting retention and additional habitat improvements have been carefully considered to contribute to biodiversity enhancements within the site.

Within the undeveloped western field, a planted woodland corridor is proposed alongside tree and scrub planting, sensitive grassland management and the creation of permanent water bodies.

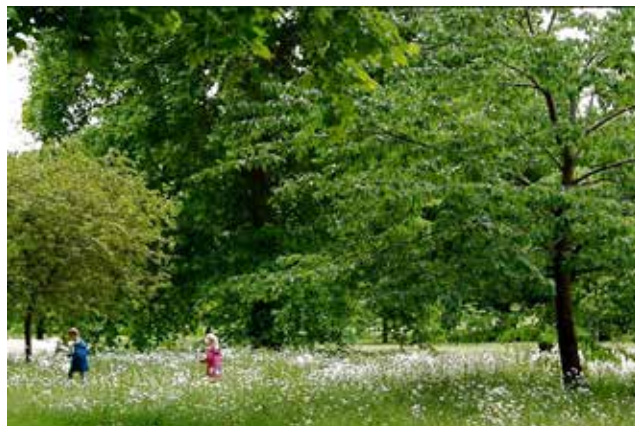
Great Crested Newts

The revised scheme has identified that the SuDS attenuation basins within the site will provide suitable breeding habitat for Great Crested Newts. These will be enhanced to help create biodiverse habitats. A newt crossing point is provided on the entrance road aiding their movement.

Whilst the intention to join the District Level Licensing Scheme the proposals allow for continued use of the Site by GCN.

The proposals allow for:

- Permanent ponds, suitable for GCN breeding, being provided within the SUDs attenuation basins;
- A newt crossing feature along the main access road; and
- Areas of suitable terrestrial habitat (longer grassland and long piles).



Biodiversity Net Gain

The proposed extent of development has been assessed using Natural England's Metric to ensure that in accordance with the Trowbridge Bat Mitigation Strategy it can deliver 100% mitigation for all greenfield habitat loss within the Site.

-  Site boundary
-  Proposed dark corridors
-  Retained central hedgerow
-  SUDs to be designed to maximise biodiversity value, including being over dug to provide areas of permanent water.
-  Proposed Newt crossing point

Fig. 19: Ecological Strategy Plan



Bradley Road (A363)

Woodmarsh

Drainage Strategy

A drainage strategy has been incorporated into the scheme to manage surface water run off as a result of the development. This has been designed to accommodate 1 in a 100 year rainfall event including a 40% allowance for climate change. This will be done by proposing three new Sustainable Urban Drainage Systems (SuDs).

The attenuation features will be located in the lowest points of the site. The proposed areas of hardstanding surfaces will be directed to the existing watercourses following the existing topography of the site with the attenuation features mimicking the existing drainage situation as closely as practicable. These SuDs features will also capture existing surface water flooding.

A pumping station is proposed to the west of the site to manage foul water within the scheme. A buffer of 20m has been applied between the pumping station and new homes.

A larger extent has been outlined for the SuDS. These have been proposed to help support wetland habitats and help to create a more biodiverse scheme.

-  Site boundary
-  Proposed attenuation basins
-  Direction of Discharge
-  Extents of surface water flood risk
-  Proposed pumping station



Dry attenuation basin



Biodiverse attenuation basin



Fig. 20: Illustrative Drainage Strategy Section

Fig. 21: Drainage Strategy Plan



Extent of
Surface
Water Flood
Risk

Bradley Road (A363)

Woodmarsh



04 Conclusion



Conclusion

This document sets out how Land off the A363 White Horse Business Park, Trowbridge could be developed for up to 70 new homes.

The framework masterplan has been underpinned by landscape and ecological retention and improvements as well as providing new community facilities for Trowbridge including public open space with play areas and pedestrian links to the surrounding area.

Appropriate design measures have been undertaken to ensure the masterplan takes into consideration the various site specific constraints to deliver a viable and sustainable masterplan.

The technical work undertaken as part of this submission pack demonstrates that the site could be brought forward for development. This will help meet the need of both market and affordable housing.

In conclusion, the site provides an opportunity to bring forward, much needed, new housing in a sustainable location, closely located to public transport modes and a number of facilities and services in the local context.

