



create
CONSULTING
ENGINEERS LTD

POUND LANE, SONNING
Sustainability Statement

POUND LANE, SONNING

Sustainability Statement

Client: Savista Developments

Engineer: Create Consulting Engineers Limited
109-112 Temple Chambers
3-7 Temple Avenue
London
EC4Y 0HP

Tel: 01603 877010
Email: enquiries@createconsultingengineers.co.uk
Web: www.createconsultingengineers.co.uk

Report By: Alex Giles, BSc (Hons)

Checked By: Alicja Kreglewska, MSc, OCDEA, DEA, NDEA

Reference: AG/VL/P21-2464/04

Date: December 2021

POUND LANE, SONNING
Sustainability Statement

POUND LANE, SONNING

Sustainability Statement

Contents

- Executive Summary
- 1.0 Introduction
- 2.0 Current And Future Planning Policies/Good Practice Review And Project Requirements
- 3.0 Climate Change – Mitigation And Adaptation
- 4.0 Energy
- 5.0 Sustainable Construction Processes/Materials & Recycling
- 6.0 Pollution
- 7.0 Ecology
- 8.0 Sustainable Transport/Accessibility
- 9.0 Conclusion
- 10.0 Disclaimer

Registration of Amendments

Revision and Date	Amendment Details	Revision Prepared By	Revision Approved By

EXECUTIVE SUMMARY

This Sustainability Statement is submitted to support the planning application for the proposed specialist dementia residential care home development located at Pound Lane in Sonning, RG4 6GJ.

The Wokingham Local Plan and have been reviewed and used to optimise the environmental strategy of the development and to demonstrate the sustainability credentials of the scheme.

The Sustainability Statement for the proposed development demonstrates that the design will holistically incorporate sustainable principles into the full range of sustainability aspects covered by the Wokingham Local Plan planning documents: Energy, Sustainable Construction Processes/Materials & Recycling, Flood Risk & Surface Water Run-Off, Land Use & Ecology and Sustainable Transport/Accessibility.

It is proposed that the scheme will address the sustainable design and construction considerations through the adoption of a number of measures:

- Highly efficient building fabric to improve the energy performance of the building envelope well beyond Building Regulations compliance in order to reduce reliance on fossil fuels;
- Incorporation of Low and Zero carbon technology appropriate for the site - Air Source Heat Pumps and PV panels;
- Surface water run off mitigated by appropriate SuDS techniques;
- Passive measures to address potential overheating;
- Sustainable construction practices, local sourcing of materials and the use of materials with low life cycle impacts;
- Reduce construction waste and provide facilities to enhance recycling rates;
- Measures to ensure compliance with air quality and noise policies.

The proposals for the scheme have fully considered opportunities for sustainable construction to provide positive environmental, social and economic benefits that are consistent with the policy requirements of the Wokingham Local Plan.

1.0 INTRODUCTION

- 1.1 Create Consulting Engineers Ltd has been commissioned by Savista Developments to prepare a Sustainability Statement to support a full planning application for the proposed development at Pound Lane in Sonning, RG4 6GJ.
- 1.2 The objective of the Sustainability Statement is to assess the proposed development against the policy requirements of the Wokingham Local Plan.

Site Location and Description

- 1.3 The site is located to the east of Reading in a relatively developed area. Directly to the south of the site is the Sonning Golf Club, and to the west and north are residential buildings. The site is accessed off Pound Lane which runs to the west of the site.

Proposed Development

- 1.4 The proposal comprises the construction of a residential care home (Use Class C2) with associated car parking, landscaping and infrastructure works.
- 1.5 The building will have a total Gross Internal Area (GIA) of approximately 5,600m² plus (additional 1,000m² of basement area) and comprise 80 en-suite bedrooms. It will provide residential, nursing and dementia care for mostly elderly residents. The proposed site layout and floor plans are shown below:



Figure 1.2: Site Layout

Objectives

1.6 The objectives of this report are to:

- Demonstrate how the proposed development will meet the policy requirements of the Wokingham Local Plan;
- Identify areas for consideration at the early stages of the project to facilitate the incorporation of the principles of sustainable design and construction into the design of the development.

Report Structure

1.7 This introductory section is followed by a comprehensive review of national/regional/local policies on sustainability and best practice standards. The following 2 sections address measures taken to mitigate the effects of climate change including sustainable drainage, and measures to enhance the energy efficiency of the scheme, as well as reducing CO₂ emissions. The remaining Sections 5 – 9 detail the sustainability strategy for the scheme related to

Sustainable Construction Processes/Materials & Recycling, Air & Noise Pollution, Ecology/Land Use and Sustainable Transport/Accessibility.

2.0 CURRENT AND FUTURE PLANNING POLICIES/GOOD PRACTICE REVIEW AND PROJECT REQUIREMENTS

National Planning Policy Framework (July 2021)

- 2.1 The National Planning Policy Framework sets out the Government's planning policies for England and how these are expected to be applied. Taken together, these policies articulate the Government's vision of sustainable development, which should be interpreted and applied locally to meet local aspirations. The ministerial foreword of this NPPF highlights that 'the purpose of planning is to contribute to the achievement of sustainable development' and that at the heart of the framework is a presumption in favour of sustainable development.
- 2.2 Sustainable development is defined in the NPPF as comprising developments "meeting the needs of the present without compromising the ability of future generations to meet their own needs" in line with the definition of the Brundtland Commission ('Our Common Future', 1987). The NPPF also refers to the three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways – an economic objective, a social objective and an environmental objective.

Wokingham Borough Local Plan Core Strategy (2010)

- 2.3 The Core Strategy was adopted in January 2010 and sets out the key elements of Wokingham's vision for development within the borough until 2026. The relevant policies from the Core Strategy (2010) are as follows:
- 2.4 Policy CP1 – Sustainable development

Planning permission will be granted for development proposals that:

- 1) Maintain or enhance the high quality of the environment;*
- 2) Minimise the emission of pollutants into the wider environment;*
- 3) Limit any adverse effects on water quality (including ground water);*
- 4) Ensure the provision of adequate drainage;*
- 5) Minimise the consumption and use of resources and provide for recycling;*
- 6) Incorporate facilities for recycling of water and waste to help reduce per capita water consumption;*
- 7) Avoid areas of best and most versatile agricultural land;*
- 8) Avoid areas where pollution (including noise) may impact upon the amenity of future occupiers;*
- 9) Avoid increasing (and where possible reduce) risks of or from all forms of flooding (including from groundwater);*
- 10) Provide attractive, functional, accessible, safe, secure and adaptable schemes;*
- 11) Demonstrate how they support opportunities for reducing the need to travel, particularly by private car in line with CP6; and*

12) Contribute towards the goal of reaching zero-carbon developments as soon as possible by:

- a) Including appropriate on-site renewable energy features; and*
- b) Minimising energy and water consumption by measures including the use of appropriate layout and orientation, building form, design and construction, and design to take account of microclimate so as to minimise carbon dioxide emissions through giving careful consideration to how all aspects of development form*

2.5 Policy CP3 - General Principles for development

Planning permission will be granted for proposals that:

- a) Are of an appropriate scale of activity, mass, layout, built form, height, materials and character to the area together with a high quality of design without detriment to the amenities of adjoining land users including open spaces or occupiers and their quality of life;*
- b) Provide a functional, accessible, safe, secure and adaptable scheme;*
- c) Have no detrimental impact upon important ecological, heritage, landscape (including river valleys) or geological features or water courses.*
- d) Maintain or enhance the ability of the site to support fauna and flora including protected species;*
- e) Use the full potential of the site and contribute to the support for suitable complementary facilities and uses;*
- f) Contribute to a sense of place in the buildings and spaces themselves and in the way they integrate with their surroundings (especially existing dwellings) including the use of appropriate landscaping;*
- g) Provide for a framework of open space in secure community use achieving at least 4.65 ha/1,000 population provision together with recreational/sporting facilities in addition to private amenity space;*
- h) Contribute towards the provision of an appropriate sustainable network of community facilities;*
- i) Do not lead to a net loss of dwellings and other residential accommodation or land; and*
- j) Do not lead to a loss of community or recreational facilities/land or infrastructure unless suitable alternative provision is available.*

Development proposals will be required to demonstrate how they have responded to the above criteria through the submission of Design and Access Statements, clear and informative plans, elevations and streetscenes and where required Masterplans, Development Briefs, Concept Statements and Design Codes.

2.6 Policy CP4- Infrastructure Requirements

Planning permission will not be granted unless appropriate arrangements for the improvement or provision of infrastructure, services, community and other facilities required for the development taking account of the cumulative impact of schemes are agreed.

Arrangements for provision or improvement to the required standard will be secured by planning obligations or condition if appropriate.

Wokingham's Managing Development Delivery Local Plan (2014)

2.7 Policy CC04: Sustainable Design and Construction

Planning permission will only be granted for proposals that seek to deliver high quality sustainably designed and constructed developments by:

1. (...)
2. All new non-residential proposals of more than 100 sq m gross non-residential floorspace shall at least:
 - a) Achieve the necessary mandatory Building Research Establishment Assessment Method (BREEAM) requirements or any future national equivalent
 - b) Meet or exceed statutory requirements for water resource management.
3. All development, including conversions, alterations and extensions shall incorporate suitable waste management facilities, including on-site recycling.

2.8 Policy CC05: Renewable energy and decentralised energy networks.

1. Local opportunities to contribute towards decentralised energy supply from renewable and low-carbon technologies will be encouraged.
2. Planning permission will only be granted for proposals that deliver a minimum 10% reduction in carbon emissions through renewable energy or low carbon technology where the development is for:
 - a) Schemes of more than 10 dwellings (gross), or
 - b) Non-residential proposals of more than 1,000 sq m gross floorspace.
3. Proposals for renewable energy and decentralised energy works, including wind turbines, must demonstrate that:
 - a) They are appropriate in scale, location and technology type;
 - b) Are compatible with the surrounding area, including the impact of noise and odour;
 - c) Do not have a damaging impact on the local topography and landscape;
 - d) There is no significant impact upon heritage assets, including views important to their setting;
 - e) In the case of wind turbines, take account of their cumulative effect and properly reflect their increasing impact on the landscape and on local amenity.

2.9 Policy CC06: Noise

- 1. Proposals must demonstrate how they have addressed noise impacts to protect noise sensitive receptors (both existing and proposed) from noise impacts in line with Appendix 1 of the MDD.*
- 2. Noise impact of the development must be assessed. Where there is no adverse impact (No Observed Effect Level) then noise will not be a material consideration.*
- 3. Where there is an adverse effect (Lowest Observed Adverse Effect Level to Significant Observed Adverse Effect Level), then*
 - a) The development layout must be reviewed. Where this results in there no longer being an adverse impact then design and mitigation measures should be incorporated accordingly.*
 - b) Where there is still an adverse impact then internal layout must be reviewed. Where this results in there no longer being an adverse impact then design and measures should be incorporated accordingly.*
 - c) Where there is still an adverse impact then physical mitigation measures such as barriers/mechanical ventilation must be reviewed.*
Where this results in there no longer being an adverse impact then design and mitigation measures should be incorporated accordingly.
 - d) Where there is still an adverse impact and the development falls within the significant observed adverse effect level then planning permission will normally be refused.*

2.10 Policy CC07: Parking

- 1. Planning permission will only be granted where the proposal demonstrates the following:*
 - a) How the proposed parking provision meets the standards set out in Appendix 2 of the MDD*
 - b) That the new scheme retains an appropriate overall level of off-street parking.*

2.11 Policy CC09: Development and Flood Risk (from all sources)

- 1. All sources of flood risk, including historic flooding, must be taken into account at all stages and to the appropriate degree at all levels in the planning application process to avoid inappropriate development in areas at risk of flooding. Proposals must be consistent with the guidance in paragraphs 99-104 of the National Planning Policy Framework (NPPF); the Technical Guidance to the NPPF and demonstrate how they have used the Strategic Flood Risk Assessment (SFRA) to determine the suitability of the proposal.*
- 2. Development proposals in Flood Zones 2 or 3 must take into account the vulnerability of proposed development.*
- 3. Development must be guided to areas of lowest flood risk by applying the sequential approach taking into account flooding from all sources and shall ensure flood risk is not worsened for the application site and elsewhere, and ideally that betterment of existing conditions is achieved. The sequential test will not be required if at least one of the following applies:*

 - a) Replacement of an existing single residential property. However, the replacement property should, where possible, be located on the part of the site at lowest risk*
 - b) Conversions and change of use unless it involves a change to a more vulnerable class*
 - c) Minor development, as defined in footnote 10 of the Technical Guidance Note to the NPPF.*
- 4. In exceptional circumstances, new development in areas of flood risk will be supported where it can be demonstrated that:*

 - a) The development provides wider sustainability benefits to the community that outweigh flood risk*
 - b) The development will:*

 - i. Be safe for its lifetime, taking account of the vulnerability of its users*
 - ii. Not increase flood risk in any form elsewhere and, where possible, will reduce flood risk overall*
 - iii. Incorporate flood resilient and resistant measures into the design*
 - c) Appropriate evacuation and flood response procedures are in place to manage the residual risk associated with an extreme flood event.*
- 5. Where required, suitable and appropriately detailed flood risk information will need to accompany a planning application. A Flood Risk Assessment (FRA) is required for:*

 - a) All proposals in areas of known historic flooding from all sources*
 - b) Where there is evidence of a risk from all sources of flooding identified in the Strategic Flood Risk Assessment*
 - c) Those proposals set out in footnote 20 to paragraph 103 of the NPPF.*

2.12 Policy CC10: Sustainable Drainage

- 1. All development proposals must ensure surface water arising from the proposed development including taking into account climate change is managed in a sustainable manner. This must be demonstrated through*
 - a) A Flood Risk Assessment, or*
 - b) Through a Surface Water Drainage Strategy.*
- 2. All development proposals must*
 - a) Reproduce greenfield runoff characteristics and return run-off rates and volumes back to the original greenfield levels, for greenfield sites and for brownfield sites both run-off rates and volumes be reduced to as near greenfield as practicably possible.*
 - b) Incorporate Sustainable Drainage Systems (SuDS), where practicable, which must be of an appropriate design to meet the long term needs of the development and which achieve wider social and environmental benefits*
 - c) Provide clear details of proposed SuDS including the adoption arrangements and how they will be maintained to the satisfaction of the Council [as the Lead Local Flood Authority (LLFA)]*
 - d) Not cause adverse impacts to the public sewerage network serving the development where discharging surface water to a public sewer.*

2.13 Policy TB23: Biodiversity and Development

- 1. Sites of national or international importance are shown and sites of local importance are defined on the Policies Map.*
- 2. Planning permission for development proposals will only be granted where they comply with policy CP7 – Biodiversity of the Core Strategy and also demonstrate how they:*
 - a) Provide opportunities, including through design, layout and landscaping to incorporate new biodiversity features or enhance existing*
 - b) Provide appropriate buffer zones between development proposals and designated sites as well as habitats and species of principle importance for nature conservation*
 - c) Ensure that all existing and new developments are ecologically permeable through the protection of existing and the provision of new continuous wildlife corridors, which shall be integrated and linked to the wider green infrastructure network.*

Building Regulations Approved Document Part L 2013**2.14** Part L of the current Building Regulations (2013) considers the reduction of carbon emissions in new and existing buildings. As the proposals consist of the creation of new non-domestic spaces they fall under Part L2A of the Regulations.

2.15 The overall structure of compliance with the 2013 Building Regulations for new buildings includes five criteria to comply with:

- **Criterion 1** – The Building Emission Rate (DER/BER) should be better than the Target Emission Rate (TER);
- **Criterion 2** - Limit on design flexibility;
- **Criterion 3** - Limiting effects of heat gain in summer;
- **Criterion 4** - Commissioning and air-tightness;
- **Criterion 5** - Efficient operation of buildings.

3.0 CLIMATE CHANGE – MITIGATION AND ADAPTATION

- 3.1 Climate change brought about by man-made emissions of greenhouse gases has been identified as the greatest challenge facing human society at the beginning of the 21st century.
- 3.2 The effects of climate change are complex, they include:
- Increased average temperatures;
 - Rising sea levels;
 - Increased precipitation;
 - More frequent extreme weather.
- 3.3 Action to address climate change falls into two categories: mitigation and adaptation. Mitigation measures are designed to reduce greenhouse gas emissions to slow down or stop climate change, whilst adaptation measures are designed to adjust society and buildings to cope with climate changes that are already happening.

Climate Change - Mitigation

- 3.4 The energy strategy for the scheme has considered measures to mitigate the effects of climate change through the specification of energy efficient systems (ASHP and PV panels). The Energy Strategy is discussed further in Section 4 of this report.

Climate Change - Adaptation

Flood Risk - Adapting to heavier rainfall

- 3.5 The problem of flooding has become increasingly prevalent in the UK in recent years. Examples of extreme flash flooding and prolonged periods of above average rain fall have increased the incidence and severity of these events and caused substantial economic and structural damage in many areas.
- 3.6 One contributing factor to these events is the increasing urbanisation of the UK. Over 10% of land in England is now developed and this land discharges rain and storm water rapidly into sewers and water courses. This can increase the risk of flash flooding. Undeveloped land is generally much better at absorbing and holding rain water and discharging it over prolonged periods of time and at reduced rates.
- 3.7 Many existing urban drainage systems can cause problems of flooding, pollution or damage to the environment and are not resilient to climate change in the long term. Therefore, to encourage prolonged discharge of storm water a preferred method of surface water disposal is through the use of Sustainable Drainage Systems (SUDs). This term refers to any system designed to infiltrate, hold or delay storm water discharge in urban areas. A variety of

methods can be employed including permeable paving, balancing ponds, reed beds, soakaways and water butts, green roofs and attenuation tanks.

- 3.8 The proposed drainage measures will ensure the new development does not increase flood risk elsewhere. The proposed building's design will take into consideration the existing soil characteristics to make sure the foundations of the new build are designed to withstand heavier rainfalls as well as long periods of dry weather.
- 3.9 A Drainage Strategy Report has been produced by Walker Associates Consulting Ltd (ref: M:/7500-8000/7548).
- 3.10 Informed by the rate of infiltration present on site, the proposed drainage strategy has been designed to include permeable paving to all grade parking areas for attenuation and treatment of run off, roof run off discharge into cellular soakage chambers and the provision of green roofs on ancillary buildings.
- 3.11 In line with the SuDS manual simple index approach (Ciria Report C753) permeable paving will be designed to not flood for up to the 1 in 100 year+ 40% climate change storm event.
- 3.12 Soakaways will be designed not to flood for up to the 1 in 30-year event. Exceedance flooding will be held on site within planted areas to allow for infiltration back into the subsoil.
- 3.13 Foul water will be discharged from the development to the local adopted sewer network within Pound Lane, final connection details will be further subject to an S106 agreement with Thames Water.
- 3.14 The site is currently situated within flood zone 1, therefore is currently not at risk of flooding.

4.0 ENERGY

- 4.1 The energy strategy has been prepared in the context of the Wokingham Local Plan, Policy CC05, which states that all non-domestic developments are required to incorporate measures to improve energy conservation and efficiency and should achieve a minimum 10% carbon emission reduction on-site from renewable sources.
- 4.2 Please refer to the Energy Statement prepared by Create Consulting Engineers (ref: AK/VL/P21-2464/02 Rev A) for details of the energy strategy proposed for the development.
- 4.3 The energy strategy for the proposed development has, at its core, the reduction of energy use on-site through effective fabric energy efficiency measures and efficient servicing solutions. The following features will lead to a significant reduction in anticipated energy consumption and CO₂ emissions compared to Building Regulations Part L 2013, through the specification of energy saving features within the services design:
- Excellent air tightness of 3.0 m³/m²@50PA/hr for the new building.
 - High levels of insulation and high performance double to triple glazing to leading to very energy efficient building fabric well in excess of Part L 2013 targets;
 - Highly efficient heating via Air Source Heat Pumps (ASHP);
 - Photovoltaic panels;
 - Mechanical ventilation with heat recovery proposed for all rooms;
 - 100% dedicated energy efficient lighting;
 - Accredited Construction Details where possible to mitigate cold bridging.
- 4.4 The study has assessed the potential of renewable and low carbon energy technologies taking into account practical considerations of deliverability, the likely requirements of the end users and the likely energy use profile of the operational building. The study concludes that the most feasible technologies for the development are a combination of ASHPs and PV panels.
- 4.5 After the inclusion of efficient building fabric and services design, and the incorporation of ASHPs and PV panels, the scheme will achieve an improvement over the baseline scenario of approximately 62%, exceeding the planning policy target of 10%.
- 4.6 The CO₂ emissions for the building, after the inclusion of very efficient building fabric and systems are estimated as approximately 65 tonnes of CO₂ per year.

5.0 SUSTAINABLE CONSTRUCTION PROCESSES/MATERIALS & RECYCLING

- 5.1 Preference will be given to the selection of sustainable materials with a low environmental impact over their life cycle, as well as sustainable procurement and waste disposal.
- 5.2 The environmental impact of construction activities will be minimised through the implementation of best practice measures detailed in the sections below:

Sustainable Construction

- 5.3 Sustainable construction practices include good site management to encourage resource efficiency, increase materials recovery and avoid the disposal of waste to landfill.
- 5.4 The following sustainable construction practices will be considered within the development:
 - Reducing construction and excavation waste to landfill;
 - Ensuring the products used in construction are responsibly sourced;
 - Carrying out biodiversity surveys and following up with necessary actions;
 - Best practice site management principles through registering the site with the Considerate Constructor Scheme to commit to manage the site beyond best practice.
- 5.5 As part of achieving a sustainable approach to construction, the main contractor will be encouraged to commit to reducing the impact of the construction processes on the environment through monitoring and mitigating construction site impacts throughout the construction period. Best practice pollution prevention policies will be encouraged in respect of air (dust) and water pollution arising from site activities. To minimise air (dust) pollution, skips will be covered, dust generating site activities will be dampened down and wet cutters will be used. Low emission and efficient equipment will be used on site.
- 5.6 A construction management plan will be in place prior to commencement of the development. The construction management plan will appropriately demonstrate how the impacts of air/water pollution, noise and vibration will be mitigated against during the construction of the development. Where feasible, timber used on site will be reclaimed, re-used or responsibly sourced.

Construction Materials

- 5.7 The proposed development will give preference to the selection of sustainable materials and the minimisation of waste. The following measures will be considered to demonstrate that the materials specified are sourced, managed and used in a sustainable manner:
 - The use of locally sourced materials will be prioritised, where feasible, to reduce transport related emissions and to support local supply chains;

- Responsible sourcing of materials from suppliers that operate an Environmental Management System will be prioritised. 100% of all timber included in the construction of floors, roofs, walls and staircase will be legally sourced;
- The use of recyclable materials, such as aggregate will be considered;
- The use of insulation materials with low Global Warming Potential (GWP) will be prioritised;
- The use of high VOC content paints, sealants and all ozone depleting materials including insulation will be avoided where possible. Specific consideration will be given to embodied energy and durability and strength of materials selected for the scheme.

Construction Waste

5.8 On-site waste will be minimised, and a high proportion of the waste that is produced will be diverted from landfill, through either:

- Re-use on site (in situ or for new applications) or re-use on other sites;
- Salvaged/reclaimed for re-use;
- Returned to the suppliers via ‘take-back’ schemes;
- Recovered and recycled using an approved waste management contractor.

5.9 Where it is not possible to reduce or re-use materials on site, opportunities to recycle the materials off-site will be explored, where feasible.

Operational Waste

5.10 The building will be provided with easily accessible external waste storage to enable segregation of waste into recyclable and non-recyclable waste streams prior to collection.

6.0 POLLUTION

Noise Pollution

- 6.1 An environmental noise survey has been undertaken by Create Consulting Engineers (ref: MT/VL/P21-2464/01) to determine whether there are any significant constraints on developing the site.
- 6.2 Based on the results of the survey it is indicated that to achieve the baseline ventilation requirements for the bedrooms, the proposed development cannot rely on openable windows.
- 6.3 Despite external noise levels permitting the use of alternative natural ventilation strategies, whilst meeting the internal noise criteria of BS 8223:2014, it is expected that a review of architect proposals will occur once available.
- 6.4 The plant noise assessment undertaken has identified a high likelihood an adverse effect to the surrounding residences without noise mitigation present.
- 6.5 The installation of barriers will reduce noise levels below the point to which BS4142 states than an adverse impact is likely to occur.
- 6.6 A detailed design review is recommended to be undertaken once final plant proposals have occurred.
- 6.7 If the implemented mitigation are always adhered to, adverse impacts to nearby residents are suggested to be minimal.

Air Pollution

- 6.8 An Air Quality Assessment has been carried out by Create Consulting Engineers (ref: NP/VL/P21-2464/03) to determine the impact that the redevelopment of the site is likely to have on air quality.
- 6.9 The potential for air quality impacts as a result of fugitive dust emissions from the site were assessed in accordance with the IAQM methodology. Assuming good practice dust control measures are implemented, the residual significance of potential air quality impacts from dust generated by demolition, earthworks, construction and trackout activities was predicted to be negligible.
- 6.10 As the heating strategy is based solely on heat pumps, there will be neither NOx nor PM₁₀ emissions.

- 6.11 The results of Dispersion modelling undertaken reflect that predicted NOx, PM₁₀ and PM_{2.5} concentrations for all scenarios are below AQOs.
- 6.12 Predicted effects of operational phase traffic exhaust and boiler emissions on NOx, PM₁₀ and PM_{2.5} concentrations are considered negligible at all sensitive receptor locations.
- 6.13 Overall, the significance of the potential impacts were deemed negligible in accordance with EPUK and IAQM guidance.
- 6.14 Based on assessment results and good practice techniques, air quality is not considered a constraint to planning consent for the proposed development.

7.0 ECOLOGY/LAND USE

Ecological Assessment

- 7.1 A Preliminary Ecological Assessment has been prepared by ACJ ecology to outline the likely impacts, opportunities for mitigation, compensation, and enhancement for the proposed development.
- 7.2 There is no designation at present for the site for nature conservation on an international, national, regional or county level.
- 7.3 It is concluded that there are no habitats of ecological value being lost to the development, therefore there is no requirement for any specific mitigation.
- 7.4 Following an evaluation of habitats for protected species, no protected species are considered likely to be within the site or affected by the development.
- 7.5 The preparation of a Badger Mitigation Strategy is recommended prior to the commencement of site work.
- 7.6 The implementation of a Biodiversity Impact Assessments is advised to measure the percentage of biodiversity net gain associated with the development.
- 7.7 Sensitive lighting strategy is suggested to be undertaken as a preventive measure to avoid light spills from enhancing the dark corridor.
- 7.8 Vegetation clearance shall occur outside breeding bird season, and where unfeasible Vegetation, Build Structure and Nest Check Surveys are recommended.

Tree Report

- 7.9 An Arboricultural Report has been prepared by GHA trees (Ref: GHA/DS/133360:21a) to determine the condition of retained trees.
- 7.10 The current arboricultural features within the site can be retained and adequately protected during the developmental activities.
- 7.11 Following precautionary measures, the proposal will unlikely be harmful to retained trees.
- 7.12 It is concluded that a Site Agent is recommended to be elected to be responsible for all site arboricultural matters.

Biodiversity Impact Assessment

- 7.13 A Biological Impact Assessment has been prepared by ACJ ecology to provide a measurable calculation on biodiversity units present on site before and after the construction of the proposed development.
- 7.14 A post biodiversity assessment has been undertaken based on the proposed development design and ecological features.
- 7.15 A majority of habitat creations will consist of tree planting and grassland, a total of 76 will be planted throughout the area to contribute to the overall richness of biodiversity.
- 7.16 The enhancement of the woodland is proposed via the planting of native trees and shrubs.
- 7.17 A Management and Monitoring Plan is recommended to assess the outcomes of the biodiversity gains associated with the proposed development. A responsible body will be elected to ensure the Management and Monitoring plan is implemented and undertaken.

8.0 SUSTAINABLE TRANSPORT/ACCESSIBILITY

- 8.1 A Transport Statement has been prepared by i-Transport LPP (ref: BH/RS/LJ/ITB16449-002 R) to provide transport and highway advice.
- 8.2 The site is located in close proximity to Sonning Golf Club, with an additional number of local facilities and service in close vicinity.
- 8.3 Obtained accident data indicates there are no present geometric deficiencies or major safety concerns.
- 8.4 The site is well located and within a reasonable walking and cycling distance of a range of everyday services and facilities.
- 8.5 The site will provide a total of 40 parking spaces, with circa 15-25 expected for staff to park-on site. This is aligned with recommendations made by the Wokingham Borough Councils Parking Study Report.
- 8.6 The net impact traffic assessment has found that the transport impact of the proposed development will generate more traffic across the day, however during peak periods the amount will be negligible compared to previous schemes.
- 8.7 It is concluded that additional trips during peak periods will not have an adverse impact on the highway network.

9.0 CONCLUSION

- 9.1 This report has been developed to detail the sustainability features of the development and demonstrates how they relate to the relevant planning policy documents of the Wokingham Local Plan.
- 9.2 The Sustainability Statement for the scheme demonstrates that the design will holistically incorporate sustainable principles into the full range of sustainability aspects covered by the relevant policies.

10.0 DISCLAIMER

- 10.1 Create Consulting disclaims any responsibility to the Client, Savista Developments, and others in respect of any matters outside the scope of this report.
- 10.2 The copyright of this report is vested in Create Consulting Engineers Ltd and the Client Savista Developments, or his appointed representatives, may copy the report for purposes in connection with the development described herein. It shall not be copied by any other party or used for any other purposes without the written consent of Create Consulting Engineers Ltd or Savista Developments.
- 10.3 Create Consulting Engineers Ltd accepts no responsibility whatsoever to other parties to whom this report, or any part thereof, is made known. Any such other parties rely upon the report at their own risk.