Strategic Planning Research Unit
A specialist team within DLP Planning Ltd

For and on behalf of
Bedfordia Property & Bedfordshire Charitable Trust Limited

Regulation 19 Bedford Local Plan 2040

Land at 'Stoneyfields' Sharnbrook (Site IDs 918 and 932)

Prepared by
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July 2022

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1.0 INTRODUCTION

1.1 This Local Plan Representation has been prepared by DLP Planning Ltd on behalf of **Bedfordia Property** and the **Bedfordshire Charitable Trust Limited** in response to the publication of the Bedford Local Plan 2040 (Regulation 19) for consultation.

1.2 This representation relates to land at Sharnbrook. This representation should be read alongside our previous submissions relating to our clients' land, including a detailed assessment at Regulation 18 consultation (Representation ID: 9000 / Site IDs 918 and 932) (Appendix 1). A Vision Document detailing two alternative options for development at Sharnbrook was appended to the previous representation but for ease can be found at Appendix 2.

1.3 This Statement should also be read alongside the overarching Spatial Strategy and Legal Compliance Representation Report covering our clients' wider interests and accompanying representations forms.

1.4 We invite the Council to consider both options, including for up to circa 500 dwellings across the combined site area to be known as 'Stoneyfields' or a standalone scheme offering the opportunity for the early delivery of residential development on land at School Approach only (ID: 932) (around 100 units).

1.5 Consideration is given to the development potential of our clients' land at Sharnbrook and these representations provide a response in respect of the draft policies relating to the spatial strategy and scale and distribution of housing of housing provision.

1.6 We recommend that the Council pause submission of the Plan for Examination in Public and undertake the additional work required to achieve a Plan capable of being found sound. If the Council opt to submit the Plan irrespective of outstanding objections in respect of legal compliance, Duty to Cooperate and soundness, we will advocate the Planning Inspectorate determining that the submission version Plan is incapable of satisfying the relevant legal requirements and tests of soundness within national policy. Should the appointed Inspector(s) consider that the Plan is capable of being found sound, subject to Modifications, our clients would submit that this is only achievable through the full assessment reconsideration of omission sites including our clients land at Sharnbrook.

2.0 PLAN FOR SUBMISSION (REGULATION 19) CONSULTATION RESPONSE

a) Background to Site Identification and Development Potential

2.1 The site in question is on land at East of Odell Road and at School Approach, Sharnbrook. This area was previously submitted for consideration as part of the 2020 Call for Sites, with submissions in respect of the site having been made throughout the Plan process to date.

2.2 The land has previously been subject to previous detailed testing and offers an immediate opportunity to offset delayed delivery on the Neighbourhood Development Plan allocation within the village.

2.3 The site is being recommended for evaluation on the grounds that the planned spatial strategy and growth distribution as a whole is unsound and whereby the provision of additional growth at Sharnbrook would represent an appropriate strategy to address housing need calculated in accordance with Government policy using the standard method.

2.4 With respect to our clients' land at Sharnbrook the sites together represent an area of circa 52 ha, 47 ha of which lies to the east of Odell Road (Site A) with the remaining 5 ha off School Approach (Site B), both on the south-western side of Sharnbrook.

Figure 1. Illustrative Land Use Plan

2.5 It is in the context of an objection to the way in which village-related growth, as set out in policies DS2(S) and DS5(S), has been assessed through the preparation of the Plan that we promote this site for further consideration. The site is capable of delivering meaningful growth up of circa 500 dwellings that can contribute to the overall supply of housing, particularly in the early years of the Plan and would deliver a range of social and economic benefits, including the provision of green infrastructure, recreation space and the management of land for Riverside Park together with provision of land for a Local Centre including convenience retail.

2.6 These benefits have not been considered within the Council's assessment of site options. The site would provide specific potential contributions towards the Plan's objectives for the delivery of Green Infrastructure and Environmental Net Gain in draft Policy DM7. Notwithstanding this, this Council's assessment has not considered evidence provided by our clients, such as a scheme for hydrological investigation of the relationship with the adjacent Felmersham Gravel Pits SSSI (produced following input from Natural England's Discretionary Advice service). This demonstrates that the site is capable of further consideration as part of the plan-making process. A copy is included at Appendix 3.

b) Relationship of the Site to the Spatial Strategy and Sustainability Appraisal

2.7 The Council has not adequately addressed the demands placed on it by Policy 1 of the adopted Local Plan 2030 and the need for an immediate review in terms of evaluating a full range of reasonable alternatives to the same level of detail as the selected option, specifically fully assessing the potential effects of detailed site options for allocations across the settlement hierarchy. The circular approach to the site evaluation and sustainability appraisal process draws attention to the underlying problems with the Council's strategy.

2.8 According to paragraph 9.13 of the 2022 Sustainability Appraisal, the Strategic Housing Land Availability Assessment process was used to determine the suitability of sites, but Table 2.2 of the SHLAA document explains why some sites were excluded at Stage 1 of the assessment because they were deemed to not fit the Council's selected strategy.

2.9 This may be taken as evidence that the Council has decided on its preferred course of action before conducting more thorough testing. It has also chosen not to take into account all potential alternatives for expansion due to a perceived contradiction with the unreasonable decision to reject all village-related growth and limit any potential contribution from this aspect to the spatial strategy.

2.10 This circular reasoning cannot be used to support the conclusion that no more detailed or iterative testing of strategy options for levels of growth in the rural area (or site options at

specific settlements) should be conducted beyond that undertaken prior to the Regulation 18 consultation stage. Whether or not the Council will unjustifiably argue that it has "run out of time" to analyse the problem in greater depth, the Council's position is in direct disagreement with paragraph 3.10 of the 2021 Development Strategy Topic Paper, which forms the basis of the Regulation 18 Draft Plan and anticipated further refinement in the testing of options.

2.11 Aligned with the SHELAA and Sustainability Appraisal processes there has not been any capacity assessment of individual settlements. In the Settlement Hierarchy Addendum, this is verified (April 2022). The Council only decided that it was unnecessary to investigate whether the settlement hierarchy outlined in the 2030 Plan needed to be changed because no new funding or expansions were anticipated in the major rural service centres.

2.12 The planned growth distribution merely makes it feasible to fulfil the existing rural allocations; it does not create new demands or opportunities for Key Service Centres and Rural Service Centres. Although this is the case, the SA asserts in paragraph 7.23 that housing development in rural areas may significantly help to meet housing needs and lists specific locations that should be taken into account, which appears to be at odds with the SHLAA Table 2.2 where all village-related sites are ruled inconsistent with the chosen strategy based on the SA findings. Consequently, site options within rural settlements are recommended as potential (i.e., 'reasonable') alternatives without any more detailed assessment of site options to provide reasons for their selection or rejection.

2.13 It is relevant to note specifically that Paragraph 7.23 of the SA goes on to state:

*"Sites **within or adjoining key and rural service centres** are likely to be more sustainable locations for growth than other village locations because of the range and extent of services available there."*

2.14 These elements of the Council's evidence base require more detailed exploration in terms of the necessity to explore the potential for suitable site options and levels of growth at Sharnbrook.

2.15 Within Sharnbrook the findings of the evidence base relating to land under Site ID: 814 demonstrate the fundamental failure of the Council to grapple with the sustainable distribution of growth and assessment of options across the settlement hierarchy as part of the Local Plan 2040 process. Site ID: 814 appears at paragraph 9.13 as an option for village-related growth rejected due to inconsistency with the selected strategy and in Appendix 2 of the SHELAA as excluded at Stage 1 in the initial sift of options. This is despite the site's selection for allocation within the Sharnbrook Neighbourhood Plan.

2.16 We would in principle support the conclusions of the evidence base for Hill Farm if considered as part of a comparative assessment of site options prior to site selection. In practice this location already forms part of the adopted development plan and the distribution of growth. The Hill Farm site has a limited history in terms of its consideration as part of the evidence base for the adopted Local Plan 2030.

2.17 Conversely, our clients' Land at Sharnbrook was identified as a preferred location for growth identified within the Council's 2017 Consultation Paper on Options for the Local Plan 2035, before the decision was taken to defer allocations to Neighbourhood Plans. The identification of these preferred locations continues to be reflected in the policies of the adopted Local Plan, as follows:

- Policy 3S (criteria vi) supports Strategic residential development in Key Service Centres in association with expanded education provision where necessary
- Policy 4S identifies that to support the distribution of growth to Key Service Centres up to 2030 sites will be identified generally in and around defined Settlement Policy Area boundaries

2.18 In relation to Sharnbrook it is argued that neither of these main objectives has been satisfied through the allocation of land at Hill Farm, with suitable site options such as our clients' land not having been selected despite their ability to deliver growth well-related to the existing settlement and to provide additional benefits such as provision of a new Riverside Park. While neither our clients' land nor the existing allocation at Hill Farm have been subject to more detailed testing in the SHELAA or SA, it is noted that our clients' land performs substantially better against SA Objectives considered at Stage 3 of the process relating to accessibility to services and facilities and opportunities for travel by non-car modes.

c) Relationship to the Current Distribution of Growth and Housing Requirement

2.19 While Policy DS2(S) of the Plan for Submission Local Plan 2040 (criteria xii) looks to support development allocated in Neighbourhood Plans against the requirements of the Local Plan 2030 this is a highly restricted scope for opportunities to support future growth and does not reflect where Neighbourhood Plans have failed to fully address priorities for sustainable development.

2.20 In the case of Sharnbrook the approach outlined through Polices 3S and 4S of the Local Plan 2030, which are proposed to be replaced by Policies DS2(S) and DS5(S) should provide the starting point to provide a housing requirement for the designated neighbourhood area in Sharnbrook up to 2030 and beyond. In accordance with national policy, this process should have regard to the findings of the SHELAA, including in relation to Sharnbrook suitable

options adjacent to the settlement area that have not been fully assessed as part of the approach within the current Neighbourhood Plan (ID: 41-101-20190509).

2.21 The Council has therefore also disregarded the Framework's (Paragraph 79) requirements to promote development that will enhance or maintain rural vitality by failing to carefully assess the capacity of rural settlements and by making the predetermined decision to reject all sites proposed within rural areas, regardless of their sustainability credentials.

2.22 The Local Plan 2040 Plan for Submission provides neither housing requirements for the designated neighbourhood area not an assessment of the suitability of individual site options. Within the context of issues identified with the Council's selected strategy the Plan for Submission is not consistent with numerous aspects of national policy and guidance.

2.23 As indicated, the Council's chosen approach effectively prevents the majority of Key Service Centres and Rural Service Centres from expanding further; future growth in these settlements now fully hinges on the fulfilment of 2030 Plan allocations. The consequences of this are exacerbated in places where neighbourhood plans have authorised some growth in accordance with Local Plan 2030 guidelines but have fundamentally failed to address local priorities for issues like enhancing existing facilities and job opportunities as necessary as well as community, social, and green infrastructure.

d) Relationship with the Stepped Trajectory

2.24 We recommend this site for further consideration in the context of a concern about how village-related expansion, as described in policy DS5(S), has been evaluated via the creation of the Plan.

2.25 The Council's planned trajectory for the Local Plan 2040 will exacerbate current problems with the slow and delayed delivery of allocated sites, rendering even its suggested "stepped approach" to housing requirements useless. This is due to an excessive focus on strategic scale development. The Council's case is severely undermined by the lack of sufficient information demonstrating that rail-based expansion in the A421 corridor is feasible, deliverable, or developable before years 11 through 15 of the plan period, if not before (and at the delivery rates indicated).

2.26 Because of this, there is a critical supply shortage that can only be sensibly managed by dispersing development over small- to medium-sized sustainable sites at suitable locations within the settlement hierarchy. In accordance with NPPF and NPPG principles, allowing for a "hybrid" growth approach can assist to reduce market saturation and increase rural vitality.

2.27 Higher rates of village-related growth should, in our opinion, be encouraged from the start of

the 2020–2040 plan period. Details of suitable, available and achievable site options such as our clients' land at Sharnbrook, must therefore be assessed in terms of their specific potential contribution towards the Plan's objectives as part of the Sustainability Appraisal (including new green infrastructure, community facilities and opportunities for recreation).

2.28 Despite the requirements stated in Policy 1 and modifications to national policy and guidance, the criteria for assessing reasonable alternatives at Key Service Centre and Rural Service Centre settlements are the same as those used to analyse the accepted Local Plan 2030.

2.29 This is the cause of the mentioned issues with the availability of housing land, rural vitality, and the Council's reliance upon use of a stepped trajectory. Simply put, before beginning its process of site selection the Council has declined to decide whether any potentially suitable site options exist to meet needs in the Borough's most sustainable settlements outside of the urban area.

2.30 Our clients' opportunity for a standalone development of around 100 units on Land at School Approach, which these representations demonstrate is wholly consistent with the existing spatial strategy, well-related to the existing settlement and would provide the benefits of early delivery, should therefore be prioritised as a minimum to reduce the reliance upon a stepped trajectory. This is shown in Figure 2 below:

Figure 2. Land at School Approach, Sharnbrook

e) Highways and Transport

2.31 In respect of village-related growth, considered under option 3c the Topic Paper indicates highways constraints as a reason to reject this strategy. This must be read within the context of the lack of detailed testing of site options for village-related growth and within the context of the overall quanta of development assumed, in the absence of more iterative testing. Specifically, for the settlement of Clapham, Option 3c anticipates allocation of an additional 500 units over and above the distribution of growth identified by Policy 4S of the adopted Local Plan 2030. In effect this would mean identifying new directions of growth, or a substantial number of smaller sites, separate to those selected for allocation within the current Neighbourhood Plan. The circumstances are materially different when viewed on the context of, for example, a standalone option to provide for around 100 dwellings on Land at School Approach only.

2.32 A Technical Note (Note) was prepared by DLP Planning's Sustainable Development and Delivery (SDD) team on behalf of Property and submitted as part of the detailed Regulation 18 representation listed above and provides a review of the Bedford Borough Council Transport Model report 'New Settlements and the A6' (April 2021) which was prepared by AECOM on behalf of Bedford Borough Council.

2.33 The AECOM report focuses primarily on the evaluation of development in Bedford being given in the form of "either" a new community at Colworth or Twinwoods, or both. The local roadway network's capacity to support a more varied pattern of expansion among nearby communities as opposed to just at Colworth / Twinwoods does not appear to have been evaluated.

2.34 There does not appear to be any evaluation of the need for localised mitigation measures to enable a more dispersed pattern of housing growth within the borough, including the delivery of land at Sharnbrook. There is no explanation given in the report as to why the focus of the assessment was limited to the Colworth / Twinwoods development or whether additional research has been done to establish that this is the preferred method of delivering housing (as opposed to a dispersed method) throughout the borough from a highway capacity perspective. Accordingly, there is insufficient evidence available that would justify the Council's approach to disregarding growth options prior to sufficient testing.

2.35 The context is materially altered by considering levels of growth north of Bedford related to the village-related component only and specifically at Sharnbrook were the Transport Model to be reviewed taking into account the new access from the A6 proposed as part of the

allocation of land at Hill Farm within the Sharnbrook Neighbourhood Plan.

2.36 In terms of the Council's evidence base for the Plan for Submission Local Plan 2040 it is recognised that the Bedford Borough Council Transport Model report 'New Settlements and the A6' report as prepared by AECOM has been updated on 30th March 2022. This updated is cited as being in response to "comments from the Local Plan consultation." However, having reviewed this updated report, there appear to be no changes to the content of the report, the methodologies adopted, or findings of the report.

2.37 It is therefore deemed that the findings of the Technical Report prepared by SDD in August 2021 remains valid, and that no assessment has been made of a dispersed approach to housing delivery across Bedford, and the impact of this upon the local road network.

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APPENDIX 1 REPRESENTATIONS TO LP2040 PREFERRED OPTIONS AND DRAFT POLICIES CONSULTATION (SEPTEMBER 2021) (ID: 918 & 932 / REP ID: 9000)

(UNDER SEPARATE COVER)

Strategic Planning Research Unit

APPENDIX 2 LAND AT STONEYFIELDS, SHARBROOK VISION DOCUMENT

LAND AT SHARNBROOK

Strategic Vision and Indicative Masterplan

10th January 2020

Reference:	BE5229/7
Version:	Final
Prepared by:	BE1 Ltd / DLP
Checked by:	[redacted]
Issued:	January 2020

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1. INTRODUCTION

INTRODUCTION

The land which is subject of the development proposals set out in this Vision Statement is in the ownership of Bedfordshire Charitable Trust (BCT).

The land is being promoted on behalf of BCT by Bedfordia Property.

BCT's aims are to support those in need by reason of youth, age, ill-health, disability or in financial hardship or other disadvantage in Bedford Borough and Central Bedfordshire

This Vision Statement seeks to articulate a vision for delivering the development strategy set out in the emerging Bedford Local Plan 2030 for development at Sharnbrook.

The emerging Local Plan identifies Sharnbrook as a strategic rural growth point in reflection of its role as a key service centre. The emerging Plan proposes the development of at least 500 dwellings at Sharnbrook with associated supporting infrastructure. The site selection process has been devolved to the emerging Neighbourhood Plan and this will be prepared to comply with the Local Plan's requirements.

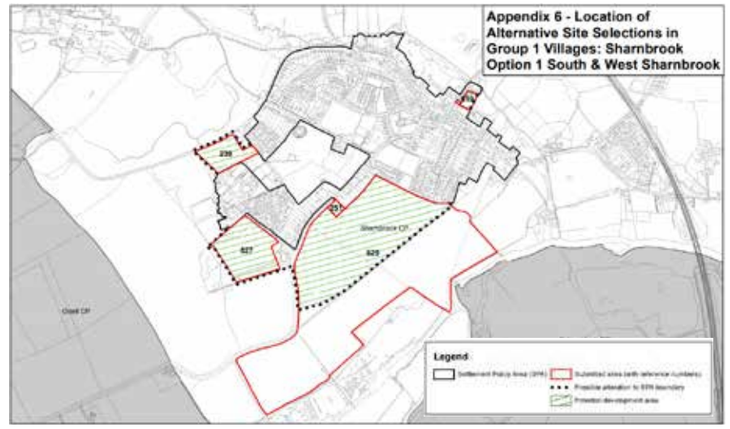
BCT's land, physically well related to the village centre, offers the potential to deliver sustainably the entire allocation of approximately 500 new homes with associated services and infrastructure. The land can also deliver a range of greenspaces including formal and informal open space and a riverside country park and extension to the nature reserve, new local retail and community facilities, provision of land for a new primary school, highway improvements and a revised road layout incorporating traffic calming and provision of land for a new school transport and pupil drop-off point.

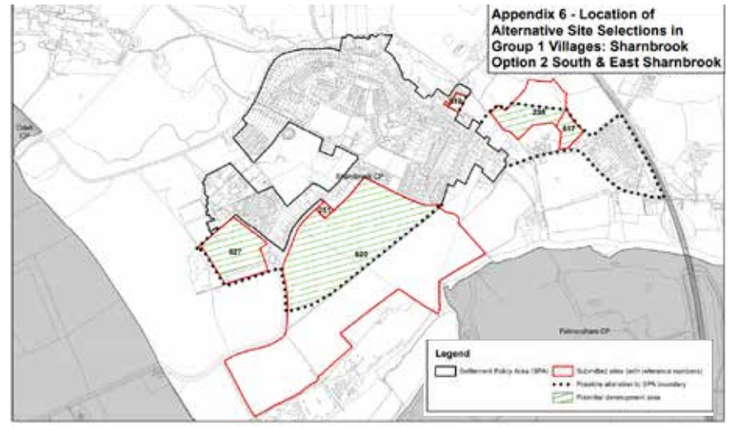
An alternative smaller scale development option is also advanced, providing for approximately 100 dwellings with ancillary greenspace and with land for the school transport and pupil drop-off, if required.

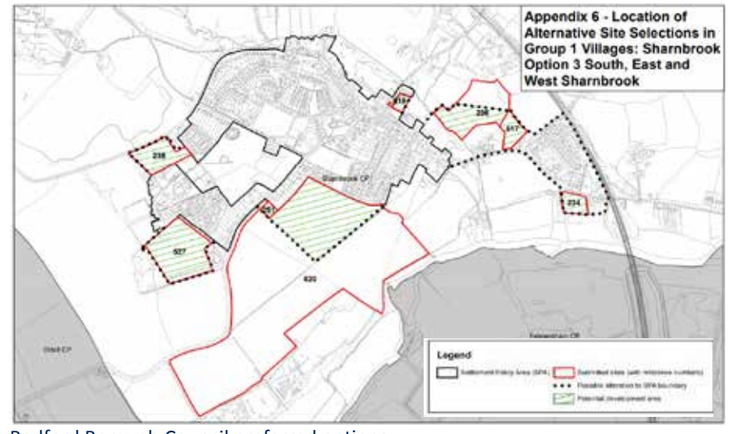
THE VISION

The vision is to deliver a sustainable, attractive, mixed use residential development, which benefits from its proximity to key services and facilities in Sharnbrook and provides substantial benefits, including land for leisure, recreation and ecology purposes, land for a new primary school, retail and GP surgery opportunities and measures to relieve transport pressures associated with Sharnbrook Academy.

The development would fulfil the emerging Plan's requirements and the single land ownership guarantees its delivery, including the range of planning benefits it offers.







Bedford Borough Council preferred options

Site's aerial view

2. SITE CONTEXT

WIDER CONTEXT

The two land parcels proposed are identified as **Land to the East of Odell Road** and **Land at School Approach** respectively. Both parcels were promoted for development throughout preparation of the Bedford Local Plan 2030.

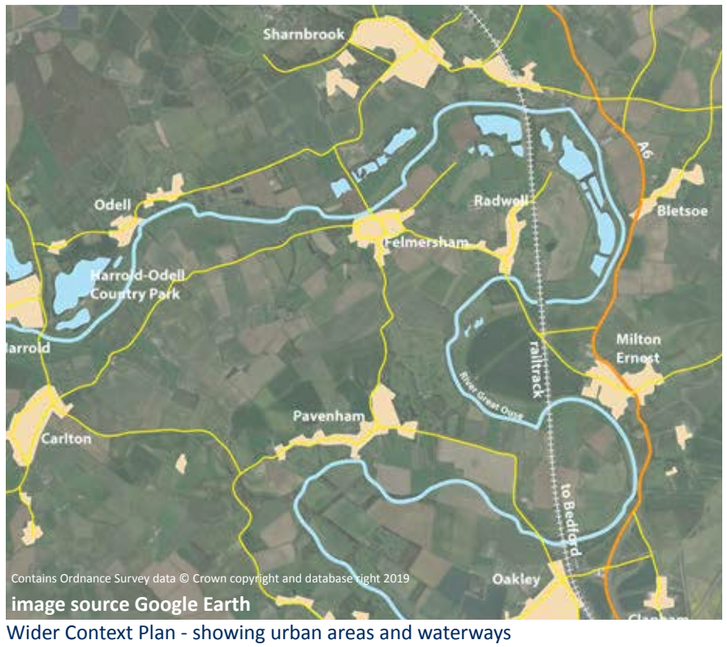
Together, the two land parcels would deliver a sustainable development as illustrated within the indicative Masterplan.

The potential of the parcels was brought to the attention of the Inspectors overseeing the examination of the emerging Bedford Borough Local Plan 2030 for the purposes of a mixed use, residential-led development.

We have shown that together the parcels could provide for circa 500 dwellings with the ancillary supporting development and benefits set out above.

The land was recognised in the 'preferred options for potential development' following site assessment work undertaken by Bedford Borough Council and published for consultation in 2017. This was in principle carried through in the strategy of the examination drafts of the Plan and the land offers the potential to deliver the requirements for sustainable development in Sharnbrook.

Wider Context Plan



Wider Context Plan - showing urban areas and waterways

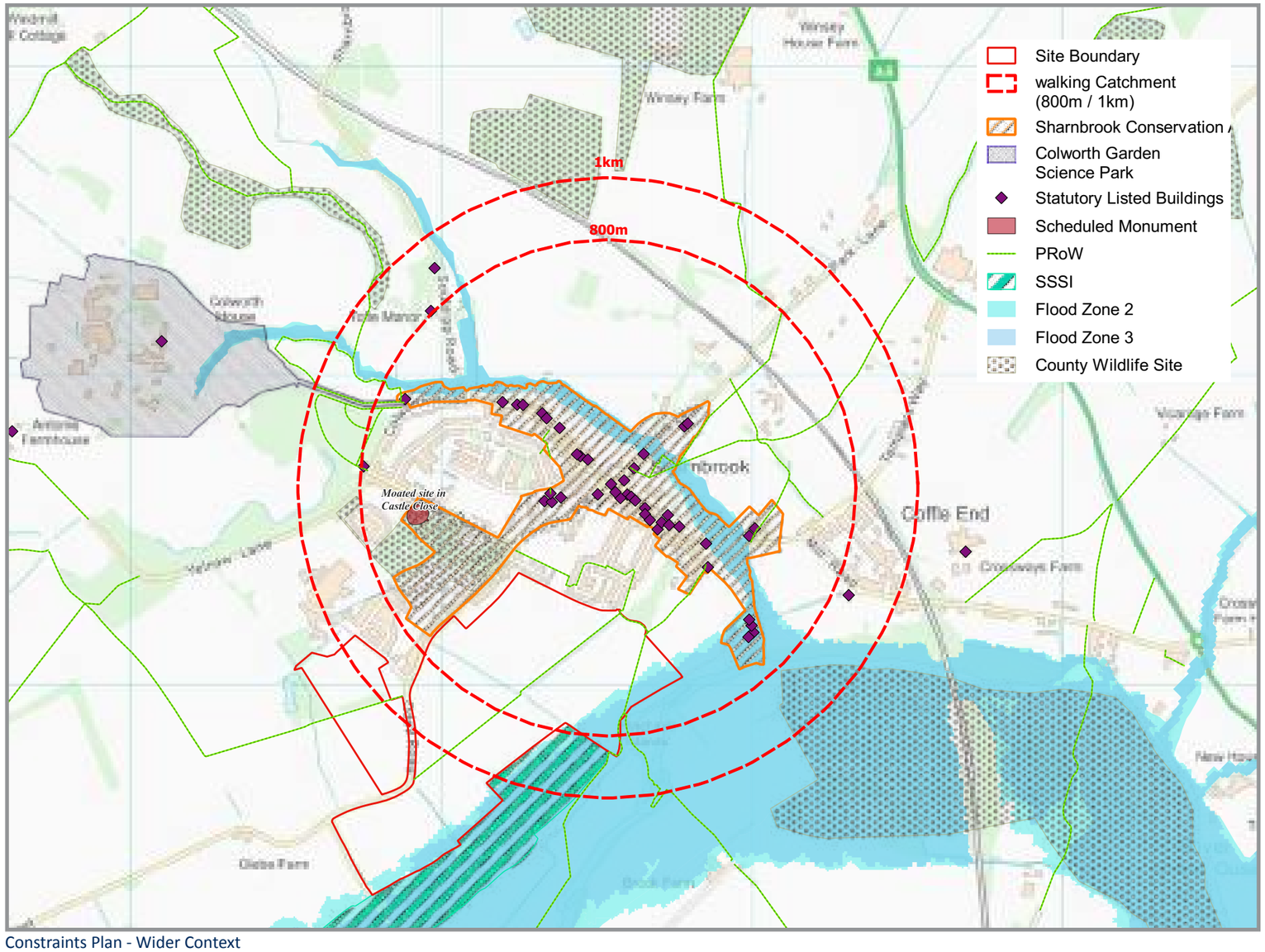
LOCAL CONTEXT AND CONNECTIVITY

A high level review of the surrounding highway network has been undertaken. The study has considered transport constraints, the accessibility of local facilities and vehicular permeability for the masterplan site. The review has demonstrated that the site is well connected to its immediate and wider contexts.

Local Context Constraints

At the local level, the wider site is contained by:

- Felmersham Gravel Pits Nature Reserve and Site of Special Scientific Interest to the south-west;
- Open countryside; and
- The built form of Sharnbrook which encloses the land's northern and eastern edges.



Constraints Plan - Wider Context

Local Facilities

Many of the local facilities offered in Sharnbrook are situated within 10 minutes walk of the masterplan site. These include leisure, children's play areas, allotments, green public open space, shops , pubs and schools.

Access to these facilities can be gained via the network of existing Public Rights of Way, as well as via Odell Road, leading on to Sharnbrook's High Street.

Unlike other, less well-related options, which are divorced from the village core and facilities, both parcels within the masterplan site provide relatively easy access to the village core using continuous existing pedestrian footways, with additional opportunities for new footways and pedestrian connections to further improve connectivity.

A key asset of the BCT's land is its proximity to the heart of Sharnbrook. The masterplan is supported by a more detailed assessment it's sustainability and this generally reflects Bedford Borough Council's findings, focusing recommendations on sites within or near existing settlement boundaries. This proximity is recognised as supporting key plan-making objectives for infrastructure delivery, promoting opportunities for leisure and recreation and meeting a range of housing needs including affordable housing and bungalows.

The delivery of sustainably located opportunities, incorporating measures to deliver new and upgraded community facilities, is essential to maintain and enhance Sharnbrook's role as a Key Service Centre, providing as it does for the needs of a wider rural area.

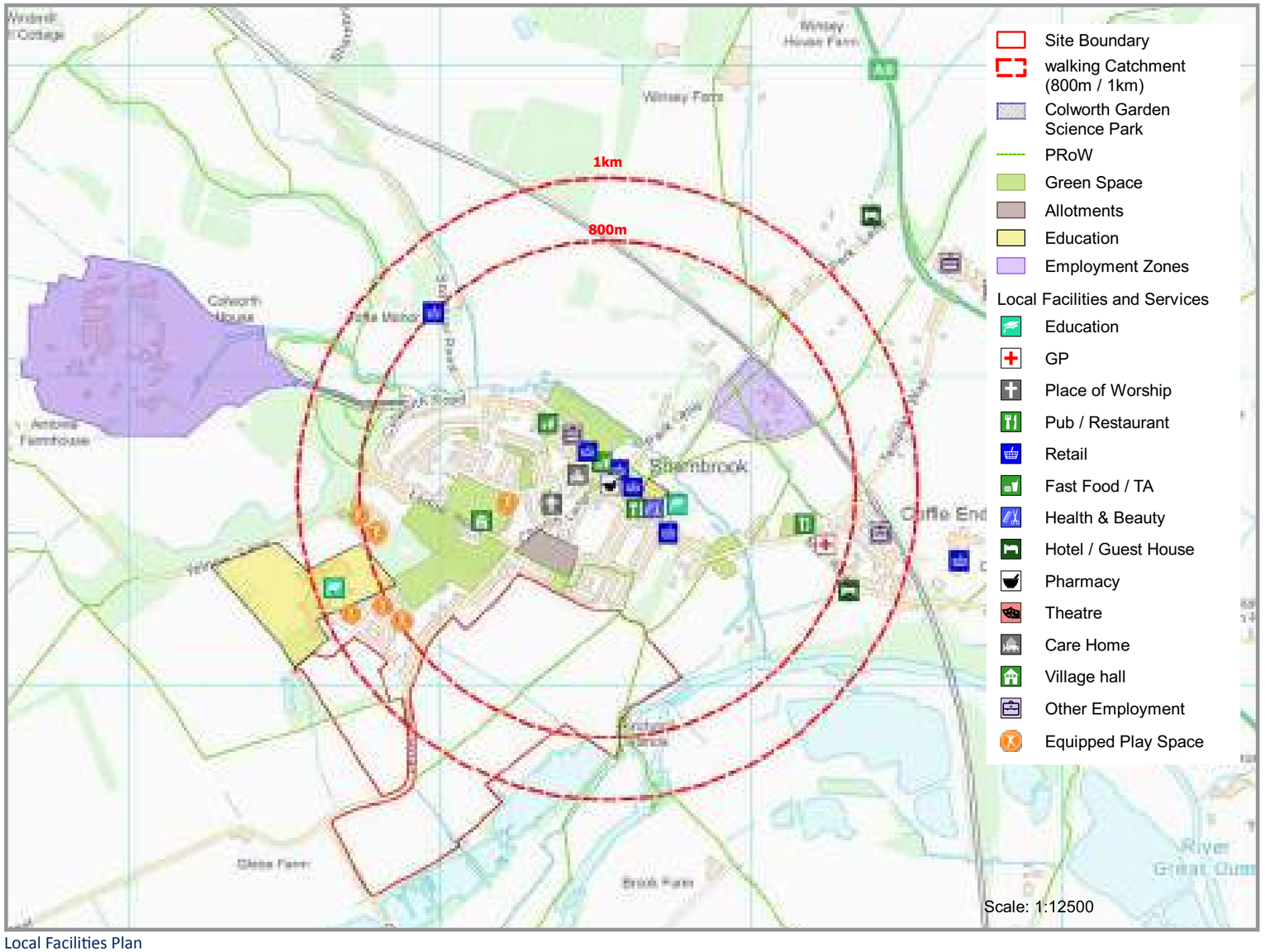
Compared to other locations in Bedford Borough, Sharnbrook benefits from generous provision of public open space, allotments and sports facilities. Its role in providing these helps to address deficits in the surrounding rural area. Closer assessment demonstrates that this provision is concentrated towards the west of the village and relates physically to key assets such as the High Street, Sharnbrook Academy and other recent development.

The masterplan site is well-located to these facilities and is also capable of delivering opportunities for open space and recreation in excess of local policy requirements. This site will be delivered in a manner that meets needs generated by the new development and can address shortfalls identified in the Borough Council's own evidence for Parks, Outdoor Sports and Natural Play Areas alongside providing improvements to access to the wider countryside.

Opportunities to facilitate green links for walking and cycling within the development, alongside opportunities to open additional connections via engagement with Bedford Borough Council, will further complement and enhance the sustainability of this location.

Facility / Amenity	Distance from Site Frontage
Odell Road Bus Stops	50m/450m
Sharnbrook Academy School	200m
Sharnbrook Village Hall	400m
Co-op Convenience Store	600m
Public House	600m
Veterinary Clinic	600m
Sharnbrook Lower School	700m

Local Facilities Distances Chart



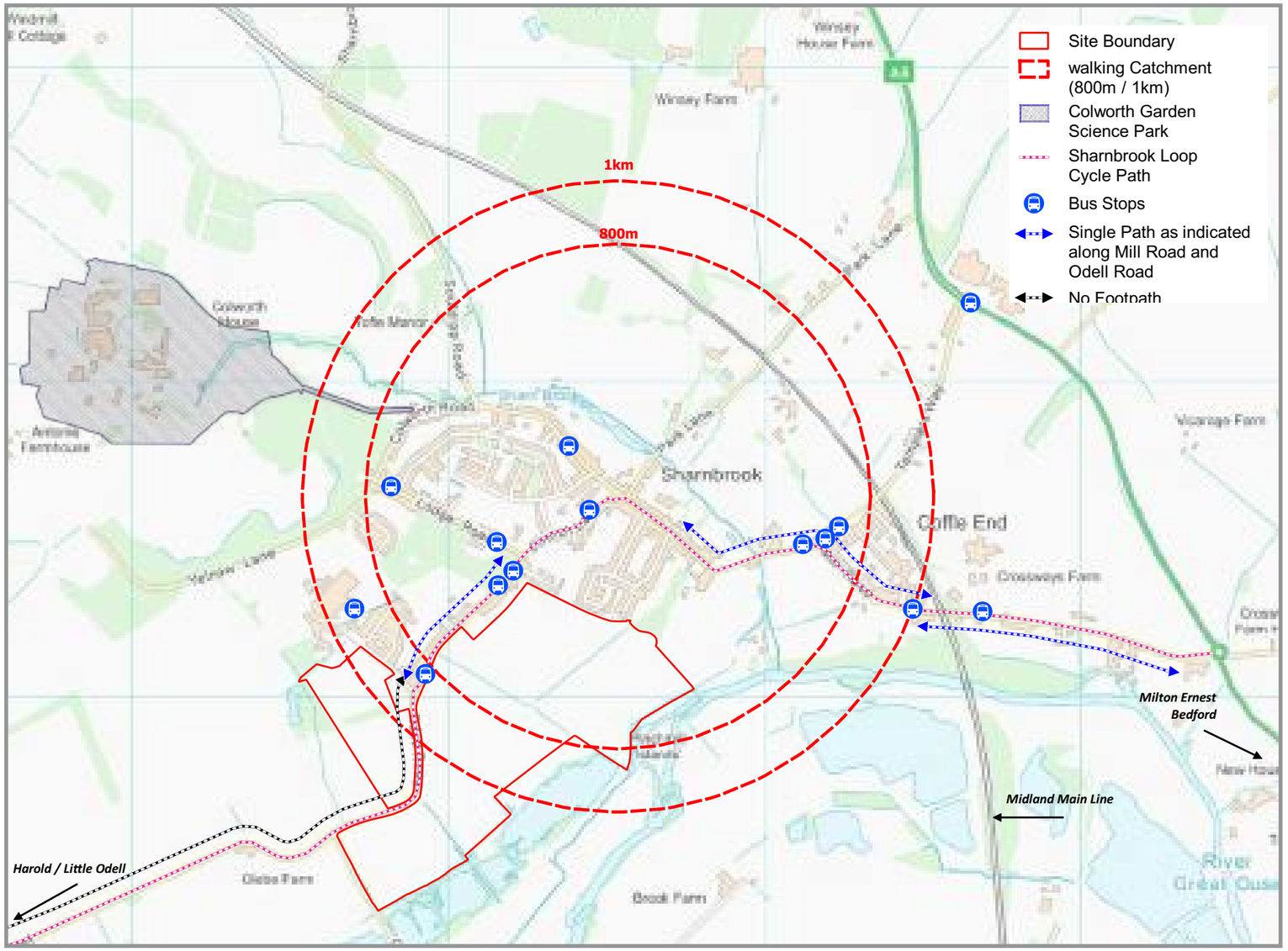
Local Facilities Plan

Transport Links

Located approximately 2km to the west of the A6, the masterplan site benefits from good vehicular links to major destinations such as Bedford, Rushden and Kettering.

Public transport in the area offers a regular bus service connecting with these destinations. The nearest bus stop is located on Odell Road, approximately 57m north of the Odell Road / School Approach roundabout.

Opportunities for cycling along Odell Road, connecting the A6 to the east and other settlements to the west, offer an additional mode of movement, contributing to the sustainability of the location of the Masterplan site.



Transport Links

3. DESCRIPTION OF THE LAND AND ITS SURROUNDINGS

SITE DESCRIPTION

The masterplan site lies immediately to the west/south-west of established areas of housing and comprises two land parcels which are outlined in red, both of which are in the ownership of the Bedfordshire Charitable Trust.

The smaller of the two land parcels extends to 9.36 hectares and lies to the west of School Approach, running parallel with an existing area of housing. This smaller land parcel is contained by the 6th Form building of Sharnbrook Academy and its associated car parking area to the north, and School Approach and Odell Road to the east. To the north, west and south the parcel is contained by areas of woodland and a tree belt.

A Public Right of Way (BW10) runs along the southern edge of the tree belt across the small parcel, providing links to an extensive network of Public Rights of Way, and the recreational route of The Ouse Valley Way.

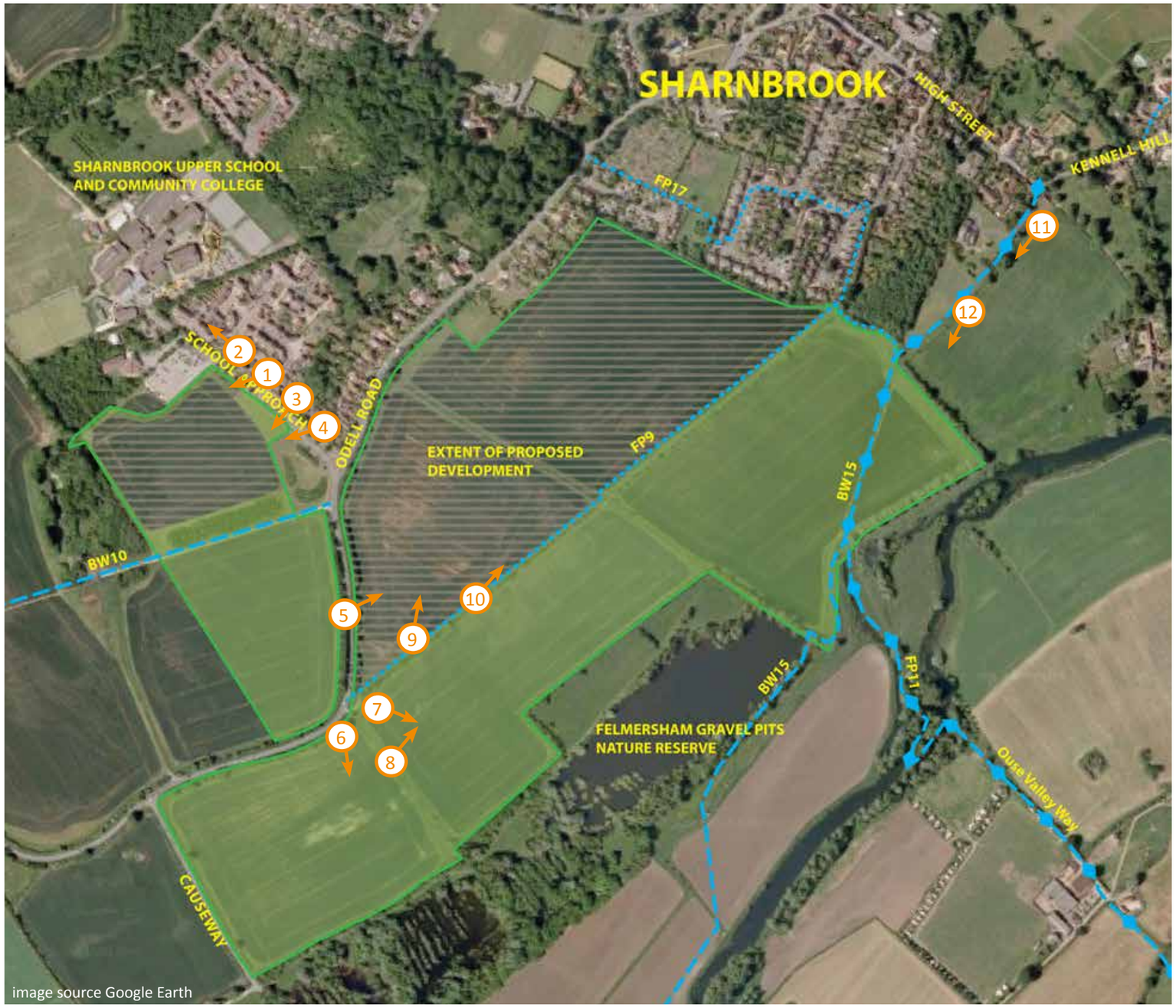
The larger land parcel of 47.06 hectares lies to the south-east of Odell Road and consists of a number of arable fields and grassland, extending southward to the Felmersham Gravel Pits Nature Reserve and SSSI and towards the River Great Ouse. This provides an area of wetland and meadows created from restored gravel pits.

There has been engagement with Natural England and Bedford Borough Council, given the proximity to the SSSI and the potential relationship with new development. It has been concluded , that subject to appropriate mitigation the scheme can be sustainably delivered, as reflected in a Preliminary Ecological Appraisal..

A series of mature hedgerows divide the fields and the land is crossed from east to west by a Public Right of Way (FP 9). A short stretch of The Ouse Valley Way, an important recreational route in the area, passes through the south-eastern corner of this parcel.

SITE PHOTOGRAPHS

The photographs shown opposite illustrate key physical features within and around the two parcels of the Masterplan site.



Key Plan for Photographs

View from the site's eastern edge towards north-west

View from the School Approach across the green open space, towards west

View from the Public Right of Way towards south-east, looking at the site's slope and the northern edge of Felmersham Gravel Pits Site SSSI

View from the Public Right of Way to the north-east, looking at Sharnbrook settlement edge and the spire of the Parish Church of St Peter

View along School Approach towards north

View from Odell Road towards east, with Sharnbrook built-up area in the background

View eastwards along the hedgerow which defines the path of the Public Right of Way

View from Ouse Valley Way recreational route westward toward the site, with the disused windmill on the right

View from School Approach across the site towards west

View from the Public Right of Way towards south-west, looking at the northern edge of Felmersham Gravel Pits Site SSSI

View from the Public Right of Way to the north-east, towards the edge of Sharnbrook's built-up area

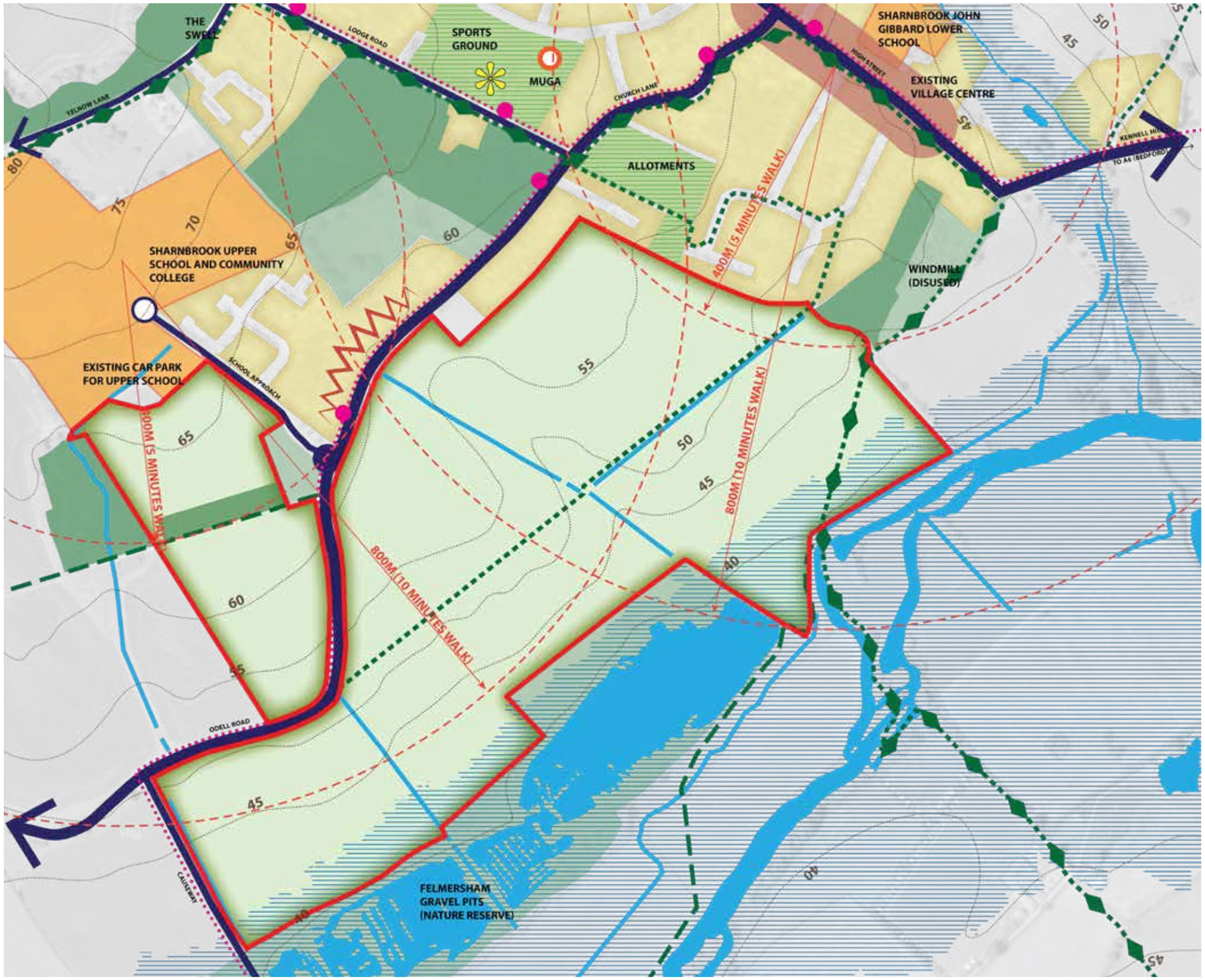
View from Ouse Valley Way recreational route to the south-west toward the site, with the site's structural planting in the background

4. SITE APPRAISALS

OPPORTUNITIES OF THE SITE LOCATION

The design concepts for the wider masterplan site consider the following opportunities:

- Close proximity to the centre of the village, its shops and other services and to existing community facilities and green space, such as the village hall, sports ground, allotments and high street;
- Opportunities for further biodiversity enhancement in the form of habitat creation on-site, e.g. wildlife ponds; and for further enhancement of visitor information and engagement, e.g. wardening, footpath way markers and information boards at key access points;
- Proximity to the Felmersham Gravel Pits SSSI and opportunities to enhance and extend the area of ecological interest and provide a wider setting for this together with a publicly accessible riverside park and other green space;
- Mitigate existing and future recreational pressure on the SSSI through delivery of new open space and green infrastructure alongside the implementation of active management to reduce conflict between users of the land, including enhancing the effectiveness of existing measures such as grazing cattle and improving ecological connectivity;
- Existing Public Rights of Way within and around the two parcels provide an opportunity for enhanced pedestrian connectivity in the area, and to facilities in Sharnbrook;
- Potential additional pedestrian link from the development eastwards towards the existing public open space and allotments off Pinchmill Way providing an opportunity to enhance the scheme's connectivity to existing amenities and facilities within Sharnbrook, including the allotments area, the village hall with the associated recreation grounds and Sharnbrook village centre;
- Provision of new community facilities, including a land for a new primary school, to serve both new and existing communities;
- Create an alternative main vehicular route to serve the new development and relieve the traffic pressures on the existing Odell Road near Sharnbrook Academy;
- Provide improved traffic management for school buses serving Sharnbrook Academy and arrangements for dedicated safe and convenient pupil drop-off;
- Utilise and enhance the existing bus routes and encourage use of sustainable modes of transport;
- Provide a range of housing to meet local needs, including affordable housing, bungalows for elderly residents, self-build and a range of family housing;
- Identify sustainably located land for a mixed-use local centre with opportunities for new convenience retail and GP Practice to assist traffic management in the village centre; and
- Promote a distinctive and positive image on arrival to Sharnbrook.



site boundary

existing footpath

existing bridleway

existing recreational route

existing road/roundabout

existing congestion/noise

existing bus route / bus stop

existing drainage ditch

45 topographic contour line

extent of flood zones 2 and 3

existing woodland

existing green POS

existing formal POS

existing settlement

existing school

existing local centre / retail

existing village hall

existing equipped children's play area

Constraints & Opportunities Plan

5. ILLUSTRATIVE MASTER PLAN

DESIGN CONCEPT

The Masterplan for BCT's land is the culmination of a process involving preliminary technical work and 'options testing' in consultation with key stakeholders.

The main principle of the design concept is the delivery of a sustainable, integrated development form that links with the existing built form to benefit from existing facilities and provides additional leisure, educational, retail and care/medical facilities for new and existing residents, while providing meaningful alternatives to pressures on the highway network.

Key challenges in exploring design options included addressing current highways constraints in relation to Sharnbrook Academy, and the potential siting of a new primary school within the land East of Odell Road.

An additional key consideration is safeguarding and enhancing the Felmersham Gravel Pits SSSI, located along the southern boundary of the land East of Odell Road, by providing appropriate transition zones and ecological mitigation.

The design concept evolved to include two main alternatives for the purpose of public consultation and engagement with the Parish Council.

The first option (see Alternative 'A') consists of a larger site area, extending from the southern edge of Sharnbrook's built-up area. This indicative Masterplan encompasses both parcels of land previously described . The second option (see Alternative 'B') covers only the smaller land parcel - from the southern edge of Sharnbrook Academy up to Odell Road (referred to as 'Land off School Approach').

ALTERNATIVE 'A'

Utilising both parcels of land proposed will enable the delivery of circa 500 dwellings, land for a new primary school, formal leisure, sports and play facilities, an extensive green space network providing areas of public open space and a safe and convenient drop-off facility for Sharnbrook Academy.

Land is identified for a mixed-use local centre/community facility to support demand for local convenience retail and relocation of GP surgery facilities, if required.

The transport solutions proposed as part of the scheme play an important role in the design concept.

As part of the development of the larger parcel, it is proposed that a link road is provided through the Land East of Odell Road, which would divert non-school related traffic (through-traffic and that generated by the proposed development) away from the Odell Road / School Approach roundabout. This would allow through-traffic to bypass any school related traffic during peak periods. Providing such a road would minimise the impact at the Odell Road / School Approach roundabout and help ease existing congestion problems.

A dedicated drop-off facility is proposed within the small parcel, which would assist with segregating pedestrian and vehicular activity. This would relocate the majority of drop-off activity further south from Sharnbrook Academy, and ensure that the primary activity at the northern end of School Approach is pedestrian only with minimal vehicle activity.

Proposed footpaths provide support for the existing network of Public Rights of Way, enhancing the area's permeability and connecting the formal recreation zone at the south with the proposed mixed-use local centre, primary school and children's play area, via a series of interlinked green corridors.

An additional potential pedestrian link extends eastwards from the proposed link road to the site's eastern boundary, connecting the development with the existing public open space and the centre of Sharnbrook village further beyond. This link, however, is subject to further engagement with Bedford Borough Council.

The proposed drainage strategy for the scheme includes a series of attenuation basins at the south of the large land parcel, incorporated into the informal open spaces managed for ecology and recreation. The basins also serve as amenity features, as well as enhancing biodiversity. Detailed design of these features, their size and exact location, are subject to further surveys and specialist studies.

The Masterplan incorporates substantial opportunities for mitigation of any recreational and water quality impacts. New and existing residents will be encouraged to utilise the new high quality multi-functional green infrastructure. This will be supported through contributions to access management off-site by maintenance of the footpath and bridleway network and access points in the SSSI, alongside the use of visitor information through footpath way markers, information boards, as appropriate and advised by the SSSI managers.

Options for the potential location of the Primary School were discussed with stakeholders, including the Sharnbrook Academy Federation. The proposed location on land East of Odell Road accommodates best-practice guidelines including requirements for open play and landscaping.

This provides maximum flexibility alongside a sustainable location well-related to the new development and existing village residents. Opportunities for walking and cycling and access to the proposed drop-off facility would link to the proposed Primary School site.

An additional alternative was explored as part of the design development, where the proposed school is located in the small, western land parcel, adjacent to the existing Sharnbrook Academy. This was considered to provide less flexibility and would limit the opportunity for other benefits of the Masterplan, including additional parking for sixth-form students at Sharnbrook Academy, landscaping and the ability of the Academy to upgrade its own facilities in the future.

Illustrative Master Plan - Alternative 'A'

Alternative school location explored

- site boundary
- existing PROW
- indicative proposed pedestrians and cycle link
- existing drainage ditch
- indicative proposed primary road
- existing road
- indicative proposed diverted through-traffic road
- indicative extent of flood zone 2+3
- indicative proposed structural planting
- indicative proposed recreation zone
- indicative proposed attenuation basin
- indicative proposed natural / equipped children's play area
- indicative proposed 2FE school
- indicative proposed school drop-off facility
- indicative proposed residential area

ALTERNATIVE ‘B’

The Proposals in alternative ‘B’ are confined to the smaller land parcel located to the south of Sharnbrook Academy. It is consistent with the design proposals for this area in alternative ‘A’, including the provision of drop-off facilities for the existing school, but offers a residential-only scheme.

The scheme proposed under Alternative B would be capable of early delivery. This alternative also demonstrates the suitability for development at Land off School Approach and is served by the existing highways arrangement. This option was also previously recommended as part of preferred options identified by Bedford Borough Council.

Meeting part of the requirement for growth on Land at School Approach, as illustrated in ‘Alternative B’, would be a suitable, available and achievable option for development if the Steering Group opted to pursue a dispersed strategy for growth. This Vision Document recognises that this would represent a departure from previous statements by the Neighbourhood Plan Steering Group to recognise the benefits of supporting options for larger-scale development.

The capacity for the development in this alternative is circa 100 dwellings with associated landscaping and an equipped children’s play area.

Illustrative Master Plan - Alternative ‘B’

6. CONCLUSIONS

This Vision Document demonstrates that a development of the Bedfordshire Charitable Trust's land at Sharnbrook, well-related to the settlements existing built-up area, would deliver a meaningful addition of amenities, community and educational facilities and opportunities for leisure and recreation to new and existing residents.

The proposals will provide significant betterment to the highways network. Subject to further engagement and detailed assessment, it is deemed that the land could tie into existing highway infrastructure and that safe and suitable access could be delivered.

Two principal design options were explored. The first option covers a larger area and incorporates two land parcels with a capacity of circa 500 dwellings, land for a primary school, land for a mixed-use local centre and extensive green amenity space as a riverside park, to be managed as an area for ecological mitigation and enhancement. An additional, 'reduced' scale option consists of the smaller land parcel alone, with a capacity for circa 100 dwellings and associated landscaping.

We look forward to further opportunities for public consultation and engagement with the Parish Council based on the two broad options proposed.


N
POTENTIAL PEDESTRIAN LINK SUBJECT TO FURTHER ENGAGEMENT WITH BEDFORD BOROUGH ESTATES DEPARTMENT
ODELL ROAD
SECTION OF ODELL ROAD TO BE DOWNGRADED (20MPH & TRAFFIC CALMING)
PROPOSED PRIORITY 'T' JUNCTION'
PROPOSED PEDESTRIANS AND CYCLE LINK TO EXISTING OPEN SPACE AND ALLOTMENTS
SCHOOL APPROACH
EXIST. CAR PARK FOR SIXTH FORM
LEAP
MIXED USE LOCAL CENTRE
LEAP
LEAP
FORMAL OUTDOOR SPORTS SPACE
POTENTIAL PARKING AREA
ATTENUATION POND
EXISTING WOODLAND
EXISTING WOODLAND
POTENTIAL PRIMARY SCHOOL SITE (1-2 FE)
DIVERTED SECTION OF ODELL ROAD
PROPOSED SCHOOL DROP-OFF FACILITY
RECREATION ZONE
ATTENUATION POND
SECTION OF ODELL ROAD TO BE DOWNGRADED (20MPH & TRAFFIC CALMING)
PROPOSED PRIORITY JUNCTION TO LINK ROAD
ATTENUATION POND
SSSI - FELMERSHAM GRAVEL PITS (NATURE RESERVE)
ODELL ROAD
EXISTING ODELL ROAD
CAUSEWAY
LAND TO BE MANAGED FOR ECOLOGY/RIVERSIDE PARK
0
50
100
200m

Prepared on behalf of:

BEDFORDSHIRE CHARITABLE TRUST LTD

SUPPORTING THE LOCAL COMMUNITY

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Strategic Planning Research Unit

APPENDIX 3 SPECIFICATION FOR A HYDROLOGICAL ASSESSMENT OF FELMERSHAM GRAVEL PITS SSSI (2021)

Specification for a hydrological assessment of Felmersham Gravel Pits SSSI

[redacted] *(Open University) and* [redacted] *(University College London),* October 2021

1. Background

1.1 Felmersham Gravel Pits Site of Special Scientific Interest (SSSI) is notified on the basis of its aquatic flora and the associated wetland habitats. Some land to the north of the site is being considered for inclusion in Bedford Borough's Local Plan as a potential area for development with the land surrounding the SSSI being allocated as greenspace including the expansion of the current wetland habitat. Natural England have expressed concern that the development could affect the hydrology and water chemistry of the SSSI and therefore further information and assessment is needed to understand the potential impacts on the SSSI. They have requested a hydrological assessment be undertaken before any development is approved. DLP Planning Ltd working on behalf of the land managers, Bedfordia Farms, approached the authors to explore how such an assessment should be undertaken.

1.2 Consultation with the SSSI owners, the Bedfordshire, Cambridgeshire and Northamptonshire Wildlife Trust (BCNWT,) established that there few existing data on the site's quantitative hydrology, but a report investigating the water quality of the Pits and a recent botanical survey of one of the pits was supplied (BCNWT, 2013) This specification aims to guide the approach that should be taken to assess the hydrological context of the SSSI with respect to the potential effects of nearby development.

2. Quantitative hydrology

2.1 The water level within the Gravel Pits is known to vary seasonally (Ecoscope, 1997), but it appears more stable than would be expected were it purely rainfed, suggesting an external water input. The relative contribution from groundwater versus surface-water inputs are not known. The local geology is of fine-textured alluvium above river-terrace gravels underlain with limestones of the inferior oolite formation. It is therefore possible that groundwater may come from either the remaining gravel terraces within the valley of the Great Ouse, or from the deeper limestone aquifer. The site may potentially be a Groundwater Dependent Terrestrial Ecosystem (GWDTE) as defined by the Environment Agency.

2.2 The surface-water catchment is to the north-west of the site. There are three ditches/streams running from north to south, which can carry water toward the site, though these sometimes become dry. It is unclear to what extent this water enters the lakes; some appears to traverse the site and flows toward the river. Following periods of very high precipitation, the site is occasionally inundated by the River Great Ouse to its South.

2.3 An initial conceptual hydrological model should assume that the groundwater component of the water supply to the SSSI is dominated by the gravel-terrace aquifer, which in turn is regulated by the river level. The initial monitoring scheme should be designed as a test of this model.

Groundwater

2.4 To determine the source of groundwater and to estimate its quantity, a pair of perpendicular transects of monitoring boreholes (e.g. 100 mm diameter) would be required. Illustrative positions are shown on Figure 1, but exact locations would need to be decided after some ground truthing and discussion with relevant land- owners/managers. Dependent upon the local stratigraphy, it may be necessary to install nested piezometers at some positions if one or both potential aquifers are hydrologically confined. At least three piezometer nests should include a well measuring pressure in the oolitic limestone aquifer such that the degree

of connection between that aquifer and the more superficial ones can be assessed for the purposes of refining the conceptual hydrological model.

2.5 The water level in each monitoring well would need to be recorded at least monthly, over a three-year period, to build a reliable dataset. An automated logging pressure transducer (e.g., Level Scout, van Walt, Haslemere) in at least some of the wells could provide more frequent sampling to describe how the reliance of the SSSI on different water sources changes on a shorter timescale. The data can be interpreted annually, and initial conclusions drawn, but due to the stochastic variability of precipitation patterns, multiple years of data are generally required to draw definitive conclusions about how a hydrological system operates.

2.6 The resultant data (whether from manual observations or logged from automatic pressure-transducers) would indicate both the direction of groundwater flow and the degree of connectivity between different parts of the site and between the site and the river. Further information could be gained by conducting pump tests on a subset of the wells to measure the permeability of the aquifer(s). This additional information would allow a quantitative estimate of the amount of groundwater entering the SSSI and by extension, the proportion likely to be affected by the development.

2.7 If the data from the first year of monitoring is inconsistent with the initial conceptual model of the site; that is to say if the water-level fluctuations within the SSSI are not adequately explained by changes in the gravel aquifer and the adjoining river, then an alternative conceptual model should be developed (for example one placing more reliance on the underlying limestone aquifer or one placing more emphasis on surface water and soil seepage) that is more consistent with the available data. The monitoring scheme should then be modified in the second year to test the alternative conceptual model. This may either involve the use of more deep wells or greater focus on surface and soil hydrology.

Surface water

2.8 Interpretation of surface topography (available from LiDAR maps) would indicate the extent of the SSSI's surface-water catchment. The likely run-off from this area could be assessed using the methods set out in the Flood Estimation Handbook (CEH, 1999.) These calculations could be verified by installing flow recorders in one or more of the three ditches/streams that link the catchment to the site.

2.9 The level of water in the pits and in the River Great Ouse both upstream and downstream of the site should be monitored (see suggested locations in Figure 1.) Again, levels could be recorded manually using gauge boards or automatically using the same pressure transducers as suggested for the monitoring wells. At least one automated recorder would allow any flood events to be recorded.

2.10 The surface water measurements should be reviewed annually and incorporated into the assessment of the initial and subsequent conceptual hydrological models. If surface water transpires to be a significant contributor to the quantitative hydrology of the SSSI, then additional resource should be deployed to characterise the factors regulating it. For example, soil depth and hydraulic conductivity and hence transmissivity should be assessed in parallel with a more detailed estimation of ditch flows.

Effect of the proposed development on the quantitative hydrology of the SSSI

2.11 Once a baseline conceptual model has been established through a process of comparing field measurements against the iterative series of models developed by the process set out above, the potential routes by which the proposed development could affect the SSSI can be deduced. Appropriate monitoring of groundwater or surface water or both should be

based on the understanding of the system derived from the accepted model of baseline conditions.

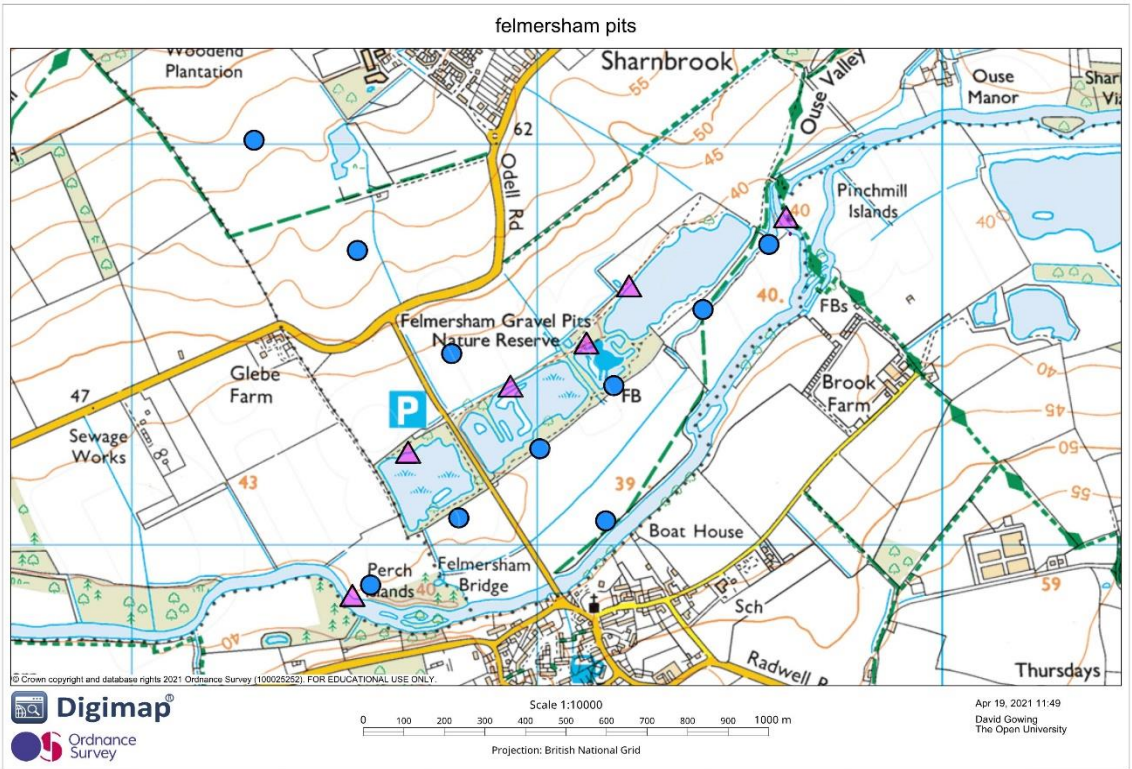

Figure 1. Felmersham Gravel Pits SSSI showing indicative locations of gauge boards (pink triangles and tubewells (blue circles.)

3. Water quality

3.1 The high-quality aquatic flora of Felmersham Pits, especially the occurrence of species such as *Utricularia vulgaris* and *Myriophyllum verticillatum* (Fig. 2) suggests exceptionally high water quality – a scenario that is rare in south-east England. Indeed, recent macrophyte surveys support this view (BCNWT, 2013; Goldsmith, 2020). The quality of the aquatic vegetation suggests the site is not strongly affected by any runoff carried by water inputs from the agricultural land to the north, which is currently under arable cropping, whether this water flows via the three ditches or via a subsurface route.

3.2Actual water quality data for the pits including potential water sources to the site appear to be widely lacking. It is essential that any development does not change the water quality of the SSSI. In this respect it is critical that concentrations of nitrogen and phosphorus are not increased, as even a very slight elevation of either one of these nutrients would undoubtedly lead to the onset of deterioration of the site (eutrophication) and in turn the loss of its rare wetland plants and conservation interest (Sayer *et al.* 2010). To help understand the water chemistry of the gravel-pit complex, monthly monitoring of nitrate nitrogen, total nitrogen, soluble reactive phosphorus and total phosphorus will be required, with sampling of each of the pits, of the inflow streams/ditches (when flowing) and of boreholes. Ideally this work should be undertaken over two years, in which case it might

be reasonable to assume that the effect of river-flooding could be picked up as well as the effects of seasonal hydrological variation.

3.3 The water-quality monitoring data should be reviewed annually in the light of the prevailing conceptual model of the site's quantitative hydrology to identify the pathways by which nutrients may reach the site. Targeted monitoring of individual sources may be required if existing data on their quality are unavailable.

Figure 2. Lush aquatic plant development and exceptionally clear water at Felmersham Pits as characteristic of exceptionally low nutrient concentrations.

4. References

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