



Sustainability Appraisal

Land at Pedham Place

On behalf of **Gladman Developments Limited**



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Introduction

1.1 Background

- 1.1.1 The proposed development at Pedham Place has the potential to deliver a range of high-quality housing, employment, social and community infrastructure in a sustainable location in Sevenoaks.
- 1.1.2 The purpose of this document is to set out how the proposed development will support a healthy, sustainable community as well as demonstrating how the proposed development is compliant with national and local policy and aligns with the Sevenoaks Sustainability Appraisal.
- 1.1.3 The format for this Sustainability Appraisal and the key topics discussed is based on Sevenoaks District Council's (SDC) sustainability objectives set out in the SDC Sustainability Appraisal Scoping Report (2016).
- 1.1.4 The appraisal demonstrates the opportunities for Pedham Place as a location for sustainable development set against the SDC's sustainability objectives.

1.2 The Existing Site

- 1.2.1 Pedham Place (the Site) is a 144ha site located on the edge of Swanley in Kent. The majority of the site is currently used as a golf course.
- 1.2.2 The site is to the East of Swanley, split from the existing town by the M25 with excellent vehicular connectivity with access to the M25, M20 and A20. The Site is slightly more than a mile from Swanley town centre and railway station. Swanley is situated to the south east of London, around 15 miles from the centre and a 30 minute train to London Victoria. It has a population of around 16,000 people with an array of schools, leisure facilities, shopping, recreational spaces and healthcare facilities.
- 1.2.3 The Villages of Farningham and Eynsford are to the east, around half a mile on foot however the site is not connected to the east on public roads. Eynsford also has a railway station that runs semi frequent services to London and Sevenoaks.

1.3 The Site and the Proposed Development

- 1.3.1 The proposed development will comprise around 2,500 homes across a variety of low, medium and high-density homes across 70 ha. There will be a mixture of housing typologies and shall provide at least 40% affordable housing. The remaining area will deliver green spaces, schools and community facilities. Around 55 Ha of green space shall be provided, with a significant natural woodland buffer to the north, east and south boundaries.
- 1.3.2 The proposed site shall include a local centre, offices, industry, two primary schools, secondary school and leisure facilities as well as providing:
- Benefits and opportunities to Swanley and the Darent Valley Settlements
 - Highway Solutions for the A20, public transport and site access.
 - High quality public transport and associated park and ride.
 - Mitigation proposals for the AONB
 - A landscape assessment in respect to the Greenbelt and AONB

- A socio-economic assessment to illustrate the opportunities from the site.

1.4 Sustainability Appraisal

- 1.4.1 Sustainability Appraisal (SA) is a mechanism for considering and communicating the impacts of an emerging plan, and potential alternatives in terms of key sustainability issues. The aim of SA is to inform and influence the plan-making process with a view to avoiding and mitigating negative impacts. Through this approach, the SA for the Local Plan seeks to maximise the developing plan's contribution to sustainable development.
- 1.4.2 As Pedham Place is progressing through the local plan making process it is important to consider the development opportunity against the parameters with within SDC's structure Sustainability Appraisal sustainability objectives.
- 1.4.3 With the SDC SA a set of strategic sustainability themes have been developed that have been used in the local plan making to appraise sustainability. These themes have undergone extensive consultation to set them as being appropriate for Sevenoaks. These themes have been use to assess opportunities for the delivering of sustainable development at Pedham Place. This has been done against the parallel of the existing golf course land use.
- 1.4.4 This report provides the outcomes of this appraisal.

2 Policy and Guidance Review

- 2.1.1 This section sets out the key SDC planning policies that have been considered for Pedham Place from a Sustainability perspective.

2.2 National Policy

National Planning Policy Framework 2021

- 2.2.1 The National Planning Policy Framework (NPPF) 2021 maintains the “presumption in favour of sustainable development”. It sets out the three mutually dependent roles that the planning system needs to consider delivering sustainable development. These are:
- **An economic objective** – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure.
 - **A social objective** – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities’ health, social and cultural well-being.
 - **An environmental objective** – to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.

2.3 Local Planning Policy

Sevenoaks Net Zero Report and Net Zero Proposed Actions

- 2.3.1 Sevenoaks District Council have committed to achieving net zero carbon by 2030. This means that we have pledged to reach net zero carbon emissions produced by the Council and their assets by 2030.
- 2.3.2 The actions are generally focussed on the direct impacts and emissions contributed by the Council, however several actions will impact proposed developments such as:

“to achieving net zero carbon by 2030. This means that we have pledged to reach net zero carbon emissions produced by the Council and our assets by 2030.”

“Work with schools, local communities and groups to create community transport hubs for short journeys, minimising pollution, improving air quality and reducing congestion.”

“Deliver the environmental aspects of Sevenoaks District Councils Council and Local Plans”

Sevenoaks Core Strategy (2011)

- 2.3.3 The Core Strategy is the key document in Sevenoaks existing adopted Local Plan. It draws together the objectives of a wide range of plans, programmes and strategies and provides the overarching principles that will deliver the essential development needs of the District up to 2026.

- 2.3.4 The existing adopted policies have been considered in context against the Sustainability Appraisal Framework identified for the latest emerging Masterplan.

Emerging Local Plan

- 2.3.5 The new local plan was submitted to the Secretary of State for independent examination in April 2019. The planning inspector issued the final report in March 2020 which recommended the Local Plan should not be adopted.
- 2.3.6 Sevenoaks are now to reconsider their planning strategy across the region to meet the housing need and propose a new local plan for adoption.

Sevenoaks Sustainability Appraisal Scoping Report

- 2.3.7 The local plan sustainability appraisal scoping report sets 9 themes that define sustainable development in the context of Sevenoaks.

- Biodiversity
- Climate Change
- Landscape and Historic Environment
- Environmental Quality
- Land, Soil and Water Resources
- Population and Communities
- Health and Wellbeing
- Transportation
- Economy

- 2.3.8 Each of the themes have a series of questions that have been used in the local plan making to appraise sustainability. These themes and questions have been used to assess opportunities for the delivering of sustainable development at Pedham Place. This has been done against the parallel of the existing golf course land use.

3 Biodiversity

3.1 Introduction

- 3.1.1 Whilst the site is included with the Kent Downs AONB the current land use of the site is a links style golf course that provides limited ecological value with very limited public access. This means the existing site is not aligned with the purposes of the AONB.
- 3.1.2 An AONB review as examined the masterplan against the four key aims of the management plan for the Kent Downs and identified that the site has the opportunity to enhance and create new habitats that are in keeping with the characteristics of the Kent Downs. This includes creation of new woodland, Chalk grassland, Orchards and coppice woodland, hedgerows and flower meadows.
- 3.1.3 The natural geodiversity and typology of the site has been lost in recent decades following the construction of the links style golf-course which was created from the import of under licence inert aggregates from a major highway scheme. This has created the plateau of which the site sits with an undulating landscape features and very little tree cover which is not in keeping with the local character.

3.2 Aligning against the sustainability Appraisal Framework

- 3.2.1 In the table below we have reviewed the existing geographic baseline position of the site against the appraisal questions in the sustainability appraisal framework and then considered how the proposed development can leverage its baseline position to ensure the development is sustainable.

Appraisal Questions	Geographic Baseline	Existing Context	With Investment	How can the development target investments to ensure sustainable outcomes
Support continued improvements to the status of the SSSIs present in the District?	X	Farningham Woods is just north of the proposed Development, which is circa 500m north of the site, over the M20. The woods are a Site of Special Scientific Interest, which is one of the most valuable areas of woodland in Kent. The current golfcourse which is an inland links-style course this style means an open expansion with dunes and with few water hazards and few if any trees. This typology is unsuited to the natural area and not inkeeping or complimentary of Farningham Woods.	✓	The proposed development will allow residents easy access to the existing woodland. Allowing local residents to enjoy the natural beauty. Opportunities exist to improve existing walks and ensure the long-term maintenance of the woodland will be considered. Furthermore the proposed planting buffer will provide an improved, more natural surrounding that compliments the existing woodland by increasing the local coverage and enabling opportunities for connecting woodlands.
Protect and enhance semi-natural habitats?	⊖	The existing golf course provides little in terms of semi-natural habitat. With limited tree canopy and a few wild grass areas.	✓	The proposed development will create an array of semi-natural habitats, these will be interconnected through the use of green fingers and will be integrated into key infrastructure features such as swales, ponds, street verges, open spaces, parkland and woodland. A landscape and ecology management plan (LEMP) will be established.

Protect and enhance priority habitats, and the habitat of priority species?	X	In the Kent Biodiversity strategy 17 priority habitats were identified and 13 priority species. The existing site only contributes to one of the priority habitats 'Hedgerows' of which only a small number existing surrounding the edge of the site. This lack of habitat would indicate a low number of important indicator species being present on site.	✓	The proposed development is situated to contribute new areas of priority habitats as well as improving the existing habitat, this will enable for greater number of important species to be present on the site.
Enhance regional ecological networks?	X	The site provides little to connect existing ecological areas and is limited by existing infrastructure with two strategic roads and a rail line alongside 3 sides of the site boundary.	⊖	There is limited opportunity to connect to other ecology areas due to the lack of existing provision directly immediate to the site and the transport infrastructure surround the site. The proposed masterplan however provides buffers on the North, East and South Side, which provide opportunities to contribute towards creating ecological networks in the future and makes significant progress towards creating a network that connects to Farningham Woods.
Support the provisions of the Kent Biodiversity Strategy, including relating to Biodiversity Opportunity Areas?	X	The site abuts the Central North Downs to the East but is not within the established boundary.	✓	Whilst the site does not fall within the existing area the targets within the Kent Biodiversity Strategy can still be considered in the context of the site. In this regard the proposed buffers on the eastern and southern side can contribute to the targets by restoring and reconnecting grassland and reinstating woodland. The site shall be measured against these targets through the Environmental Impact Assessment Work and Environmental Strategy.
Achieve a net gain in biodiversity?	X	The site has very little existing biodiversity across the site.	✓	The proposed site plan and proposals show significant land provision for ecology and habitat creation which will greatly exceed the required biodiversity net gain targets.
Protect and enhance the District's rich geodiversity resource?	X	The site is on a plateau made from excavation material which is unlike the natural regional geodiversity.	⊖	The proposed development will create a woodland buffer to limit important local views and reduce the impact of the man-made plateau.
Support access to, interpretation and understanding of biodiversity and geodiversity?	X	Whilst the current site allows for locals to enjoy the outdoors, the current use does not create an environment which is not natural to the local area.	✓	New woodland and contribution to the ongoing maintenance of the site of scientific interest will promote greater understanding of biodiversity and geodiversity.

4 Climate Change

4.1 Introduction

- 4.1.1 In the sustainability appraisal framework, climate change is considered in regard to a sites ability to mitigate and provide resilience to climate change. Mitigation considers reducing emissions, i.e. reducing energy demand through increased efficiency or reduced consumption i.e. travelling less and using less energy intensive transportation.
- 4.1.2 Resilience considers the site ability to deal with the potential effects of climate change, such as extreme weather conditions.

4.2 Mitigation

Energy and Carbon Approach

- 4.2.1 In October 2019, the UK Government began a consultation on a proposed uplift to the energy efficiency requirements defined in the Building Regulations Part L, with the aim of implementing these changes by 2020, and a Future Homes Standard (FHS) for 2025.
- 4.2.2 Part L 2021 will form a 'stepping-stone' for the Future Homes Standard (FHS), which is expected to come into effect from 2025. In addition, homes built under the FHS will be 'zero carbon ready' which means in the long term no further retrofit work will be necessary to enable them to become zero carbon homes as the electricity grid continues to decarbonise.
- 4.2.3 The development will continue to align with the anticipate changes to regulations by following the energy hierarchy and the proposed site shall be developed in accordance with the Future Homes Standard.

Reduce Operational Energy Use through a Fabric First Approach

- 4.2.4 Future house buildings will adopt a fabric first approach to reduce energy demand. This means making significant improvements to the u-values of the fabric of the building, which are passive, which in turn reduces the energy requirement for the services heating the building.

Connecting to decentralised energy schemes

- 4.2.5 There are no known established decentralised energy generation or district heat networks within the immediate vicinity of the Site. The size, scale and density of the Site also offers a limited viability of delivering a scheme led decentralised system. The outline application will review the potential for decentralised energy and engage with local stakeholders and other organisations to ensure any potential opportunities are explored in greater detailed through the reserved matters.

Low Carbon and Renewable Technologies

- 4.2.6 During the reserved matters a renewable energy screening will be undertaken to understand the suitability of various renewable and low carbon technologies. This exercise will consider both 'multi-plot' level and 'building-specific' level. The variables that will be considered include:
- Environmental constraints (e.g., suitable geology for ground source heat pumps; flood risk; presence of protected ecological species that may be affected by technology)
 - Resource constraints (e.g. the availability and reliability of local biomass fuel supplies or the local wind resource);

- Social constraints (e.g. visual or health impacts of placing combustion-based technologies near housing); and
- Infrastructure constraints (e.g. impacts on aviation from wind turbines or the availability of suitable transport infrastructure to import fuel and plant or equipment).
- Economic constraints (e.g. impact of construction costs and sale costs as well as up-front costs vs long term reduced costs).

Reducing the need to travel

- 4.2.7 The site will respond to changing consumer demands and create an array of flexible spaces and provide local facilities to reduce the need to travel. High speed internet will be complimentary with flexible house typologies with inclusion for studies and flexible spaces in the home that facilitate home work.

Sustainable Travel

- 4.2.8 Active travel and public transport are at the centre of the transport strategy. The site is in close proximity to Swanley and Eynsford Station with connections into London, Sevenoaks and other key destinations and employment areas. The site itself will be created around a web of active travel routes and micro-mobility hubs will provide high quality public transport and active travel opportunities for all residents. Transportation is considered in greater detail in chapter 10.

4.3 Aligning against the sustainability Appraisal Framework

- 4.3.1 In the table below we have reviewed the existing geographic baseline position of the site against the appraisal questions in the sustainability appraisal framework and then considered how the proposed development can leverage its baseline position to ensure the development is sustainable.

Appraisal Questions	Geographic Baseline	Existing Context	With Investment	How can the development target investments to ensure sustainable outcomes
Promote the use of sustainable modes of transport, including walking, cycling and public transport?	X	The current site is only served by private vehicles.	✓	The proposed development will provide excellent connectivity for internal movement in the site by walking and cycling as well as an internal bus loop. External walking and cycling connectivity will be provided to the east and west. Connecting into Swanley, Farningham and Eynsford and high quality public transport shall be provided through new park and ride facilities and express services into Swanley.
Reduce the need to travel?	X	The site is currently a destination amenity and is inaccessible for sustainable forms of travel.	✓	The proposed development will provide key local amenities for new residents that will reduce the need to travel with new primary schools and a secondary school as well as a local centre and health facilities.
Promote use of energy from low carbon sources?	X	The site generates no energy	✓	The proposed development will explore an array of low carbon energy generation in the energy strategy.

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Reduce energy consumption and increase efficiency?	⊖	N/A	✓	The proposed development will explore Passivhaus methodology and zero construction waste. It will also need to be delivered to align with future home standards.
Promote the use of sustainable modes of transport, including walking, cycling and public transport?	X	The current site is only served by private vehicles.	✓	The proposed development will provide excellent connectivity for internal movement in the site by walking and cycling as well as an internal bus loop. External walking and cycling connectivity will be provided to the east and west. Connecting into Swanley, Farningham and Eynsford and high quality public transport shall be provided through new park and ride facilities an express services into Swanley.
Reduce the need to travel?	X	The site is currently a destination amenity and is inaccessible for sustainable forms of travel.	✓	The proposed development will provide key local amenities for new residents that will reduce the need to travel with new primary schools and a secondary school as well as a local centre and health facilities.
Promote use of energy from low carbon sources?	X	The site generates no energy	✓	The proposed development will explore an array of low carbon energy generation in the energy strategy.
Reduce energy consumption and increase efficiency?	⊖	N/A	✓	The proposed development will explore Passivhaus methodology and zero construction waste. It will also need to be delivered to align with future home standards.

5 Landscape and Historic Environment

5.1 Introduction

- 5.1.1 The sustainability appraisal frameworks looks to ensure sites conserve, support, maintain and promote the landscape and historic environment. The site has undertaken a greenbelt appraisal, AONB review to ensure the proposed landscaping is in consideration of the local and historic landscape and environment.
- 5.1.2 The site is also structured around the Fort Farningham, creating a new open space around the monument and ensuring the longevity of the historic monument as well as promoting local tourism.

5.2 Aligning against the sustainability Appraisal Framework

- 5.2.1 In the table below we have reviewed the existing geographic baseline position of the site against the appraisal questions in the sustainability appraisal framework and then considered how the proposed development can leverage its baseline position to ensure the development is sustainable.

Appraisal Questions	Geographic Baseline	Existing Context	With Investment	How can the development target investments to ensure sustainable outcomes
Conserve, and where possible, enhance cultural heritage assets and their settings?	⊖	Fort Farningham was constructed in the 1890's and was scheduled under the Ancient Monuments and Archaeological Areas Act 1979 in 2000. The Fort itself is a derelict concrete and brick structure, sunken into the landscape, and is currently at risk of further decay and decline given its lack of utility and its location. There is also a disused triangulation point and below ground the remnants of a 1950s nuclear monitoring station.	✓	The development will enhance and protect Fort Farningham as well as structuring the centre of the site and open space around the monument.
Conserve, and where possible, enhance the District's conservation areas?	⊖	The Development is not within a conversation area but is in close proximity to the Eynsford and Farningham Conservation Area.	✓	The proposed site will provide a natural woodland buffer and make use of topography where required to shield itself from views within the conservation area.
Reduce the number of features and areas in the District deemed to be 'at risk'?	⊖	No deemed at-risk features or areas are in proximity to the site	⊖	Protect and enhance existing heritage feature through planning
Support access to, interpretation and understanding of the historic environment?	✓	The site currently is well situated to historic environments such as Eynsford Castle, Lullingstone Roman Villa and Farningham Wood.	✓	Opportunities exist to improve connectivity to these sites and educational information at them.
	✗	The site forms the North Eastern Boundary of the Kent Downs. The	⊖	Development within the Kent Downs must be sensitive to their setting. The

Appraisal Questions	Geographic Baseline	Existing Context	With Investment	How can the development target investments to ensure sustainable outcomes
Support the integrity of the Kent Downs AONB, including in conjunction with the provisions of the AONB Management Plan?		current usage, typology and biodiversity of the site is not innkeeping with the special characteristics and qualities of the Kent Downs.		Kent Downs Management Plan outlines the guiding themes to Sustainability within the area. This discussion key issues such a climate change, ecological loss, landscape led approach, net gain, green infrastructure, design and materials, setting, tranquillity and mitigation. The proposed site performs well against many of these metrics and will create significant opportunities to restore natural habitat. Mitigation is of the utmost importance, the site reducing the impacts of unavoidable change from infrastructure and growth and a growing population close to the AONB by the nature of its strategic position, natural topography and proposed significant gain in biodiversity.
Support the integrity of the High Weald AONB, including in conjunction with the provisions of the AONB Management Plan?	⊖	The site is not in close proximity to the High Weald AONB	⊖	The site is not in close proximity to the High Weald AONB
Conserve and enhance landscape and townscape character?	✗	The current gold course is not a natural landscape	✓	The proposed woodland planting will provide improve the landscape and views from Farningham and Eynsford
Conserve and enhance local diversity and distinctiveness?	⊖	The existing site offers little in terms of local diversity and distinctiveness	✓	The site will promote a unique typology that pays homage to local character whilst also allowing for a unique character for the site to form.
Support the integrity of the District's conservation areas?	⊖	The existing site boundary is circa 700m away from the Conservation areas of Eynsford and Farningham is already well shielded from local views.	✓	The additional shielding and vehicular accesses situated away from the conservation areas will support and improve the integrity of the conservation areas
Preserve the historic settlement pattern of the District?	⊖	The site is situated within Farningham Downs. There is no settlement pattern within the existing site, local settlements within Farningham Down is generally limited to isolated cottages and farms and small linear settlements scattered along narrow winding, tree lined lanes	⊖	The site vehicular access points are situated onto the major strategic road network. Smaller active travel access points will connect into the historic settlements of Farningham and Eynsford, these smaller accesses which only cater for pedestrians and cyclists will not affect any historic settlement patterns.

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Appraisal Questions	Geographic Baseline	Existing Context	With Investment	How can the development target investments to ensure sustainable outcomes
		<p>with occasional passing places. Building styles include traditional flint and brick cottages, mixed style 20th century residential properties and large modern barns.</p>		

6 Environmental Quality

6.1 Introduction

- 6.1.1 Environmental Quality focuses on improving air, soil and water quality. The site is free draining chalk and is not considered contaminated. It will likely positively contribute to local aquifers. A detailed ground investigation will be formative to the drainage strategy and to ensure benefits to water quality are realised. The site is near a declared air quality management area (AQMA1) which is a result of the Highway Network. The site was declared in 2002 and within the latest Air Quality Annual Status Report (2021) has been proposed based on the latest monitoring to be revoked.
- 6.1.2 The WFD establishes a framework for a European-wide approach to action in the field of water policy. The EA Catchment Data Explorer website has water quality data relating to the WFD targets for 2027. The site lies within the Darent and Cray operation catchment. Based on the most recent water quality data, a chemical water quality of 'Fail' was assigned to the all of all the waterbodies, however the ecological water quality was classified as 'moderate' for all four of the water bodies and poor for one.
- 6.1.3 Any surface water run-off associated with the proposed development should therefore seek to not only maintain the chemical water quality of the watercourse but improve the ecological water quality through the implementation of on-site Sustainable Drainage Systems (SuDS) – with particular view to the Site of Special Scientific Interest (SSSI) downstream.

6.2 Aligning against the sustainability Appraisal Framework

- 6.2.1 In the table below we have reviewed the existing geographic baseline position of the site against the appraisal questions in the sustainability appraisal framework and then considered how the proposed development can leverage its baseline position to ensure the development is sustainable.

Appraisal Questions	Geographic Baseline	Existing Context	With Investment	How can the development target investments to ensure sustainable outcomes
Maintain or improve local air quality?	⊖	The site is situated close to two strategic roads. The impact of these strategic road networks will need to be assessed.	✓	Additional planting and significant natural buffers from strategic routes will look to mitigate and improve the existing air quality. Reduced car movements and electric led heating system will significantly reduce onsite pollution.
Promote the remediation of contaminated land?	⊖	The proposed site does not require remediation of contaminated land.	⊖	The proposed site does not require remediation of contaminated land.
Protect and improve the area's chemical & biological water quality?	⊖	The existing site is on free-draining chalk downland.	✓	The proposed site will provide green and blue corridors that will treat site run-off and improve local water quality.

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Appraisal Questions	Geographic Baseline	Existing Context	With Investment	How can the development target investments to ensure sustainable outcomes
Protect groundwater resources?	✓	The existing site is on free-draining chalk downland and will likely contribute to local groundwater. Further work to understand the existing groundwater impact shall be conducted in the ground investigation.	✓	The site will provide green and blue corridors that will treat site run-off and improve local water quality and recharge groundwater where suitable.

7 Land, Soil and Water Resources

7.1 Introduction

7.2 The Sustainability appraisal framework Sevenoaks seeks to ensure that any proposals are efficient in their land-use, look to reduce waste and minimise consumption.

7.3 Operational Waste Management

7.3.1 Sevenoaks collect and recycle a variety of waste with recycling with households given an opportunity to have a variety of recycling boxes, bags, bins and caddies depending on the households waste demands. Household waste storage shall be identified on plan during the reserved matters application.

7.4 Construction Environmental Management Plan

7.4.1 A Construction Environmental Management Plan (CEMP) helps to ensure that construction work considers aspects of environmental protection within the context of compliance with local legislation and minimisation of the impacts on humans and the environment. A CEMP allows a proactive approach in controlling potentially polluting activities to prevent adverse public health impacts, nuisance and hazards to the natural and human environment and construction work. It is often conditioned so that it can be ensured a CEMP is in-place prior to any construction work. The CEMP shall include precautionary measures in respect of sensitive habitats and species. A material management plan for soil movement will also be developed.

7.5 Minimising Water Use

7.5.1 Target for water consumption shall be 110 litres per person per day as a minimum. Following on from a pilot scheme established by Southern Water, the proposed site could look to reduce water consumption to 95 litres. In the pilot scheme a 40% reduction in infrastructure charges occurs if the 95-litre target is met.

7.6 Aligning against the sustainability Appraisal Framework

7.6.1 In the table below we have reviewed the existing geographic baseline position of the site against the appraisal questions in the sustainability appraisal framework and then considered how the proposed development can leverage its baseline position to ensure the development is sustainable.

Appraisal Questions	Geographic Baseline	Existing Context	With Investment	How can the development target investments to ensure sustainable outcomes
Avoid the use of land classified as the best and most versatile agricultural land?	✓	The site is not agricultural land	✓	The site is not agricultural land
Promote the use of previously developed land?	⊖	The site was previously developed as a golf course which is not classified and brownfield.	⊖	Whilst the site is not considered a brownfield development, some consideration to the previous site works should be considered, such as the previous major earthworks project associated with major road building

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Appraisal Questions	Geographic Baseline	Existing Context	With Investment	How can the development target investments to ensure sustainable outcomes
				projects that resulted in the made ground on site as well as the existing site use and associated development of the golf course.
Reduce the amount of waste produced?	⊖	N/A	✓	A detailed waste strategy shall explore opportunities to reduce construction and operational waste as well as considering underground refuse systems and their suitability. Provision of modern municipal waste infrastructure will allow better recycling rates.
Move waste up the waste hierarchy?	⊖	N/A	✓	The Waste strategy shall be structured around the waste hierarchy and ambitious targets for prevention, re-use and recycling shall be set.
Minimise water consumption?	⊖	The site is served by Thames Water which is a supplier in an area of serious water stress.	⊖	Target for water consumption shall be 110 litres per person per day. A pilot scheme was established by Southern Water that reduced the infrastructure charge by 40% if the 95-litre target was met. The viability of delivering a similar scheme for the proposed development should be considered.

8 Population and communities

8.1 Introduction

- 8.1.1 To create cohesive, inclusive and equitable communities proposed sites must correctly invest in the right housing stock and materials whilst understanding the current and future needs of residents and ensure the site can help to combat deprivation and provide for everyone in the community.
- 8.1.2 A design code will be used to ensure the right mixture and typology of use is delivered, active travel movements are rationalised and prioritised in early access and movement diagrams. Consideration shall also be undertaken to consider link and place of the proposed street network and how we can program future streets based on their function for all street users.
- 8.1.3 Accessibility and inclusivity work shall also be undertaken to ensure investments and fully utilised and provide for the most vulnerable in society.

8.2 Aligning against the sustainability Appraisal Framework

- 8.2.1 In the table below we have reviewed the existing geographic baseline position of the site against the appraisal questions in the sustainability appraisal framework and then considered how the proposed development can leverage its baseline position to ensure the development is sustainable.

Appraisal Questions	Geographic Baseline	Existing Context	With Investment	How can the development target investments to ensure sustainable outcomes
Support the provision of a range of house types and sizes?	⊖	N/A	✓	A design code shall identify a range of typologies and will consider dwelling sizes.
Support enhancements to the current housing stock?	⊖	N/A	✓	Approaches to delivering net zero homes may allow opportunities to support offsetting through developing relationships with existing decarbonisation projects in Sevenoaks
Meet the needs of all sectors of the community?	⊖	N/A	✓	Accessibility and equality audit will be undertaken to ensure all the needs of members of the community are met.
Provide quality and flexible homes that meet people's needs?	⊖	N/A	✓	A design code shall identify and outline quality home construction and discuss future home needs, from flexible work spaces to bike storage facilities. The adaptability of houses shall be considered to ensure homes can change to the future needs of the residents.

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Appraisal Questions	Geographic Baseline	Existing Context	With Investment	How can the development target investments to ensure sustainable outcomes
Promote the use of sustainable building techniques, including use of sustainable building materials in construction?	⊖	N/A	✓	Future homes standard shall be outlined within the design code and energy strategy delivering zero carbon ready homes
Provide housing in sustainable locations that allow easy access to a range of local services and facilities?	✗	The is limited existing sustainable transport opportunities and a lack of local services and facilities.	✓	Investment into a new park and ride, associated express service and travel hub as well as an array of active travel routes shall connect residents and homes to key destinations. Local services and internal active travel routes shall cater for local facilities such as schools, shopping and local amenities.
Promote the development of a range of high quality, accessible community facilities?	⊖	N/A	✓	The site will provide a range of high quality, accessible, community facilities for both new residents within the development as well as existing local residents.
Encourage and promote social cohesion and encourage active involvement of local people in community activities?	⊖	N/A	✓	From the development structure around a village centre, to new community assets, the proposed housing mix and community engagement work. The proposed development will promote social cohesion. This shall be tested through equality and analysis and work undertaken in an equality impact assessment.
Minimise fuel poverty?	⊖	N/A	✓	A proposed electric led energy system with air-source or ground-source heat pumps as well as increased thermal standards will significantly reduce running costs and therefore the risk of fuel poverty for residents.
Maintain or enhance the quality of life of residents?	⊖	The existing site provides some amenity value.	✓	The proposed site will deliver high quality homes and provide an array of new amenities for residents to live a fulfilling life.
Improve the availability and accessibility of key local facilities, including specialist services for disabled and older people?	✗	The baseline arrangement of the site provides limited accessibility for people, especially disabled or older people due to the lack of public transport.	✓	New amenities will provide key local services. Accessibility will be significantly improved by new public transport and active travel opportunities. The need and suitability of specialist services shall be reviewed and work shall be undertaken to understand equality analysis through a quality impact assessment.

9 Health and Wellbeing

9.1 Introduction

9.1.1 Places for people have health and wellbeing in the centre of everything they do. Whether its improving health through travel, education, recreation, technology, air quality and accessibility. Pedham Place is uniquely positioned to design a semi urban environment that enables and promotes a healthy lifestyle as well as connecting both residents and those in the wider community to the countryside, green infrastructure and health and leisure facilities.

9.2 Aligning against the sustainability Appraisal Framework

9.2.1 In the table below we have reviewed the existing geographic baseline position of the site against the appraisal questions in the sustainability appraisal framework and then considered how the proposed development can leverage its baseline position to ensure the development is sustainable.

Appraisal Questions	Geographic Baseline	Existing Context	With Investment	How can the development target investments to ensure sustainable outcomes
Promote accessibility to a range of leisure, health and community facilities for all age groups?	X	The baseline arrangement of the site provides limited accessibility for people, especially young people due to the lack of public transport	✓	New amenities will provide opportunities for a range of leisure, health and community facilities. Accessibility will be significantly improved by new public transport services and active travel opportunities for all ages.
Encourage healthy lifestyles and reduce health inequalities?	⊖	As a baseline the site has a good topography for new active travel routes. However within the site boundary there is limited PROW and local walking or cycling routes or attractions such as woodlands or trails that help to contribute to a healthy lifestyle. The existing golf course provides certain health benefits, but these are not publicly accessible.	✓	The proposed site shall connect residents to local amenities through high quality active travel routes and look to limit vehicular movements in the site to promote behaviour change. New sporting facilities will encourage a engage in activity and allotments will help to promote and increase understanding of where our food comes from and how to eat a balanced diet.
Enhance multifunctional green infrastructure networks in the District?	X	The existing site provides a lack of effective green infrastructure that does not link into surrounding green networks.	✓	The proposed site creates a network of connected green infrastructure on site and looks to connect into existing networks where possible. The proposed site cannot directly connect into Farningham woods, it significantly reduces the connection gap and enables others to provide these future green connections.
Provide and enhance the provision of community access to green infrastructure?	X	The site has extremely limited public access to green infrastructure.	✓	The proposed site will provide community access to an array of extensive green infrastructure, such as woodland, SuDS, parkland and grassland.

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<p>Improve access to the countryside for recreation?</p>	<p>X</p>	<p>The site provides limited public accessibility through existing public right of way SD181.</p>	<p>✓</p>	<p>The site will allow local residents as well as those in Swanley to have improved access to the countryside for recreation from improved walking routes to new cycle routes.</p>
<p>Enhance the energy efficiency and quality of the housing stock?</p>	<p>⊖</p>	<p>N/A</p>	<p>✓</p>	<p>The proposed development will align with the future homes standards and will be heated by an electric led energy strategy. Onsite energy generation will contribute to providing a percent of the required energy demand.</p>

10 Transportation

10.1 Introduction

10.1.1 The proposed development next to existing strategic infrastructure. The Site will be focused on high quality walking and cycling routes within the site to local facilities or public transport. Other opportunities for longer distance walks or cycles will be possible with new infrastructure improvements. The Proposed Development seeks to provide choice on how people can travel and encourage the healthier options of active travel.

10.2 Walking and Cycling

10.2.1 Good quality walking links into existing communities are essential for future residents in order to provide everyday access to jobs, education, local amenities and services. Good pedestrian links will help to encourage sustainable travel, reduce vehicular trip generation and benefit the health and wellbeing of existing and future residents.

10.2.2 The site allows for high quality pedestrian connectivity into the existing community and provides connections to the existing network of footways and cycleways. There will be four pedestrian and cycle access points roughly to the four corners of the site, allowing for permeability in all directions for active travel. The proposed for the development and there are a number of walking and cycling routes proposed through the Site.

10.3 Public Transport

10.3.1 A park and ride with circa 500 car parking spaces will provide a new bus route into Swanley Station and town centre. This will be complimented with the bus priority measures on the A20. A transport hub alongside the park and ride shall be provided, with cycle storage, micro-mobility opportunities, bus charging capabilities and car hire opportunities. The scheme will also look to reconfigure Swanley station to improve bus accessibility, taxi and drop-off arrangements and cycle storage.

10.4 Vehicular Access

10.4.1 The Highway improvements will ensure capacity is provided at the A20 access. This shall act as a catalyst for the planned junction 3 improvements on the M25, which are in conjunction with Highway England. These works shall be underpinned through modelling and shall demonstrate that the works will provide capacity for the proposed scheme.

10.5 Aligning against the sustainability Appraisal Framework

10.5.1 In the table below we have reviewed the existing geographic baseline position of the site against the appraisal questions in the sustainability appraisal framework and then considered how the proposed development can leverage its baseline position to ensure the development is sustainable.

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Appraisal Questions	Geographic Baseline	Existing Context	With Investment	How can the development target investments to ensure sustainable outcomes
Reduce the need to travel through sustainable patterns of land use and development?	X	The site has no existing amenities and is only accessible via vehicular access and no public.	✓	The proposed site has a strong focus on creating 15-minute neighbourhoods, where residents can meet the majority of their needs within their local neighbourhood. The proposed site will also create an epicentre around Fort Farningham to give a centre to the development. This will also promote denser development and greater number of amenities around this core. The proposed site also caters for amenities through mixed land-use, such as small business premises, local shops, nurseries and schools.
Encourage modal shift to more sustainable forms of travel?	X	The site is only currently accessible by car.	✓	The site will provide a high-quality closely-knit web of active travel routes. These will have priority over the vehicular routes and ensure that active travel routes are shorter than the vehicular equivalent.
Enable transport infrastructure improvements?	⊖	N/A	✓	The proposed site will provide an improved site entrance for vehicular traffic that will include bus priority measures where suitable. The park and ride shall provide high quality public transport opportunities for both residents and for those in the wider area.
Facilitate working from home and remote working?	⊖	N/A	✓	The site shall utilise super-fast broadband with fibre to every household. The design code shall consider the use of multi-functional spaces in houses and look to promote opportunities for home offices, office gardens and community working environments.

11 Economy

11.1 Aligning against the sustainability Appraisal Framework

Appraisal Questions	Geographic Baseline	Existing Context	With Investment	How can the development target investments to ensure sustainable outcomes
Support the economic vitality and viability of the District's settlements?	⊖	N/A	✓	The proposed site will support the economic vitality of Swanley and to a less extent Sevenoaks as well as the smaller settlements of Farningham and Eynsford. It will do this through increasing active travel routes to the villages and public transport and active travel routes to Swanley. This will support services that are unique to these settlements.
Create opportunities for a variety of businesses to flourish in the District?	⊖	N/A	✓	Various commercial building lets will be available for a commercial business. These will support an array of business types from small local businesses to national chains and high growth companies. Building typologies will be flexible to cater for a variety of uses and opportunities for community led schemes will be considered.
Enable transport infrastructure improvements?	⊖		✓	The proposed site will deliver new transport improvements that will improve the public transport offering in the region. This will allow a greater number of residents access to high quality public transport and there to local employment areas and key transport hubs such as Swanley and Sevenoaks station.
Support the rural economy?	⊖	N/A	✓	The active travel opportunities to the villages of the rural communities of Eynsford and Farningham will allow for greater footfall for local businesses without promoting increased vehicular traffic.
Support the visitor economy?	⊖	N/A	✓	The proposal for an onsite hotel will support the visitor economy and provide accommodation to key local attractors such as Eynsford Castle, Lullingstone Roman Villa and Lillingstone Castle. The site will also improve accessibility and facilities associated with Fort Farningham.
Facilitate working from home, remote working and home-based businesses?	⊖		✓	The site shall utilise super-fast broadband with fibre to every household. The design code shall consider the use of multi-functional spaces in houses and look to promote opportunities for home offices, office gardens and community working environments.

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Appraisal Questions	Geographic Baseline	Existing Context	With Investment	How can the development target investments to ensure sustainable outcomes
Enhance educational opportunities?	①		✓	The proposed site will deliver two primary schools and a secondary school to help towards the under provision of educational facilities in the region.

12 Town and Local Centres

12.1 Aligning against the sustainability Appraisal Framework

Appraisal Questions	Geographic Baseline	Existing Context	With Investment	How can the development target investments to ensure sustainable outcomes
Support the vitality and viability of Sevenoaks District's Town, Local, Neighbourhood and Village Centres?	⊖	The site naturally compliments the vitality of Sevenoaks and Swanley as well as local village centres due to its geographic location, however a lack of active travel routes and public transport provision significantly reduces accessibility.	✓	The site will improve public transport and active travel routes to Sevenoaks and Swanley, improving the vitality of these places as well as the local village centres of Farningham and Eynsford.
Support the retail offer of Sevenoaks, Swanley, Edenbridge and Westerham town centres, including retail markets?	⊖	The site naturally compliments the vitality of Sevenoaks and Swanley as well as local village centres due to its geographic location, however a lack of active travel routes and public transport provision significantly reduces accessibility.	✓	The site will improve public transport and active travel routes to Sevenoaks and Swanley, supporting the retail offer of these places.
Promote a daytime and night time economy of Sevenoaks, Swanley, Edenbridge and Westerham town centre?	⊖	The site naturally compliments the vitality of Sevenoaks and Swanley as well as local village centres due to its geographic location but a lack of active travel routes and public transport provision reduces accessibility	✓	The site will improve public transport and active travel routes to Sevenoaks and Swanley, supporting the daytime and night time economy.
Preclude the development of out of centre shopping precincts?	⊖	N/A	✓	The site promotes a mixed-use land development approach with local facilities at the heart of the development.
Promote the local offer of the District's Local Service Centres, Neighbourhood Centres and Village Centres?	⊖	N/A	✓	The active travel opportunities to the villages of the rural communities of Eynsford and Farningham will allow for greater footfall for local businesses without promoting increased vehicular traffic.

13 Summary

13.1 Introduction

- 13.1.1 The proposed development at Pedham Place has the potential to deliver a range of high-quality housing, employment, social and community infrastructure in a sustainable location in Sevenoaks.
- 13.1.2 The purpose of this document is to set out how the proposed development will support a healthy, sustainable community as well as demonstrating how the proposed development is compliant with national and local policy and aligns with the Sevenoaks Sustainability Appraisal.
- 13.1.3 The appraisal demonstrates the opportunities for Pedham Place as a location for sustainable development set against the SDC's sustainability objectives.

13.2 Summary

- 13.2.1 The Sustainability Appraisal demonstrates that the proposed development will have positive local effects in relation to the provision of affordable, sustainable housing and care facilities, and good access to services and facilities, including an on-site local centre. In addition, the school provision will provide wider benefits with additional capacity to support meeting the current local deficit in capacity.
- 13.2.2 The development will aim to create safe and accessible environments, and will seek to improve public health and wellbeing of local residents. Measures are proposed to conserve and enhancing wildlife/biodiversity on site, including the creation of enhanced habitats. The Proposed Development will encourage the uptake of active and sustainable forms of travel, through the provision of high-quality pedestrian, bus and cycle links to Swanley, and a package of associated measures.
- 13.2.3 A review of how the Proposed Development seeks to reduce greenhouse gas (GHG) emissions associated with the construction and operation of the Proposed Development, and how climate change adaptation and mitigation measures have been embedded into the design has been undertaken.
- 13.2.4 The Proposed Development will seek to reduce GHG emissions from transport by reducing the need to travel through co-location of facilities and encouraging the uptake of sustainable and active modes of travel. Measures to passively reduce energy demand have been embedded into the design, which will help to reduce GHG emissions from energy use.
- 13.2.5 The Proposed Development will take into consideration impact from climate change within the design of the Sustainable Urban Drainage Systems (SuDS). A series of further potential mitigation measures which can be incorporated as the design progresses to reduce the contribution of the Development to climate change and to increase resilience to climate change have also been identified.
- 13.2.6 The outline planning application will be supported through the Environmental Impact Assessment and supporting environmental statements. This would include Construction Environmental Management Plan (CEMP), Material Management Plan, Operational Waste Strategy, Renewable Energy Assessment, Landscape and Ecological Management Plan (LEMP) and a Sustainability Statement. These assessments will further set out and confirm measures to reduce climate change impacts associated with the development.