Sustainability Statement Guidance Note.

For new Residential and Non-residential buildings

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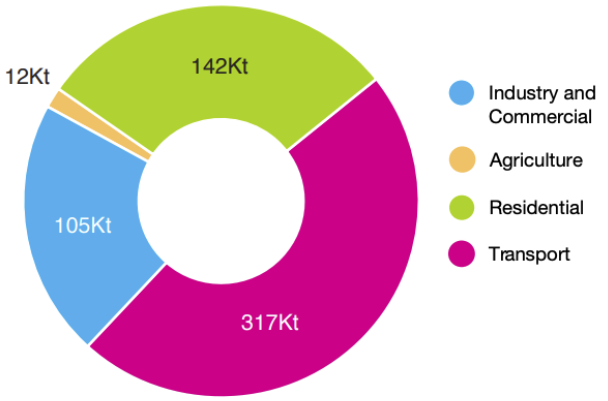
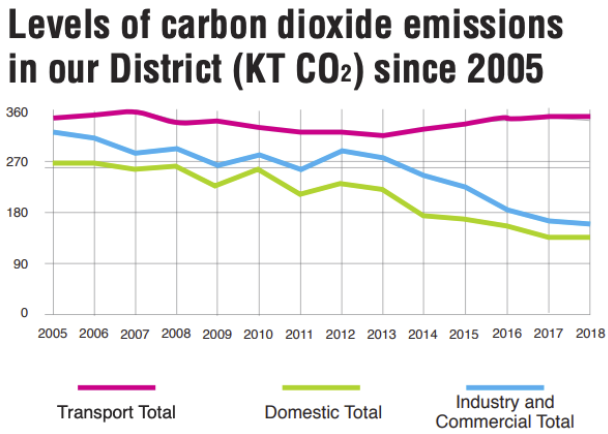
Braintree District Council

Introduction

Braintree District sources of Carbon Dioxide emissions (KT CO2)





Braintree Climate change strategy

Housing and employment can contribute significantly to the carbon footprint Braintree residents. National and local data (above) suggests that residential emissions typically account for around 25% of carbon emissions at the individual level. This includes not only the emissions associated with the operation of the home (e.g., energy used for heating, cooling, and lighting), but also emissions associated with construction and maintenance. Businesses account for another 20% meanwhile Transport produces nearly 50% of CO2 emissions in the district.

Construction and production of building materials, transportation of materials to the site, and installation of the home's systems and appliances all generate carbon emissions. Additionally, operation and maintenance will also contribute to the environmental impact of the dwelling.

In terms of operational energy use, the source of energy used to heat and power the dwelling or premises is a critical factor in determining the ongoing carbon footprint. Developments powered by electricity generated from renewable sources generated on-site, such as solar or wind, have a lower carbon footprint compared to homes powered by the national grid using fossil fuels, such as natural gas. According to the Business, Energy and Industrial Strategy (BEIS), space and water heating in buildings can account for up to 66% of the total energy consumption therefore a focus on measures to improve heating efficiency such as air tightness, air or ground source heat pumps and solar gain will have measurable effects. The size of the home also plays a role, as larger homes require more energy to operate and maintain, which can result in higher carbon emissions.

Embedded behaviour and lifestyle choices such as active travel, using energy-efficient appliances, turning off lights when not in use and reducing unnecessary energy consumption can also help reduce the carbon footprint associated with work or living. Emissions because of transportation, whether for work, leisure or the delivery of goods and services has remained consistent over the 15 years despite falls in other sectors such as electricity generation. Consideration should be given to designing new residential and employment areas, places and buildings which have active and healthy lifestyles choices embedded in them. In this district, there should be a focus on making shorter journeys more attractive by reshaping the urban areas to truly prioritise active travel as a sustainable alternative.

To have the greatest impact on reducing the carbon footprint for homes and businesses in the district we should reduce those emissions associated with heating buildings and hot water, and transport of goods and people.

This Sustainability Statement Guidance Note is an interim guide and is written to assist developers seeking to submit a planning application in the time until adoption of a Sustainability Statement SPD (Supplementary Planning Document). It brings basic clarity to policies to enhance submitted information, particularly for Sustainability Statements accompanying applications (when these are required). The guide focusses on the information decision makers, such as planning officers, expect to ensure information is concise and efficient.

What is a Sustainability Statement?

A sustainability statement should be attached a planning application to demonstrate that a new residential or employment buildings are constructed in accordance with the principles of mitigating and adapting to climate change. It should allow decision makers evaluate the environmental, social,

and economic sustainability of a proposed development and to make an informed decision on whether to grant planning permission. A new building can have a significantly impact on the environment, including energy use, carbon emissions during construction, water consumption and waste production. The adopted Braintree Local Plan suggests the Climate Change principles below:

Principles of mitigation of carbon output during construction and operation

- High levels of Energy Efficiency
- Sustainable Transport options
- Recycling and waste reduction
- Facilitate homeworking

Principles of adaptation to climate change

- Water Efficiency
- Avoid or manage flood risk
- Manage surface water flood risk
- Overheating
- Natural shading and cooling
- Green infrastructure networks

Written sustainability statements which are attached to planning applications should include the following:

1. Description of the development: describe the proposal and include location, size, use and intended occupation.
2. Outline the sustainability principles in use, include the design objectives and target emissions rate.
3. Design and construction: show how the building was designed with these principles in mind, summarise any consideration of building materials, building orientation, energy-efficient heating and ventilation systems, and their alternatives.
4. Energy use: how will the building minimise energy use?
5. Water use: how will the building minimise water use?
6. Waste management: how can waste be reduced during construction? How will the building accommodate waste management when in operation?
7. Sustainable Transport: there should be a range of sustainable options and prioritisation of walking and cycling.

Aiming towards net-zero by 2050

In July 2019, the Council proclaimed a climate emergency and pledged to support communities within Braintree District to reduce the impacts of climate change. This followed the Government's

commitment to extend the UK carbon target to reduce carbon Emissions from 80% of 1990s levels to net zero by 2050.

The Braintree Climate Change strategy has key priorities split across 7 themes which aim to tackle carbon emissions at a district scale. These are resources, energy conservation, built environment, transport, business and green economy, natural environment and adapting to Climate Change. At the district scale, new residential and employment construction and occupation is an important source of emissions to target for reduction. In the priorities for the built environment, it states that:

'Planning functions are a key lever in reducing emissions and adapting localities to a changing climate. We will make use of our planning and building powers to require higher energy efficient standards and design standards in new builds and extensions, where we are allowed to do so through national policy.'

One of the key tools available to the Council to help steer communities towards net zero is the Local Plan and its policies. Local Plan policy LPP71 on Climate Change requires mitigation and adaptation in developments which would respond to Climate Change, where lower emissions would contribute to the Council's aims and objectives on the path to net zero carbon.

Key points timeline on the road to net zero:

- 2021 Adoption of BDC Climate Change Strategy
- 2021/22 Adoption of the Braintree Local Plan
- 2022 Part L new building regulations 2022
- 2023 Adoption of sustainability statement guidance note
- 2025 new Building regulations - Future homes standards
- 2030 new future home standards expected
- 2050 Net Zero

A Sustainability Statement should demonstrate the principles of Climate Change mitigation and adaptation and show what and how mitigation measures have been incorporated into the scheme.

How to measure progress

The goal is to reach net zero in carbon emissions, however there can be flaws in the energy to carbon conversion which favours inefficient renewable energy generation via the national grid above a fabric first approach. The London Energy Transformation Initiative (Leti) recommends that building performance should not be measured in terms of carbon but instead simplified to energy use. This is called absolute Energy Use Intensity (EUI) which is measured in kWh/m2.yr (Gross Internal Area) GIA for space heating, hot water and overall energy demand at the meter. A Part L compliant residential building is estimated to achieve 140 kWh/m2.yr.

Leti also recommends that post construction building performance is carried out to ensure that the performance gap (the difference between the energy efficiency that was promised at the design stage and the energy efficiency that is achieved in practice) is eliminated. Building Research Establishment Environmental Assessment Method (BREEAM) certification is post construction and will not need additional post construction certification policies. We are unable to bring in performance measurement certification for this Guidance Note however it will be considered for future iterations.

Who is this guidance for?

- **Applicants**

This guide and checklist should be used by applicants at design stage and if applicable, for design codes and the production of the illustrative masterplan and parameter plans. Ideally, a completed sustainability checklist (Appendix A) should accompany the planning application to ensure that the applicant has considered and incorporated sustainability measures into the design.

- **Decision makers**

The checklist summarises the carbon mitigation and adaptation features of the development in a visual and accessible way such that the positive and negative credentials are highlighted. This will inform decision makers on how well the development performs against local and national standards or policy.

- **Planning Officers**

The checklist can be used by officers to assess how the submitted planning application performs against climate change mitigation and adaptation policies. This guidance note will help guide pre-application discussions and inform decision making for delegated decisions and the checklist could be included with recommendations to planning committee.

- **Quality Review Panel**

For larger developments and certain developments in some neighbourhood plan areas, a Quality Review Panel (QRP) report will be required as part of the planning application. QRP panel members are independent experts from a range of backgrounds who scrutinise the design and layout of development proposals. The Checklist can be used by Quality Review Panels to help inform sustainability and climate change mitigation and adaptation discussions.

What type of development will this guidance be applied to?

The adopted Local Plan requires that a sustainability statement is used to demonstrate the principles of climate change mitigation and adaptation in all but ‘very minor applications’. For this guidance

note, we have interpreted this to mean all new residential and residential-led mixed-use developments of 1+ units, or non-residential developments (all use classes) of floorspace equal to 501 sq.m. or more.

Residential alterations, extensions, conversions and annexes and non-residential buildings below 501sq.m are excluded. Additionally, developments which are not buildings are excluded from BREEAM. There is no exclusion for historic buildings however the need to preserve the historic character and appearance of these buildings will be assessed against the performance of the checklist.

Change of Use Prior Approval (COUPA) arising from a change of use class for an existing building does not require a full planning application therefore the Local Plan policies and this guidance note will not apply however in some circumstances Part L of the building regulations will still be required.

We will review these thresholds for future iterations of this guidance note, or for a future SPD.

National and Local Policy

Planning and Energy Act 2008 aims to support the transition to a low-carbon economy by promoting renewable energy, energy efficiency, and carbon capture and storage. It gives Local Planning Authorities the powers to impose reasonable requirements for complying with energy efficiency standards that exceed the requirements of the building regulations. The Climate Change Act 2008 sets legally binding targets for reducing emissions by 80% from 1990 levels by 2050 at the national level. These two statutory documents underpin carbon reduction policies in the Local Plan.

NPPF (2021):

'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.' (para 152)

'Plans should take a proactive approach to mitigating and adapting to climate change, considering the long-term implications for flood risk, coastal change, water supply, biodiversity and landscapes, and the risk of overheating from rising temperatures. Policies should support appropriate measures to ensure the future resilience of communities and infrastructure to climate change impacts, such as providing space for physical protection measures, or making provision for the possible future relocation of vulnerable development and infrastructure.' (para 153)

'New development should be planned for in ways that: a) avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure; and b) 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.' (para 154).

'To help increase the use and supply of renewable and low carbon energy and heat, plans should: a) provide a positive strategy for energy from these sources, that maximises the potential for suitable development, while ensuring that adverse impacts are addressed satisfactorily (including cumulative landscape and visual impacts); b) consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development; and c) identify opportunities for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems and for collocating potential heat customers and suppliers.' (para 155)

'In determining planning applications, local planning authorities should expect new development to: a) comply with any development plan policies on local requirements for decentralised energy... and b) take account of landform, layout, building orientation, massing and landscaping to minimise energy consumption.' (para 157)

NPPG:

'...local planning authorities should pay particular attention to integrating adaptation and mitigation approaches and looking for 'win-win' solutions that will support sustainable development. This could be achieved in a variety of ways, for example:

- *by maximising summer cooling through natural ventilation in buildings and avoiding solar gain;*
- *through district heating networks that include tri-generation (combined cooling, heat and power); or*
- *through the provision of multi-functional green infrastructure, which can reduce urban heat islands, manage flooding and help species adapt to climate change – as well as contributing to a pleasant environment which encourages people to walk and cycle.'* (Paragraph 004 Reference ID: 6-004-20140612):

Local requirements (for sustainability and zero carbon) should form part of a Local Plan following engagement with appropriate partners and will need to be based on robust and credible evidence and pay careful attention to viability. (Paragraph 009 Reference ID: 6-009-20150327)

Passive solar design is available in the National Design Guide… (Paragraph 010 Reference ID: 6-010-20140306)

… be aware of and avoid risk of maladaptation (adaptation that could become more harmful than helpful). For example, designing buildings to maximise solar gain in winter without thinking through the implications for overheating in summer. (Paragraph: 012 Reference ID: 6-012- 20190315)

Building Regulations:

Part L is a section of the UK Building Regulations that sets standards for the energy performance of buildings. The latest version of Part L, 2021, was approved for use by the Government on the 15th of June 2022, this should result in at least 19% improvement in energy performance over the 2013 Buildings Regulations. Part O was also introduced on this date which aims to tackle overheating.

S2 Local Plan Policy LPP74:

'The Council will adopt strategies to mitigate and adapt to climate change. In addressing the move to a low carbon future for Braintree District, the Council will plan for new development in locations and ways that reduce greenhouse gas emissions.

Applicants will be expected to demonstrate that measures to lower carbon emissions, increase renewable energy provision and adapt to the expected impacts of climate change have been incorporated into their schemes, other than for very minor development.

Planning permission will only be granted for proposals that demonstrate the principles of climate change mitigation and adaptation into the development.

Guidance will be made available by the Council on the contents to be included in the Sustainability Statement. The Council intends the District to meet part of its future energy needs through renewable and low carbon energy sources and will therefore encourage and support the provision of these technologies subject to their impacts on landscape and visual amenity, residential amenities including noise, pollution, heritage assets and their settings, biodiversity and designated nature conservation sites, soils, and impact on the highway, being acceptable.'

Policy LPP 74 Climate Change states that applicants for **all** planning applications other than for very minor development will be expected to submit a sustainability statement.

We will interpret 'very minor developments' in the above policy to mean certain developments which do not result in the creation of a new dwelling, such as extensions and refurbishments thereby expecting submissions of a Sustainability Statements (to which this guidance note applies) to planning applications for outline, full, hybrid and reserved matters applications of the following developments:

- Major proposals of 10 or more dwellings
- Minor residential-led proposals of 1 to 9 new dwellings.

- New or converted non-residential uses, including community use, employment or retail floorspaces, of 501 sqm or more.
- Replacement dwelling schemes.

We will relax requirements for a sustainability statement to be submitted for other types of development. COUPAs do not require a planning application and are also excluded.

A Sustainability Statement SPD will be produced by the Council incorporating detailed supplementary information however applicants are still required to demonstrate that measures to lower carbon emissions have been incorporated in their schemes at present time.

This guidance note has been produced to help applicants write and submit a Sustainability Statement for the period between adoption of the Local Plan and adoption of the SPD. The guidance also helps officers and decision makers assess the proposals (for development) against the principles of climate change mitigation and adaptation. These principles are stated in the supporting text of Section 2 Local Plan (para 6.54). For mitigation of carbon output during construction and while in use, we expect developments to have high levels of Energy Efficiency, offer a range of sustainable transport options, incorporate recycling and waste reduction and be able to facilitate home-working. For adaptation to climate change, developments should be water efficient, avoid or manage flood risk, manage surface water flood risk, manage overheating, include natural shading and cooling, and enhance and link with the green infrastructure network.

Sustainability Statement Checklist

Design Principles

The main design policies are at LPP52 of the section 2 Local Plan where many of the policies support sustainable travel and measures for environmental sustainability. Sustainable travel is covered further in the sustainable movement section of this Guidance Note.

Local Plan Policy LPP52
'f. Development proposals will incorporate measures for environmental sustainability throughout the construction, occupation and demolition of the development; in relation to energy conservation, water efficiency, waste separation (internal and external), climate change, flood resilience and resistant construction and the use of materials with low overall energy requirements.

q. Developments should avoid single aspect dwellings that are: North facing; exposed to noise categories C or D; or contain three or more bedrooms. Where single aspect dwellings are proposed, the designer should demonstrate how good levels of ventilation, daylight and privacy will be provided to each habitable room.'

Local Plan Policy LPP 72
'The Local Planning Authority will encourage appropriate energy conservation and efficiency measures in the design of all new development. Such measures could include site layout and building orientation, natural light and ventilation, air tightness, solar shading, reducing water consumption and increasing water recycling to contribute to the reduction in their total energy consumption.'

<u>On adaptable buildings</u>
Policy LPP42:
'All new development should be in accordance with the national technical housing standards.'

'A minimum of 10% of new market homes on sites of 10 or more dwellings must meet Category M4(2) or Category M4(3)(2)(a)/(b) – Wheelchair Accessible dwellings of Building Regulations 2015, or as superseded, as appropriate.'

'All new affordable homes on ground floor level must meet Category M4(2) or M4(3). For developments within or adjacent to the Main Towns and Key Service Villages, 5% of all new affordable homes will be required to meet Category M4(3)(2)(a)/(b) – Wheelchair Accessible dwellings - of Building Regulations 2015, or as superseded, as appropriate.'

Local Plan Policy LPP48:
'Developments shall achieve a high standard of accessible and inclusive design to ensure that they... Are flexible and responsive taking account of the needs of different users.'

It is acknowledged that the other design policies in the Local Plan for layout and design can be in tension with optimising the layout of development for energy efficiency. As the Local Planning Authority will need to take these design trade-offs into account, it is important to discuss these issues with officers early in the planning application process. The design process is iterative where it may be necessary to be flexible and adaptable.

Sustainable Design Principles

These sustainable design principles should be considered at the earliest stages of the proposal. In order of priority, with A being the highest, we suggest that the following principles A-E are incorporated to make achieving higher sustainability levels easier.

A. Energy Hierarchy
Design of new developments should comply with the following Energy Hierarchy principles:

1. be lean: manage energy demand during operation through fabric and servicing improvements and the incorporation of flexibility measures
2. be clean: supply energy efficiently by exploiting local energy resources (such as secondary heat and by connecting to district heating networks).
3. be green: use renewable energy by maximising opportunities for producing, storing and using renewable energy on-site

Be seen, i.e. to monitor, verify and report on performance of energy efficiency design and build post construction will not be included in this iteration of the Sustainability Statement Guidance Note.

B. Orientation
Solar gain should be prioritised by designing layouts with south-facing fenestrations which absorb heat to warm buildings and spaces. This can significantly reduce the energy consumption of a building. Overheating during summer months can be managed by external shading (preferred), natural ventilation or by mechanical ventilation. A daylight and sunlight assessment can help provide more information on how much natural light each building in a development will be exposed to.

C. Fabric First, airtight and low thermal bridge
A building should prioritise incorporating a high performance materials for the walls, roof and floors to create a thermal envelope that has excellent energy efficiency. The thermal envelope needs to minimise heat loss to reduce the need for energy expenditure on building and space heating. This means focusing on a draught free (airtight) building, gaps in insulation and designing out conductive materials to reduce thermal bridging.

There are no proposals for post-construction evaluation of residential buildings in this iteration of the Sustainability Statement Guidance Note however this can be considered in future reviews.

D. Adaptable design

Residential dwellings should be able to adapt and respond to the changing needs of occupiers. The aim is to have a home that is suitable for use throughout the lifetime of the occupant and/or development. This should include buildings which are easily extendable to expand to growing space needs or can be adapted using stud walls for interior partitioning.

E. Embodied Energy

Embedded Carbon is emissions associated with the production and transportation of building material and components plus the energy used in the construction process. While we would encourage demonstration that use of building materials which have lower embodied carbon has been considered, for example through RICS's Whole Life Carbon Assessment, detailed consideration for the carbon footprint of the construction industry is beyond the scope of this guidance note and will not be assessed.

Energy Efficiency

Local Plan Policy

For new development, the LPA's aspiration is for energy efficient development that minimises space heating requirements and primary energy demand. This works in parallel with Building Regulation targets to deliver reductions in CO2 emissions. (para 6.66)

LPP 72 Resource Efficiency, Energy Generation and Energy Efficiency

'The Local Planning Authority will encourage appropriate energy conservation and efficiency measures in the design of all new development. Such measures could include site layout and building orientation, natural light and ventilation, air tightness, solar shading, reducing water consumption and increasing water recycling to contribute to the reduction in their total energy consumption.'

Reducing Energy Use is the first part of stage 1 (be lean) energy hierarchy and Energy efficiency is the second part. It is a key area to focus efforts due to the dominance of building and hot water heating in residential energy usage. The local plan policy suggests a range of measures aimed at passive heat management measures to reduce total energy use for building heating. As suggested above in this guidance note, this should be measured in EUI or Energy Use Intensity measure in kilowatt hour per meter squared, per year **(**kWh/m2.yr**)** GIA**.**

MINIMUM STANDARD Guidance:

- For part L compliant residential developments, no additional information is required to be submitted.
- For non-residential developments, a **Pre-Assessment Report** and **Design Stage Assessment Report** should be submitted as applicable demonstrating that BREEAM 'Very Good' can be achieved (in accordance to BRE guidelines). BRE accreditation is required after completion.

If the above cannot be achieve using a fabric first approach, we suggest measures the following measures to exceed the minimum requirement:

- Use on-site renewable energy production (next section)
- Low-carbon heat generation (next section)
- Energy storage to smooth demand (e.g. battery, domestic hot water storage).

Guidance for EXCEEDING MINIMUM STANDARDS:

With the aim of achieving net zero, we **strongly** encourages all new development to exceed the requirements set by Part L or BREEAM 'very good' where relevant. Proposals should follow the

energy hierarchy (Be Lean, Be Clean) to minimise energy use as a priority. Bearing in mind that residential dwellings and most non-residential buildings currently emit the most carbon from heating buildings and water, developers, architects and designers should consider the following measures to improve energy efficiency performance:

Fabric First:

- Glazing specification
- Air tightness
- Additional insulation
- Thermal bridging
- Building services efficiency (for non-domestic)
- Reducing the ‘dead leg’ of water heating systems

Passive design:

- Orientate buildings for solar gain
- Be mindful of thermal properties of building materials
- Absorbent or reflective materials where appropriate
- Passive ventilation and heating systems

Site and layout:

- Sheltered planting to reduce the need for air conditioning
- Shared heat through party walls
- Internal layout of rooms so that occupied room are south-facing

Technology:

- Domestic hot water insulation and indirect heating systems
- Lighting and energy efficient appliances
- Demand smoothing
- Battery storage including power conversion systems, transformers, switches and monitoring
- Mechanical ventilation and heating systems

For residential development, a table like the one below should be included with the planning application to demonstrates that energy efficiency exceeds the requirements of Part L. Applicants may use an average energy performance for blocks of dwellings (e.g. flats) within a single building if desired.

Example table A for provision of information pertaining residential developments which exceed minimum standards:

Unit number/address	TPER*	DER*	% Improvement on Part L 2021

Target Primary Energy Rate (TPER) measured in kWh/m2.yr
Dwelling/Building Emission Rate (DER) measured in kWh/m2.yr

Assessment Questions

What is the operational energy needs of the building (residential)?
Minimum = 140 *kWh/m2.yr* (Part L Building Regulation Standard)
Exceed = 70 or less (*kWh/m2.yr)*
Outstanding = 46 or less (*kWh/m2.yr)* (Passivhaus Standard)

Includes both regulated and an estimated average of unregulated energy (i.e. Space Heating + average energy allowance per user), as measured at the meter. Floorspace is Gross Internal Area (GIA).

What are the Fabric u-values of the building fixtures?

1) Walls
   Minimum = 0.26 (W/M2.K) = Part L Standard
   Exceed = 0.18 (W/M2.K) = Future Homes Consultation
   Outstanding = 0.09 - 0.12 (W/M2.K) = LETI Standard

2) Floors
   Minimum = 0.18 (W/M2.K) = Part L Standard
   Exceed = 0.13 (W/M2.K) = Future Homes Consultation
   Outstanding = 0.09 - 0.12 (W/M2.K) = LETI Standard

3) Roofs
   Minimum = 0.16 (W/M2.K) = Part L Standard
   Exceed = 0.13 (W/M2.K) = Future Homes Consultation

Outstanding = 0.09 - 0.12 (W/M2.K) = LETI Standard

4) Windows and Doors
   Minimum = 1.6 (W/M2.K) = Part L Standard
   Exceed = 1 to 1.4 (W/M2.K) = Future Homes Consultation
   Outstanding = 1.0 Overall including frame (W/M2.K) = LETI Standard

Airtightness
Minimum = 8m3 (h·m2)@50Pa = Part L Standard
Exceed = 5m3 (h·m2)@50Pa = Future Homes Consultation
Outstanding = 3m3 (h·m2)@50Pa = LETI Standard

Example: 8m3 (h·m2)@50Pa means 8 cubic metres of air can escape per hour for every square metre of the envelope surface area (total wall area), with and internal air pressure of 50 Pascals. Passivhouse will typically be 1m2 or less and will require mechanical ventilation to maintain comfortable indoor air quality.

Ventilation Strategy
Minimum = Natural with extractor fans
Exceed = Mechanical extract with extractor fans
Outstanding = Continuous mechanical supply and extract with heat recovery

Renewable Energy and Low Carbon Heat Generation

Local Plan policy:
'It is important to recognise that small-scale housing schemes although limited, provide a valuable contribution to the overall outputs of renewable energy and to meeting energy needs locally and nationally.' (para 6.65)

'The 2012 NPPF (National Planning Policy Framework) supports the identification of opportunities for development to draw its energy from decentralised sources and for co-locating potential heat customers and suppliers. Decentralised energy can achieve greater carbon reduction and is more viable and cost-effective where connections can be made between day and night-time users, including new and existing development.' (para 6.67)

Both residential and non-residential developments are encouraged to include on-site renewable energy and low-carbon heat generation technologies by Local Plan policies. Decentralised energy generation is more efficient than national grid generation and transmission, even as the Government seeks to decarbonise the national energy generation sector. Energy storage such as lithium-ion battery storage can be paired with a solar panel system to store excess solar energy generated during the day and use it during the evening and night-time. This is often a cost-effective solution as it smooths out the peaks and troughs of energy supply and demand without drawing on the national grid. Both measures are supported by local plan policies.

There are separate policies for non-domestic renewable energy schemes such as solar farms and wind turbines, if your proposal includes renewable energy which is not within the curtilage of the dwelling or employment premises, it may be necessary to refer to policy LPP73.

MINIMUM STANDARD

- No policy requirement to generate renewable energy or incorporate low-carbon heat generation unless this is used to mitigate poor energy efficiency to achieve Part L of the Building Regulations.

- There is no further guidance to meet this requirement.

Guidance for EXCEEDING MINIMUM STANDARDS:

Developers should summarise all relevant plans and specifications submitted with the planning application where on-site energy supply is provided. This could be in an energy production statement showing how energy will be supplied more efficiently. For residential development of 10 or more, we have set a target of 10% or more on-site renewable energy generation to exceed minimum expectations.

Suggested measures to exceed the minimum requirement:

- Solar Photovoltaics (PV)
- Heat pumps (ground, air or water)
- Biomass burners/ boiler
- Mechanical heat recovery systems
- Domestic/micro combined heat and power system
- Hydropower
- Solar thermal
- Combined Heat and Power systems (CHP)
- District Heating schemes
- Wind turbines

For the majority of new residential and non-residential developments, we recommend consideration of air-source heat pumps and roof or garden mounted solar photovoltaics as the most common renewable and low carbon heat generation installations in the area. Peak demand smoothing and battery storage (see energy efficiency above) in combination with renewable energy generation can result in a significant reduction in carbon emissions of a development.

For residential development, a table like the one below should be included with the planning application to demonstrate the effectiveness of installed renewable energy generation. The sustainability statement should include an options assessment of alternative renewable energy schemes which were considered.

Example Table B for the assessment of carbon saved by renewable energy schemes:

	A		B	((A x B) / floor area)
Technology / Scheme	Energy generated (kWh/yr)	Alternate energy source	Alternate energy source carbon factor (tonnes CO2/kWh)	Carbon emissions mitigated (t.CO2/sqm./yr)
e.g.Solar PV		*grid electricity / gas heating .etc*		
e.g.Heat Pump				
Total				

Assessment Questions

What percentage of CO2 emission reduction is planned to be provided by on-site renewable energy?
Minimum = 0%
Exceeded = 10-20%
Outstanding = 21% and above

What on-site renewable energy technologies have been included within the development?
Minimum = none
Exceeded = Solar/wind/Air source or other heat pumps
Outstanding = CHP (Combined Heat and Power)/Solar Thermal

Climate Change Adaptation

Local Plan Policy Reference:
'The best available evidence shows that we are seeing and can expect to see future changes in the global climate because of past and ongoing greenhouse gas emissions. In 2015, global temperatures rose more than one degree above pre-industrial levels, according to data from the Met Office. Temperatures are predicted to escalate in the future and it is therefore essential that in Braintree District we ***prepare for greater frequency of extreme weather events****.'* (Para 6.47)

'Climate change adaptation means ways that a development can be adapted to deal with the weather related consequences of climate change. ***Using water more efficiently, reducing overheating and controlling rainwater run-off*** *are all examples of adapting a development to respond to changes in our climate. The plan already proposes some such strategies.'* (Para 6.55)

'To adapt to the effects of climate change, proposals should;

- *Manage and conserve water resources*
- *Demonstrate that* ***flood risk*** *from all sources has been avoided or managed*
- *Use* ***Sustainable Drainage Systems*** *(SuDS)*
- *Use layout, building orientation, design, and materials to ensure properties are not susceptible to* ***overheating***
- *Include open space and trees/vegetation for* ***shading and cooling****, and to control surface water run-off*
- *Create a better linked* ***habitat network*** *by conserving, creating or enlarging existing habitats'*

(para 6.56)

LPP 72
'All new dwellings shall meet the Building Regulations optional requirement for ***water efficiency of 110 litres/person/day****.'*

Policies including the technical standards for managing flood risk and SUDS are published in full at LPP74 and LPP76 – we do not seek to repeat the text here. See also ECC's SuDS design guide for technical guidence.

Local plan policy supports building adaptation in response to a greater frequency of extreme weather events such as water stress, overheating and pluvial flooding. Planning applications should include a statement on climate change adaptation which summarises the measures that have been incorporated into the design and layout of the development to adapt to the effects of climate change (higher summer temperatures and greater frequency of extreme weather events). Statements should focus on overheating of public and private spaces, controlling surface water run-off and the creation of public and private green infrastructure and habitat networks (more details later in this guidance note).

Developments in areas at risk of flooding will also have to account for fluvial flooding, while developments within the critical drainage areas within Braintree or Witham will have to respond to additional Local Plan policies at LPP75.

MINIMUM STANDARD

- Expected internal water usage of 110 litres/person/day (residential)
- A site drainage strategy - provision of SuDS for 10 or more dwellings and 'major commercial development' as applicable
- Compliance with other Local Plan flood management policies as applicable (see local validation list)

Part L of the Buildings regulations was approved on the 15th June 2022, this standard requires that the average water usage for residential dwellings be no more than 110 litres per person per day.

- For residential developments, no additional information beyond the above is required to be submitted.
- For non-residential developments, a minimum standard of 1 credit wat 1 is required to meet BREEAM 'very good'. This is equivalent to a 12.5% improvement over baseline water consumption for the building according to type.

Guidance for EXCEEDING MINIMUM STANDARDS:

Suggested measures to exceed the minimum requirement:

Water efficiency:

- Use a whole life carbon approach
- Green Roofs
- Rainwater harvesting
- Dual potable and grey water recycling
- Installation of water saving devices e.g. Low flush toilets, smaller baths, taps and showers with flow regulators
- Installation of visible water meters or portable digital meters

Passive cooling measures:

- Siting and orientation of buildings
- Passive building design, natural ventilation and lighting
- Deciduous trees and vegetation for shading
- Reducing the heat island effect e.g. by using reflective materials for pavements and roofs
- Green Walls

- Provision planting scheme designed in response to heat map assessments

Reducing the effects of Pluvial and Fluvial flooding events:

- SuDS mimicking nature incorporating passive infiltration and attenuation
- Multifunctional SuDS incorporating open spaces or biodiversity
- Permeable surfaces
- Green Walls
- Green/blue Infrastructure enhancements beyond open space strategy standards

Assessment Questions

What is the expected internal water use (litres/person/day)? (residential)
Minimum = 110 lpd
Exceeded = 109 or less
Outstanding = 75 or less

What % percentage improvement over baseline building water consumption? (non-residential)
Minimum = 12.5% (BREEAM very good)
Exceeded = 25% or more
Outstanding = 65% or more (BREEAM Outstanding)

See Wat 01 Water consumption by BRE group for further details

What percentage of the hard surfaces within the development and conveyance systems will be permeable (streams, swales, amenity green space, open space, private gardens .etc)?
Minimum = less than 50%
Exceeded = 50-75%
Outstanding = 90% or more

What water collection or recycling measures will be used?
Minimum = None
Exceeded = Water Butts/Rainwater harvesting
Outstanding = Greywater recycling and rainwater harvesting

What water saving measures have been installed?
Minimum = None or some measures
Exceeded = all of low flush toilets, smaller baths, taps and showers with flow regulators
Outstanding = all of above and more

Green and Blue Infrastructure

Local Plan Policy
Policy *LPP63: 'The Council will expect all development proposals, where appropriate, to contribute towards the delivery of* ***new Green Infrastructure*** *which develops and enhances a network of multi-functional spaces and natural features throughout the District. This will be* ***proportionate to the scale of the proposed development*** *and the rural or urban context. The Council will support and encourage development which contributes to the District's existing Green Infrastructure and where possible, enhances and protects networks and adds to their functions.'*

'The District has a range of existing green and blue infrastructure assets which serve several different functions. Assets such as ***open spaces, parks and gardens, allotments, woodlands, trees, fields, hedges, lakes, ponds, meadows and grassland, playing fields, footpaths, former railways, cycleways and waterways, ponds and lakes*** *all represent elements which can be considered as Green or Blue Infrastructure.'* (Para 6.6)

'The concept of Green Infrastructure encourages connecting such spaces and seeking opportunities to increase their function and connectivity to the benefit of the community and natural world.'

LPP52 Layout and design of development
'i. Landscape proposals should consist of native plant species and their design shall promote and enhance local biodiversity and historic environmental assets. ***Biodiversity net gain*** *in line with the requirements of national policy through the provision of new priority habitat where appropriate is encouraged. Development layouts must be appropriately designed to accommodate structural tree, hedge planting, and ensure that future interference with highway safety, roads, pavements, services and properties is minimised.'*

MINIMUM STANDARD

Green and blue infrastructure should be incorporated into the design and layout of the development to contribute towards climate change adaptation and habitat resilience. We suggest that it's used in conjunction with features which mitigate flood risk, such as by enhancing SuDS features, where possible.

- 10% Biodiversity Net Gain (in accordance with the Environment Act 2022)
- Provision of new on-site green/blue infrastructure e.g. public open space, private amenity space, gardens (Major development should submit a design and access statement)
- Major development should submit an adequate landscape impact assessment (as appropriate).

- Major developments should submit an Open Space statement which calculates in detail the quantity of SuDs, amenity green space, open space, play space, formal sport space and allotments.
- Long term (30+ years) management of any public open space and green/blue infrastructure. (Secured by S.106)

Suggested measures to exceed the minimum requirement:

- Link on-site assets to any off-site adjacent green/blue infrastructure.
- Provision of community land for food production.
- Enhance to multifunctional green infrastructure.
- Green/blue Infrastructure enhancements to SuDS solution (e.g. swales, ponds).
- Enhance proposals within the open space statement (which should meet the policy requirement of BDC open space strategy).
- 11 or more percent of on-site BNG (Biodiversity Net Gain) delivery.
- Reference the site with the context of Essex County Council's green infrastructure strategy

Assessment Questions

What % of Biodiversity Net Gain does the development achieve (include BNG credits)?
Minimum = 10%
Exceeded = 11 – 20%
Outstanding = 21% or more

Does the application include a contribution to the Green/Blue Infrastructure network?
Minimum = None
Exceed = Linked green/blue infrastructure supported by a long term management scheme
Outstanding= Significant areas of multifunctional green/blue infrastructure that also forms important links to the district's green/blue infrastructure network and is supported by a long term management scheme.

Sustainable Movement

Sustainable movement is about reducing the propensity for travel as well as prioritising travel using methods which have the lowest amount of carbon emissions. For local and regional journeys, the bottom of the hierarchy is travel by private vehicle however this has remained the most popular choice for residents undertaking trip of 1 mile and above for several decades, so the district must also prepare for accommodating the phasing out of ICE (internal combustion engines) by 2030 and a transition to either hybrid, electric or hydrogen powered vehicles. The policies of this chapter are broken down in 3 areas: Broadband, sustainable travel and electric vehicle charging.

Broadband Local Plan policy

The Government is committed to ***making gigabit-enabling connectivity available to all premises in the UK by 2025*** *and the Local Plan can contribute towards achieving this goal by requiring developers to ensure such technology is in place.* (Section 1, para 6.23)

SP6 Infrastructure and connectivity

D. Digital Connectivity

… All new properties will allow for the provision for ultrafast broadband in order to allow connection to that network as and when it is made available.

LPP46 Broadband

*All new residential and commercial developments must be served by a fast and reliable broadband connection to the premises****. Connection should include the installation of appropriate cabling within the homes or business units****, as well as a fully enabled connection of the developed areas to the full main telecommunications network, to provide capability for the fastest available broadband access.*

Sustainable travel Local Plan policy

LPP 42 Sustainable Transport

Priority should be given to cycle and pedestrian movements and access to public transport.

Development proposals should provide appropriate provision for all the following transport modes:

- *Pedestrians (including disabled persons and those with impaired mobility), through safe, accessible, direct and convenient design and layout of routes within the new development and wider pedestrian network.*
- *…safe design and layout of routes integrated into the new development and contributing towards the development and enhancement of the cycle network and provision of secure cycle parking and where appropriate, changing and shower facilities.*
- *Public transport, through measures that will improve and support public transport and provide new public transport routes*
- *Community transport, through measures that will promote car pools, car sharing and voluntary community buses, community services and cycle schemes*

The Local Plans seek to improve transport infrastructure to enable the efficient movement of people, goods and ensure that new development is accessible by sustainable forms of transport. ***Measures designed to encourage people to make sustainable travel choices*** *such as better public transport provision, car clubs, electric vehicle charging points and provision of cycle links and foot ways will also be required to achieve such a change. (para 6.7)*

LPP52 Layout and design of development
k. Use of sustainable modes of transport are promoted in the design and layout of new development.
o. Developments shall be permeable and well-connected to walking and cycling networks, open spaces and facilities

The ***internal design of new developments should prioritise walking and cycling, as well as public transport****, over private vehicle movements, to ensure that they encourage shorter internal journeys to take place by these modes.* ***New developments will also be expected to connect safely and directly to the existing external footpath and cycle way routes in the local area****, and contributions will be sought as appropriate to improve connections from new developments to the main commuter, community and retail centres or recreational links. Public rights of way which are impacted upon by new development may require protection or enhancement to accommodate new users.* (*Para 4.141)*

- See also ECC's Essex Design Guide, Manual for Streets (the national guidance on street design).

<u>Electric vehicle charging Local Plan Policy</u>

Facilities for charging plug-in and other ultra-low emission vehicles will be provided at all new residential properties

<u>Home Working</u>
Feering Neighbourhood Plan BE1:
Develop and protect sustainable community employment in the Parish including the facilitation of flexible working.

Transport of people and goods produces nearly 50% of the district's carbon emissions therefore minimising the need to travel, improving sustainable or active travel access to local services, facilities and day-to-day needs will be key. At the scale of North Essex, identifying and building sustainable movement and active transport infrastructure is key to the success of sustainable growth in the district. At a local scale, development of major residential and all non-residential buildings can still play a role in well-connected walking and cycling networks.

Reduce the need to travel

Provision of fast and reliable broadband and space for home offices in non-residential dwellings will support working from home or hybrid working. Local Plan policies supports the provision of gigabit-enabled broadband connections to all new residential and non-residential premises which should be delivered by fibre to the premises (FTTP).

Prioritise walking and cycling

Local routes for everyday journeys to work, schools, and shopping should be identified, as should opportunities to knit communities together, rather than sever them.

Design and layouts of major developments play a significant role in embedding travel behaviour, for example by making sustainable travel a convenient, safe, secure and competitive choice compared to car use. This can mean, where appropriate, that active travel movement should be reprioritised to be more direct than car.

Priority should be given to pedestrian and cycle networks that link to wider sustainable transport networks – most likely rail or bus hubs at the centre of our towns and villages which provide rapid links to regional employment centres within and outside of the district. Strong transport links can tie-in with existing and historic pathways identified through a fine-grain analysis.

Decarbonising private vehicles

The government is committed to phasing out the sale of standard internal combustion engines (ICE) by 2030, such that hydrogen, electric or hybrid powered new vehicles will become the most popular. The Local Plan will support this transition by building up the electric vehicle charging infrastructure in the district.

MINIMUM STANDARD

- Provision of FTTP Broadband (all residential and non-residential) or ducting for future installation (under 30 dwellings)
- Transport Assessment (as appropriate)
- Permeable developments (including potential urban or village extensions)
- Siting and layout that prioritises safe and secure walking and cycling.
- Electric vehicle charging points
- Connection to green/blue infrastructure

Suggested measures to exceed the minimum requirement:

- Spaces or offices for home working
- Accommodate pedestrian and cycling desire lines?

- Is the location, form and scale of development appropriate to the level of sustainable travel alternatives?
-
- connectivity through movement corridors

Assessment Questions

What is the level of broadband services provision?
Minimum = FTTP to premises unless under 30 dwellings.
Exceed = FTTP or suitable ducting for retrofit if under 30 dwellings.
Outstanding = FTTP and a choice of broadband providers

Movement Hierarchy 1. Is walking and cycling, as well as public transport, prioritised over private vehicle movements as a design principle?
Minimum = walking and cycling is safe and accessible
Exceed = walking and cycling to local facilities is direct and convenient.
Outstanding = contributes to the development and enhancement of the cycle network on- or off-site.

For non-residential developments, is there space for cycle parking, changing and shower facilities?
Minimum = provision of cycle parking
Exceed = provision of cycle parking, changing and shower facilities
Outstanding = same as above

Movement Hierarchy 2: Does the development offer a choice of public transport to district and regional employment hubs (typically 5 miles or more)?
Minimum = none
Exceed = within 400m of bus stop with minimum of hourly weekday services and/or 800m of a rail station
Outstanding = within 400m of bus stop with 30 minute or better weekday services and/or within 800m of a mainline rail station.

Movement Hierarchy 3: Does the development provide electric vehicle charging points?
Minimum = Adaptable electrical points for residential dwellings with driveways or garages.
Exceed = Installation of full charging facilities at all residential dwellings and at least 20% of parking spaces for flats.
Outstanding = Charging points provided at all residential dwellings, 50% of parking spaces for non-residential.

Information to be provided in a Sustainability Statement

Data normally gathered and submitted to accompany a planning application can be used to contribute to the preparation of a sustainability statement is listed below. There may be some new burdens on the developer to provide information on a) energy efficiency measures such as insulation, u-values, heating systems, hot water generation and ventilation systems and b) embedded carbon such as construction details and material sources at an earlier stage. In these cases, we could take a practical view to resolving these details through reserved matters however to ensure that the energy efficiency hierarchy is followed as much as possible, applicants are encouraged to supply this data early in the application process.

1. Floorplans
2. Elevations
3. Site plan
4. Insulation
5. Sections
6. U-values
7. Heating systems
8. Hot water generation
9. Renewable technologies (if any)
10. Low energy lighting
11. Ventilation systems
12. Surface water drainage strategy (if applicable)
13. Construction details
14. Material sources (material origins)
15. Any wildlife and plants in the surrounding area

Summary of minimum standards

Energy Efficiency

- For residential developments of 1 or more new dwellings: Buildings regulations Part L applies.
- Schemes are encouraged to exceed 19% above Buildings Regulations 2013; to achieve higher standards of operational energy needs.
- For non-residential developments of 501sqm or more: Does the scheme achieve BREEAM 'very good' or better?

Renewable Energy Production and low-carbon heat generation

- For all new residential developments of 1 or more and all new non-residential deverlopments of 501sqm or more, renewable and low carbon energy generation is encouraged.
- Renewable Energy installation should be summerised by type along with expected power output/savings throughout the year.

Climate Change Adaptation

- All new development is encouraged to reduce overheating.
- Use of SuDS schemes (as relevent).
- Respond to stratetigic flood risk (as relevent).

Water Efficiency

- For residential developments of 1 or more new dwellings: Buildings regulations.
- Schemes are encouraged to exceed water efficiency of 110l/pd.
- For non-residential developments of 501sqm or more: Does the scheme achieve 1 credit for BREEAM 'very good' or better?

Green/Blue Infrastructure

- Minimum 10% biodiverity net gain
- Schemes are encouraged to provide significant areas of multifunctional green/blue infrastructure that also forms important links to the district's green/blue infrastructure network and is supported by a long term management scheme.

Sustainable Travel

- Access to a choice of sustainable travel options
- Links to the walking/cycling/horseriding network
- Plug-in EV chargers
- Broadband

Appendix A: Sustainability Statement Checklist

Purpose: ensure the Sustainability Statement contains the information required for assessment

residential

Energy Efficiency 1	Minimum	Exceed	Outstanding
What is the operational energy needs of the building (residential)?			
	140 kWh/m2.yr (Part L Building Regulation	**70 or less (kWh/m2.yr)**	**0.09 - 0.12 (W/M2.K) = LETI Standard**
Tick Box and comment			

Includes both regulated and an estimated average of unregulated energy (i.e. Space Heating + average energy allowance per user), as measured at the meter. Floorspace is Gross Internal Area (GIA).

residential

Energy Efficiency 2	Minimum	Exceed	Outstanding
What is the operational energy needs of the building (residential)?			
Walls	**0.26 (W/M2.K) = Part L Standard**	**0.18 (W/M2.K) = Future Homes Consultation**	**0.09 - 0.12 (W/M2.K) = LETI Standard**
Tick Box and comment			
Floors	**0.18 (W/M2.K) = Part L Standard**	**0.13 (W/M2.K) = Future Homes Consultation**	**0.09 - 0.12 (W/M2.K) = LETI Standard**
Tick Box and comment			
Roofs	**0.16 (W/M2.K) = Part L Standard**	**0.13 (W/M2.K) = Future Homes Consultation**	**0.09 - 0.12 (W/M2.K) = LETI Standard**
Tick Box and comment			
Windows and doors	**1.6 (W/M2.K) = Part L Standard**	**1 to 1.4 (W/M2.K) = Future Homes Consultation**	**1.0 Overall including frame (W/M2.K) = LETI Standard**
Tick Box and comment			

residential

Energy Efficiency 3	Minimum	Exceed	Outstanding
Airtightness	**8m3 (h·m2)@50Pa = Part L Standard**	**5m3 (h·m2)@50Pa = Future Homes Consultation**	**3m3 (h·m2)@50Pa = LETI Standard**
Tick Box and comment			

Example: 8m3 (h·m2)@50Pa means 8 cubic metres of air can escape per hour for every square metre of the envelope surface area (total wall area), with an internal air pressure of 50 Pascals. Passivhouse will typically be 1m2 or less and will require mechanical ventilation to maintain comfortable indoor air quality.

Energy Efficiency 4	Minimum	Exceed	Outstanding
Ventilation Strategy	**Natural with extractor fans**	**Mechanical extract with extractor fans**	**Continuous mechanical supply and extract with heat recovery**
Tick Box and comment			

Renewable Energy 1	Minimum	Exceed	Outstanding
What percentage of CO2 emission reduction is planned to be provided by on-site renewable energy?			
	0%	**10-20%**	**21% and above**
Tick Box and comment			

Renewable Energy 2	Minimum	Exceed	Outstanding
What on-site renewable energy technologies have been included within the development?			
	none	**Solar/wind/Air source or other heat pumps**	**CHP (Combined Heat and Power)/Solar Thermal**
Tick Box and comment			

residential

Climate Change adaptation	Minimum	Exceed	Outstanding
What is the expected internal water use (litres/person/day)? (residential)			
	110 lpd	**109 lpd or less**	**75 lpd or less**
Tick Box and comment			

non-residential

Climate Change adaptation 1b	Minimum	Exceed	Outstanding
What % percentage improvement over baseline building water consumption? (non-residential)			
	12.5% (BREEAM very good)	**25% or more**	**65% or more (BREEAM Outstanding)**
Tick Box and comment			
See Wat 01 Water consumption by BRE group for further details			

Climate Change adaptation 2	Minimum	Exceed	Outstanding
What percentage of the hard surfaces within the development and conveyance systems will be permeable (streams, swales, amenity green space, open space, private gardens .etc)?			
	less than 50%	**50-75%**	**90% or more**
Tick Box and comment			

Climate Change adaptation 3	Minimum	Exceed	Outstanding
What water collection or recycling measures will be used?			
	None	**Water Butts/Rainwater harvesting**	**Greywater recycling and rainwater harvesting**
Tick Box and comment			

Climate Change adaptation 4	Minimum	Exceed	Outstanding
What water saving measures have been installed?			
	None or some measures	**all of low flush toilets, smaller baths, taps and showers with flow regulators**	**all of above and more**
Tick Box and comment			

Blue/Green Infrastructure 1	Minimum	Exceed	Outstanding
What % of Biodiversity Net Gain does the development achieve (include BNG credits)?			
	10%	**11 – 20%**	**21% or more**
Tick Box and comment			

Blue/Green Infrastructure 2	Minimum	Exceed	Outstanding
Does the application include a contribution to the Green/Blue Infrastructure network?			
	None or N/A	**Linked green/blue infrastructure supported by a long term management scheme**	**Significant areas of multifunctional green/blue infrastructure that also forms important links to the district's green/blue infrastructure network and is supported by a long term management**
Tick Box and comment			

Sustainable Travel	Minimum	Exceed	Outstanding
What is the level of broadband services provision?			
	FTTP to premises unless under 30 dwellings.	**FTTP or suitable ducting for retrofit if under 30**	**FTTP and a choice of broadband providers**
Tick Box and comment			
This question does not apply to non-residential developments			

non-residential

Movement Hierarchy 1a	Minimum	Exceed	Outstanding
For non-residential developments, is there space for cycle parking, changing and shower facilities?			
	provision of cycle parking	**provision of cycle parking, changing and shower facilities**	**same as above**
Tick Box and comment			

residential

Movement Hierarchy 1b	Minimum	Exceed	Outstanding
Is walking and cycling, as well as public transport, prioritised over private vehicle movements as a design principle?			
	walking and cycling is safe and accessible	**walking and cycling to local facilities is direct and convenient**	**contributes to the development and enhancement of the cycle network on- or off-site**
Tick Box and comment			

Movement Hierarchy 2	Minimum	Exceed	Outstanding
Does the development offer a choice of public transport to district and regional employment hubs (typically 5 miles or more)?			
	none	**within 400m of bus stop with minimum of hourly weekday services and/or 800m of a rail station**	**within 400m of bus stop with 30 minute or better weekday services and/or within 800m of a mainline rail station.**
Tick Box and comment			

Movement Hierarchy 3	Minimum	Exceed	Outstanding
Does the development provide electric vehicle charging points?			
	Adaptable electrical points for residential dwellings with driveways or garages	**Installation of full charging facilities at all residential dwellings and at least 20% of parking spaces for flats**	**Charging points provided at all residential dwellings, 50% of parking spaces for non-residential**
Tick Box and comment			

Summary	Minimum	Exceed	Outstanding
Energy Efficiency 1 (Residential)			
Energy Efficiency 2 (Residential)			
Energy Efficiency 3 (Residential)			
Energy Efficiency 4			
Renewable Energy 1			
Renewable Energy 2			
Climate Change adaptation 1a (Residential)			
Climate Change adaptation 1b (Non-residential)			
Climate Change adaptation 2			
Blue/Green Infrastructure 1			
Blue/Green Infrastructure 2			
Sustainable Travel			
Movement Hierarchy 1a (Non-residential)			
Movement Hierarchy 1b (Residential)			
Movement Hierarchy 2			
Movement Hierarchy 3			