Sustainability Report

Land South of Radwinter Road
Planning Ref: UTT/21/2509/OP
Appeal Ref: APP/C1570/W/22/3296426

On behalf of Rosconn Strategic Land

July 2022

Turley
Sustainability

Contents

Client – Rosconn Strategic Land

Turley Reference – ROSZ3000

Document Status - FINAL

Date – July 2022

Executive Summary

This Sustainability Appraisal (SA) report has been produced on behalf of Rosconn Strategic Land to demonstrate that the proposed residential development at Land South of Radwinter Road, Saffron Walden, constitutes sustainable development.

On the 18th of March 2022, Uttlesford District Council (UDC) refused planning permission for development of up to 233 dwellings at Radwinter Road, Saffron Walden, stating (with other reasons) that:

- Paragraph 1: *The application has not demonstrated that pedestrian and cycle movement with neighbouring areas have been given priority.*
    a. *There is no permeability from the site to allow easy access to the adjacent development and facilities for pedestrians and cyclists.*
    b. *The quality of the key routes for pedestrians and cyclists has not been assessed and limited improvement is proposed for mitigation"*
- Paragraph 2.c.i*: There is not sufficient information to demonstrate effective mitigation to promote sustainable transport and help limit the impact of the development on the town highway network; and*
- Paragraph 4*: The proposed development would fail to provide and facilitate active travel measures and would therefore have a negative impact on the climate, the environment, and the local and national emissions goals.*

This report demonstrates that the proposed residential development at Land South of Radwinter Road does constitute sustainable development in accordance with local and national policy requirements.

The Appeal Site is in a sustainable location with access to a wide range of facilities and services which would enable future residents to walk or cycle, helping to reduce the number of car-based journeys and associated environmental impact. The proposals also contain a number of measures to give priority to pedestrian and cycle movement, improve accessibility of the site and promote sustainable and active modes of transport. Alongside measures originally proposed, further measures have been identified by the Appellant in addition to those presented with the Outline Planning Application (OPA) and have been incorporated into proposals. These can be secured by condition and/or S106 agreements. These measures include:

- Provision through the submission of Reserved Matters of a comprehensive network of pedestrian and cycle routes within the development;
- An assessment of the quality of key routes to and from the site;
- Suggested improvements to a pedestrian crossing point and a new uncontrolled pedestrian crossing to connect the development to the north side of Radwinter road;
- Implementation of a travel plan and travel plan coordinator to promote walking, cycling, public transport options;
- Secure storage areas for bicycles;

- The provision of two new bus stops on Radwinter Road, a bus turning area within the development, and provision of a financial contribution towards the provision of bus services in Saffron Walden;
- All dwellings with on-plot parking will be provided with at least one EV charging point and unallocated spaces will be provided with cabling; and
- A car club parking space with Electric Vehicle Charging Point would be provided within the development alongside financial contributions to encourage future residents to take part.
- Proposed provision of a new pedestrian cycle link which improves permeability into neighbouring developments and provides an alternative route into Saffron Walden.

Together, these measures meet the requirements of Policy GEN1 of the Local Plan and respond positively to UDC's Climate Emergency and Interim Climate Change Planning Policy. The proposals and further measures agreed with UDC/ECC to be secured by condition and/or S106 agreements successfully address the RfR set out in paragraph 1a, 1b, 4 and 2.c.i of the refusal notice issued by UDC, as well as the response from the Climate Change Project Officer at Essex County Council (ECC).

The proposals also incorporate measures to mitigate and adapt to climate change in accordance with Policy GEN1 of the Local Plan (2005), UDC's Energy Efficiency and Renewable Energy SPD, and the Interim Climate Change Planning Policy.

The measures proposed demonstrate how the development will minimise impact on the climate and environment and contribute to achieving both local and national emissions goals, addressing the RfR set out in paragraph 4 of UDC's decision note.

1. Introduction

This evidence has been prepared to demonstrate how the proposed development at Radwinter Road, Saffron Walden responds positively to local and national sustainability policy and the reasons for refusal of planning permission.

1.1 This Statement has been prepared by Turley Sustainability on behalf of Rosconn Strategic Land (hereafter referred to as The Appellant) whom are appealing against the refusal of planning permission (UTT/21/2509/OP) for residential led development at Land South of Radwinter Road, Saffron Walden.

1.2 This statement is evidence to provide the detail of the various measures incorporated into the Appellants proposals to deliver a sustainable development in line with local and national policy.

Site Context

1.3 The Appeal Site extends in total to 18.3ha in size and is located to the east of Saffron Walden, within the administrative boundaries of Uttlesford District Council (hereafter referred to as UDC).

1.4 The Site currently comprises agricultural farmland with one smaller narrow rectangular pasture field to the north adjacent to Radwinter Road and a larger arable field occupying the remainder of the Site.

1.5 Vehicular access to the Site is currently provided in the form of agricultural grade accesses off Radwinter Road, Griffin Place, and adjacent fields.

1.6 There are no Public Rights of Way (PRoW) on the Site itself, however there are a number of PRoW within close proximity of the Site including:

- Footpath 315_21 which runs along the northern edge of the Radwinter Road approximately 30m to the north of the Site;
- Footpath 315_22 approximately 100 metres north of the Site and which joins up with 315_21;
- Byway 44_18 approximately 430 metres to the south of the Site;
- Bridleway 44_19 approximately 550 metres to the south-west of the Site.

1.7 The Site is adjoined to the west by a consolidated area of residential development approved under UTT/13/3467/OP & UTT/16/1856/DFO, which is now being implemented by Linden Homes and now forms the eastern built edge of Saffron Walden. To the south-west is land at Shire Hall Farm, a Redrow site which is currently under RM application for up to 100 dwellings (UDC Ref UTT/21/3565/DFO). Arable agricultural land bounds the Site to the south and east, and the B1053 Radwinter Road runs along

its northern boundary, with the Saffron Walden fuel depot beyond.

1.8 The Site is situated between the eastern extent of Saffron Walden and the village of Sewards End to the east. The centre of Saffron Walden is located approximately 1.5 kilometres from the Site. Saffron Walden is approximately 18km north of Bishops Stortford and London Stansted Airport and within approximately 22km of Cambridge (to the north).

1.9 The Site is located within Sewards End parish but immediately adjacent to the Saffron Walden settlement boundary and its built-up area; the appeal site therefore appears as an extension to Saffron Walden.

1.10 The site location is shown in **Figure 1** below.

The Proposed Development

1.11 An outline planning application was submitted for "the erection of up to 233 residential dwellings including affordable housing, with public open space, landscaping, sustainable drainage system (SuDS) and associated works, with vehicular access point from Radwinter Road. All matters reserved except for means of access at Land South Of (East Of Griffin Place) Radwinter Road Sewards End Essex"

1.12 **Figure 2** below shows the concept masterplan of the proposed development.

The Appeal

1.13 Planning Permission for the outline application (ref: UTT/21/2509/OP) was refused on the 18th of March 2022.

1.14 The decision notice[1] issued by UDC cited, amongst other reasons, that:

- *The application has not demonstrated that pedestrian and cycle movement with neighbouring areas have been given priority. a. There is no permeability from the site to allow easy access to the adjacent development and facilities for pedestrians and cyclists. b. The quality of the key routes for pedestrians and cyclists has not been assessed and limited improvement is proposed for mitigation"*
- *There is not sufficient information to demonstrate effective mitigation to promote sustainable transport and help limit the impact of the development on the town highway network; and*
- *The proposed development would fail to provide and facilitate active travel measures and would therefore have a negative impact on the climate, the environment, and the local and national emissions goals.*

1.15 For these reasons the proposed development would be contrary to the Highway Authority's Development Management Policies DM1, DM9, DM11, and DM15, Policy GEN1 and GEN2 of the Uttlesford District Council Local Plan, the Uttlesford Interim Climate Change Policy, and the NPPF 2021.

1.16 This report demonstrates that the appeal site is fully compliant with national and local sustainability policy and contains a number of measures to mitigate its impact upon climate change.

Document Structure

1.17 **Chapter 2** of this report provides an overview of relevant national and local legislation, planning policy and guidance.

[1] https://publicaccess.uttlesford.gov.uk/online-applications/files/AF6953B1989C222ED191BF96F2F2015E/pdf/UTT_21_2509_OP-ROPZ_-_REFUSAL_OP-3810672.pdf

1.18 **Chapter 3** provides a review of the reasons for refusal of the outline planning application.

1.19 **Chapter 4** considers the sustainability of the location and sustainable transport measures incorporated into the proposals.

1.20 **Chapter 5** reviews the climate mitigation and adaptation measures incorporated into the proposed design of the development.

1.21 **Chapter 6** provides a summary and offers some concluding comments.

1.22 Please note, the terms “carbon”, carbon dioxide (CO2)” and “greenhouse gas (GHG)” are used interchangeably in this Strategy depending on the terminology of referenced documents.

Figure 1 – Site Location (Source: DEFINE)

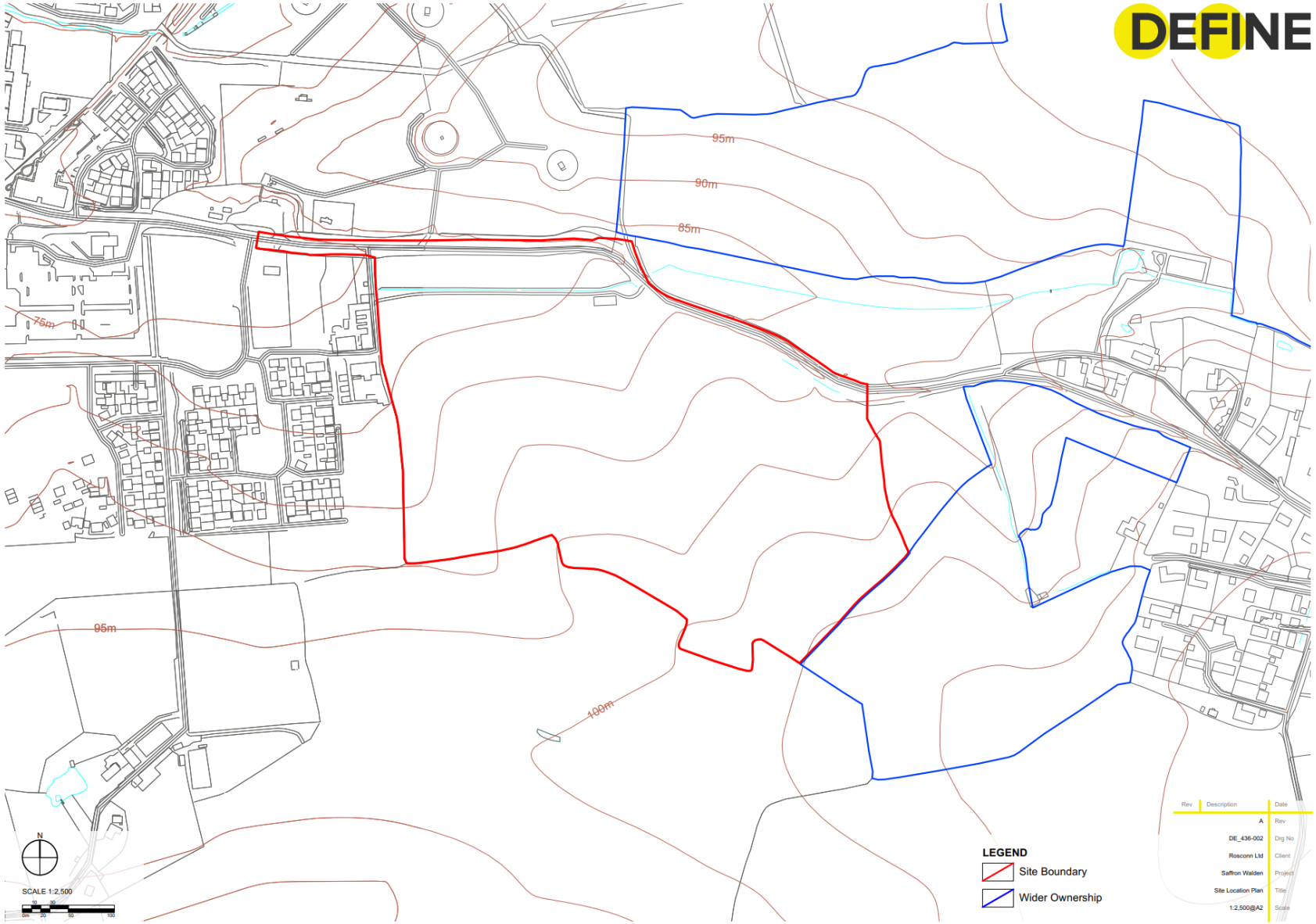


Figure 2 – Illustrative Masterplan (Source: DEFINE)

2. Policy Context

This chapter provides an overview of the relevant planning policy and guidance from a national and local perspective that is relevant to the Appeal site.

National Policy

National Planning Policy Framework

2.1 The National Planning Policy Framework (NPPF) provides a framework for the development of locally prepared plans and the government's planning policies for England and how these are expected to be applied.

2.2 Paragraph 7 of the NPPF states that: 'the purpose of the planning system is to contribute to the achievement of sustainable development'.

2.3 It states clearly that in order to deliver sustainable development, the planning system must perform three distinct objectives, aligned to the three pillars of sustainability, which must not be taken in isolation and should be pursued jointly:

2.4 An **economic** objective to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right type 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.

2.5 A **social** objective supporting 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 well-designed beautiful and safe places, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and

2.6 An **environmental** objective contributing to protecting and enhancing our natural, built and historic environment; including, making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.

These objectives are key to the development of plans and the NPPF sets out a number of key themes for consideration which guide the preparation of local plans and policies, ensuring the delivery of sustainable development.

Meeting the challenge of climate change, flooding and coastal change.

2.7 Paragraph 154 of the NPPF states that: "*The planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise*

vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure."

2.8 Paragraph 154 of the NPPF states that new development should be planned for in ways that "*can help to reduce greenhouse gas emissions, such as through its location, orientation and design. Any local requirements for the sustainability of buildings should reflect the Government's policy for national technical standards."*

Planning Practice Guidance

2.9 Planning Practice Guidance (PPG) provides further advice on various planning issues associated with development, including those linked to sustainability and renewable energy and underpins the policies within the NPPF.

2.10 PPG is a material consideration in planning decisions and should generally be followed unless there are clear reasons not to. It sets out how local authorities should include polices that protect the local environment and strategies to mitigate and adapt to climate change and supports developments that are functional and adaptable for the future.

2.11 The March 2019 PPG update confirms that Local Authorities have the option to set technical requirements exceeding the minimum requirements of the Building Regulations in respect of access, water, and space where sufficient evidence is produced to justify the target.

2.12 The PPG states that[2] a local plan can support climate mitigation (reducing carbon emissions) by promoting low carbon design approaches to reduce energy consumption in buildings.

Building Regulations

2.13 Whilst not planning policy, the Building Regulations (and specifically Approved Document Part L: Conservation of Fuel and Power)[3] set out the requirements for energy and carbon performance for both domestic and non-domestic development.

2.14 The Future Homes Standard (FHS) aims to future-proof the design of new homes to reduce carbon emissions and help meet the UK's 2050 zero carbon target. The full FHS in 2025 is expected to require all new homes to reduce CO_2 emissions by at least 75% below current requirements and eliminate the use of fossil fuels – meaning that all homes should be 'zero carbon ready'; adaptable and fit for the future.

2.15 To provide a steppingstone to the FHS, interim targets have come into force from June 2022, requiring residential developments to achieve a 31% reduction in CO_2 compared to Part L of the 2013 Building Regulations.

2.16 A new overheating standard (Part 'O') has also been introduced, requiring buildings to follow a prescribed glazing percentage, or use Dynamic Simulation Modelling to demonstrate the risk of overheating has been mitigated.

2.17 In addition, new approved document Part S sets out guidance for electric vehicle (EV) charging infrastructure. The document specifies that all new build homes must be provided with active electric vehicle charging facilities for each associated parking space that is equal to the total number of dwellings. In developments over 10 houses where there is more parking provision than dwellings, any remaining spaces should be provided with cable routes to enable future charging points to be installed.

[2] https://www.gov.uk/guidance/climate-change#how-can-the-challenges-of-climate-change-be-addressed-through-the-local-plan: 003 Reference ID: 6-003-20140612

[3] https://www.gov.uk/government/publications/conservation-of-fuel-and-power-approved-document-l

Local Policy

Uttlesford Draft Local Plan 2019

2.18 On 30th April 2020, UDC withdrew the draft Uttlesford Local Plan 2019 in response to the government-appointed Inspectors' Letter and the Peer Review report from the East of England Local Government Association. A timetable outlining the steps to deliver a new Local Plan by summer 2024 is being developed, and the Regulation 18 Local Plan is intended to be issued for public consultation during November 2022. At present, no weight is given to the emerging local plan and existing policy and guidance should be used to guide planning application decisions.

Uttlesford Local Plan 2005 (saved 2007)

2.19 The Uttlesford Local Plan was adopted in 2005 and all policies saved in 2007 (except two in relation to completed development sites in Takeley). The plan is used as the basis for all planning decisions within the district and contains policies relating to the location of development and protection of environmental features. Policies and features of The Plan relevant to this appeal are listed as follows:

2.20 The Local Plan describes the areas of Saffron Walden, Great Dunmow, and Stansted Mountfitchet as:

20.1 *"service centres and hubs for surrounding rural areas. They are attractive places to live, work and for recreation. Best use will be made of previously developed, unused and underused land and existing buildings, subject to constraints of traffic congestion and maintaining air quality and the need to safeguard key employment areas. Urban extensions are also included within development limits, for housing or business parks. These locations are well related to the principal bus and rail corridors, which will benefit from investment in the new A120, the West Anglia Route Modernisation (WARM) rail scheme and public transport services. Development in urban areas where there is a wide range of facilities would encourage journeys to be made on foot, particularly to and from work and school."*

2.21 Policy GEN1 – Access: Development will only be permitted if it meets all of the following criteria:

- Access to the main road network must be capable of carrying the traffic generated by the development safely;
- The traffic generated by the development must be capable of being accommodated on the surrounding transport network;
- The design of the site must not compromise road safety and must take account of the needs of cyclists, pedestrians, public transport users, horse riders and people whose mobility is impaired;
- It must be designed to meet the needs of people with disabilities if it is development to which the general public expect to have access.
- The development encourages movement by means other than driving a car.

2.22 GEN2 – Design: Developments must meet the following design criteria:

- It is compatible with the scale, form, layout, appearance and materials of surrounding buildings;
- It safeguards important environmental features in its setting, enabling their retention and helping to reduce the visual impact of new buildings or structures where appropriate;
- It provides an environment, which meets the reasonable needs of all potential users.
- It helps to reduce the potential for crime;
- It helps to minimise water and energy consumption;

- It has regard to guidance on layout and design adopted as supplementary planning guidance to the development plan.
- It helps to reduce waste production and encourages recycling and reuse.
- It minimises the environmental impact on neighbouring properties by appropriate mitigating measures.
- It would not have a materially adverse effect on the reasonable occupation and enjoyment of a residential or other sensitive property, as a result of loss of privacy, loss of daylight, overbearing impact or overshadowing.

2.23 Policy GEN3 – Flood Protection: Within the functional floodplain, buildings will not be permitted unless there is an exceptional need. Outside flood risk areas, development must not increase the risk of flooding through surface water run-off. A flood risk assessment will be required to demonstrate this. Sustainable Drainage Systems should also be considered as an appropriate flood mitigation measure in the first instance.

2.24 Policy GEN 8– Vehicle Parking Standards: The number, design and layout of vehicle parking places (including cycle parking) must follow guidance set out in Supplementary Planning Guidance "Vehicle Parking Standards".

Energy Efficiency and Renewable Energy Supplementary Planning Document (SPD) [4]

2.25 The Energy Efficiency and Renewable Energy SPD was adopted October 2007 and contains guidance on measures to reduce energy use in new development. This SPD supports policies GEN2 and ENV15 in the Uttlesford Local Plan.

2.26 The guidance advises following the energy hierarchy, which sets out in order of priority the ways in which energy use can be reduced.

2.27 Avoiding Unnecessary Energy Use: Re-organise systems so that energy use can be reduced to the minimum, for example by designing buildings to be warmed by the sun, using natural light and ventilation, or enabling people to get access to the amenities they want with fewer and shorter car journeys. The location of new building is also an important factor, and the Council supports development which makes efficient use of land in appropriate locations near services and with access to public transport to reduce energy involved in travel.

2.28 Use Energy more Efficiently: Finding ways of getting more benefit per unit of energy, for example by using higher efficiency appliances, generating heat and power together or insulating buildings better to retain heat.

2.29 Use Renewable Energy: Switch to less damaging low-carbon energy sources, especially renewables, for example solar and wind power, energy crops or hydro. New buildings should be designed for energy efficiency and where possible should include some form of renewable energy and combined heat and power generation. The Council encourage all developments larger than 1,000m^2 or five homes to provide at least 10% of the predicted energy requirements from onsite renewables or low carbon energy sources.

2.30 Offsetting Emissions: The Council is proposing to seek developer contributions where development leads to increased emissions. The policy framework for this approach will be developed through the Core Strategy and Development Control DPD.

Essex County Council Development Management Policies [5]

2.31 The Highway Authority's Development

[4] Energy Efficiency and Renewable Energy Supplementary Planning Document (SPD) (uttlesford.gov.uk)

[5] development_management_policies-highways-transportation.pdf (ctfassets.net)

Management Policies were adopted as County Council Supplementary Guidance in February 2011.

2.32 DM1 General Policy: The Highway Authority will protect the highway network for the safe and efficient movement of people and goods by all modes of travel by ensuring that, amongst other measures, all proposals have safe and convenient access for sustainable transport modes commensurate to its location.

2.33 DM9 Accessibility and Transport Sustainability: Developers must minimise the number of trips by private vehicles through the provision of alternative transport modes and/or associated infrastructure by ensuring that alternatives to private car use are considered as a first principle in assessing travel impacts on the transportation network. Where impact is identified, mitigation will be required through the application of comprehensive travel planning options.

2.34 DM11 Public Rights of Way (PRoW): The Highway Authority will safeguard existing PRoW. Where PRoW exist through a development site, they will be retained on its existing alignment. The Highway Authority will require the creation of new and/or enhancement of existing Definitive Public Rights of Way and/or permissive routes to encourage alternative modes of travel;

2.35 DM15 Congestion: Developers will be required to demonstrate that development proposal have no detrimental impact upon the existing or proposed highway in congestion terms, and provide appropriate mitigation to ensure there is no detrimental impact to the existing highway.

Essex Transport Strategy [6]

2.36 The Essex Transport Strategy was adopted in 2011 and sets out ECC's vision "for a transport system that supports sustainable economic growth and helps deliver the best quality of life for the residents of Essex".

2.37 Five broad outcomes were set to help achieve the vision:

- *Provide connectivity for Essex communities and international gateways to support sustainable economic growth and regeneration;*
- *Reduce carbon dioxide emissions and improve air quality through lifestyle changes, innovation and technology;*
- *Improve safety on the transport network and enhance and promote a safe travelling environment);*
- *Secure and maintain all transport assets to an appropriate standard and ensure that the network is available for use; and*
- *Provide sustainable access and travel choice for Essex residents to help create sustainable communities.*

Essex Design Guide

2.38 The Essex Design Guide (EDG) provides design details required to achieve high quality developments. The latest iteration of the EDG (2018) incorporates new themes around ageing populations, digital and smart technology, health and wellbeing, active design and garden communities.

2.39 There are a series of sections within the EDG which make reference to climate change and sustainability across topics such as SuDS, layout, renewable energy, electric vehicles, densities for sustainable developments, housing layout & design, movement, mixed uses, landscape and green spaces, and solar orientation.

Urban Place Supplement (UPS)

2.40 UDC adopted the UPS in March 2007 as an accompaniment to the EDG. The UPS does not replace the EDG but provides additional guidance on the design and development process. The UPS makes a number of

[6] Essex Transport Strategy 2011 (essexhighways.org)

sustainability related recommendations summarised below.

2.41 All developments should achieve an EcoHome/ **BREEAM Excellent rating** (or Code for Sustainable Homes 4-star rating) from 2012 onwards.

2.42 The **lifecycle impacts and total embodied energy** of different construction materials should be considered. Preference should be given to recycling materials that may already exist on site and using those that have been either locally sourced (such as aggregates and timber) or locally manufactured (such as brick and building system products).

2.43 Homes should be designed to **reduce energy use**. Compact mixed-use development in the most spatially sustainable urban places can significantly reduce carbon emissions through minimising the need to travel. Improvement to the energy efficiency of buildings can also be achieved through higher standards of construction and specification such as insulation, double glazing, higher thermal mass, air management and the specification of energy-efficient appliances.

2.44 **Passive solar design** should be utilised to take advantage of natural light and heat from the sun and use thermal air movement for ventilating buildings.

2.45 Development above 10 dwellings should incorporate on-site infrastructure for **renewable energy to provide at least 10% of the predicted energy requirements** of the development in use. The Council is suggesting that in Uttlesford this should be extended to developments of 5 dwellings or more.

2.46 Each development must produce a **Water Conservation Strategy,** which specifies the following:

- The performance of water appliances.
- The use of a rainwater harvesting and storage system of adequate capacity (the required storage capacity for domestic properties in Essex is 5% of the rainwater supply or forecast annual demand (whichever is the lower figure), individually or communally as part of a larger development.
- The use of SuDS (Development should manage excess rainwater so that it is retained either on-site or within the immediate area.
- How the development is expected to achieve a minimum of 80% BRE Eco-home/BREEAM credits for water conservation.

Climate Emergency and Interim Climate Change Planning Policy [7]

2.47 UDC declared a Climate Emergency in July 2019 and set a target of achieving net-zero carbon status by 2030. The council's Climate Crisis Strategy 2021-30[8] sets out key priorities for tackling climate change. These priorities include promoting sustainable transport, using planning and development to deliver energy efficient homes, and enhancing resilience to a changing climate.

2.48 In February 2021, UDC approved as non-statutory development management guidance an Interim Climate Change Planning Policy. This policy aims to ensure that development contributes to climate change mitigation and adaptation.

2.49 Whilst not formal planning policy in its own right, the document draws upon a range of established policies, guidance and good practice which applicants are expected to incorporate into proposals or, where necessary, provide a suitable explanation where they have not been applied.

2.50 Interim Policy 1: Developers should demonstrate the path that their proposals

[7] Microsoft Word - Interim CLimate Change Planning Policy with branding 11.02.21 (uttlesford.gov.uk)
[8] Climate change strategy - Uttlesford District Council

take towards achieving net-zero carbon by 2030, This should include:

2.51 locating the development where the associated climate change impacts and carbon emissions, including those derived from transport associated with the intended use of the development can be minimised, and

2.52 promoting development which minimises carbon emissions and greenhouse gas emissions and maximises the use of renewable or low carbon energy generation.

2.53 Interim Policy 2: Developers should demonstrate how site surroundings and heritage have influenced climate change mitigation and adaptation proposals.

2.54 Interim Policy 3: Development should be designed to minimise consumption of water, make adequate provision for water recycling, and protect and enhance local water quality. The maximum potential consumption of wholesome water of should be 110 litres per person per day.

2.55 Interim Policy 4: Development should provide adequate mitigation against flood risk and to embed suitable water recycling, waste water and waste management. A maintenance plan will be required detailing who will be responsible for maintenance of SuDS.

2.56 Interim Policy 5: Developers should demonstrate how their proposals would not lead to any material adverse effects to air quality, the environment or amenity, and, where relevant, how they would comply with the Saffron Walden Air Quality Action Plan.

2.57 Interim Policy 6: Developments should prioritise the natural environment, achieve biodiversity net gain and enhance benefits for people, wildlife and habitats.

2.58 Interim Policy 7: Developers should demonstrate how tree and/or hedgerow planting will reduce the impact of the proposals on the environment, and improve living conditions for residents, workers and those using any public areas.

2.59 Interim Policy 8: Developers should demonstrate to what extent development density and the mix contributes towards climate change mitigation and adaptation.

2.60 Interim Policy 9: Developers should demonstrate what opportunities have been taken to design-in renewable energy infrastructure and community energy schemes at a neighbourhood level, or why they have been rejected.

2.61 Interim Policy 10: Developers should demonstrate how the sustainability of their proposals has been enhanced by landform and the selected landscape network.

2.62 Interim Policy 11: Developers should demonstrate how future proofing at the layout level has been catered for in their developments.

2.63 Interim Policy 12: Developers should demonstrate how green and intelligent design and green infrastructure have contributed to the sustainability of their proposals.

2.64 Interim Policy 13: Developers should demonstrate how their proposals would promote travel by sustainable transport modes, particularly active travel modes (walking and cycling).

2.65 Interim Policy 14: Taking into account current national policy, new development should comply with the additional electric vehicle parking and charging standards below:

- all new parking spaces should be adaptable for electric vehicle fast charging (7- 22 kW), including through local electricity grid reinforcements, substation design and ducting;
- all new homes with on-plot parking should be provided with at least one installed charging point; and
- at least 20% of parking spaces in new developments should be provided with installed fast charging points, increasing

in accordance with the Road to Zero Strategy.

Planning Policy Summary

2.66 Both local and national policy aims to ensure the delivery of sustainable and well-designed homes and other buildings which mitigate and adapt to the impacts of climate change.

2.67 Latest national planning policy and guidance confirms the Government's approach to sustainable development is being driven through the updates to the Building Regulations to ensure that new buildings are well designed and reduce emissions in line with the UK's national carbon targets.

2.68 The UDC Local Plan and particularly the Climate Emergency and Interim Climate Change Planning Policy confirm the Council's commitment to the creation of sustainable new developments in the District.

2.69 This Sustainability Report has therefore been prepared to confirm that the proposed residential development at Land South of Radwinter Road constitutes sustainable development in accordance with the national and local policy requirements.

3. Reasons for Refusal

Outline planning permissions for the development of up to 233 residential dwelling (ref: UTT/21/2509/OP) was refused by UDC on the 18th of March 2022.

3.1 The application was refused on a number of grounds in relation to highways, ecology, infrastructure and climate change. The following section of this report outlines the climate change and sustainability-related reasons for refusal (RfR):

The Refusal Note[9] from Uttlesford District Council states (Dated 18th March 2022):

3.2 Paragraph 1: *"The submitted application has not demonstrated that pedestrian and cycle movement with neighbouring areas have been given priority. a. There is no permeability from the site to allow easy access to the adjacent development and facilities for pedestrians and cyclists. b. The quality of the key routes for pedestrians and cyclists has not been assessed and limited improvement is proposed for mitigation. The proposal is therefore contrary to the Highway Authority's Development Management Policies DM1, DM9, DM11, DM15 adopted as County Council Supplementary Guidance in February 2011, and the Policy GEN 1 of the Uttlesford District Council Local Plan and the NPPF."*

3.3 Paragraph 2.c.i: *"There is not sufficient information in the submitted application to demonstrate that effective mitigation to promote sustainable transport and help limit the impact of the development on the town highway network which has been demonstrated to be over capacity number at a number of junctions impacted by traffic from this development. The proposal is therefore contrary to the Highway Authority's Development Management Policies DM1, DM9, DM11, DM15 adopted as County Council Supplementary Guidance in February 2011, and the Policy GEN 1 of the Uttlesford District Council Local Plan and the NPPF 2021."*

3.4 Paragraph 4: *"The proposed development would fail to provide and facilitate active travel measures and would therefore have a negative impact on the climate, the environment, and the local and national emissions goals. Therefore, the proposed development would be contrary to Policy GEN2, Uttlesford Interim Climate Change Policy and the NPPF 2021."*

The Committee Report[10] (Dated 3rd of March 2022) states:

3.5 Paragraph 9.84: *"There is a clear conflict in Local and NPPF policies which the Local Planning Authority afford considerable weight to as follows: the proposed development would fail to promote sustainable transport modes such as*

[9] https://publicaccess.uttlesford.gov.uk/online-applications/files/AF6953B1989C222ED191BF96F2F2015E/pdf/UTT_21_2509_OP-ROPZ_-_REFUSAL_OP-3810672.pdf
[10] https://publicaccess.uttlesford.gov.uk/online-applications/files/195E14CC8604CA566DB213D857F33C7B/pdf/UTT_21_2509_OP-COMMITTEE_REPORT-3841023.pdf

walking, and would be significantly detrimental to highway safety; the proposal would fail to demonstrate that it would cause no harm to European Protected Species; the proposal would fail to contribute towards climate change objectives; and the proposal would fail to provide the necessary infrastructure to mitigate the impacts of the development contrary to the Local Plan Policies and the NPPF."

The Climate Change Project Officer ECC Sustainability Response [11] (Dated 23rd of February) states:

3.6 *"The location of the application site will clearly not encourage residents to walk into the town centre because of the distance and hilly nature of the route, as well as the dangerous and unappealing nature of Radwinter road itself. There is some hope to be had that cycling will become more popular in the future, especially as electric bicycles become lower in price, and in this case trips between the town centre an the site could be undertaken on a bicycle or adapted bicycles for those with reduced mobility. However, the barrier to this remains the unappealing nature of the route itself as well as the complete lack of cycling infrastructure in the town. It is hard to envisage how the development could overcome these issues."*

3.7 *"Without adequate active travel measures, it is difficult to see how the proposed development would be anything other than completely car-based, and therefore that it would have anything other than a negative impact on the climate, the environment, and the local and national emissions goals". Therefore, it is considered that the proposed development would be contrary to Policy GEN2, Uttlesford Interim Climate Change Policy and the NPPF 2021.*

Saffron Walden Town Council and Sewards End Parish Council Statement of Case states:

3.8 Paragraph 4- *"The proposal is not within a sustainable location and it lacks sustainable connection. Under NPPF 87 it triggers policies using a sequential approach for the location of development and less problematic sites are already allocated within the Development Plan and the Emerging Neighbourhood Plan, including sites which are better connected to the town centre."*

3.9 Paragraph 5- *"Local Plan Policy GEN1 requires development to be accessible to services and facilities, reflecting NPPF 79, 104 and 105. The submitted drawing Layout of Proposed Development shows that there are no connections other than onto the busy narrow Radwinter Road, and none to the adjoining housing. The majority of trips would be undertaken by car; the alternative comprises distant, indirect route or unlit routes (depending whether there is access onto the adjoining housing or not), slopes and poor accessibility to the town centre."*

3.10 Paragraph 6- *"The town centre is well beyond the typical 10-minute walking distances and the indirect route proposed does not comply with the Building for a Healthy Life (especially pages 14-20) and Manual for Streets criteria of a walkable neighbourhood (including paragraphs MfS 4.4.1, 4.4.2 and 6.3.6). The indirect route proposed on the Layout of Proposed Development, using Radwinter Road, does not provide a comfortable walking environment and would not provide the healthy, inclusive and safe places sought in NPPF 92"*

Summary

3.11 Based on the reasons outline about, UDC have found the proposed development would be contrary to the

[11] https://publicaccess.uttlesford.gov.uk/online-applications/files/8E058B00CCE5C3072E969C838D27775F/pdf/UTT_21_2509_OP-ECC_SUSTAINABILITY_RESPONSE-3794392.pdf

Highway Authority's Development Management Policies DM1, DM9, DM11, and DM15, Policy GEN1 and GEN2 of the Uttlesford District Council Local Plan, the Uttlesford Interim Climate Change Policy, and the NPPF 2021.

3.12 Two main issues have been identified:

a. Whether the proposal adequately provides for sustainable transport measures including pedestrian and cycle movements and adequately addresses the issue of climate change;

b. Whether the site is in a location which is or can be made sustainable.

3.13 In this context, the next sections of this report demonstrates how the proposed development at Radwinter Road is in a sustainable location for development and incorporates measures to promote pedestrian and cycle movement.

3.14 Given that the proposed development's impact upon climate change has been put forward as an RfR, Section 6 of the report then goes on to provide additional information on the sustainable design features incorporated into the design of the development to mitigate and adapt to climate change and deliver a sustainable development in accordance with Policies GEN1, GEN2 of the Local Plan, the Highway Authority's Development Management Policies, and Uttlesford Interim Climate Change Policies.

4. A Sustainable Location for Development

Within the refusal notice on the 18th of March 2022, UDC stated, amongst other reasons, that the proposed development site is in an unsustainable location.

Introduction

4.1 Policy GEN1 of UDC's Local Plan states development must encourage movement by means other than driving a car, while Policy GEN2 states developments should provide an environment which meets the reasonable needs of all potential users.

4.2 The Council's Energy Efficiency and Renewable Energy Supplementary Planning Document (SPD) supports development which makes efficient use of land in appropriate locations near services and with access to public transport to reduce energy involved in travel.

4.3 Policy 1 of the Uttlesford Interim Climate Change Policy states that development should be located where the associated climate change impacts derived from transport associated with the development can be minimised.

4.4 The location and accessibility of the development was a key RfR. In the refusal notice on the 18th of March 2022, UDC stated that:

- Paragraph 1: *"The submitted application has not demonstrated that pedestrian and cycle movement with neighbouring areas have been given priority. a. There is no permeability from the site to allow easy access to the adjacent development and facilities for pedestrians and cyclists.*

4.5 The Climate Change Project Officer ECC Sustainability Response (Dated 23rd of February) also states:

- "The location of the application site will clearly not encourage residents to walk into the town centre because of the distance and hilly nature of the route, as well as the dangerous and unappealing nature of Radwinter road itself".

4.6 This section of the report provides an update on changes since the application and rejection of approval, and an audit of facilities and services existing within the surrounding area.

Development Update

4.7 Since the submission of the application to the Council and subsequent refusal the Appellant has continued to look at measures to further enhance the sustainability performance of the proposed development.

New Pedestrian and Cycle Access

4.8 To enhance sustainable access to the site a new pedestrian and cycle link has been proposed and is in advanced stages of agreement from the site to the neighbouring proposed Redrow Development (UTT/21/3565/DFO) in the south west corner of the site.

4.9 This connection would provide an alternative for residents to access the town centre via the adjacent residential development.

4.10 **Figure 3** shows the proposed new connection.

Figure 3: Proposed new Pedestrian and Cycle Link (Source: Rapport)

Sustainable Transport Measures

4.11 An agreement has been reached with ECC who act as the highway authority with regards to a range of sustainable transport measures to be incorporated into the development and measures put in place to encourage sustainable travel. These are set out fully in **Section 5.**

Sustainable Location – Access to Services

4.12 Below a review of the developments access to services has been undertaken incorporating the new pedestrian and cycle access route to demonstrate services and facilities available to residents. This considers the quality of the route available to residents which has been noted in comments and the reason for refusal.

4.13 The sections below discuss acceptable walking and cycling distances, key services and facilities, and the potential routes for pedestrians and cyclists; followed by an assessment of available services and distances from the site.

Acceptable walking and cycling distances

4.14 With regard to acceptable walking distances, the Statement of Common Ground (SoCG) between Essex County Council (ECC) and the Appellant[12] agree that relevant guidance is provided in the Institute of Highways and Transport (IHT) guidance document 'Providing for Journeys on Foot' (published 2000). This suggests an acceptable walking distance of 1km and a preferred maximum walking distance of 2km for commuting and educational purposes. This is supported by the 2019 National Travel Survey (NTS) which found that 80% of trips under 1 mile (1.6km) are undertaken on foot.

4.15 With regard to acceptable cycling distances, five miles, or 8km, is agreed as an acceptable cycling distance based on 'Local Transport Note (LTN) 1/20: Cycle Infrastructure Design', produced by the DfT, which in paragraph 2.2.2 that "Two out of every three personal trips are less than five miles in length – an achievable distance to cycle for most people."

4.16 Therefore, acceptable distances are:

- A walking distance of 2km (1.24 miles) for commuting and educational purposes;
- A walking distance of 1km (0.62 miles) for all other purposes;
- A cycling distance of 8km (5 miles).

Key Services

4.17 There are a number of key services and facilities that should be

[12] CTP-20-1142 SoCG HIGHWAYS ISSUE V7 220601_signed.pdf

accessible by walking, cycling or public transport in order to minimise car journeys and promote sustainable residential development. These typically include:

- Shop selling food and fresh groceries;
- Education and library services;
- Health and social care services including pharmacy and medical centre/GP surgery;
- Bank and/or cash machine;
- Communication services such as public internet access, post box and postal office;
- Leisure and sports facilities;
- Green space;
- Children's playground and nursery/crèche facilities;
- Public house and or/ restaurant;
- Places of worship including parish halls;
- Allotment space or places growing fresh fruit and vegetables;
- Community buildings/local meeting place;
- Access to public transport and pedestrian walkways and cycle networks.

4.18 An assessment of the site based on these requirements has been undertaken using desktop data and is summarised in **Table 1**.

Potential Access Routes

4.19 As agreed in the SoCG on transport issues, the reported distances have been measured from the centre of the Appeal Site, using the identified pedestrian and cycle routes within the Appeal site as indicated on the Site Plan.

4.20 Distances have been measured following roads, footpaths, and cycle lanes, and are detailed via two different routes as demonstrated in **Figure 4**:

- **Option 1**. Along the new proposed footway along Radwinter Road.
- **Option 2**. Through the proposed direct pedestrian / cycle link to the adjacent Redrow development site (UDC Ref UTT/21/3565/DFO).

The proposed pedestrian / cycle link to the adjacent Redrow development provides an alternative route through the adjacent residential development.

Figure 4: Routes out of the Appeal Site

The Assessment

4.21 Below is a description of the services and facilities available to residents via walking and cycling.

Shop selling food and fresh groceries

4.22 A Tesco Superstore is located 0.8km along Radwinter Road or <1km along the proposed pedestrian cycle link. There is also a Waitrose approximately

2km away and an ALDI store located 2.5km away (or 1.9 km along the proposed link road that would link Radwinter Road to Thaxted Road).

Education and library services

4.23 The Appeal Site is situated in close proximity (approx. 1km) away from a primary school site that will be constructed as part of the adjacent Dianthus Land development (Approved in outline in July 2020, Planning Ref: 17/2832/OP).

4.24 In terms of existing education facilities, Dame Bradbury's School Prep School is located approximately 1.4km away, Saffron Walden Nursery School 1.5km away, RA Butler Infant & Junior School is 2km away, St Thomas More Catholic Primary School and St Mary's C Of E Primary School 2.3 km away. A secondary school, Saffron Walden County High School, is located 2.9km away.

4.25 Library services can be found at Saffron Walden Library approximately 2km away.

Health and social care services including pharmacy and medical centre/GP surgery

4.26 There is a Pharmacy located in the Tesco Superstore less than 1km away from the Appeal Site. Crocus Medical Practice and Saffron Walden Community Hospital are also located in close proximity, approximately 1km away.

4.27 Marcer & Hughes Vets can be found 1.4 km from the appeal site, Market Street Dental Clinic is 2km away, and a Boots Opticians can be found within 2.5km.

Bank and/or cash machines

4.28 There is a Tesco Bank ATM located at the Tesco Superstore less than 1km away from the Appeal Site. Various banks such as Barclays, Lloyds, Santander, Nationwide and Halifax Banks can be found in Saffron Walden, all of which are approximately 2.4km from the Appeal Site.

Communication services such as public internet access, post box and postal office

4.29 A Post Box can be found less than 1km away from the Appeal Site at the Tesco Superstore. There is also a Post Box 1.5km away on Walden Road. Saffron Walden Post Office is located approximately 2.5km from the Appeal Site.

Leisure and sports facilities

4.30 There are various leisure and sports facilities located in close proximity to the Appeal Site. Unique Gym is approximately 1km from the site. JustGym, Bearwalden Crossfit Gym, and The MMA Room Mixed Martial Arts School are around 1.5km away. The Grove Tennis Club, Crabtrees MUGA Football Club, and Lord Butler Fitness & Leisure Centre are located approximately 2km away (or 1.6km along the proposed link road that would link Radwinter Road to Thaxted Road). There is also a PureGym located to the south of the Appeal Site, next to the ALDI.

Green space

4.31 The proposals include various green spaces such as an area of semi-natural wetland to the south, a semi-natural green corridor, a parkland area to the north east, and new native woodland and informal tree planning located around the site. Ample green space can also be found in the adjacent countryside to the east of the Appeal Site, accessible via a PRoW. Saffron Walden Cemetery and 'The Common' are located approximately 1.5km away in Saffron Walden.

Children's playground and nursery/crèche facilities

4.32 The development proposals include two play areas within the Appeal

Site (as can be seen on the Site Plan in **Figure 2**). Further play spaces can be found within 1km as part of adjacent housing developments. Howland Close children's playground and the playground at 'The Common' are approximately 1.6km away in Saffron Walden. Saffron Walden Nursery School can also be found 1.5km to the southwest of the site along the proposed pedestrian link.

Public house and/or restaurant

4.33 There are several restaurants and public houses in close proximity to the Appeal Site. Jak u Mamy Polish Restaurant is located 1.5km from the site. Fill's Café, Spice Kitchen, and The Axe Public House are all approximately 1.8km away. The Old English Gentleman Restaurant and Public House and various other restaurants, bars and public houses are locate approximately 2.5km away in Saffron Walden.

Places of worship including parish halls

4.34 St James Church is located 1.8km away in Sewards End. New Life Pentecostal Church can be found 1.6km away, and Saffron Walden Community Church is located 2.5km from the Appeal Site in Saffron Walden.

Allotment space or places growing fresh fruit and vegetables

4.35 Byrds Farm Lane Allotment is 3km from the Appeal Site via Radwinter Road and along the Byrds Farm Lane footpath. The allotment contains 'Dig It Community Allotment' where people can come and learn about food growing, healthy eating, plants, and garden management.

Community buildings/local meeting places

4.36 Sewards End Village Hall and Saffron Walden Town Hall are both approximately 2km from the Appeal Site.

Access to public transport

4.37 As part of the development, two new bus stops are proposed on Radwinter Road to the east of the site access. The majority of the site would be within 400m of both bus stops, and there would be a maximum walk distance of 500m to the westbound bus stop and 540m to the eastbound bus stop and an. An uncontrolled pedestrian crossing would be provided to connect the devleopment to the eastbound bus stop.

4.38 A bus turning area (looped road arrangement) will also be provided within the site to allow for a bus to navigate through the site in the future.

4.39 There are also two existing bus stops located at the Tesco store on Radwinter Road providing frequent services to Saffron Walden, Stansted Airport, Haverhill, Newport, Audley End, and Bishops Stortford.

4.40 The closest train station is Audley End Train Station, which is located approximately 5.4km away from the appeal site. This could be reached via the 60 and 301 bus services, or a circa 23-minute cycle.

Access to pedestrian walkways and cycle networks

4.41 A comprehensive network of pedestrian and cycle routes are being proposed within the site that internally would connect the residential plots to the area of public open space to the east, and externally would provide a connection to the proposed footway on the south side of Radwinter Road.

4.42 New footways/ cycle links are proposed as part of the development:

- a new 2.0m footway on the south side of Radwinter Road between the proposed site access and existing footway, and
- A 3m wide shared footway / cycleway link to the adjacent development to the west.

4.43 There is an existing PRoW footpath to the north of Radwinter Road and a byway to the south of the site between Cole End Lane and Thaxted Road

(shown in **Figure 5**). An uncontrolled crossing across Radwinter Road will be delivered to facilitate access to the PRoW network to the north of Radwinter Road.

Figure 5: PRoWs providing connection to Thaxted Road and Sewards End.

4.44 The Uttlesford District Cycling Action Plan (March 2018) details an ambitious cycle infrastructure strategy for Saffron Walden. There are currently no cycle improvements proposed in the immediate vicinity of the site. Route 10 is the closest identified route which will connect residents in the north of Saffron Walden to the town centre, and also completes a connection from Saffron Walden to Audley End Railway Station and other proposed cycle routes identified within the Action Plan.

4.45 The Cycle Action Plan recommends the development of 'Cycle Flagship Routes', to act as key corridors providing safer, faster, and more direct access to key sites. A proposed east/west Flagship Route would effectively connect residents in the north of Saffron Walden to the town centre and also complete a connection from Saffron Walden to Audley End Railway Station. The potential Flagship Route is shown in **Figure 6** below

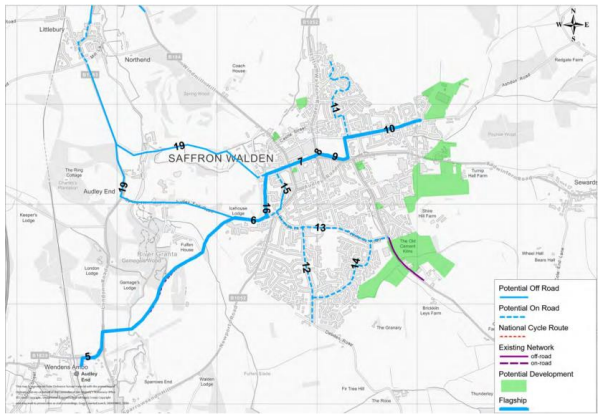


Figure 6: The Proposed Cycle Flagship Route

Results and Discussion

4.46 The results of the assessment show that there are a wide range of key facilities and services within walking and cycling distance of the Appeal Site. A summary of the assessment is provided in **Table 1** overleaf.

4.47 A visual representation of this assessment is also provided in **Figure 7,** with a higher resolution version in **Appendix 1** . Distances within this figure are measured in a straight line from the centre of the site.

4.48 **Table 1** shows a comparison of access to the services and facilities noted via the Radwinter Road, and also via the proposed new access in the south west of the site.

4.49 The new pedestrian access does not necessarily provide a shorter access, however the vast majority of services available within 2km of the site are still available within that distance, the exceptions to that are a bank, library services, a dentist, and community building. While these are not available within 2km from that route they can still be accessed is necessary via the Radwinter Road.

4.50 Key for residents is the improvement this makes to the walking and cycling route into Saffron Waldon. The new route reduces the distance required to travel along Radwinter Road by 300m, avoiding the busiest and fastest stretch of the route, and providing a more pleasant, safer journey.

4.51 It should be noted that while the proposed pedestrian / cycle link does not

shorten journey times to most destinations, there are three consented housing schemes to the west of the proposed development which together secure a link road running through the respective land parcels that will connect Radwinter Road with Thaxted Road. This link road would reduce journey times to locations to the southwest of the Appeal Site such as ALDI, PureGym, and the Lord Butler Fitness & Leisure Centre.

Summary

4.1 This section of the report has demonstrated that the Appeal Site is in a sustainable location with access to a wide range of facilities and services. The location of the Appeal Site would enable residents to walk or cycle to nearby facilities and services, helping to reduce the number of car-based journeys and minimise the impact of the development on the local and national carbon emission targets.

4.2 The new pedestrian cycle link provides good permeability into the neighbouring development and provides an alternative route into Saffron Walden which avoids the fastest stretch of Radwinter Road.

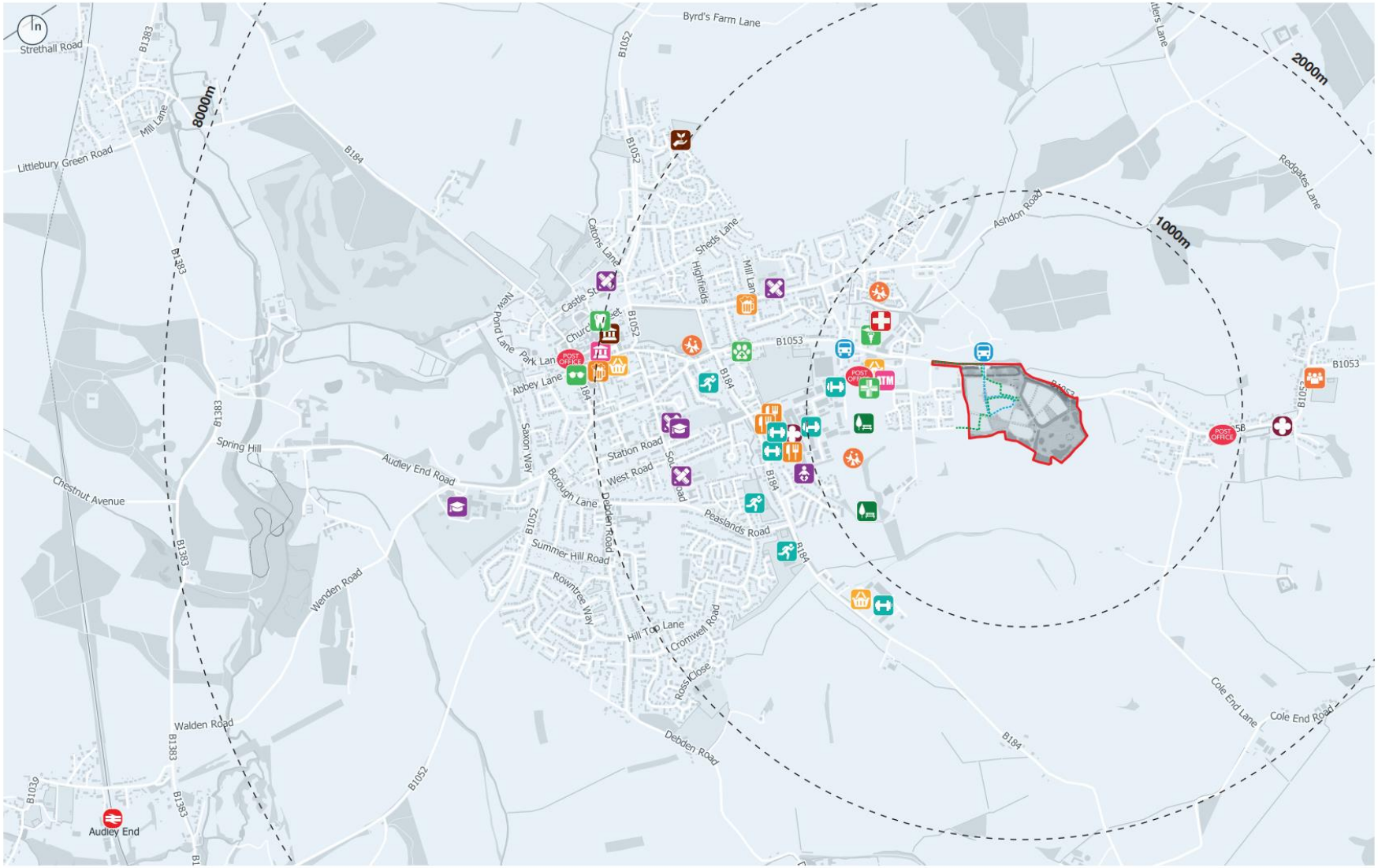
This evidence responds positively to the RfR 1a and the response from the ECC Climate Change Project Officer.

Table 1: Key services and facilities accessible by walking, cycling or public transport

	Via Radwinter Road				Via Cut-through			
Service/Facility	**Within 1km of the site**	**Within 2km of the site**	**Within 8km of the site**	**Accessible By Public Transport**	**Within 1km of the site**	**Within 2km of the site**	**Within 8km of the site**	**Accessible By Public Transport**
Food and fresh groceries	✔	✔	✔	✔	✔	✔	✔	✔
Education and library services:								
Primary School		✔	✔	✔	✔	✔	✔	✔
Secondary School			✔	✔			✔	✔
Library services		✔	✔	✔			✔	✔
Health and social care services:								
GP Surgery	✔	✔	✔	✔		✔	✔	✔
Pharmacy	✔	✔	✔	✔	✔	✔	✔	✔
Dentist		✔	✔	✔			✔	✔
Optician			✔	✔			✔	✔
Bank and Cash Machines								
Bank		✔	✔	✔			✔	✔
Cash Machine	✔	✔	✔	✔	✔	✔	✔	✔
Communication services								
Post Box	✔	✔	✔	✔	✔	✔	✔	✔
Post Office			✔	✔			✔	✔
Leisure and sports facilities	✔	✔	✔	✔		✔	✔	✔

	Via Radwinter Road				Via Cut-through			
Service/Facility	**Within 1km of the site**	**Within 2km of the site**	**Within 8km of the site**	**Accessible By Public Transport**	**Within 1km of the site**	**Within 2km of the site**	**Within 8km of the site**	**Accessible By Public Transport**
Green Space	✔	✔	✔	✔	✔	✔	✔	✔
Children's playground and nursery/crèche facilities								
Playground	✔	✔	✔	✔	✔	✔	✔	✔
Nursery/crèche		✔	✔	✔		✔	✔	✔
Entertainment								
Public House		✔	✔	✔		✔	✔	✔
Restaurants		✔	✔	✔		✔	✔	✔
Places of worship		✔	✔	✔		✔	✔	✔
Allotment space			✔	✔			✔	✔
Community buildings		✔	✔	✔			✔	✔

Figure 7: Access to Services Map



5. Sustainable and Active Transport Measures

The section of this report establishes the sustainable transport measures incorporated into the design of the development to promote and prioritise sustainable and active travel.

Introduction

5.1 Policy GEN 1 of the Uttlesford Local Plan (2005) states that the design of the sites must take account of the needs of cyclists, pedestrians, public transport users, horse riders and people whose mobility is impaired.

5.2 Interim Policy 13 of the UDC Climate Emergency and Interim Climate Change Planning Policy also states developers should demonstrate how their proposals would promote travel by sustainable transport modes, particularly active travel modes (walking and cycling).

5.3 The prioritization of walking and cycling was a key RfR. In the refusal notice on the 18th of March 2022, UDC stated that the proposed development would fail to facilitate active travel and would have a negative impact on the climate, the environment, and the local and national emissions goals. Key objections from UDC include:

- Paragraph 1: *"The proposed development has not demonstrated that pedestrian and cycle movement have been given priority."*
- Paragraph 1a: *"There is no permeability from the site to allow easy access to the adjacent development and facilities for pedestrians and cyclists."*
- Paragraph 1b: *"The quality of the key routes for pedestrians and cyclists has not been assessed and limited improvement is proposed for mitigation."*
- Paragraph 4*: "The proposed development would fail to provide and facilitate active travel measures."*
- Paragraph 2.c.i: *"There is not sufficient information in the submitted application to demonstrate that effective mitigation to promote sustainable transport and help limit the impact of the development on the town highway network"*

5.4 A Transport Assessment (TA) [13] has been submitted as part of the application documents which demonstrates that the site is accessible by a range of transport modes other than the private car and supports the conclusions of **Section 4** of this report that the proposed

[13] https://publicaccess.uttlesford.gov.uk/online-applications/files/2FA5025C917A061B60F7D0383AE1FA11/pdf/UTT_21_2509_OP-TRANSPORT_ASSESSMENT_PART_1-3676557.pdf

development is within walking and cycling distance of Saffron Walden Town centre and a range of key services and facilities. These facilities are also accessible by bus.

5.5 A Travel Plan (TP) [14] has also been submitted as part of the application. The aim of a Travel Plan is to reduce the impact of travel on the environment by reducing the level of unnecessary travel and encouraging those who must travel to do so in a way that minimises the environmental impact.

5.6 Since the application, a SoCG and Supplementary SoCG have also been agreed with the highway authority and, as a result, all transport matters are now agreed and there are no matters of disagreement between ECC and the Appellant.

5.7 This section of the report provides an overview of the measures incorporated into proposals to give priority to pedestrian and cycle movement, provide facilities and permeability with neighbouring sites for walking and cycling, assess the quality of the key routes for pedestrians and cyclists, provide active travel measures, and promote sustainable transport.

Pedestrian and Cyclist Permeability

5.8 A comprehensive network of pedestrian and cycle routes are proposed to promote pedestrian and cyclist permeability within the site.

5.9 New footways/ cycle links are proposed as part of the development:

- a new 2.0m footway on the south side of Radwinter Road between the proposed site access and existing footway, and
- A 3m wide shared footway / cycleway link to the adjacent development to the west

5.10 This proposed link would address RfR 1a as it would provide permeability from the site to allow easy access to the adjacent development and facilities for pedestrians and cyclists.

Quality of Key Routes

5.11 The quality of the key routes for pedestrians and cyclists travelling to and from the Appeal Site has been assessed via a route audit.

5.12 The main routes identified and assessed were:

- Route 1- To Tesco Store via Radwinter Road
- Route 2a- To High Street via Audley Road;
- Route 2b- To High Street via East Street & Hill Street;
- Route 3- To RA Butler Infant & Junior School via South Road; and
- Route 4- To Saffron Walden County High School via London Road and Audley End Road.

5.13 The full Pedestrian and Cycle Route Audit Report is provided in Appendix B of the Supplementary SoCG between the Appellant and ECC (the highway authority).

5.14 The audit found that (except for the new footway link on Radwinter Road that will link the site with the existing network) key pedestrian and cycle routes to and from the site form part of the existing highway network that is well used by existing residents.

5.15 An improvement to the pedestrian crossing point at the access junction to the Tesco store has been agreed as part of the proposals. The existing pedestrian crossing is poorly located and has restricted visibility due to

[14] https://publicaccess.uttlesford.gov.uk/online-applications/files/01203DAA339F2FC71A308747EB6AC390/pdf/UTT_21_2509_OP-TRAVEL_PLAN-3676560.pdf

adjacent vegetation, and improvements to crossing would be of benefit to both future residents of the development and existing pedestrians.

5.16 Analysis of the latest five-year collision data has also been undertaken on the network surrounding the site as part of the TA and concluded that there are no overriding or unexpected highway safety patterns or concerns within the vicinity of the site which need to be considered.

5.17 The Highway Authority has also indicated that the 30mph limit is proposed to be extended from Saffron Walden eastwards beyond the site access as part of the S278 access works (see para 2.8 of the main highways SOCG), which will improve the conditions for both pedestrians and cyclists.

5.18 This addresses RfR 1b.

Active Travel Measures

5.19 The proposed development would provide a number of measures to promote and facilitate active travel.

5.20 A comprehensive network of pedestrian and cycle routes have been proposed within the site.

5.21 A residential travel plan would be developed including the provision of travel packs for all residents which promote cycling and walking routes and set out public transport options.

5.22 A travel plan co-ordinator would be appointed to manage the travel plan and ensure services are in place and a Travel Plan monitoring fee of £1,596 per annum would be paid to ECC.

5.23 To promote cycling, a Bicycle User Group would be formed to encourage cycling and organise promotional events. Free cycle training would be provided and discounts on bicycles and equipment with local cycle outlets will be negotiated for all residents. National campaigns such as 'National Beek Week' and 'Cycle to Work Day', and the use of online portals such as the Active Essex Challenge Platform (www.activeessex.org) would be promoted. Maps will be produced showing recommended cycle routes to key destinations.

5.24 All houses to be provided with a garage or a separate secure storage area for bicycles. Where this is not practicable, 1 secure covered space per dwelling will be provided in easily accessible locations throughout the development.

5.25 Secure and covered visitor cycle parking spaces will be provided throughout the development in easily accessible locations.

5.26 To improve conditions for cyclists in the immediate vicinity of the site, The Highway Authority has indicated that it would support an extension of the 30mph speed limit from Saffron Walden eastwards beyond the site access.

5.27 To promote walking, maps showing recommended walking routes to local facilities will be provided and the health benefits of walking will be publicised.

Promoting Sustainable Transport

5.28 Proposals contain numerous measures to promote sustainable transport such as walking, cycling, the use of public transport, electric vehicles, and vehicle sharing.

5.29 Travel packs will be provided for all residents including:

- Guidance and promotional material on the use of sustainable modes of travel;
- Details of walking, cycling, buses, trains, taxis, car sharing, car clubs, electric vehicles and charging points, school transport, and personalised journey planning;

- Reference to travel websites, resources, and support services for each mode of travel,
- Details of local travel campaigns and networking / support groups; and
- Access to an online tool to generate personalised Residential Travel Plans using a home and destination postcode to provide details of different travel options.

5.30 The travel plan will include sustainable travel vouchers of £100 to the first occupant of every dwelling which can be used for accessing sustainable modes of transport such as for the purchase of a bicycle/ electric bicycle and associate equipment, or bus/rail tickets

5.31 Community noticeboards will display travel information such as maps and locations of cycle parking, car club bays and public transport service access points. The noticeboard will also be used to inform residents of any new travel initiatives or events organised by the travel plan co-ordinator.

Public Transport

5.32 Two new bus stops would be provided on Radwinter Road. These bus stops will include shelters, bus clearways, DDA compliant bus access and real time passenger information. The majority of the site would be within 400m of both bus stops, and there would be a maximum walk distance of 500m to the westbound bus stop and 540m to the eastbound bus stop. A new uncontrolled pedestrian crossing would connect the development to the new eastbound bus stop.

5.33 A financial contribution of £2,600 per dwelling would be provided towards the provision of bus services in Saffron Walden and ECC would serve the site via a regular service to key services and facilities as part of the emerging transport plan for Saffron Walden. The financial contribution would deliver an enhanced bus service both to the site and throughout the town.

5.34 A bus turning area (looped road arrangement) will also be provided within the site to enable a potential future bus service to be bought into the Appeal Site.

5.35 Based on the above, the public transport strategy will provide a realistic opportunity to travel by bus, reduce the number of single occupancy car journeys, and minimise associated carbon emissions.

Electric Vehicles

5.36 Dwellings will be designed in accordance with Essex Design Guide. All dwellings with on-plot parking to be provided with at least one electric vehicle charging point. For unallocated parking, spaces will be provided with infrastructure to allow for connection to an electric charging point in the future.

5.37 This will help to facilitate the uptake of electric vehicles and deliver a number of benefits such as a reduction in air and noise pollution as well as a reduction in carbon emissions.

Town-Wide Car Sharing Club

5.38 The proposals would include measure to promote the future town wide car club to be operated by UDC.

5.39 A publicly accessible car club parking space with Electric Vehicle Charging Point would be provided within the development.

5.40 The following financial contributions would also be provided to encourage future residents to take part in the proposed car club:

- Annual membership for 5 years- £300 per dwelling;
- 10 hours driving credit- £80 per dwelling; and
- Pump priming operational costs of 1 electric vehicle for 5 years- £43,333.

5.41 The car club would enable prospective residents to have access to a car without having to buy or maintain

their own vehicle, which can encourage members to consider more sustainable modes of travel before using a car.

Summary

5.42 This section of the report has demonstrated that the proposals contain a number of measures to give priority to pedestrian and cycle movement, provide facilities and permeability with neighbouring sites for walking and cycling, assess the quality of the key routes for pedestrians and cyclists, provide active travel measures, and promote sustainable transport

5.43 This is in accordance with Policy GEN1 of the Local Plan and UDC's Climate Emergency and Interim Climate Change Planning Policy.

5.44 In conjunction with section 4, this section of the report demonstrates how the development proposals successfully address the RfR set out in paragraph 1a, 1b, 4 and 2.c.i of the refusal notice issued by UDC on the 18th of March 2022.

6. Mitigating and Adapting to Climate Change.

This section demonstrates how the Appellant will deliver a range of measures to mitigate and adapt to climate change.

6.1 Policy GEN1 of the UDC Local Plan (2005) states development must safeguard important environmental features, minimise the environmental impact, help to minimise water and energy consumption, and has regard to guidance adopted as supplementary planning guidance.

6.2 UDC's Energy Efficiency and Renewable Energy SPD contains guidance on measures to reduce energy use in new development following the energy hierarchy. The Interim Climate Change Planning Policy also contains guidance to ensure that development contributes to climate change mitigation and adaptation.

6.3 Paragraph 4 of UDC's decision note issued on the 18th of March 2022 states:

- *"The proposed development would fail to provide and facilitate active travel measures and would therefore have a negative impact on the climate, the environment, and the local and national emissions goals. Therefore, the proposed development would be contrary to Policy GEN2, Uttlesford Interim Climate Change Policy and the NPPF 2021."*

6.4 The development will include a range of measures to mitigate and adapt to climate change and contribute to the achievement of local and national emissions goals.

6.5 This section sets out the climate change mitigation and adaptation measures incorporated into the development at this stage and to be considered as part of the detailed design of the development and individual homes.

Climate Change

6.6 One of the main challenges facing the UK and new development is the need to mitigate and adapt to a changing climate. The Government is committed to tackling climate change and in 2019 set out an ambition to reduce carbon emissions 100% by 2050 (net zero).

6.7 The UKCP18[15] projections demonstrate that as a result of Greenhouse Gas (GHG) emissions over time the UK will experience increased summer and winter temperatures with significantly increased maximum temperatures, reduced summer rainfall, increased winter rainfall and an increase in extreme weather events.

[15] https://www.metoffice.gov.uk/research/approach/collaboration/ukcp

6.8 The UK Climate Change Risk Assessment, updated in 2021[16], identifies key risks associated with the effects of climate change. In relation to the built environment and the proposed development, these include reduce summer water availability, increased winter rainfall, and increased summer temperatures.

Climate Change Mitigation

6.9 The current Local Development Plan sets requirement for development to minimise energy consumption, enhance energy efficiency and make use of renewable energy.

6.10 The Council's Climate Energy and Interim Climate Change Planning Policy, although not formal policy, sets out further guidance to consider in the design of new homes, including that developers should demonstrate that their proposals are on a path towards achieving net zero by 2030.

6.11 In 2019, the Government published the Future Homes Standard[17] (FHS) consultation which sets out the pathway for building standards to help deliver net zero homes.

6.12 From 2025 the FHS requires homes to achieve a 75% reduction in carbon reduction beyond Part L 2013 current regulations to create homes which are Net Zero Ready.

6.13 The interim FHS is the first step in the path to Net Zero Ready homes and from June 2022 homes are required to achieve a 31% improvement over Part L 2013.

6.14 In this context, the following sections outline how the dwellings at Radwinter Road will be designed to reduce carbon emissions during the occupation of the dwellings and deliver reduced carbon emissions and lower energy bills for residents.

6.15 In the context of the strategy proposed within this document it is recognised that this is an appeal in support of an outline planning application and therefore the detail of the energy strategy proposed will be developed during detailed design, potentially in response to a specific planning condition.

Construction Carbon

6.16 The Council's Local Plan sets no specific policies with regards to embodied carbon. The Urban Place Supplement does recommend that lifecycle impacts and total embedded energy are considered.

6.17 The embodied carbon of buildings can account for half of a buildings lifetime emissions[18], it is therefore a key area to consider in reducing the carbon emissions from development.

6.18 The embodied carbon of development includes carbon emissions from the manufacture and installation of materials in construction.

6.19 As part of the detailed design of new homes a Life Cycle Assessment (LCA) will be carried out to estimate the embodied carbon of proposed house types. The assessment will consider measures to reduce embodied carbon, including:

- Lean design to minimise materials use;
- Use of natural materials which sequester carbon such as timber;
- Specification of low carbon materials, for example steel and concrete with recycled materials content;

[16] UK Climate Risk
[17] The Future Homes Standard: changes to Part L and Part F of the Building Regulations for new dwellings - GOV.UK (www.gov.uk)
[18] Royal Institution of Chartered Surveyors (RICS) (2017). Whole life carbon assessment for the built environment RICS professional statement, UK.

- Use of local supplies and labour where feasible; and
- The use of Modern Methods of Construction including off-site prefabrication of building elements.

6.20 The Reserved Matters (RM) application(s) will include an LCA setting out how the embodied carbon of the proposed development will be reduced.

The Energy Strategy

6.21 Developing energy efficient homes is a key objective of national and local policy.

6.22 The Council's current Local Plan sets no specific targets in relation to energy or carbon reduction. The Urban Place Supplement does set a requirement for development to include renewable energy to provide at least 10% of predicted energy via renewable energy, although adopted in 2007 this document is now considerable out of date in comparison to the latest Building Regulations.

6.23 The Council's more recent Climate Energy and Interim Climate Change Planning Policy sets a requirement for developers to demonstrate a development pathway to achieving net zero carbon by 2030 and that opportunities to reduce energy use and incorporate renewable energy.

6.24 To achieve significant reductions in carbon emissions all homes at Radwinter Road will be constructed to meet the interim Future Homes Standard which will ensure the dwellings are 31% more energy efficient than those constructed to the existing 2013 Building Regulations.

6.25 The exact energy strategy for the dwellings will be confirmed as part of RM application(s) however all dwellings will follow the principles of the energy hierarchy, as shown in **Figure 8,** which aims to reduce energy demand through passive design measures and a fabric first approach before utilising low carbon energy and the production of on-site renewable energy.

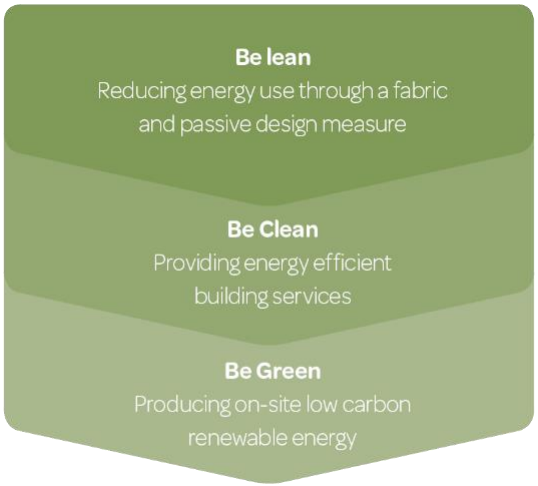


Figure 8: The Energy Hierarchy

Be Lean – Reducing Energy Use

6.26 Central to the delivery of low carbon and energy efficient buildings is the 'Fabric First' principle which aims to reduce the demand for heat and power through a well-insulated building fabric and energy efficient services.

- This 'fabric first' approach has a number of distinct benefits including:
- Carbon savings delivered are 'locked-in' for the lifetime of the building (60 years or more) rather than the lifespan (<25 years) of an energy technology;
- Virtually no maintenance and/or replacement costs to maintain carbon reductions through improved fabric;
- No reliance on an occupier's behaviour to deliver carbon reductions. Achieving carbon savings from renewable energy technologies requires education, awareness and often, behavioural changes from occupants.

6.27 To implement the fabric first principle, the following measures will be targeted:

- High levels of air tightness which go beyond the minimum building regulation compliance values.

- Design to promote passive solar gains, maximise natural daylight, sunlight and ventilation.
- Materials with low u-values to ensure minimal energy loss.
- Minimising thermal bridging to reduce energy loss through the building structure.
- The use of double or triple glazing.
- Use of waste water heat recovery systems in showers and bathrooms to capture and reuse waste heat from grey water.
- Incorporating high efficiency lighting targeting 100% LED.
- Installation of Mechanical Ventilation and/ or Heat Recovery.

6.28 It is highly likely that a combination of these measures will be used to maximise the energy efficiency of the dwellings.

6.29 Through these measures, it is anticipated the development will significantly reduce energy demand and carbon emissions before the provision of heat and electricity.

Be Clean – Efficient Energy

6.30 The next stage of the Energy Hierarchy is the provision of energy efficiently for which District Heating Networks (DHN) are the most common solution. DHN's typically comprise a centralised heat generator, typically a gas fired Combined Heat and Power (CHP) engine. CHP systems generate electricity and waste heat which can be fed into a network of insulated pipes which deliver low carbon heat to buildings to provide heating and hot water via individual heat transfer units.

6.31 DHNs are suited to development with high thermal demand, typically provided by sufficient density or a large anchor load, i.e., high density flats, leisure centres and industrial process.

6.32 The continued decarbonisation of the national electricity grid as supported by the SAP 10.2 document, incorporated into the update of the 2021 Building Regulations, shows that gas CHP systems now increase CO2 emissions, even compared to standard gas boilers.

6.33 While other technologies are available to generate heat as part of a heat network, including heat pumps and fuel cells, these have higher running costs and do not benefit from the sale of energy generated through CHP systems which is sold back the grid.

6.34 Crucially, because of the thermal efficiency of the development, there will not be the thermal demand density to make a network of pipes viable.

6.35 In this context, given the type of development proposed, it is considered that the installation of a heat network is unsuitable and will not be utilised at Radwinter Road.

6.36 Whilst a district heating scheme is not thought viable for Radwinter Road it is possible that dwellings may be fitted with individual gas boilers to provide the primary source of space heating and hot water. In this event additional renewable energy generating technologies will also be installed.

Be Green – Low Carbon Renewable Energy

6.37 The final stage of the energy hierarchy is the generation of on-site low carbon renewable energy.

6.38 A review of potential low carbon renewable energy technologies which may be suitable for inclusion in the dwellings has been provided below.

6.39 **Photovoltaics (PV)** - Photovoltaic (PV) systems generate zero carbon electricity from sunlight and are well suited to unobstructed southeast to southwest facing roof spaces. Excess power is exported to the grid or can be harnessed using battery storage. Maintenance requirements are typically minimal.

6.40 **Heat Pumps** - Heat pumps provide low carbon heat sourced, normally, either from the ground (Ground Source Heat Pumps) or air (Air Source Heat Pumps). This type of system is suited to thermally efficient buildings and are used instead of gas fired boilers. They require main electricity to operate but typically generate at around three to five units of heat for every unit of electricity that is consumed. Because the heat is generated more efficiently at a lower temperature than that produced by a gas boiler, heat pumps typically require underfloor heating or over-sized radiators to ensure the heat is distributed efficiently. Heat pumps are identified in the FHS as the likely option for reducing emissions from new homes in the long term.

6.41 At this stage potentially suitable renewable energy technologies for consideration during the detailed design of individual homes at Radwinter Road are roof mounted PV cells and Air Source Heat Pumps.

Climate Mitigation Summary

6.42 In summary, the proposed dwellings will meet the Interim FHS carbon reduction target through the application of the energy hierarchy and the relevant measures as outlined in this report.

6.43 **Table 2** demonstrates that in the first year alone the energy strategy will result in savings of c176 tonnes of carbon compared to dwellings built to the 2013 Regulations.

6.44 If any dwellings are constructed with individual gas boilers then roof mounted PV cells will be required to meet the carbon reduction target.

6.45 If ASHP are installed in dwellings instead of gas boilers then it is possible that this renewable technology alone may meet the carbon reduction target.

6.46 Future RM application(s) will be supported by a detailed energy strategy confirming the measures and technologies deployed.

Table 2 – Estimated Carbon emissions (tonnes) and savings from the energy strategy at Radwinter Road at Year One

Part L 2013 (tonnes CO2)	Emissions with the Strategy (tonnes CO2)	Carbon Savings (tonnes CO2)
373	257	116

Climate Change Adaptation

6.48 The current Local Plan sets no specific climate change adaptation policies, however the Council's Climate Energy and Interim Climate Change Planning Policy sets expectations for development to minimise water consumption, mitigate against flood risk, and achieve biodiversity net gain.

6.49 This section identifies key measures which will be incorporated into the design of new buildings and the proposed development to adapt to climate change responding positively to the Councils interim Climate Change Policies.

Water Efficiency

6.50 Designing to conserve water Essex is located in one of the driest areas of the country and therefore the conservation of water is a high priority.

6.51 Potable water is an important natural resource and with the majority of the UK classed as being in an area of moderate or severe water stress, the conservation of water is becoming a more significant sustainability metric.

6.52 The buildings at Radwinter Road will reduce water consumption through a range of water efficiency measures such as:

- Dual, low flush WC's.
- Aerating/Spray taps for wash hand basins.
- Low flow showers.
- Water butts for those properties with back gardens (where appropriate).

6.53 Through the use of these measures new homes will aim to achieve a water consumption rate of 110l/p/d or less.

Flood Risk and Drainage

6.54 A Flood Risk Assessment (FRA) has been prepared by Cotswold Transport Planning and accompanying the outline planning application as Appendix 9.1 of the Environmental Statement.

6.55 The FRE reviews the potential risk of flooding to the site, and measures to manage surface water taking into account the effects of climate change.

6.56 The FRA found that the site is situated in Flood Zone 1 and therefore at a low risk of flooding from fluvial, pluvial, groundwater and sewer sources.

6.57 The FRA includes a drainage strategy which sets out how surface water runoff generated by the proposal will be stored using a series of attenuation basins and Sustainable Drainage Systems (SuDS) before discharging into the existing watercourse to the west of the site. The drainage strategy has been designed to accommodate a 1 in 100 year event, including a 40% allowance for climate change.

Overheating

6.58 With rising summer temperatures there is an increasing risk of overheating in buildings which could adversely affect building occupants and users.

6.59 In recognition of this, Part O of the Building Regulations sets out requirements around avoiding the issue of overheating. This provides two routes to compliance; limiting glazing to a certain % of floor area, varying on where in the country it is, or using software modelling to demonstrate the home will not overheat due to rising temperatures.

6.60 The detailed design of new homes will incorporate overheating assessment in accordance with the Building Regulations and where issues are identified through the provision of mitigation measures, buildings will be able to adapt and be resilient to future climatic changes.

Biodiversity

6.61 The effects of climate change are expected to include chaining annual temperatures and rainfall patterns. These changes will impact in habitats and biodiversity through as a result of changing climate space.

6.62 The England Biodiversity Strategy and Natural England Climate Change Adaptation Manual provides guidance on protecting habitats, achieved trough enhancing biodiversity.

6.63 As part of the outline application a Preliminary Ecological Appraisal (PEA) was prepared by Harris Lamb (Appendix 8.1b of the Environmental Statement Addendum) which lists a range of design considerations and biodiversity enhancement opportunities, this will include the specification of climate tolerant species.

6.64 As part of proposed Conditions for the planning application a condition has been proposed for the development to achieve as a minimum a 10% Biodiversity Net Gain (BNG).

6.65 Achieving a BNG will help site habitats and species adapt to climate change.

Summary

6.66 This section of the report has demonstrated how the proposed development incorporates measures to mitigate and adapt to climate change in accordance with Policy GEN1 of the Local

Plan (2005), UDC's Energy Efficiency and Renewable Energy SPD, and the Interim Climate Change Planning Policy.

6.67 The measures outlined above demonstrate how the development will minimise impact on the climate and environment, and contribute to achieving both local and national emissions goals, addressing the RfR set out in paragraph 4 of UDC's decision note issued on the 18th of March 2022.

7. Conclusion

This evidence has been prepared to demonstrate how the proposed development at Land South of Radwinter Road constitutes a sustainable development in accordance with national and local sustainability policy.

A Sustainable Location for Development

7.1 A number of key services and facilities can be accessed within walking or cycling distance of the Appeal Site including shops selling food and fresh groceries, schools and library services, health and social care facilities, banks and cash machines, post boxes and a post office, leisure and sports facilities, children's play facilities, green space, pubs, restaurants, places of worship, an allotment space, community halls. The site also has good public transport accessibility which would enable future residents to access a wider range of services without the use of a car.

7.2 The proposed addition of a new pedestrian cycle link through the neighbouring residential development enhances the permeability of the site and provides an alternative route into Saffron Walden.

Sustainable Transport Measures

7.3 A range of measures have been put in place to promote and facilitate sustainable transport to and from the site.

7.4 A comprehensive network of pedestrian and cycle routes will be provided to promote pedestrian and cyclist permeability within and out of the site.

7.5 An assessment of the quality of key routes to and from the site has been carried out and improvements to the pedestrian crossing point at the access junction to the Tesco store suggested which would benefit both future residents and existing pedestrians.

7.6 A residential travel plan would be developed including the provision of travel packs for all residents which promote walking, cycling, public transport options.

7.7 A travel plan co-ordinator would be appointed to manage the travel plan and ensure services are in place. A Travel Plan monitoring fee of £1,596 per annum would be paid to ECC.

7.8 All houses will be provided with a garage or separate secure storage area for bicycles where practicable, or secure covered space. Secure and covered visitor cycle parking spaces will be provided throughout the development.

7.9 Two new bus stops would be provided on Radwinter Road. A new uncontrolled pedestrian crossing would connect the development to the new eastbound bus stop and a bus turning area will also be provided within the Site. A financial contribution of £2,600 per dwelling would be provided towards the provision of bus services in Saffron Walden, which would

improve bus services for both potential residents and existing bus users.

7.10 All dwellings with on-plot parking will be provided with at least one EV charging point and unallocated spaces will be provided with cabling to allow future connections.

7.11 A publicly accessible car club parking space with Electric Vehicle Charging Point would be provided within the development and financial contributions would also be provided to encourage future residents to take part in the proposed car club.

Climate Change Mitigation

7.12 The Appellant has developed an energy and sustainability strategy which contributes to achieving both local and national carbon targets.

7.13 Homes will be designed taking into consideration of the embodied carbon of materials. A Life Cycle Assessment will be carried out to inform design to make use of sustainable low carbon materials where possible.

7.14 Homes will be built in accordance with the requirements of the Future Homes Standard and Part L 2021, with new homes designed to achieve a 31% carbon reduction above Part L 2013. Considering the use of low carbon renewable energy technologies such as Heat Pumps and Solar PV to reduce operational emissions. The energy strategy will be delivered through the application of the energy hierarchy which will utilise energy efficient technologies such as Wastewater and Flue Gas Heat Recovery Systems.

7.15 Renewable energy technologies such as roof mounted PV cells and/ or Air Source Heat Pumps will be provided.

7.16 All dwellings with a driveway will be provided with at least one active EV charging point to allow homeowners the ability to charge their Electric Vehicles (EV'S) at home. Unallocated spaces will be provided with cabling to enable future connection.

Climate Change Adaptation

7.17 The development will incorporate a range of measures to ensure the long-term resilience of the development to the effects of climate change. Measures include:

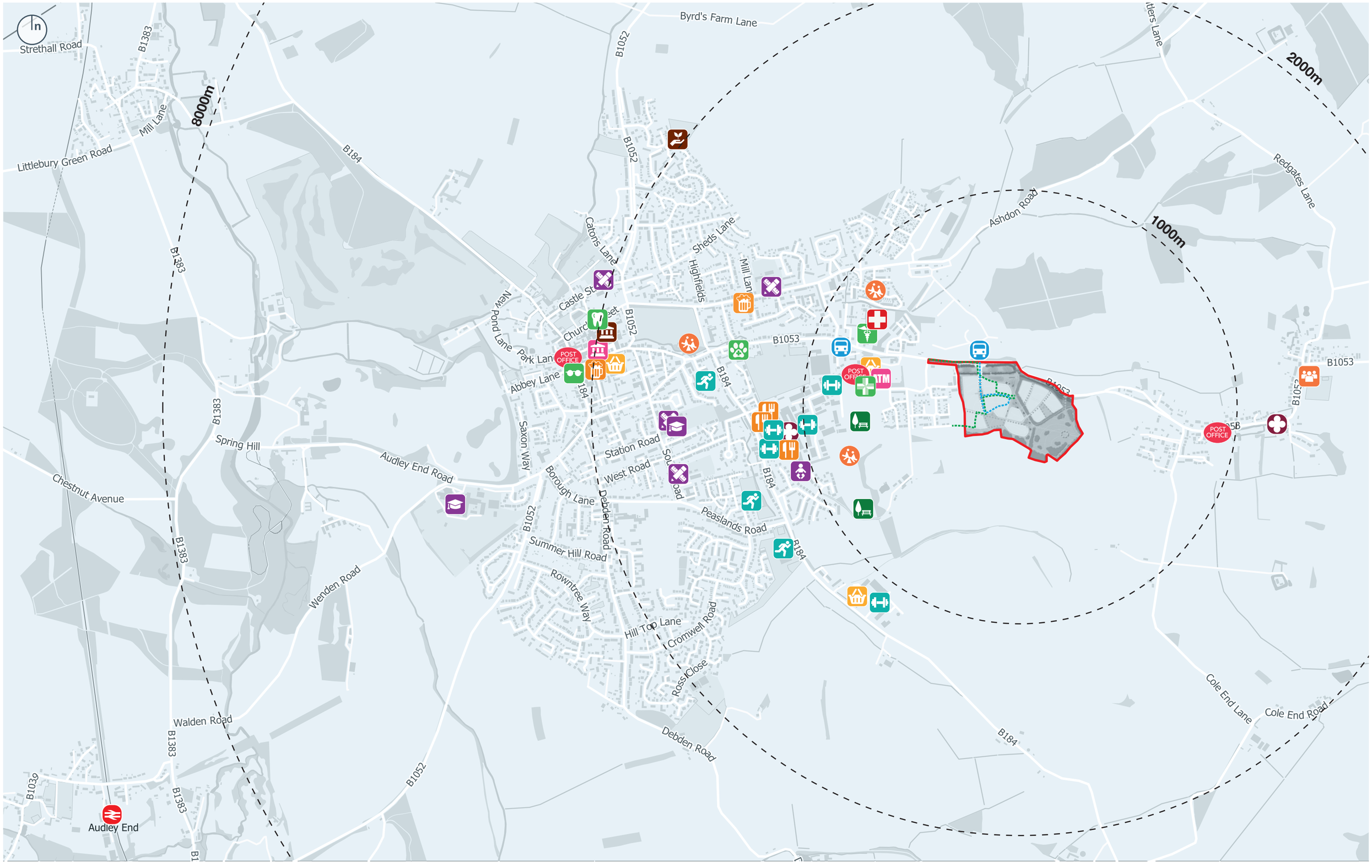
7.18 All dwellings at the appeal site will utilise water efficient technologies to meet the 110 litres per person per day target.

7.19 Provision of a surface water drainage system designed to mitigate a 1 in 100 storm event, including a 40% allowance for climate change.

7.20 Homes designed to minimise the risk of overheating taking into account increasing annual temperatures set out in the UKCP18 climate projections.

7.21 Site habitats and species enhanced to achieve a Biodiversity Net Gain of at least 10% helping protect against the effects of climate change.

Appendix 1: Access to Services Map



- Site boundary
- Grocery store
- General Practitioner
- Pharmacy
- Optician
- Vet
- Hospital
- Nursery
- Primary school
- Secondary School
- Public House
- Restaurant
- Bank
- ATM
- Town Hall
- Post Office / box
- Place of worship
- Playground
- Community centre
- Green space
- Leisure & sports facilities
- Gym
- Allotment
- Train Station
- Bus stop
- Bus route
- Pedestrian access

CLIENT **Rosconn**

PROJECT **Land South of Radwinter Road**

DRAWING: **Access to services map**

PROJECT NO.	STATUS	
ROSZ3000	Preliminary	
DRAWING NO.	SCALE	
-	NTS @ A3	
REVISION	DATE	CHECKED BY
-	August 2022	LB

Turley

Appendix 2: Mitigating and Adapting to Climate Change

Land at Radwinter Road

Mitigating and Adapting to Climate Change

Turley | ROSCONN STRATEGIC LAND

The design of the proposed development at Radwinter Road will include a sustainability strategy which is flexible and fit for the future. A range of measures will be incorporated into the development design to enhance the sustainability of the development ensuring it is resilient to the future impacts of climate change as well as reducing carbon emissions.

Climate Change Mitigation

Construction Carbon

The embodied carbon of buildings can account for half of a building's lifetime emissions. As part of the detailed design of new homes a Life Cycle Assessment (LCA) will be carried out to estimate the embodied carbon of proposed house types and consider measures to reduce the embodied carbon of homes.

Energy and Carbon Strategy

CO_2 ↓ 31%

Homes will be designed in accordance with the Energy Hierarchy to reduce energy use and carbon emissions and design will incorporate a range of fabric and energy efficiency measures to meet the requirements of the Building Regulations.

The development will include homes which achieve a 31% carbon reduction beyond the Part L 2013 in accordance with the interim Future Homes Standard. The detailed design of the development will explore options for reducing carbon emissions in accordance with the FHS as required, considering the use of renewable technologies such as Air Source Heat Pumps and Solar PV.

Climate Change Adaptation

Flood Risk

The site is situated in Flood Zone 1 and therefore at a low risk of flooding from fluvial, pluvial, groundwater and sewer sources. The Drainage Strategy for the site sets out how surface water runoff generated by the proposal will be stored using a series of attenuation basins and Sustainable Drainage Systems (SuDS) before discharging into the existing watercourse to the west of the site. The drainage strategy has been designed to accommodate a 1 in 100 year event, including a 40% allowance for climate change.

Overheating

Homes will be designed for climate resilience and adaptation through accordance with the new Building Regulations Part O Overheating. Homes will be designed in accordance with the cooling hierarchy, meaning they will be better equipped to manage their cooling needs and adapt to and mitigate climate change.

Biodiversity

The Preliminary Ecological Appraisal (PEA) prepared to support the application lists a range of design considerations and biodiversity enhancement opportunities, this will include the specification of climate tolerant species. The proposed strategy will deliver a minimum 10% Biodiversity Net Gain (BNG), helping site habitats and species enhance resilience to climate change.

Lacon House,
84 Theobalds Road,
London
WC1X 8NL

T: 020 7851 4010

Turley
Sustainability