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1 INTRODUCTION

Foreword

1.1 This document provides a non-technical summary of the Environmental Statement (ES), aimed to describe the technical assessments and findings of the Environmental Impact Assessment (EIA).

1.2 The ES has been prepared by RPS Planning and Development (RPS) on behalf of Kitewood Estates Ltd (hereafter ‘the Applicant’), to accompany the hybrid planning application submitted to Canterbury City Council (CCC), for the construction and operation of a residential led, mixed use development at Grasmere Gardens, located to the west of Chestfield and to the south east of Whitstable (in the county of Kent) (hereafter referred to as ‘the site’). Figure 1.1 shows the red line boundary and the extent of the planning application site in its local context.

Figure 1.1: Site Location and Red Line Boundary

1.3 The proposed development comprises the following:

“Mixed use development comprising 300 residential dwellings, 3,500 sq.m. of employment space (or 1,000 sq.m. employment space and a new primary school), a community hub to include uses within Use Classes A1 – A5 (shops, financial services, food and drink outlets) and Use Class D1 (non-residential institution uses such as clinics, health centre, crèche, nursery and day centre), a café/restaurant/bar within Use Classes A3 - A4 and 7.16Ha of open space including children’s play areas. Phase 1 (detailed element) comprising development of 140 residential dwellings, of which 39 will be affordable, provision of main access road from Reeves Way and emergency access from Richmond Road, community hub, café/restaurant/bar, open space and play facilities and associated car parking and landscaping”.

Site Setting and Location

1.4 The site covers an area of approximately 16.7 hectares (ha). The northern boundary of the site adjoins the John Wilson Business Park with access off Reeves Way from the A2990. The western and southern boundaries adjoin the rear and side gardens of residential housing, while the eastern boundary is formed by the Swalecliffe Brook, with woodland and residential properties beyond.

1.5 The site is a single open grassed field within the urban area boundary of Whitstable and Chestfield. The land is gently sloping, with the level in the southwest of the site being approximately 18.55m Above Ordnance Datum (AOD) falling to 7.56m AOD in the northeast of the site. The site contains agricultural land but in recent years has only been mown for hay.

1.6 The site is approximately 1.1km from the coastline to the north. The Old Thanet Way (A2990) (dual carriageway) and the North Kent railway line are situated 400m and 450m to the north respectively. The main urban
areas of Whitstable and Chestfield are situated to the north, west and east of the site, both being predominately residential areas.

1.7 An aerial photo showing the site in its context is provided in Figure 1.2.

Figure 1.2: Aerial photo of the site (facing north)

1.8 Grasmere Road runs parallel to the southern boundary of the site and is bordered by houses on both sides. Residential side roads are situated off Grasmere Road - Boundary Chase, Grasmere Park and Blackberry Way. Further south the land opens up to an expanse of open countryside and fields. The New Thanet Way (A299) dual carriageway which runs from London to Margate is approximately 1.5km from the southern boundary of the site.

1.9 Direct pedestrian access to the site is from The Ridgeway which bounds the northern boundary of the site and is a bridleway along its length. A pedestrian gate from the cul-de-sac off Richmond Road allows access to the site from the western boundary, while a small footpath connects the site to Grasmere Road on the southern boundary.

1.10 The site is currently allocated as ‘open space’ on the Core Strategy (2006) Proposals Map. However, this land is in private ownership with no general right of access other than by the public footpaths which cross the site. The modifications (November 2015) to the CCC Local Plan Deposit Draft (2014) identifies the site as suitable for mixed use development.

Description of the Surrounding Area

1.11 Chestfield Conservation Area lies to the east; having a ‘garden suburb’ character and containing a number of older buildings. However, Chestfield as a whole is a relatively modern residential area located 2.5 km to the south east of Whitstable between: the Old Thanet Way to the north and the New Thanet Way to the south.

1.12 The Swalecliffe Brook Valley: provides a green buffer between the site and Chestfield. Views from Chestfield west towards the site and east towards Chestfield are obscured as a result of the trees and vegetation situated within this buffer area.

1.13 Directly north of site is the John Wilson Business Park which comprises of approximately 10 hectares of single and two storey industrial and commercial buildings. Further to the north and west beyond The Old Thanet Way (A2990) and the North Kent railway line is Tankerton and Whitstable.

1.14 Approximately 1.2km north of the site is Thanet Coast and Sandwich Bay, which supports the multiple designations of Special Protection Area (SPA), Ramsar Site and Site of Special Scientific Interest (SSSI). Additionally, Tankerton Slopes and Swalecliffe Special Area of Conservation (SAC) is located 1.1km north of the site, the Swale SPA, Rasar Site and SSSI is
located 2.3km to the west of the site, part of Blean Complex SAC lies 4km
to the south west of the site and West Blean and Thorden Woods SSSI is
located 1.4km to the south of the site.

1.15 In relatively close proximity to the site is the Chestfield and Swalecliffe
Railway Station, a Sainsbury’s and B&Q DIY Store, Chestfield Medical
Centre, Chestfield Rugby Club, Chestfield Cricket Club, and Chestfield
Golf Course.

1.16 The site is located immediately adjacent to the Chestfield Conservation
Area and is described as a garden suburb with landscape and open
spaces dominating the pattern of development and the built form.

Structure of the Environmental Statement

1.17 The main ES (Volume I) comprises a series of separate chapters
supported, where appropriate, by technical appendices (Volume II) and a
Non-Technical Summary (this document).

Environmental Statement (Volume 1)

1.18 The ES is structured as follows:

- Chapters 1 and 2 are the introductory chapters of the ES: these
  chapters provide a description of the purpose, scope and
  assessment methods adopted throughout the EIA process; the
  content of the planning application for the proposed development;

- Chapters 3 and 4 comprise a description of the scheme’s design
  evolution and alternatives that have been considered and a detailed
  description of the proposed development. They also provide a
  summary of the likely construction programme for the proposed
  development, including a summary of the potential environmental
  construction effects (e.g. noise, dust and traffic), together with an
  outline of mitigation measures to minimise and prevent such effects,
  principally through the adoption of a Construction Environmental
  Management Plan (CEMP).

- Chapters 5 to 11 provide the main topic-based assessments
  included in the EIA: these describe the potential effects of
  development on the following aspects of the environment. The
  chapters set out any necessary measures to avoid, reduce or offset
  negative effects (collectively known as ‘mitigation measures’) and/or
  to enhance the positive effects of the scheme. The subsequent
  residual effects of the proposed development are described
  following implementation of such mitigation measures, and the
  cumulative effects of the proposed development with other
  application schemes in the surrounding area are also considered.
  These chapters comprise:

  - Chapter 5: Water Resources and Flood Risk;
  - Chapter 6: Ecology and Biodiversity;
  - Chapter 7: Landscape, Heritage and Visual Assessment;
  - Chapter 8: Noise and Vibration;
  - Chapter 9: Local Air Quality;
  - Chapter 10: Socio-Economics; and
  - Chapter 11: Transport and Access.

- Chapter 12: Effect Interactions: considers the interaction between
different types of effects as a result of the proposed development.
For example, the combined effect of noise, dust and visual effects
from the proposed development on a single receptor.
Chapter 13: Residual Effects and Conclusions: summarises the remaining effects of the development (both positive and negative) after taking account of the proposed mitigation and enhancement measures identified in the various ES chapters.

Environmental Statement Technical Appendices (Volume 2)

1.19 Volume 2 of the ES provides a set of technical appendices, including plans and drawings, separate reports, surveys and data, which have informed the EIA process and support the technical chapters in Volume I of the ES.

Other planning application documents (not forming part of the ES)

1.20 The hybrid planning application to the CCC is also supported by a range of additional reports and drawings that should be read in conjunction with the ES. These include:

- Masterplan and parameter drawings in relation to the outline application, detailed drawings for Phase 1 and details of the proposed access;
- Accommodation Schedule;
- Planning Statement;
- Design and Access Statement;
- Green Infrastructure Strategy;
- Utilities Site Investigation Report;
- Affordable Housing Statement;
- Statement of Community Involvement;
- Transport Assessment (including the Travel Plan);
- Outline Energy Strategy and BREEAM Pre-Assessment; and
- Draft Heads of Terms for a Section 106 Agreement.

The EIA and Design Team

1.21 The project team that has contributed to the EIA and planning application process is detailed in Table 1.1 below.

Table 1.1: Project Team and Project Roles

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canon Consulting Engineers</td>
<td>Author of Transport Assessment, Travel Plan and Transport and Access ES Chapter.</td>
</tr>
<tr>
<td>Calford Seadon</td>
<td>Utilities consultant.</td>
</tr>
<tr>
<td>Cove Burgess</td>
<td>Architect (housing).</td>
</tr>
<tr>
<td>Derek Finnie Associates</td>
<td>Author of Ecology and Biodiversity ES chapter.</td>
</tr>
<tr>
<td>Kitewood Estates Ltd</td>
<td>Applicant.</td>
</tr>
<tr>
<td>LaDell Wood</td>
<td>Tree Survey Report Author.</td>
</tr>
<tr>
<td>Newington</td>
<td>Stakeholder/public engagement.</td>
</tr>
<tr>
<td>eb7 Sustainability Ltd</td>
<td>Outline Energy Strategy and BREEAM Pre-Assessment.</td>
</tr>
<tr>
<td>RPS CgMs</td>
<td>Planning consultant.</td>
</tr>
<tr>
<td>RPS</td>
<td>EIA project manager, author of introductory and concluding ES chapters and NTS, as well as the following technical ES chapters: Flooding and Water Resources, Heritage input to the Landscape, Heritage and Visual Impact Assessment, Noise and Vibration, Local Air Quality and Socio-Economics. Author of Archaeology and Heritage, Contaminated Land and Sustainability Statement ES appendices.</td>
</tr>
<tr>
<td>Wilder Associates</td>
<td>Architect (masterplan); landscape and visual input to the Landscape, Heritage and Visual Impact Assessment ES chapter.</td>
</tr>
</tbody>
</table>

4
ES Availability

1.22 The Non-Technical Summary (NTS) and ES are expected to be made available for viewing online at the CCC website:

https://www.canterbury.gov.uk/planning/planning-permission/search-comment-on-or-object-to-planning-applications/

1.23 Hard copies of the NTS are available at cost, whilst hard copies of the ES (Volume I) and Technical Appendices (Volume II) can be purchased at a cost of £250 and £300 respectively, or on CD Rom for a cost of £15 (all costs exclude postage and packaging).

1.24 These documents can be obtained on request to RPS at the address below:

RPS,
140 London Wall,
London,
EC2Y 5DN

1.25 A full copy of the Grasmere Gardens planning application including the ES is also expected to be available for viewing by the public during normal office hours at the Planning Department of CCC:

Council offices,
Military Road,
Canterbury,
Kent,
CT1 1YW
2 EIA METHODOLOGY

Introduction

2.1 The ES submitted with the planning application has been prepared in accordance with the Environmental Impact Assessment Regulations 2011 (as amended) (hereafter the ‘EIA Regulations’), and reports the findings of a systematic assessment of the likely significant environmental effects of the proposed development. It is presented as a document for the purposes of enabling CCC to make an informed decision on the proposed development, in full knowledge of the likely environmental effects of the scheme.

Assessment Methodology

2.2 The determination and classification of the significance of environmental effects is intended to aid in identifying:

- The likely environmental effects of a development; and
- The relative weight that each identified environmental effect should be given in the decision making process.

2.3 In order to provide a consistent approach in reporting the outcomes of the various studies undertaken as part of the EIA, the terminology in Table 2.1 has generally been used within the ES to describe the relative significance of identified adverse and beneficial effects.

Table 2.1: Levels of Effect - Terminology and Explanation

<table>
<thead>
<tr>
<th>Level of Effect</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major</td>
<td>These beneficial or adverse effects are considered to be very important considerations and are likely to be</td>
</tr>
<tr>
<td></td>
<td>material in the decision making process. These effects are generally, but not exclusively, associated with sites or features of international, national or regional importance that are likely to suffer the most damaging impact and loss of resource integrity.</td>
</tr>
</tbody>
</table>

| Moderate        | These beneficial or adverse effects may be important, and may influence decision making if they effect a particular resource or receptor. |
| Minor           | These beneficial or adverse effects may be raised as local factors. They are unlikely to be critical in the decision making process, but are important in enhancing the subsequent design of the project. |
| Negligible      | No effects or those that are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error. |

2.4 Those effects which are considered ‘significant’, and therefore material to planning decisions, are those identified as moderate or major.

Table 2.2 provides a basic matrix-based approach to the categorisation of environment effects, which are a function of the magnitude or scale of an impact and the sensitivity or importance of the affected aspect (the receptor).

Table 2.2 Generic EIA Terminology Applied within this ES

<table>
<thead>
<tr>
<th>Receptor Sensitivity or Importance</th>
<th>Magnitude of Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negligible</td>
<td>Low</td>
</tr>
<tr>
<td>Very low</td>
<td>Negligible</td>
</tr>
<tr>
<td>Low</td>
<td>Negligible</td>
</tr>
<tr>
<td>Medium</td>
<td>Negligible</td>
</tr>
<tr>
<td>High</td>
<td>Minor</td>
</tr>
</tbody>
</table>
Each of the technical chapters of this ES provides specific detail on the assessment criteria used, including the sources and justifications for quantifying the different levels of effect.

Using this information, any mitigation measures considered necessary and achievable in order to avoid or reduce potentially significant adverse effects at either the construction or operational phases of the development have been proposed.

**Cumulative Effects**

Cumulative effects are considered in the ES in two ways, either as combined effects of individual residual impacts, for example, noise and dust, from one development on a particular sensitive receptor (referred to as ‘effect iterations’), or combined effects from the proposed development with other developments in the area that are planned or under construction (referred to as ‘cumulative effects’).

The developments considered within the cumulative assessment were agreed with CCC and include:

- **CA/14/02339 | Hybrid planning application comprising 1) Application for full planning permission for 1 No. retail store (Use Class A1) and 2 No. food retail stores (Use Class A1), new pedestrian and vehicular access off the A2990 (Old Thanet Way) with associated circulation access roads, parking, service yard, sustainable drainage system, earthworks to create development platform and parking. | Estuary View Business Park, Boorman Way, Whitstable [Granted July 2015].

- **CA/15/01296 | Outline planning application (with all matters reserved except for access) for the demolition of existing buildings and the erection of up to 400 dwellings including affordable housing, extension to Duncan Down, green infrastructure, multi-use games area, parking, access and associated infrastructure and other ancillary works. | Land north of Thanet Way, Whitstable [submitted June 2015, undetermined].

With regards to construction cumulative effects, as long as the other cumulative developments also implement ‘best practice’ mitigation measures during their construction activities there are unlikely to be significant cumulative effects. Contractors will be encouraged to liaise with each other where appropriate.

In terms of operational cumulative effects, beneficial effects from the increased provision of housing, jobs, open space, education and healthcare are likely to result from the combined effect of the proposed development and other committed schemes in the surrounding area.

There are no significant cumulative impacts considered likely with the proposed development and the other permitted schemes assessed during the operational stage.
3 ALTERNATIVES CONSIDERED AND SCHEME DESCRIPTION

3.1 Following the establishment of the development brief, the EIA Regulations require that an ES should include:

‘An outline of the main alternatives studied by the applicant or appellant and an indication of the main reasons for his choice, taking into account the environmental effects’ (Schedule 4, Part II(4)).

3.2 This section therefore sets out the key reasons for the selection of the project site and current layout, taking into account environmental effects.

The ‘No Development’ Alternative

3.3 It is considered that not providing energy efficient new homes as required by national and local planning policy, failing to improve the environment of the site and its environs (e.g. by improving public rights of way and creating wildlife habitat), or providing employment opportunities and social infrastructure would not adhere to the principles of sustainable development and therefore the ‘no development’ scenario has been discounted.

Alternative Sites

3.4 As the site is expected to be formally allocated by CCC for development and is owned by the Applicant, no alternative sites have been considered for the proposed development.

Alternative Designs

3.5 Based on the Applicant’s development brief three designs were considered before the final design was chosen. The first option was landscape focused and delivered key green routes through the site. However, as there was no clear street hierarchy it was concluded it would be difficult for a visitor to negotiate their way around the site. Also the size and scale of the employment block, residential apartments and the employment/school space did not fit well with the surrounding landscape and townscape.

3.6 The second option had a clearer street hierarchy with houses clustered in blocks of 4 which fitted into the overall site setting and surrounding. There was also a good sense of arrival entering past the school/proposed employment space. However, overshadowing across amenity areas became an issue as many of the courtyards were north facing. There were also some isolated dwellings in the north east corner of the developed area.

3.7 The third option, and chosen design, introduced individual character to each area of the site, whilst fitting in with the overall site setting. It strengthens the green corridor running east to west and the site hierarchy routing, as well as giving the development the feel of a traditional seaside or high street through the active frontage of residential dwellings.

3.8 Further modifications continued to occur following a Design Review Panel at CCC, such as further developing the green corridor, the design and orientation of the buildings in the local centre, and the village green area.

Description of the Proposed Development

3.9 The proposed development comprises a full (detailed) planning application for phase 1 and an outline application (with all matters reserved except access) for phases 2 and 3.

3.10 An image of the proposed masterplan (along with access, play areas, residential and non-residential uses etc.) is provided in Figure 3.1.

3.11 Flexibility is sought in terms of the future non-residential uses, whereby two scenarios are proposed (and assessed as necessary). Scenario 1
includes for 1000sqm of business floor space plus a primary school and Scenario 2 includes for 3,500sqm of business floor space, but no school.

**Phase 1 (Detailed)**

3.12 Phase 1 of the proposed development will be submitted in detail and comprises the following:

- Vehicular, cycle and pedestrian access to the site from an extension to Reeves Way, with emerging access via The Ridgeway;
- 140 residential dwellings;
- A community hub to include a village green, cafe/restaurant (200sqm Gross Internal Area (GIA)), nursery or health centre (232 sqm GIA) and retail units (359sqm GIA);
- Internal vehicle, cycle and pedestrian routes including improvements to existing bridleway;
- Flood mitigation measures including a sustainable urban drainage system;
- Provision of an east-west green corridor with enhanced public right of way and informal play facilities;
- Large area of public open space to the east of the site along the Swalecliffe Brook Valley, to include enhanced north-south public rights of way, parkland, amenity green space, children’s play area;
- Details of proposed landscaping including measures to enhance biodiversity; and
- Details of external lighting.

**Description of Phase 2 (Outline)**

3.13 Phase 2 of the proposed development will be submitted in outline and will comprise approximately:

- 102 residential dwellings;
- Either:
  - 1,000 sq.m. of business floorspace and a new primary school (Scenario 1 only); or
  - 3,500 sq.m. of business space (Scenario 2 only);
- Associated car parking facilities to include provision for 19 spaces to be used in connection with adjoining business park, 117 associated with the proposed business space;
- Vehicular, cycle and pedestrian routes to that part of the site; and
- Landscaping.

**Description of Phase 3 (Outline)**

3.14 Phase 3 of the proposed development will also be submitted in outline and comprise the following (approximately):

- 58 residential dwellings;
- Vehicular, cycle and pedestrian routes to that part of the site; and
- Landscaping.
Figure 3.1: Proposed Development Masterplan
4 CONSTRUCTION

Construction Programme

4.1 Development of the Grasmere Gardens site will be implemented in a sequence of phases. The current expectation is that the construction works will be phased and would take approximately 4 years, commencing in Q3 2017 with the final phase being completed by Q3 of 2021.

4.2 Figure 4.1 presents the phasing masterplan which includes the following phases:

- Phase 1 would provide apartments with a mix of social rented and shared ownership and two and three bedroom terraced homes to the south of the site entrance. This stage would also establish the main access and emergency access to the site, village green and local centre as a central hub to the site, and the open space;

- Phase 2 would establish the school and/or business centre and further apartments and two and three bedroom terraced homes to the west of the site as well as three bed semi-detached homes along the western perimeter; and

- Phase 3 would involve three and four bedroom detached and semi-detached homes being built south of the proposed east-west green corridor.

4.3 Whilst all details regarding future construction have not been finalised at this stage, it is possible to provide general information about the construction activities. The expected indicative programme is presented and summarised in Figure 4.2.
4.4 The construction phase will comprise the following sequence of works:

- Site preparation – fencing erected and trees planted around the perimeter of the phase, detailed geotechnical investigations of the phase in question;
- Substructure - foundation, piling and ground works;
- External fabric – external fitting;
- Internal fit-out, M&E and commissioning; and
- External works and completion.

4.5 For the purposes of the EIA the reasonable worst case (i.e. most active construction period and with likely occupation of Phase 1) has been taken as Q11 of the overall programme.

4.6 Construction activities, quantities of excavated and construction materials and anticipated construction related traffic and machinery are identified in Chapter 4: Development Programme and Construction.

4.7 Appointed contractors will be required to carry out works in such a way that, as far as reasonably practicable, the amount of waste and energy used is minimised and ‘best practice’ reduced disruption and impacts on amenity areas.

4.8 It is anticipated that the core working hours for demolition, construction and refurbishment will be as follows:

- 08:00 – 17:00 hours weekdays;
- 08:00 – 14:00 hours Saturday; and
- No working normally undertaken on Sundays or Bank Holidays.

4.9 It is recognised that approval from CCC is required for any works that need to be undertaken outside these permitted hours.

4.10 A key aspect of the successful management of the project will be the maintenance of good relations with site neighbours and the general public. The project team is already engaged in consultation with a broad range of stakeholders and this will continue through the various phases of the project.
5 WATER RESOURCES AND FLOOD RISK

Introduction

5.1 Chapter 5: Water Resources and Flood Risk of the ES provides the assessment of potential likely significant effects of the proposed development on water resources and flood risk.

Existing Conditions

5.2 Swalecliffe Brook flows along the eastern boundary of the subject site and ultimately outfalls into the sea at Swalecliffe.

5.3 According to the EA flood map, the site is located predominantly (approximately 85%) in Flood Zone 1, which is classified as being at a low probability of fluvial flooding. Approximately 5% of the site is located within Flood Zone 2, which is classified as being at a medium probability of fluvial flooding. Approximately 10% of the site is located within Flood Zone 3, whereby the annual probability of fluvial flooding is high. These areas of floodplain are located along the eastern boundary of the site, associated with the adjacent Swalecliffe Brook.

5.4 The FRA identified a risk of surface water flooding in the east of the site due to site topography and a risk of saturated topsoils due to the low permeability of the underlying strata. Surface water runoff from the existing site is thought to discharge predominantly by overland flow towards the Swalecliffe Brook.

5.5 Foul / storm sewage infrastructure in the vicinity of the site are operated by Southern Water. With regard to the sewerage network, the area of the site is not indicated to be a priority area where there is limited capacity within the existing drainage infrastructure.

5.6 Water supply is operated by South East Water. With regard to water supply, within the ‘Kent and Medway Growth and Infrastructure Framework’ all service providers within the study area (Affinity Water, South East Water, Southern Water, Sutton and East Surrey Water and Thames Water) concluded that there were no significant issues with respect to water supply for the proposed growth within the County up to 2030.

Construction Phase Effects

5.7 A number of impacts could occur during the construction phase of the proposed development, for example risks from dewatering, increased mobility of contaminants through infiltration, accidental spills, contamination from cement and cement products, and risks to construction workers.

5.8 However, following implementation of the ‘best practice’ mitigation measures, the magnitude of impact on water resources arising from the construction works is expected to be low. Surface water and groundwater receptors are considered to be of a low and medium sensitivity respectively, therefore the effect on water resources is not considered to be significant.

Operational Phase Effects

5.9 Water quality impacts during the operational phase are anticipated to be limited to minor oil hydrocarbon releases from vehicles. The proposed surface water drainage strategy would provide natural removal of contaminants as surface water would be stored within green roofs and permeable paving, and conveyance and attenuation within vegetated swales and ponds prior to release to the Swalecliffe Brook. The residual effect on water quality is not considered to be significant.
5.10 Upgrades to the foul sewerage network will be required to cater for the increased loading from the proposed development, but the phasing of the development, and the agreed upgrade works, would be agreed in consultation with Southern Water to ensure demands at each stage of development could be met.

5.11 The Flood Risk Assessment demonstrates that the proposed development would be safe over its lifetime. Mitigation measures to ensure the safety of occupants include the location of all built development outside/above the floodplain, raised floor levels within properties, diversion of the peripheral ordinary watercourses and careful design of the access road where it crosses the ordinary watercourses. The FRA demonstrates that the increase in impermeable area would not result in an increase in surface water flood risk within the area, as discharge rates would be restricted to greenfield rates through the use of Sustainable Drainage Systems (SuDS) (including permeable paving, green roofs and attenuation ponds). Therefore the effect of the proposed development on flood risk is not considered to be significant.
6 ECOLOGY AND NATURE CONSERVATION

Introduction

6.1 Chapter 6: Ecology and Nature Conservation of the ES provides the assessment of potential likely significant impacts of the proposed development on habitats, protected species and species of 'raised' conservation concern.

Existing Conditions

6.2 An Extended Phase 1 habitat survey was undertaken and found the site to be dominated by semi-improved grassland of limited species diversity. Scattered trees and developing scrub are present around the periphery of the site.

6.3 A reptile survey undertaken in spring 2016 identified a low population of common lizard within the site, concentrated along the northern boundary. In addition, two slow worms were recorded along the western boundary of the site.

6.4 A total of 29 bird species were recorded from the site and the immediate adjacent area, eight species were confirmed as breeding, with a further eight identified as probable breeders.

6.5 Common pipistrelle, soprano pipistrelle and noctule bat have been recorded foraging over the site, with the majority of the registrations being associated with Swalecliffe Brook corridor and adjacent to the neighbouring woodland block.

Construction Phase Effects

6.6 The construction of the proposed development would result in the loss of the majority of the semi-improved grassland area and would necessitate the removal of some of the scrub and some of the semi-mature trees, particularly along the western boundary.

6.7 The eastern part of the site will be given over to a landscape and ecological mitigation and enhancement area. Here, extensive areas of species rich grassland and wildflower meadow will be created and maintained which would more than offset the loss of the species rich grassland within the remainder of the site. Additional tree and scrub planting, using native species of local stock wherever possible, would be undertaken throughout the site, again offsetting the loss of trees and scrub as a result of the development. The effect of which is assessed to be minor beneficial.

6.8 Construction activities in proximity to the northern and western boundary have the potential to negatively impact upon both common lizard and slow worm. This is through the permanent removal of poor quality habitat as well as the risk of harm and injury to individual reptiles.

6.9 To avoid any potential impacts upon the low reptile populations within the development area of the site, a detailed mitigation strategy would be devised involving the removal of reptiles from the construction zone whilst improving areas elsewhere in the site with the creation of a more structurally diverse habitat as well as the construction of hibernacula, thus ensuring the long term survival and expansion of the reptile population. The effect to reptiles from this development is assessed to be negligible.

6.10 The partial removal of scrub and scattered trees has the potential to impact upon some of the breeding birds in the absence of mitigation. Any vegetation clearance required for the construction phase of the development would be undertaken outside the breeding bird season to ensure there is no adverse impact upon the bird assemblage within the site. The effect to any bird population of this development is assessed to be negligible.
**Operational Phase Effects**

6.11 During operation of the proposed development the increased levels of human activity has the potential to disturb and degrade species and habitats within the proposed development's zone of influence. Additionally, there is potential for increased level of predation from pets. However, all habitats and features of benefit to wildlife will be managed under a management plan which will be approved by the Local Biodiversity Officer during the detailed design stage to mitigate any significant effects. There will also be an increase in the amount of valuable habitats available to birds through the planting of trees. The effect on birds is therefore deemed to be negligible.

6.12 The night-time lighting associated with the operation of the proposed development has the potential to disturb nocturnal species such as bats. In areas of possible bat activity lighting will be designed to the minimum acceptable and safe level. The design team will also take care when positioning the lighting equipment during the detailed design phase to avoid placing columns in locations that will affect any potential bat roosts and bat foraging routes which will mitigate any significant effects. As a result the effect to bats has been assessed to be negligible.

6.13 Overall, with mitigation in place, a long term beneficial impact on habitat diversity within the site is predicted.
7 LANDSCAPE, HERITAGE AND VISUAL IMPACTS

Introduction

7.1 Chapter 7: Landscape, Heritage and Visual Impact Assessment of the ES assesses the impact of the proposed development on the surrounding landscape, heritage assets and visual amenity.

Existing Conditions

7.2 The site lies within national landscape area 113 ‘North Kent Plain’ which is characterised as open, low and gently undulating; a very productive agricultural area with predominantly high-quality, fertile loam soils and predominantly arable use.

7.3 Blean Wood Special Area of Conservation (SAC) is the nearest valuable landscape which lies to the south of the site. It forms part of a network of ancient woodland with numerous public footpaths along its northern boundary.

7.4 The site is located immediately adjacent to the Chestfield Conservation Area. The character of the conservation area is described as a garden suburb with landscape and open spaces dominating the pattern of development and the built form.

7.5 Eighteen viewpoints of the proposed development have also been identified for the assessment of potential visual impacts as a result the proposed development.

Construction Phase Effects

7.6 During construction the setting of surrounding residential areas would be affected visually by the site activities and on the tranquillity of the immediate area. There would also be a reduction in tranquillity in the setting of bridleways and footpaths. These adverse effects would last only for the duration of the construction phase. However, a short term significant effect could occur to the landscape and some visual amenity as a result of the construction activities, as well as a minor adverse effect on the setting of Chestfield Conservation Area.

7.7 The planting of woodland belts to the northern, western and southern boundaries would be carried out to provide screening and to reinforce existing perimeter vegetation.

Operational Phase Effects

7.8 Mitigation measures have been incorporated into the design of the scheme to avoid or reduce adverse effects and include the following:

- Protection and reinforcing of perimeter vegetation with new tree planting;
- Retention of the large open area to the east of the site within the flood plain of the Swalecliffe Brook;
- Retention of existing rights of way across the site through large open spaces;
- Setback of proposed dwellings from the site boundary in order to reduce visual intrusion of neighbouring properties;
- Connections from the Ridgeway through green streets into the site in order to retain permeability and access;
- Reduced or low level lighting to minimise visual intrusion and light pollution.

7.9 Whilst there would be an overall loss of openness on the site, new and upgraded routes across the site, including public rights of way, would
enable access through a greatly enhanced landscape setting with improved biodiversity and new local play facilities and a new village centre with shops and a cafe. There will be a permanent minor to moderate beneficial effect on landscape.

7.10 The heritage assessment found that the operational impact of the proposed development on the setting of the Chestfield Conservation Area is not significant.

7.11 The reduced sense of openness from certain viewpoints may lead to minor adverse effects in those locations. However, up to moderate beneficial effects are expected at most viewpoints due to the incorporation of sensitive design principles, such as the improved landscape diversity and play facilities, these effects would be permanent.

7.12 The assessment of visual amenity is supported by the production of visually verified imagery of how the site would look from different viewpoints at different times up to 5 years following construction. An example is provided in Figure 7.1, with further examples in Appendix E.2.
8 NOISE AND VIBRATION

Introduction

8.1 Chapter 8: Noise and Vibration of the ES provides an assessment of the potential noise and vibration effects associated with the proposed development, including consideration of effects arising from its construction and operation and the suitability of the site for noise sensitive uses.

Existing Conditions and Site Suitability

8.2 In March 2016 noise measurements were taken at locations within and around the site to establish the existing baseline noise levels.

8.3 The baseline sound level survey results are representative of the sound environment of the areas of the site which will be occupied by housing. The recorded noise measurements at the west, south and centre of the site are 47dB during the day and 44dB during the night. At the northern boundary of the site, the noise measurements are 45dB during the day and 42 dB during the night.

8.4 The facades of the proposed development will provide suitable internal sound levels to the residential units within the accepted values of 35 dB and 30 dB for day and night-time, respectively.

Construction Phase Effects

8.5 Noise emissions will vary throughout the construction programme as work is undertaken in different areas. In general, noise emissions would be highest at the commencement of works in an area during initial earthworks, infrastructure and internal road construction and decrease as the buildings are constructed.

8.6 Noise levels may be disturbing for limited and short durations when works are undertaken close to existing sensitive receptors at the boundary of the site. Activities would generally be limited to the weekday daytimes between 07:30 and 18:00 hours and Saturday mornings between 08:00 and 13:00 hours such that there would be very little change from the evening, night-time and weekend baseline noise conditions.

8.7 Noise effects during the construction of the proposed development are therefore temporarily of up to moderate adverse significance and are likely to occur for only a proportion of the works.

8.8 For traffic noise and vibration, there are expected to be no significant effects, with minor and minor/ negligible adverse effects respectively.

Operational Phase Effects

8.9 All mechanical (e.g. ventilation units) plants associated with the proposed development will be specified and operated in such a manner as to ensure that the noise they emit does not exceed the background sound level at the nearest sensitive receptors. The effects are expected to be negligible/ minor adverse, and therefore not considered to be significant.

8.10 Noise transfer between servicing vehicles and operational traffic and residential receptors within the site will be controlled through appropriate building design to ensure that residents are not unduly disturbed. The significance of noise and vibration effects during operation are expected to be negligible/ minor adverse, and therefore not considered to be significant.
9 AIR QUALITY

Introduction

9.1 Chapter 9: Air Quality, assesses the impacts of dust and other emissions associated with the proposed development and considers whether the air quality in the locality is suitable for the intended uses.

Existing Conditions

9.2 The most recent measured annual-mean concentrations from the closest monitoring station are presented in Table 9.1.

Table 9.1: Summary of Annual Mean Pollutant Concentrations

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Data Source</th>
<th>Concentration (μg.m⁻³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO₂</td>
<td>Defra Mapped (2011)</td>
<td>16.0</td>
</tr>
<tr>
<td>PM₁₀</td>
<td>Monitored (Chaucer Technology School 2011 and 2013)</td>
<td>19</td>
</tr>
<tr>
<td>PM₂.₅</td>
<td>Defra Mapped (2011)</td>
<td>11.8</td>
</tr>
</tbody>
</table>

9.3 Annual mean nitrogen dioxide (NO₂) and dust (PM₁₀ and PM₂.₅) concentrations are expected to be below the national air quality objectives at all existing sensitive receptors.

Construction Phase Effects

9.4 The major influence on air quality throughout the construction phase is likely to be dust-generating activities such as movement of plant vehicles both on and around the development site and demolition works. The level and distribution of construction dust emissions will vary according to factors such as the type of dust, duration and location of dust-generating activity, weather conditions and the effectiveness of suppression methods.

9.5 The main effect of any dust emissions, if not mitigated, could be annoyance due to soiling of surfaces, particularly property windows, cars, and human health if inhaled.

9.6 These effects are likely to be adverse however will be temporary and occur for only a proportion of the works. The effects from dust during the construction phase have a medium overall risk. However, with correct mitigation, the residual effects are expected to be negligible.

Operational Phase Effects

9.7 Detailed atmospheric dispersion modelling will be undertaken to assess the predicted NO₂, PM₁₀ and PM₂.₅ concentrations at existing receptors.

9.8 Using professional judgement, the air quality impact on the surrounding area as a whole is not considered to be significant given the likely emissions from traffic generated by the site, as a result, the impact on the surrounding area by these pollutants are deemed to be negligible.
10 SOCIO-ECONOMICS

Introduction

10.1 Chapter 10: Socio-Economics, reports the likely effects on various socio-economic aspects such as employment generation, housing, health and education impacts, for both the construction and operational phases.

Existing Conditions

10.2 There are no buildings on the site, and no permanent employment uses. The site is privately owned, and comprises of agricultural land which in recent years has been left fallow and cut for hay.

10.3 The resident population of the CCC district area was 157,600 in 2014 and 100,700 or 63.9% were of working age. This is slightly higher than the South East average of 62.4%. In 2015 it was estimated that there were 65,500 people employed within the administrative area of CCC.

10.4 In 2015 there were 65,880 dwellings in the administrative area of CCC of which 58,260 (88%) are privately owned and 7,620 (12%) are social or intermediate rented.

10.5 There are currently 7 primary schools within 2.6km of the site and 1 secondary school within 5.5km (The Community College Whistable). As at January 2015 the 7 primary schools had 2,315 pupils in 2,389 places (97% occupancy). The Community College Whistable had 789 pupils in 1,266 places (62% occupancy).

10.6 The average patient list size per GP within the area is 2,236. This is above the target patient list size of 1,800 patients per FTE GP recommended by the Department for Health.

10.7 There is a total of 27.95 ha of open space per 1,000 people in the administrative area of CCC comprising a mix of amenity, beach, green corridors, outdoor sports pitches, park and gardens and semi-natural space. There are also four play spaces for children accessible within a 1km distance of the proposed site.

Construction Phase Effects

10.8 Construction employment represents a positive economic impact. In addition to the direct construction employment generated by the development (on average 679 construction workers per year), there would be an increase in local expenditure and employment arising from indirect and induced effects of the construction activity. Employment would arise locally through manufacturing services and suppliers to the development. Part of the income of the construction workers and suppliers would likely be spent in the local area, generating further employment.

10.9 As a result the employment created by the construction phase of the proposed development is likely to have a temporary, beneficial effect.

10.10 The additional jobs and expenditure in the local area during the construction phase of the development is likely to have a temporary minor beneficial effect.

Operational Phase Effects

10.11 It is expected that the non-residential uses of the proposed development will generate a number of gross direct Full Time Equivalent (FTE) jobs once the proposed development is completed and operational.

10.12 Direct employment at the proposed development would give rise to further employment opportunities through indirect and induced effects. This takes into account the additional employment that is supported through the workforce spending money in the area and the money spent on the supply chain as a result of the proposed development.
10.13 Under Scenario 1, the provision of a new form entry primary school on-site is likely to have a long-term moderate beneficial effect on the provision of early years education and school places in the local area, including the additional early years occupants of the proposed development. The 1000sqm of office space (combined with the other smaller employment uses), would lead to a minor beneficial effect.

10.14 Under Scenario 2, the 3,500sqm of office space would lead to a moderate beneficial employment impact, but the lack of school provision would lead to a minor adverse effect on education facilities provision due to the increase of children living in the proposed development.

10.15 Under both scenarios, once the development is complete, the additional residential units would likely have a long term, moderate beneficial effect on meeting the targets for new housing provision in the CCC district area.

10.16 A proportion of the residential units provided by the proposed development will be affordable (30%) which is deemed to have a beneficial, long term at the local level.

10.17 The proposed scheme includes on-site provision of open space and play space and it is considered that would result in a long term minor beneficial effect on the overall provision of open and play space in the area.

10.18 The baseline figures show that although the GP surgeries within the local area currently exceed the target patient list size of 1,800 per GP (as recommended by the Department of Health), section 106 contributions would be provided to result in a negligible, long term impact on primary healthcare provision in the local area.
11 TRAFFIC AND TRANSPORTATION

Introduction

11.1 Chapter 11: Traffic and Transportation of the ES provides an assessment of the predicted traffic and transport impacts of the proposed development. A stand-alone Transport Assessment (TA) has been produced in support of the proposed development and submitted with the planning application.

Existing Conditions

11.2 The site is a single open grassed field that does not currently generate any material trips.

11.3 The Thanet Way (A2990) (dual carriageway) and the North Kent railway line are situated 400m and 450m to the north respectively. The Thanet Way is subject to a 40 mph speed limit in the vicinity of the junction of Foxgrove Road and Clover Rise and is derestricted from approximately 200m to the east of its junction with Clover Rise up to the roundabout junction with Reeves Way. The Thanet Way provides access to Whitstable to the west and Herne Bay to the east of the site.

11.4 The local residential roads including Clover Rise, Chestfield Road, Richmond Road and the majority of Grasmere Road are subject to a 30mph speed limit. To the immediate south of the site, Grasmere Road is identified as being a cul-de-sac with no vehicular access from the east to the west.

11.5 The site benefits from a good provision of pedestrian facilities including wide, street lit footways and Toucan crossings located on the Thanet Way and Herne Bay Road, providing a safe pedestrian route to the railway station located to the north of the site. In addition, the site benefits from being located adjacent to a bridleway (CW40) which runs east to west on the site’s northern boundary, and two public rights of way (PRoW) which pass through the site (CW88 and CW89).

11.6 Bus stops are located within 400m of the centre of the proposed development on Clover Rise to the west of the site. The stops are served by Route 5, which operates between Whitstable and Canterbury on an hourly basis Monday to Saturday with a reduced service on Sundays.

11.7 Chestfield and Swalecliffe rail station is located within 1km of the site centre, which equates to a walking time of approximately 12.5 minutes. Southeastern railways operate a half hourly service between Ramsgate and Faversham and an hourly service to London Victoria via the Medway Towns.

Construction Phase Effects

11.8 Enabling and construction works would generate short term increases in vehicle movements on the highway in the vicinity of the site. Vehicular access to the site will be via Reeves Way, the A2990 Thanet Way and the wider strategic road network. It is considered that there would be a maximum of approximately 45 HGVs a day serving the site during the peak construction period (Q3 2019). The total construction vehicle trips would represent a marginal (negligible) increase of the total baseline traffic flows along the principal routes to be used by construction vehicles.

11.9 Construction traffic associated with the proposed development has the potential to affect pedestrians and cyclists using the transport network in the vicinity of the site, this is as a result of temporary disruption from vehicles (particularly HGVs) accessing and egressing the site and the restriction of pedestrian access to the site. There may also be the potential for temporary road or footway closures or temporary alterations to vehicle routeing. The likely impact of construction traffic on pedestrian and cyclist
movement and amenity is likely to be negligible and temporary in nature, only lasting for the period of construction.

**Operational Phase Effects**

11.10 Traffic analysis has found that the proposed development (along with cumulative developments) may lead to some congestion on Reeves Way, Herne Bay Road, Chestfield Road, Clover Rise and Foxgrove Road in the AM and PM peak hours. Mitigation measures have been identified including off-site highway improvements to the roundabout junction of the A2990 Thanet Way and Reeves Way, and the signalisation of the A2990 Thanet Way with Clover Rise. In addition a new shared footpath/cycleway will be constructed the full length of Reeves Way. With mitigation in place the impact on traffic is considered to be minor adverse to negligible.

11.11 The proposed development is not expected to sever any local communities as the highways are designed to carry such volumes and vehicle types. As a result, the effect on severance will be negligible and permanent in nature.

11.12 Despite a minor increase in traffic flows as a result of the development, these increases are thought to only have a negligible effect on driver delay; this is due to improvements in off-site roads and junctions.

11.13 The impact on pedestrian amenity is thought to be negligible and permanent in nature due to the low magnitude of effect caused by the development. As a result of there being little change to pedestrian amenity there is also a negligible impact on fear and intimidation due to the number of alternative walkways available. Few HGVs are expected due to the nature of the business being office based which further helps to reduce fear caused.

11.14 Accidents and safety are assessed in the TA based on a 5 year accident record. This finds that due to the expected minimal increase in traffic, and the diversion of public walkways through the site to provide adequate safe routes for pedestrians, the impact on accidents and safety will be negligible.

11.15 The proposed development increases the connectivity of the site by creating new vehicular, pedestrian and cyclist routes through the site as shown in Figure 11.1. The proposed development also provides cycle parking for residents, employees and visitors to the site. When considering the existing network available and proposed improvements, it is anticipated that the proposals will result in a positive impact in terms of walk and cycle network accessibility and amenity.
Figure 11.1: Hierarchy of Routes around the Development

- **Primary 6m main routes (adopted)**
- **Primary 4.8m main routes (unadopted)**
- **Secondary 4.5m main routes**
- **Footpath only**
- **Cycle route**
- **Bridalway**

"Emergency Access for emergency vehicles, cycle and pedestrian only"
12 RESIDUAL EFFECTS AND ES CONCLUSIONS

12.1 Based on the findings of the EIA, the proposed development will result in temporary significant adverse effects to some local people from construction noise and landscape and visual effects, although these will be subject to a range of mitigation measures.

12.2 Non-significant minor adverse effects will occur to the setting of the Chestfield Conservation Area and from vibration during construction.

12.3 These effects will be temporary and not untypical of construction similar construction projects.

12.4 There are no significant adverse operational effects, but minor adverse effects are expected from increased traffic and noise, to visual amenity from a loss of openness, and potentially pressure on existing primary school facilities (if the 1 form entry primary school is not provided).

12.5 The proposed development will deliver the following key benefits:

- The provision of high quality residential accommodation that will help to address increasing housing demand and need in the CCC administrative area;
- Local and regional economic benefits of regeneration in terms of employment provision and additional spending in the local area and businesses (construction and operational phases);
- Improvements in neighbourhood amenity, including the local centre, the quantum and quality of public open spaces, attractive landscaping and increased biodiversity on site;
- Improved access through the site for cyclists and pedestrians;
- Potential provision of early years education and school places in the local area or larger amounts of employment space;
- The utilisation of sustainable and energy efficient building techniques, combined with renewable energy technologies incorporating sustainable design features, for example green roofs, photovoltaics and Sustainable Drainage Systems (SuDS) to provide a modern and contemporary development;
- Reduction in flood risk and improvements in off-site sewer capacity;
- Provision of substantial amounts of highly bio-diverse ecological habitat; and
- Up to significant effects on local landscape value and improvements on visual amenity.