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**Ansty Garden Community**

**Environmental Statement**

**Volume 2**

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# CHAPTER 4: ALTERNATIVES CONSIDERED AND DESIGN EVOLUTION

## 4 Chapter 4: Alternatives Considered and Design Evolution

### 4.1 Introduction

- 4.1.1 Paragraph 2, Schedule 4 of the EIA Regulations requires the Applicant to provide *"a description of the reasonable alternatives studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects."*
- 4.1.2 This chapter describes the reasonable alternatives considered by the Applicant, including the 'do nothing' scenario, and documents how the design of the Proposed Development and Reserve Site has evolved, taking environmental effects into account.

### 4.2 'Do Nothing' Scenario

- 4.2.1 The consideration of alternatives, as required by the EIA Regulations, should address the evolution of the Site and Parkland Reserve Site, in the absence of the Proposed Development and Reserve Site in question. This is known as the 'do nothing' scenario.
- 4.2.2 The Site and Parkland Reserve Site are currently occupied by arable fields, non-agricultural land (e.g. sports pitches and woodland) and a small area of urban land. There is currently approximately 1.6 hectares (ha) of Grade 1 'Excellent' land, 6.6 ha of Grade 2 'Very Good' land, 5 ha of Subgrade 3a 'Good' land and 63.5 ha of Subgrade 3b 'Moderate' land on the Site. The Reserve Site currently includes 3.6 ha of Grade 2 'Very Good' land, 14.5 ha of Subgrade 3a 'Good' land and 14.5 ha of Subgrade 3b 'Moderate' land.
- 4.2.3 In the 'do nothing' scenario, it is reasonable to assume that the Site and Reserve Site would comprise the continuation of the existing baseline, as outlined above and set out in **Chapter 2: The Site**.
- 4.2.4 Policy DP4: Housing of the Mid Sussex District Plan<sup>1</sup> states that there is a minimum District housing requirement of 16,390 dwellings between 2014 and 2031. The continued use of the Site as existing would mean the Site would fail to contribute to key housing policy aspirations for the Mid Sussex District.

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<sup>1</sup> Mid Sussex District Council, (2018); Mid Sussex District Plan.

4.2.5 Continuation of the existing land use would mean that the following would not be provided on the Site:

- Up to 1,450 residential dwellings (including 90 retirement living / care home units);
- Approximately 25,000 square metres (m<sup>2</sup>) of primary school area (including a nursery);
- Approximately 20,000 m<sup>2</sup> of special educational needs and disabilities (SEND) school area;
- Approximately 11,000 m<sup>2</sup> of mixed local centre uses, which could comprise space for a health hub / medical centre (Use Class E floorspace);
- New public open space, retained woodland (including ancient woodland), allotments and play space;
- Sporting provision;
- Car and cycle parking
- Pedestrian, car and cycle access and circulation; and
- Associated infrastructure works.

4.2.6 The following would also not be provided on the Parkland Reserve Site if the existing land use continued:

- Pedestrian and cycle tracks, with a new pedestrian and cycle access points off Cuckfield Road to the south and Staplefield Road to the north;
- The erection of two viewing platforms; and
- Additional works to improve the Parkland Reserve Site's ecological value, including a long-term management and rewilding regime.

4.2.7 In view of the above, it is reasonable to assume that in the absence of the Proposed Development and Parkland Reserve Site, the Site and the Parkland Reserve Site would likely remain as arable fields, non-agricultural land and a small area of urban land in the future.

## 4.3 Alternative Sites

4.3.1 In terms of assessing reasonable alternative options for development sites of this scale, this process has been informed by the Sustainability Appraisal (SA) of the Mid Sussex Development Plan Review (produced by Lepus Consulting, dated October 2022) which accompanied the Regulation 18 consultation on the emerging Local Plan 2021-2039. The SA highlights that there are only three other strategic sites of this scale which have been considered for development, having been through the Mid Sussex District Council's (MSDC's) Strategic

Housing and Employment Land Availability Assessment (SHELAA) sieving process, and all three of these are subject to draft allocation in the emerging local plan. Greater flexibility is required in the planned housing numbers, with potential for all three of these allocated sites not to deliver the quantum of development for which they are allocated, or to be delayed due to constraints posed by being in multiple ownership. As such, Land East of Ansty (i.e. the Site) is considered to be necessary as an additional development site to ensure the planned housing numbers are actually achieved and that sufficient quantum of housing can be delivered throughout the development plan period.

- 4.3.2 In addition to the above, alternative sites for the Proposed Development and the Parkland Reserve Site have not been considered as the Site and the Parkland Reserve Site are the only ones being considered under the Applicant's control.
- 4.3.3 In these circumstances, whereby alternative locations are not explored, it is an accepted approach to look at the reasonable alternatives studied by the Applicant on the Site and the Parkland Reserve Site; this can include design options and iterations.

## 4.4 Design Evolution

### Proposed Development

- 4.4.1 The design of the Proposed Development took its starting point in February 2021, as set out below.

#### *Design Iterations*

##### **Design 1 of the Proposed Development – February 2021**

- 4.4.2 The design of the Proposed Development was initially based on the vision of project's planner for the Site, which included approximately 1,600 residential dwellings, as set out in **Figure 4.1**.
- 4.4.3 At that stage, technical studies of the Site had not yet been undertaken and, therefore, constraints of the Site were not yet fully understood. Consequently, the design of the Site was progressed, once technical work was undertaken.

**Figure 4.1: Design 1 of the Proposed Development (February 2021)**



### **Design 2 of the Proposed Development - September 2022**

- 4.4.4 The second design of the Proposed Development was the initial concept prepared by the project's architects (as illustrated in **Figure 4.2**), following a workshop with the project's technical consultants.
- 4.4.5 A number of key changes were made to the Proposed Development, relating to the following:
- Transport – The bridge locations and route of spine street / secondary streets were revised and the foot and cycle strategy were renewed.
  - Built Form – The developable area was revised due to the Site's contours, initial landscape and visual analysis, sensitivities of listed buildings in the centre of the Site, ease of access and the potential ecological impact that the Proposed Development would have.

- Non-Residential Uses – The Proposed Development’s local centre and school were placed at the heart of the Site, to be easily accessible by all residents (both existing, within Ansty, and new).
- Landscape – The north-south and east-west green corridors were embedded within the framework for the Proposed Development.

**Figure 4.2: Design 2 of the Proposed Development (September 2022)**



### **Design 3 of the Proposed Development – December 2022**

- 4.4.6 The design of the Proposed Development was refined in December 2022 (as shown in **Figure 4.3**), following further advice received from technical consultants.
- 4.4.7 The advice received resulted in the addition of access from the A272 from the west and the relocation of the local centre in response to this.
- 4.4.8 Alterations were also made in the retention of the woodland following arboriculture surveys that were undertaken.

**Figure 4.3: Design 3 of the Proposed Development (December 2022)**



#### **Design 4 of the Proposed Development – May 2023**

4.4.9 In May 2023, the design of the Proposed Development (as illustrated in **Figure 4.4**) was presented to the Mid Sussex District Council (MSDC) for discussion, following further advice received from and design workshops with the project's technical consultants.

4.4.10 The design of the Proposed Development presented to the MSDC included the following:

- The removal of the Grade II listed 'The Place' and the Grade II listed 'Barn to North of Forsyth's Farmhouse' from the boundary of the Site.
- Updating the Site's access locations.
- Updating the secondary street route and the proximity of dwellings to The Place to the north.
- Refining the width of the streets across the Site.

- Updating the open space and the developable area, following sustainable drainage strategy (SuDS), open space and ecological strategies.

**Figure 4.4: Design 4 of the Proposed Development (May 2023)**



## Parkland Reserve Site

4.4.11 The design of the Parkland Reserve Site initially began with the inclusion of the following (as shown in **Figure 4.5**):

- Formalising existing sports pitches and car parking;
- Creating a dedicated area for dog walkers;
- Creating new footpaths, cycle paths and dog walking paths;
- Restoring parkland;
- Creating woodland rides and glades including a cycle trail;
- Erecting an observation tower to capture views towards the South Downs National Park;

- Restoring ponds; and
  - Developing an education centre within an existing building on-site, which would need to be refurbished.
- 4.4.12 As the design developed an opportunity was identified to enhance and rewild the Parkland Reserve Site to assist in the delivery of off-site Biodiversity Net Gain (BNG) provision for the Proposed Development (as noted in **Chapter 1: Introduction**), amendments were made to the proposed aspects of the Parkland Reserve Site to maximise the delivery of BNG whilst minimising any environmental impact.
- 4.4.13 To minimise and reduce any potential environmental effects associated with the Parkland Reserve Site, an environmentally conscious design focus was applied whereby the project's ecologist advised on the most appropriate locations of the proposed footpaths, cycle paths and dog walking paths, so that they were situated along routes which would have the least effect on any potential species or habitats. Routes were positioned away from the Ancient Woodland and concentrated on the ecologically low value areas such as low value grassland and arable land.
- 4.4.14 The below changes to the proposed elements of the Parkland Reserve Site were also made:
- The Observation Tower was removed due to the location of the Site within the AONB and potential effects upon landscape and views. Instead, two viewing platforms have been proposed with maximum heights of 2-2.5 m, which will be sympathetically constructed from FSC certified timber to seamlessly blend into the existing landscape and the natural surroundings.
  - The proposal to refurbish the existing building on-site, to develop an education centre was removed; it was felt that the potential construction impacts and ongoing operational effects from an increase in visitor numbers as a result would lead to increased environmental impacts.
- 4.4.15 At an early stage, it was decided that the Parkland Reserve Site would be managed to remain as natural as possible, with existing and proposed footpaths routes remaining grassed and the proposed cycle paths formed using a bound gravel or rolled hoggin surface (but not edged, to retain an informal character with the existing Parkland Reserve Site).

Figure 4.5: Initial Design of the Parkland Reserve Site



## 4.5 Site Constraints and Opportunities

4.5.1 The design development process has taken accounts of the constraints and opportunities presented by the Site and Parkland Reserve Site. The key constraints include:

- **High Weald Area of Outstanding Natural Beauty (AONB):** The High Weald AONB is located directly to the north-west of the Site, whilst the Reserve Site is located within the High Weald AONB. This was considered in the landscape design and with regards to Site / Parkland Reserve Site access.
- **Woodland:** Woodland, including Ancient Semi Natural Woodland and recent plantation woodland, is present alongside hedgerows and individual trees within both the Site and Parkland Reserve Site. These were taken into account and appropriate buffers (of at least 15 m) were incorporated around the Ancient Semi Natural Woodland.
- **Trees:** Free-standing mature oaks and other broadleaved trees are present on field boundaries. Retention of these is key, as they are an important biodiversity factor and deliver high visual amenity.
- **Local Wildlife Site:** The Great Wood and Copyhold Hanger Local Wildlife Site is located directly to the south-east of the Site and is of particularly high ecological value.
- **Ecology:** A number of protected and notable species have been recorded on the Site, including bats, breeding birds, great crested newts, common toad and grass snake. A number of protected and notable species have been recorded on the Parkland Reserve Site, including great crested newts, badgers, bats, dormice and breeding birds.
- **The Place (Grade II Listed Buildings):** The Site boundary was altered to exclude The Place and to reduce the proximity of dwellings near the listed buildings.
- **Drainage and Flood Risk:** The Site is predominantly located in Flood Zone 1, other than a narrow corridor of Flood Zone 2 along the watercourse, which is outside of the developable area. There are some areas of surface water flooding. The Reserve Site is located in Flood Zone 2
- **Public Rights of Way (PRoWs):** Existing PRoWs run through the Site and Reserve Site, which must be safeguarded and enhanced where possible.
- **Noise:** The Proposed Development will be subject to road traffic noise from the surrounding network – to the north and west from the A272 and to the south and south-west from the B2036.

- **Odour:** The primary source of odour at the Site is the Cuckfield Sewage Treatment Works, which requires a 100 m offset to proposed dwellings.

4.5.2 The key opportunities for the Proposed Development include:

- **Housing need:** the Proposed Development will provide a dwelling mix relative to the community need, meet high built quality and internal space standards, and provide appropriate affordable housing.
- **Transport modes, access and connections:** the Proposed Development will promote the use of sustainable modes of transport and provide a mobility hub.
- **Open space, leisure and play space:** the Proposed Development will provide new open spaces and play spaces, which will positively influence physical activity. The Parkland Reserve Site will provide leisure space, which will also influence physical activity.
- **Arboriculture:** as well as buffers to the Ancient Semi Natural Woodland, the Proposed Development will create buffers to the other areas of woodland (to protect species from built development) and retain existing woodland and trees (to provide a high-quality landscape and retain the landscape character).

## 4.6 Environmental Considerations and Comparison of Effects

### Proposed Development

4.6.1 Throughout the design of the Proposed Development, various iterations of the Proposed Development (as outlined above) were explored to maintain sufficient development potential of the Site, whilst retaining key landscape features and enhancing the existing Site for biodiversity and minimising the environmental effects.

4.6.2 During the design process, key environmental studies were undertaken, and advice sought from the project's technical specialists, to assess the impact of the Proposed Development and further improve the design of the Proposed Development. The environmental studies undertaken, and advice sought from the project's technical specialists, related to odour (as highlighted in **Chapter 8: Air Quality**), noise (as noted in **Chapter 9: Noise and Vibration**), ecology (as illustrated in **Chapter 11: Ecology and Biodiversity**) and landscape, views and built heritage.

4.6.3 Further information regarding the above are presented in the sections below.

## *Odour*

- 4.6.4 Throughout the design process, the developable area of the Proposed Development has been directly influenced by the environmental constraints leading to an environmentally design led approach to the scheme. This allowed the applicant to maximise the developable area whilst being sympathetic to the surrounding environment and ensuring site suitability. Key to this was understanding the required standoff distances from Cuckfield Sewage Treatment Works to the proposed residential properties and other uses located to the north-east of the Site.
- 4.6.5 Odour dispersion modelling and on-site 'Sniff Tests' were undertaken to predict odour concentration and validate with survey data to understand the potential odour impacts associated with the Cuckfield Sewage Treatment Works. Various scenarios were modelled, to understand the odour concentrations that would occur across the Site. The results of the modelling identified that there would be different levels of odour impact at certain locations within the Site which led to modifications in the proposed masterplan to accommodate a 100 m standoff from the from the edge of the Site boundary and Cuckfield Sewage Treatment Works, ensuring Site suitability and thereby reducing any odour effects.

## *Noise*

- 4.6.6 A review was undertaken by the project's Noise and Vibration consultant of an early design of the Proposed Development, to identify the potential noise constraints on the Site so as to inform the site suitability and design of the masterplan. This included areas which would potentially be affected by road traffic noise on the section of A272 to the north and west of the Site.
- 4.6.7 The results were fed back to the design team and solutions were worked through which would allow the proposed residential development to achieve the required internal and external noise levels suitable for residential development. As part of this, the buildings in the illustrative design were reorientated so that noise sensitive windows (i.e. bedrooms) could be moved away from the A272 to the opposite sides of the buildings allowing them to benefit from screening provided by the buildings themselves.
- 4.6.8 Initial noise modelling was undertaken based on this approach, to establish the distance required between the residential dwellings and road edge. Results of the modelling indicated that the first row of dwellings could be located at approximately 20-25 m from the road edge and achieve suitable internal noise levels with windows open, which was then incorporated into the design.

## *Ecology*

- 4.6.9 When designing the Proposed Development, the project's architects sought advice from the project's Ecologist and Arboriculturist with regards to the most appropriate location for built form so as to minimise any potential adverse effects on ecology. A number of workshops were held to work through potential designs which were then amended as appropriate according to the Ecologist and Arboriculturist to ensure that the Proposed Development was designed to minimise and avoid habitat losses, where possible.
- 4.6.10 Areas of low value habitats (such as arable land) were prioritised for the development of built form and high value habitats were retained and incorporated into the design of publicly accessible green spaces. To prevent effects from increased recreational pressure on priority habitats, it was recommended that all ancient woodland on-site be fenced off from the public, with proposed buffers of specific distances in place. It was advised that the remaining woodland and green space be clearly signposted with footpaths and information boards, to educate the public about the sensitive habitats and notable species.
- 4.6.11 In addition to the above, the Proposed Development aims to provide a 20 % Biodiversity Net Gain (BNG, which would exceed policy requirements; therefore, in addition to creating new areas of publicly accessible green space on the Site (such as north-south and east-west green corridors embedded within the Proposed Development, to enhance the open space to be provided and the biodiversity potential), the Reserve Site will also provide an alternative place for recreation.

## *Landscape, Views and Built Heritage*

- 4.6.12 The initial layout of the Proposed Development (in February 2021) was designed from a practical viewpoint, to allow maximum development of the Site. However, the initial design was reviewed and amended (resulting in the September 2022 design) to provide a revised developable area. The developable area of the Site was minimised to reduce the extent of potential impacts on the landscape designations, views, listed buildings (specifically the Grade II listed The Place and Grade II listed Barn to North of Forsyth's Farmhouse).
- 4.6.13 Further to the above, the May 2023 design of the Proposed Development excluded the Grade II listed The Place and the Grade II listed Barn to North of Forsyth's Farmhouse at the centre of the Site boundary and the location of dwellings were adjusted to extend the proximity between the listed buildings and the proposed dwellings. The purpose of this was to reduce the potential effect of the Proposed Development on the setting of the listed buildings.

## Parkland Reserve Site

4.6.14 As mentioned earlier within this chapter, amendments were made to the proposed aspects of the Parkland Reserve Site to maximise the delivery of BNG whilst minimising any environmental impact this involved:

- Sympathetic design and routing of the proposed footpaths, cycle paths and dog walking paths so they were situated along routes which would have the least effect on any potential species or habitats. Routes were positioned away from the Ancient Woodland and concentrated on the ecologically low value areas such as low value grassland and arable land.
- The Observation Tower was removed due to the location of the Site within the AONB and potential effects upon landscape and views. In its stead a viewing platform has been proposed with a maximum height of 2-2.5 m which will be sympathetically constructed from FSC certified timber to seamlessly blend into the existing landscape and the natural surroundings.
- The proposal to refurbish the existing building on-site, to develop an education centre was removed, it was felt that the potential construction impacts and ongoing operational effects from an increase in visitor numbers as a result would lead to increased environmental impacts.
- A thorough rewilding design review was undertaken to establish the most appropriate areas for enhancement to maximise ecological improvements and therefore the value of habitats and corresponding habitat units, maximising the BNG score.
- The Parkland Reserve Site would be managed to remain as natural as possible, with existing and proposed footpaths routes remaining grassed and the proposed cycle paths formed using a bound gravel or rolled hoggin surface (but not edged, to retain an informal character with the existing Reserve Site).

4.6.15 These approaches allowed the design to be developed to enhance and rewild the Parkland Reserve Site to assist in the delivery of off-site Biodiversity Net Gain (BNG) provision for the Proposed Development, whilst minimising any potential environmental effects while maximising the potential benefits associated with the Proposed Development (as noted in **Chapter 1: Introduction**).

## 4.7 Summary and Conclusions

4.7.1 An alternative location for the Site and Parkland Reserve Site was not investigated as these are the only sites in the Applicant's control.

- 4.7.2 In the absence of the Proposed Development, the Site and Parkland Reserve Site would likely remain as arable fields, non-agricultural land and a small area of urban land and would, therefore, not be able to contribute to Mid Sussex District Council's provision of housing and affordable housing targets. Additionally, public open space that could be used by the new and neighbouring residents would not be provided.
- 4.7.3 The masterplan has been developed through a number of iterations taking into account the Site's constraints and opportunities, to develop a Proposed Development which has resulted in the retention of key landscape and ecological features, increasing the provision of open space and enhancing the amenity benefits.
- 4.7.4 Environmental studies (relating to topics such as odour, noise, ecology and landscape, views and built heritage) have been used throughout to advise, inform and refine the design of the Proposed Development to reduce environmental effects, where feasible.

