

PLANNING APPLICATIONS CLIMATE CHANGE GUIDANCE

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1. Introduction

The declaration of a climate emergency by Kirklees Council in January 2019 means that a greater focus on climate change is required in emerging and future planning policy documents. It also places a greater focus on the Planning and Development Service to ensure developments, applicants and developers are focussed on the council's priorities for a greener and more sustainable environment.

On 12th November 2019, the council adopted a target for achieving 'net zero' carbon emissions by 2038, with an accompanying carbon budget set by the Tyndall Centre for Climate Change Research. This guidance note is to advise developers/applicants that the council now expects a Climate Change Statement to be submitted as part of all planning applications. This is to enable developers to demonstrate how climate change factors have been considered in preparing proposals in the context of the Kirklees Local Plan, National Planning Policy Framework and other national requirements relating to climate change. The UK Government has announced that it will be seeking to cut carbon emissions by 78% by 2035 so this guidance is in accordance with the direction of travel indicated at a national level. This guidance note clarifies the expected content within the Climate Change Statement. The template for the Climate Change Statement is set out in **Appendix A**.

Proposals should consider climate change adaptation and mitigation early in the design process. This will help to ensure that costly adaptations to buildings will not be required in the future and will also help to streamline progress through the planning system. This guidance note requiring a Climate Change Statement cannot implement new policy requirements but will allow planning officers, elected members and the community to clearly see how climate change has been considered as developers prepared their planning applications. This includes consideration of reducing energy demand, minimising carbon emissions and waste, renewable and low carbon energy, building design and layout, flooding, water usage, landscape, biodiversity and air pollution.

The guidance is divided into short sections to provide advice on completing each section of the Climate Change Statement. The guidance highlights which measures are:

- Essential considerations (where these are stated within a local plan policy); or
- Desirable (where further actions are encouraged).

Planning applications will be determined in accordance with the development plan unless material considerations indicate otherwise. Proposals should consider all measures outlined in this guidance (proportionate to the scale of development proposed) to ensure options to mitigate climate change have been fully explored. This guidance should be read in conjunction with the following:

- Kirklees Local Plan: Strategy and Policies;
- Kirklees Local Plan: Allocations and Designations;
- Supplementary Planning Documents (including the Highway Design Guide SPD, Housebuilder Design Guide SPD, Household Extensions and Alterations SPD, Open Space SPD);
- Biodiversity Net Gain Technical Advice Note; and
- National Planning Policy Framework.

The Kirklees Local Plan, Supplementary Planning Documents and latest guidance can be accessed at: www.kirklees.gov.uk/planningpolicy and provide further information in relation to the role of planning in responding to climate change.

The following sections set out measures which can help developments mitigate and adapt to climate change. Further information / website links are set out in **Appendix B**.

2. Reducing Energy Demand

Policies LP24, LP26 and LP47 of the Local Plan encourage sustainable design and the incorporation of energy efficiency into any proposal. To comply with these policies, development should seek to reduce energy demand both from the buildings themselves and from their occupiers, as the behaviour of individuals can have a significant effect on energy consumption. The following measures should be considered in all new developments:

Table A – Measures to reduce energy demand

Policy measure	Essential consideration (E) or Desirable (D)	Relevant Local Plan Policy
Developments should include own Combined Heat and Power (CHP) systems for master-planned sites or have the ability to connect to existing systems.	E	LP26/LP5
Installing 'smart' energy metering, including displays showing the amount and cost of energy consumed.	D	LP24/LP47
Ensuring that building service controls such as lighting and gas boiler controls, and management systems are user friendly, efficient, up to date, and complementary.	D	LP24/LP47
Use energy efficient white goods (rating where possible) (e.g. fridges, washing machines).	D	LP24/LP47
Providing external space for drying washing naturally.	D	LP24/LP47
'Welcome packs' to inform occupiers about the efficient use of their heating and lighting systems.	D	LP24/LP47
Use of centralised heating system, with individual time and temperature controls to each part of a building or individual rooms.	D	LP24/LP47
Providing for use of CHP systems for sites where applicable.	D	LP26

Measures to reduce the demand for energy such as those listed should be fully explored before measures for generating energy are considered (known as a fabric first approach).

3. Minimising carbon emissions and waste during construction

Building work generates carbon dioxide emissions in several ways, including the production and transportation of materials as well as through the treatment of waste. For this reason, construction materials are described as having 'embodied' carbon. In compliance with local plan policies LP24, LP30 and LP43, the quantity of carbon the development emits during construction can be reduced by considering the following measures:

Table B - Measures to minimise carbon emissions and waste during construction

Policy Measure	Essential consideration (E) or Desirable (D)	Relevant Local Plan Policy
Retaining and refurbishing existing buildings/features rather than demolishing and rebuilding unless the loss of 'embodied' carbon can be offset by resulting improvements in the energy efficiency of the building.	E	LP24
Developers are expected to follow the waste management hierarchy and incorporate facilities to minimise waste as part of development proposals during demolition, site clearance, construction and when subsequently occupied.	E	LP43
Designing the building footprint to avoid unnecessary use of materials.	D	LP24
The design of developments should ensure that there is sufficient space for occupiers of completed schemes to store separated waste awaiting collection for recycling and disposal. Requirements for refuse and recycling should be designed as an integral part of new residential development.	E	LP24
Using prefabricated off-site construction where feasible.	D	LP24
Sourcing materials with a low U-value (a measure of the materials heat loss value).	D	LP24
Sourcing materials locally to reduce the need for transport.	D	LP24
Selecting materials that have a long life and require little maintenance.	D	LP24
Selecting materials that have low levels of embodied energy (energy used in manufacture).	D	LP24
Considering the full life cycle of alternative materials i.e. the impacts of raw material extraction, processing, manufacture, transport, use and disposal.	D	LP24
Considering the impact on biodiversity of the use of peat, weatherworn limestone and other materials from vulnerable habitats. This applies to landscaping materials as well as buildings.	D	LP24/LP30
Maximising the use of timber from sustainable Forest Stewardship Council (FSC) sources. If other timber is used it should be from a known source with a sustainable purchasing policy.	D	LP24
Waste management should be considered at an early stage in planning development proposals to demonstrate how waste will be minimised during construction.	E	LP43
Residential schemes with private gardens should also make provision for home composting units.	D	LP24

4. Renewable and low carbon energy

Development should consider the opportunity to incorporate on-site renewable and low-carbon technologies in accordance with local plan policies LP24 and LP26. This will reduce both carbon dioxide emissions and energy bills. Below are some suggested technologies that may be feasible dependant on the proposed scale of the development:

Table C - Technologies to consider for renewable and low carbon energy

Policy measure	Essential consideration (E) or Desirable (D)	Relevant Local Plan Policy
<p>Local area energy networks</p> <p>Local plan policy LP26 states that proposals requiring a masterplan should explore the potential of developing a heat network, or connecting to an existing network. District Energy Networks generate and supply energy (potentially including electricity, heat, and cooling) on a local scale, such as within a town centre or large housing estate. By generating energy close to the point of use they can achieve a higher degree of efficiency in the supply of power. The existence of a local area energy network means that individual developments can connect to it for their energy needs rather than provide their own on-site renewable energy or rely entirely on the national grid.</p>	E	LP26
<p>Solar Panels</p> <p>In addition to the Essential Consideration (E) of building orientation to maximise passive solar design, solar panels could also be utilised. These take two main forms:</p> <ul style="list-style-type: none"> ○ Solar Photovoltaic (PV) panels convert energy in sunlight into electricity. ○ Solar thermal panels use heat from the sun to provide water heating. <p>PV systems can be designed as wall cladding or roof tiles as well as roof-mounted arrays. For optimum results, PV arrays should face between south-east and south-west and should not be shaded. A visual display showing when hot water and electricity is being produced would also encourage householders to make use of the free energy in the home when it is available.</p>	D	LP24/LP26
<p>Ground/Air/Water Source heat/cooling</p> <p>Each of the categories of heat pumps draw heat from its respective element, usually through the circulation of fluid. An electric pump extracts heat using an exchanger and transfers it to a heating distribution system. The pumps can be designed to operate in reverse providing cooling.</p>	D	LP26

Policy measure	Essential consideration (E) or Desirable (D)	Relevant Local Plan Policy
<p>Wind turbines</p> <p>Wind energy is extracted using either a vertical or horizontal axis rotor. Vertical axis turbines do not have to re-orientate with changing wind direction and are generally more efficient at low wind speeds. Wind turbines can be either mounted on a free-standing pole or (if small) fixed directly to a wall or roof. For wind turbines to be effective average wind speeds will need to exceed 4.5 metres per second, although small roof-mounted turbines (typically up to 1.5kW) can work at wind speeds as low as 3.5 metres per second.</p>	D	LP26
<p>Biomass heating / power</p> <p>Biomass fuel is carbon neutral and is a renewable source of energy if it comes from a local sustainable supply. Biomass fuels most commonly include fast-growing energy crops such as willow and miscanthus, poultry litter, wood chips and wood pellets. Biomass fuels tend to be bulky in relation to the amount of energy they provide, transport costs (and carbon emissions resulting from transport) can be a significant factor which should be considered in assessing their suitability.</p>	D	LP26

5. Building design and layout for carbon reduction

Development can reduce carbon emissions through careful design of both the buildings and overall site layout. An energy efficient building should aim to stay cool in the summer to reduce the requirement for air conditioning and warm in the winter to reduce excessive energy input. Buildings should therefore be designed to optimise solar gain while maximising the use of natural light and ventilation for cooling to ensure optimal energy efficiency year-round. Policy LP24 stipulates that any new building should follow these principles. Below are some desirable suggestions to maximise energy efficiency in building design beyond the minimum requirements in Part L of the Building Regulations:

Table D - Measures to maximise energy efficiency in building design

Policy measure	Essential consideration (E) or Desirable (D)	Relevant Local Plan Policy
Ensuring roof structures include a south facing slope to facilitate the installation of solar panels.	D	LP24
Where practicable, minimising resource use in the building by orientating buildings to utilise passive solar design. This can include:	E	LP24
<ul style="list-style-type: none"> • Locating primary habitable rooms on the south side of the building. 	D	LP24
<ul style="list-style-type: none"> • Optimising glazing on the south side of buildings. 	D	LP24
<ul style="list-style-type: none"> • Minimising the area of north facing windows. 	D	LP24
<ul style="list-style-type: none"> • Managing heating and cooling. This includes consideration of incorporating vegetation and tree planting to assist heating and cooling. Also, using construction materials with a high thermal mass (such as stone, concrete and tile) which absorb heat during the day and release it slowly. 	D	LP24
Using landscaping /design to provide shelter from winds.	D	LP24
Supporting energy efficient design and encouraging initiatives to promote energy efficiency within homes. This can include:	E	LP24, LP47
<ul style="list-style-type: none"> • Extra insulation of walls, roofs and floors. 	D	LP24
<ul style="list-style-type: none"> • Argon filled low emissivity double glazing or triple glazing. 	D	LP24
<ul style="list-style-type: none"> • High efficiency heating boilers that respond to solar gain and have zone temperature control. 	D	LP24
<ul style="list-style-type: none"> • Consideration of low energy/emissions build standards where appropriate (such as Passivhaus, BREAAAM or other 'zero carbon' standards) to ensure the development meets the required real-world performance expectations by building to a quality assured standard. 	D	LP24
<ul style="list-style-type: none"> • Low energy lights and lighting controls to automatically switch off when not needed. 	D	LP24
<ul style="list-style-type: none"> • Use of roof lights/openings to increase daylight in poorly lit areas. 	D	LP24

When considering site layouts, developers can design schemes that aim to minimise the consumption of energy by considering the promotion of sustainable forms of transport (public transport, walking and cycling) over the use of the private car. This can be done by providing links from the site to walking and cycling routes and consideration of access to public transport. Other ways to improve efficiency for site layouts include:

Table E - Measures to improve energy efficiency through site layouts

Policy measure	Essential consideration (E) or Desirable (D)	Relevant Local Plan Policy
Siting buildings to minimise overshadowing.	D	LP24
Orientating buildings so that they broadly run east-west and face south.	D	LP24
Locating garages on the north side of homes to act as additional thermal buffers.	D	LP24
Ensuring that the roof structure includes south facing slopes to facilitate the installation of solar panels.	D	LP24
Locating primary habitable rooms on the south side of the building.	D	LP24
Optimising glazing on the south side of buildings while providing appropriate shading opportunities such as blinds.	D	LP24
Minimising the area of north-facing windows.	D	LP24
Managing heating and cooling. This includes consideration of incorporating vegetation and tree planting to assist heating and cooling. Also, using construction materials with a high thermal mass (such as stone, concrete and tile) which absorb heat during the day and release it slowly.	D	LP24

In non-residential developments, such as offices, a large proportion of energy consumption will come from lighting, air conditioning and parking. In accordance with local plan policy LP24 the following measures should be considered:

Table F - Measures for non-residential development

Policy measure	Essential consideration (E) or Desirable (D)	Relevant Local Plan Policy
Incorporating windows to maximise natural light.	D	LP24
Natural ventilation to reduce need for air conditioning.	D	LP24
Design features such as louvre ventilation, external blinds and roof overhangs that provide shade in summer without reducing daylight.	D	LP24
Reduce hard surface parking around office buildings which can raise air temperatures in hot weather and consider alternative surfaces like grass-paved parking and green roofs.	D	LP24

6. Considering flooding and minimising its impacts

Developers are expected to minimise the risk of flooding, including likely future flood risks in accordance with NPPF and Local Plan policies.

NPPF and Local Plan policy LP27 (flood risk) set out the requirement for a flood risk sequential test to avoid development in areas of highest flood risk and an Exception Test is required in some circumstances. The National Planning Practice Guidance (*Flood risk and coastal change*) provides specific advice on this process. The Environment Agency Flood Map shows flood risk zones and the Calder Valley Strategic Flood Risk Assessment (SFRA) provides more detail in relation to flood risk in Kirklees.

In addition, when proposing development in Flood Zones 2 or 3, Critical Drainage Areas or proposals of 1ha or greater in Flood Zone 1, it will be necessary to submit a site-specific flood risk assessment. This includes consideration of flood risk (including surface water risk) and how this will be managed. This may include measures such as consideration of flood resilience and ensuring the development will remain safe throughout its expected lifetime including demonstrating that the proposals will not increase flood risk elsewhere, taking into account climate change.

Local Plan policy LP28 (drainage) sets out requirements in relation to the run-off from development sites. This states a presumption that Sustainable Drainage Systems (SuDS) will be used to achieve acceptable levels of run-off (which depend on whether the site is greenfield or brownfield). Further considerations in LP28 relate to water quality and consideration of how water may flow through the site. Applicants should also refer to Local Plan policy LP34 (Conserving and enhancing the water environment) which seeks to ensure no deterioration of the water quality of water courses, water bodies and groundwater.

The rate of surface water run-off from proposals can be reduced by avoiding large areas of impermeable hard-surfacing and using soft landscaping wherever possible. Sustainable Drainage Systems (SuDS) are an approach to managing surface water which allow surface water run-off to be controlled as close to its source as possible. They seek to mimic natural drainage systems and retain water on or near the site to be slowly released back into the wider system, offering significant advantages over conventional piped drainage systems including promoting ground water recharge and improving water quality and amenity.

The variety of SuDS techniques available means that virtually any development should be able to include a scheme based around these principles. SuDS involve a range of techniques including the following:

- **Green roofs** - the plants and their growing medium reduce the flow of rainwater from the roof due to evaporation, transpiration and absorption by the substrate. Green roofs can also provide valuable wildlife habitats.
- **Rainwater harvesting** – the collection of water that would otherwise have gone into drains, infiltrated into the ground or lost through evaporation. Rainwater from roofs and hard surfaces such as car parks can be collected and stored for a range of non-potable uses.
- **Permeable paving** – permeable concrete blocks, crushed stone, gravel, porous asphalt or other porous surfacing allows water to soak into the subsoil. Grass paving systems ('engineered grass') are often suitable for low-turnover car parking areas. They are almost self-maintaining if a suitable species of grass is used. Infiltration trenches, basins and filter drains are types of soakaway where rainwater is diverted to gradually infiltrate the ground.

- **Swales and detention basins** – provide temporary storage for water, with some filtration and infiltration, reducing peak flows to drains. They can be designed as landscape features, providing opportunities for the creation of wildlife habitats.
- **Retention ponds and wetlands** – enhance flood storage capacity and enable high levels of filtering through plants and algae. Ponds and wetlands can be fed by swales, filter drains or piped systems. Ponds can be designed to overflow into vegetated wetland areas which serve as a natural soakaway. As for swales and basins, they can provide opportunities to create wildlife habitats.

The suitability of different natural filtration methods depends on various factors, including surface water run-off rates, soil permeability, ground stability and topography in relation to the size and type of development. Sustainable drainage systems must therefore be designed to match the local geological and hydrological conditions. The Lead Local Flood Authority should be consulted regarding any SuDS requirements as early as possible. To ensure their continued successful operation, they must be properly maintained and as such it must be demonstrated that management and maintenance arrangements have been secured to cover the lifetime of the development. In accordance with local plan policies LP27 and LP28 and the NPPF, the following methods should be incorporated into all development proposals:

Table G - Measures to reduce flood risk

Policy measure	Essential consideration (E) or Desirable (D)	Relevant Local Plan Policy
Flood risk sequential test and Exception Test (where required).	E	LP27
Site-specific Flood Risk Assessment (where required due to site size and flood zone).	E	LP27
On greenfield sites, typical greenfield run-off rates should not exceed previous rates; and for proposals on brownfield sites there should be a minimum 30% reduction in surface water run-off where previous positive surface water connections from the site can be proven. This can be achieved by:	E	LP28
<ul style="list-style-type: none"> • Avoiding large areas of impermeable hard surfacing. 	D	LP28
<ul style="list-style-type: none"> • Incorporating proposed open spaces and green infrastructure within sites to contribute to the sustainable drainage of the site, including consideration of tree planting. 	D	LP28
<ul style="list-style-type: none"> • Incorporating trees and vegetation into developments, including consideration of tree lined streets, to reduce surface water runoff through absorption, evaporation and transpiration. These can also provide valuable wildlife habitats to support biodiversity net gain. 	D	LP28, LP30
It must also be demonstrated that the surface water management solution is designed to meet requirements over the lifetime of the development including evidence that management and maintenance arrangements have been secure and that the longer term impact of climate change has been factored into any solution.	E	LP28
Use sustainable drainage systems (backed by management and maintenance provisions) wherever practical, justifying the use of conventional systems if they are not chosen.	E	LP28

7. Minimising water usage

Water stress, where there is insufficient water supply compared to need, is likely to become an increasing issue through climate change. Developers are expected under Policy LP24 and LP34 to consider opportunities to minimise the use of water as part of development proposals, reducing water consumption and incorporating water saving technologies that ensure efficient use of natural resources. The following methods should be considered:

Table H - Measures for Water Saving

Policy measure	Essential consideration (E) or Desirable (D)	Relevant Local Plan Policy
Consideration of water efficiency through water conservation techniques are encouraged by Policy LP34. This may include:	E	LP34
<ul style="list-style-type: none"> • Water-efficient toilets - Low-flush toilets and dual-flush toilets reduce water usage. 	D	LP34
<ul style="list-style-type: none"> • Waterless urinals - Most effective in buildings with high occupancy rates (schools, offices, public buildings). 	D	LP34
<ul style="list-style-type: none"> • Taps - Spray and low-flow taps reduce the amount of water used. Self-closing and infrared controlled taps ensure that water cannot be left running. 	D	LP34
<ul style="list-style-type: none"> • Showers - Showers (apart from power showers) generally use less water than baths. Low volume baths are also available including tapered shaped baths. 	D	LP34
<ul style="list-style-type: none"> • Appliances – Where supplied by the developer, low water use washing machines/dishwashers should be considered. 	D	LP34
<ul style="list-style-type: none"> • Water meters – make the user more aware of the cost of water and can therefore reduce water wastage. 	D	LP34

Table I - Measures for water retention

Policy measure	Essential consideration (E) or Desirable (D)	Relevant Local Plan Policy
Rainwater harvesting - This involves collecting rainwater from a roof and storing it in a tank, often underground. Such water, once filtered, can be used in toilet flushing and cleaning. If used within the building it should be additional to the standard mains supply which is needed to provide drinking water and a backup. If used outside, it can take the form of a simple water butt.	D	LP34
Water recycling - 'Grey water' (water that has already been used in hand basins, baths and showers) can be stored, filtered and disinfected, and then reused for toilet flushing, garden watering or car washing. It is also possible to recycle 'black water' (water used for toilet flushing and washing up) although this is more resource intensive. Such systems	D	LP34

Policy measure	Essential consideration (E) or Desirable (D)	Relevant Local Plan Policy
require regular maintenance to ensure their ongoing quality and effectiveness. A separate standard mains supply will always be needed in addition to provide drinking water.		
Groundwater - In some locations it may be feasible to source water from a borehole or river (subject to Environment Agency permission).	D	LP34

8. Landscaping and biodiversity

Applicants should carefully consider water usage and retention in landscaping schemes as part of developments. Designs should minimise the amount of water needed for maintenance whilst ensuring that they can cope with heavy rain. Applicants are encouraged to enhance the green infrastructure of areas through landscaping by incorporating, where appropriate, natural green spaces, woodland, and tree lined streets to support water retention, carbon reduction and biodiversity net gains. The council has prepared a Biodiversity Net Gain Technical Advice Note¹ to provide further guidance. Applicants should refer to Policy LP34 (Conserving and enhancing the water environment) which seeks to avoid deterioration of (and where possible improve) water quality of watercourses and water bodies (including groundwater). The following should be considered in development proposals:

Table J - Measures for Landscaping and biodiversity

Policy measure	Essential consideration (E) or Desirable (D)	Relevant Local Plan Policy
Provide net biodiversity gains through including enhancements and habitat creation where opportunities exist and seeking to enhance the Kirklees Wildlife Habitat Network.	E	LP30
Consideration whether open spaces and green infrastructure on sites can contribute to the sustainable drainage of the site. Use of trees and other green infrastructure can support climate resilience through reducing surface water run-off by slowing precipitation and binding soil to prevent erosion.	E	LP27, LP28
Use of drought resistant plants (ideally native species)	D	LP34
Using water retaining mulches and using ground-cover plants can also help to retain moisture in the ground.	D	LP34
Setting out plants and lawns as early in spring as possible as less watering is required.	D	LP34

¹ <https://www.kirklees.gov.uk/beta/planning-applications/guidance-and-advice-notes.aspx>

9. Air pollution

Under local plan policy LP51 (air quality), developers should consider the cumulative effects of developments on air quality especially in Air Quality Management Areas (AQMA). A site-specific air quality impact assessment may be required as part of a planning application. Consideration should be given to the West Yorkshire Low Emissions Strategy and relevant mitigation required. All types of development should consider emissions from the proposed heating, cooling and ventilation systems. This is in addition to any industrial operational emissions and traffic generated by the development.

Table K - Measures for reducing air pollution

Policy measure	Essential consideration (E) or Desirable (D)	Relevant Local Plan Policy
Locally source materials to reduce transport emissions.	D	LP51
Installation of mechanical ventilation systems.	D	LP51
Submission of a travel plan where appropriate to encourage active travel for employees to reduce reliance on private car. This is normally required for all major planning applications but the requirement for this is considered on a case by case basis for minor applications.	E	LP20, LP51
Policy LP63 relates to new open space within development sites. Where such open spaces are required, a range of types of open space should be considered which may include planting trees which may help to mitigate effects of air pollution within the site.	D	LP51, LP63
Installation of Electric Vehicle charging points.	E	LP5, LP15, LP17, LP18, LP24, LP51

Appendix A – Climate Change Statement

Climate Change Statement for Planning Applications

Part 1: Applicant details

Name of applicant/agent	
Site Address	
Description of Development	

Part 2: Climate Change Mitigation measures

Please respond to the following questions considering the measures set out in the Climate Change Guidance note:
Q1: What measures have been/will be taken to reduce the energy demand associated with your proposed development beyond the minimum required in Building Regulations? (See section 2)
Q2: What measures have been/will be taken to limit the carbon consumed through the implementation and construction processes, e.g. by reusing existing on-site materials or sourcing materials locally? (See section 3)
Q3: What measures have been/will be taken to utilise renewable or low carbon energy sources? (See section 4)

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Q4: What measures have been/will be taken to ensure the building design and layout has been optimised to energy efficiency beyond the minimum requirements in Part L of the Building Regulations ? (See section 5)

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Q5: What measures have been/will be taken to reduce potential impacts of flooding associated with your proposed development? (See section 6)

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Q6: What measures have been/will be taken to reduce water stress associated with your proposed development? (e.g. Water retention and minimisation measures) (See sections 7 and 8)

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Q7: What measures have been/will be taken to provide biodiversity net gains? (See section 8)

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Q8: What measures have been/will be taken to reduce air pollution associated with your proposed development? (See section 9)

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Appendix B – Further information

Kirklees Local Plan

The development plan for the Kirklees Council area (www.kirklees.gov.uk/localplan)

Planning applications guidance and advice notes

<https://www.kirklees.gov.uk/beta/planning-applications/guidance-and-advice-notes.aspx>

Air Quality and Pollution:

Kirklees Council's website has information on sources of pollution and our Air Quality Management Areas.

<https://www.kirklees.gov.uk/beta/crime-and-safety/air-pollution.aspx>

Building Design and Layout:

The Construction Industry Research Information (CIRIA) publishes guidance on various construction issues, including building and construction technology and sustainability and the built environment.

www.ciria.org.uk

Information on environmentally friendly construction products can be found from the Royal Institute of British Architects product selector website.

www.ribaproductselector.com

Passivhaus Trust provides guidance for designing for increasing summer temperatures and constructing buildings to a high energy efficient standard using a quality assurance approach.

<https://www.passivhaustrust.org.uk/guidance.php>

Construction Materials and Techniques:

Information on environmentally friendly construction products can be found from the Royal Institute of British Architects product selector website.

www.ribaproductselector.com

The UK Green Building Council provides information on sustainable building techniques.

<https://www.ukgbc.org/>

The Building Research Establishment (BRE) Environmental profiles website provide information about sustainable design, energy conservation measures and building materials and components.

www.bre.co.uk

The Construction Industry Research Information (CIRIA) publishes guidance on various construction issues, including building and construction technology and sustainability and the built environment.

www.ciria.org.uk

Production information on certified timber and timber products is available from the Forest Stewardship Council.

<https://www.fsc-uk.org/en-uk>

Historic England provides advice on energy efficiency and renewable energy in Historic buildings.

<https://historicengland.org.uk/advice/your-home/saving-energy/>

Passivhaus Trust provides information on Passivhaus buildings and standards.

<https://www.passivhaustrust.org.uk/>

Carbon Emissions:

The Carbon Trust promotes low carbon technology and gives information on how to work out carbon emissions associated with energy use.

www.thecarbontrust.co.uk

The Energy Saving Trust provide advice on renewable energy, energy efficiency and conservation.

www.est.org.uk

Information on combined heat and power and community heating is available from the Combined Heat and Power Association.

www.chpa.co.uk

The National Energy Foundation gives information on energy conservation, energy efficiency and renewable energy technologies.

www.nef.org.uk

Waste Minimisation:

Kirklees Council Waste Management Design Guide for New Developments (www.kirklees.gov.uk/beta/planning-applications/pdf/waste-management-design-guide-new-developments.pdf)

The Building Research Establishment (BRE) has produced a practical guide for small builders to help them reduce waste and operate more sustainably.

<https://www.bresmartsite.com/sustainable-construction-methods/>

The Construction Industry Research Information (CIRIA) publishes guidance on various construction issues, including aggregate recycling.

www.ciria.org.uk

Flooding and Drainage:

Government guidance on flood resilient construction of new building.

<https://www.gov.uk/government/publications/flood-resilient-construction-of-new-buildings>

Calder Valley Strategic Flood Risk Assessment (SFRA):

https://www.calderdale.gov.uk/v2/sites/default/files/strategic-flood-risk-assessment_0.pdf