Sustainability Checklist

Important: Please read instructions below.

Before you begin, download this form to your computer and complete using Acrobat Reader. **Please do not complete this form within your web browser (i.e. Explorer, Chrome, Firefox) as the information you write on and sign the form cannot be saved.**

How to use the checklist

The sustainable design and construction submission checklist needs to be submitted with applications for all new development (that result in a residential net gain of 1 dwelling and above or an increase in non-residential floorspace) and can also be used as part of the pre-application process.

The purpose of this checklist is to explain and evidence how the proposed development complies with District Plan policies that seek to improve the environmental sustainability of new development. The checklist topics and criteria reflect the sustainable design and construction guidance set out in the **Sustainability Supplementary Planning Document** (SPD): www.eastherts.gov.uk/sustainabilityspd

The checklist should be used as a tool to provide an overview of how a scheme addresses different aspects of sustainability, although each application will be assessed on its own merit, taking account of local circumstances. It does not replace other application submission requirements, but aims to provide an overarching framework to help facilitate the assessment of different, often overlapping, strands of sustainability.

Applicants should:

- Briefly summarise/ explain how their proposal complies with the relevant criteria, signposting to other relevant statements/ surveys as appropriate (for example, the transport assessment, biodiversity checklist and Sustainable construction, energy and water statement). The checklist does not need to repeat detailed information submitted elsewhere, but should provide an overview of the approach taken in the scheme.
- Ensure answers are explained and justified, not simply 'yes' or 'no' or 'not applicable';
- Use District Plan policies and the relevant sections in the SPD to inform responses;
- Ensure the level of detail submitted is proportionate to the type of application. For outline applications, the relevance of criteria will depend how many matters are reserved. Given the importance of incorporating sustainability measures early into the design process (as outlined in section 2 of the SPD), the Council think it is important that the checklist is considered at the outline stage. However, it is recognised it may not be possible to provide all the information required. In these circumstances, the applicant should demonstrate which checklist criteria are not applicable to their proposal.
- Ensure the level of detail submitted is proportionate to the scale of application. While major applications will require significantly more input than others, it is appropriate that all submissions should consider the sustainable design and construction issues raised and provide a response.
- Refer to the Council's website for further details about the submission requirements of particular applications: https://www.eastherts.gov.uk/planning-building/make-planning-application

Site name and reference

Bishops Stortford Mencap Nursery, Grove Cottage, 151 London Road
BISHOP'S STORTFORD
CM23 3JX

Details of person responsible for completing checklist

Name

Duncan Murdoch

Organisation

Grove Cottage (Bishop's Stortford Mencap Limited)

Relationship to the proposal (e.g. applicant, agent, consultant)

Applicant

With the following questions, please give a summary of the approach you are taking to address the criteria stated in the boxes provided.

Energy and carbon reduction

En.1 Does the Sustainable construction, Energy and Water Statement detail how the proposed development's carbon emissions have been minimised and to what extent?

Have full and reserved matters planning applications also included a carbon reduction template within the statement? (See SPD Section 3.3 and appendix B)

An outline feasibility report has been prepared by Green Building Design Consultants which details the ways in which the building will respond to the East Herts District Plan Sustainability SPD by taking a fabric first approach to minimise heat loss and air leakage. This is then supplemented by various highly efficient servicing systems and renewable energy.

A copy of this report is submitted with the application.

En.2 How have the site layout and building orientation and form been designed to minimise energy use? E.g. passive solar gain, natural shade, natural ventilation, thermal mass) (See SPD section 3.2.3)

As described above and detailed in the GBDC report a hierarchical approach has been taken to reducing energy demand and the associated carbon emissions in the building.

Due to the busy town centre location and proximity to busy roads there are some limitations about how the building can be orientated etc to minimise energy consumption. Nevertheless, steps have been taken, where possible, to incorporate elements of passive design.

For example, the south elevation has larger areas of glazing to allow for solar gain in the cooler months of the year but louvres are set to avoid over heating in summer (and prevent overlooking). Areas of the roof that are south facing will also be used for photovoltaics. More generally, the construction is of a high thermal mass to retain and modulate heat heat gains and losses.

In addition, section 2.1 of the GBDC report details the proposed improvements on Building Regulations U values and air tightness that we are intending to make in the building fabric.

Due to the location, we are proposing to use MVHR which will help to reduce the impact of noise and air pollution while allowing heat recovery in winter.

En.3 How has the energy hierarchy been applied to prioritise reducing the need for energy and implementing the 'fabric first approach'? (See SPD sections 3.2.2 and 3.2.3)

Section 2.1 of the GBDC report details the proposed improvements on Building Regulations U values and air tightness that we are intending to make in the building fabric at Grove Cottage. By improving on Building Regulations requirements as detailed the energy demand of the building will be reduced as far as reasonably practical.

Building on this fabric first approach, the bulding will then be serviced by a series energy efficient strategies including LED lighting throughout the building, air source heat pumps with underfloor heating, MVHR and local electric hot water to avoid heat loss in storage. Details of these proposals are found in section 3 of the GBDC report.

En.4 How will you ensure that where renewable/ low carbon technologies have been included to reduce carbon, that these will be successfully integrated into the design of the development? (See SPD sections 3.2.4 and 3.2.5)

The drawings show how the renewable and low carbon technologies are integrated into the development to minimise impact on the useable space and the building exterior.

For example the ASHPs are located in a louvred enclosure and MHVR equipment etc concealed from view in the plant room. The photovoltaics are located at second floor level at the rear of the building. They are also set in from the perimeter of the roof (which also has an upstand) which will help to screen them from the street.

En.5 How has the energy embodied in construction materials been reduced? (e.g. reuse and recycling/ sustainable materials/ locally sourced) (See SPD section 3.2.6)

The new Grove Cottage building needs to be a robust and long lasting, low maintenance building that can withstand many years of use. This in itself contributes to the overall sustainability of the building by reducing damage, energy use in maintenance and replacement of building parts etc.

In addition to this efforts will be made to reduce embodied energy where possible. This could include sourcing local materials where possible (eg timber), using recycled materials(eg aggregates in concrete) and materials which are recyclable (eg steel, aluminium, timber). All timber will be from sustainably managed sources.

Climate Change Adaptation

CA.1 How has the site layout and buildings been designed to mitigate overheating, giving priority to measures in line with the cooling hierarchy? (See SPD section 4.2.2)

As noted, the proposed building has been designed with a high thermal mass and high levels of insulation that will help to mitigate overheating in summer. On the south elevation, the glazing will be louvred to maintain privacy, avoid overheating but still allow some solar gains in the cooler months.

Full natural ventilation is not possible due to the location of the building but mechanical ventilation with heat recovery will be used instead. The windows are openable for natural ventilation in the summer months.

CA.2 How has overheating been assessed and what measures are proposed to address it? (See SPD section 4.2.2)

See CA.1 above for measures to address overheating. A more detailed assessment of overheating will be carried out in the technical phase of the design.

CA.3 What Green Infrastructure is proposed? (See SPD section 4.2.3)

The planting of small trees in the garden, a green roof to the bike store and the second floor roof are elements of green infrastructure that will be incorporated in the scheme. Bird and bat boxes will also be included as well as insect and bee shelters.

CA.4 How have existing landscape features such as trees/woodlands and hedgerows been protected and incorporated within a Green Infrastructure network? (See SPD section 4.2.3)

There are no existing landscape features to be protected so the proposals will represent a net gain in green infrastructure and biodiversity for the site.

CA.5 Where feasible and appropriate, have green roofs or walls been included. Please explain your answer? (See SPD section 4.2.3)

See CA.3

CA.6 Have measures been included to address surface water runoff? (See SPD section 4.2.4)

Green roofs have been included where possible, paving will be permeable if possible and rainwater will also be collected to water the garden spaces.

CA.7 If the application is major development, have details of SUDs been submitted? (See SPD section 4.2.4)

N/A

Water efficiency

WA.1 For new residential proposals, have you demonstrated compliance with the target for mains water consumption to be 110 litres or less per heard per day in the Sustainable construction, Energy and Water Statement? (See SPD section 5.2.2)

N/A

WA.2 For non-residential development have measures been taken to reduce water consumption in the proposed development? (See SPD section 5.2.3)

Water saving appliances such as aereated taps and dual flush toilets will be used throughout the building.

WA.3 Has consideration been given to the using water recycling systems? (See SPD section 5.2.4)

This is not possible on the project due to budget constraints but some rainwater will be recycled for watering the garden.

Pollution-Air Quality

AQ.1 How has the proposal addressed the recommended minimum air quality standards? These apply to all new development as set out in paragraphs 6.1.2.2 of the SPD.

There will be no gas fired boiler or CHP for this development. Instead a highly efficient air source heat pump will be used to heat the building which will have less NOx emissions.

The building is to be both naturally and mechanically ventilated. Due to the location constraints the building is situated next to a road, however a mechanical ventilation unit with heat recovery will bring in air from the outside into the building. There will be adequate filters within the unit to remove particulates from the air and supply clean fresh air to the building.

A maintenance regime will ensure that the filters are checked and replaced at the correct intervals to ensure they are always removing as much particulates from the outside air as possible.

AQ.2 How does the proposal show consideration of air quality in the design of new development? Design should address the following principles:
· Building and development layout and design
· Emissions from transport
· Sustainable energy
(See SPD section 6.1.2.4)

See previous sections regarding building layout, also refer to Travel Plan & GBDC submitted with this application.

AQ.3 How has emissions mitigation been incorporated into the proposal? (See SPD section 6.1.2.5)

See previous sections regarding building layout, also refer to Travel Plan & GBDC submitted with this application.

AQ.4 How will emissions be minimised through the construction and demolition phase of the development? Measures should follow the national guidance set out in section 6.1.2.7 of this SPD.

The contractor will be required to meet and if possible exceed all relevant legislation regarding emissions. They will also be required to meet IAQM guidance.

AQ.5 Has an Emissions Assessment been carried out as part of the Air Quality Neutral Requirement? The assessment should utilise the Damage Cost Approach.

An emissions assessment has not been carried out to date although this could be conditioned if necessary.

AQ.6 Has an Air Quality Impact Assessment been submitted? This must be submitted if the proposal meets any of the criteria listed in paragraphs 6.1.3 of the SPD**.**

We do not believe that the development meets any of the criteria listed in paragraphs 6.1.3 of the SPD.

AQ.7 Has an Air Quality Neutral Assessment been submitted? This must be submitted if the proposal meets the criteria listed in paragraphs 6.1.3 of this SPD.

We do not believe that the development meets any of the criteria listed in paragraphs 6.1.3 of the SPD.

Pollution: Light Pollution

LP.1 Does the proposal materially alter light levels outside the development and/or have the potential to adversely affect the neighbouring uses or amenity of residents and road users or impact on local ecology? (See SPD section 6.2.2)

The proposed development should not materially alter light levels outside the development. Lighting around the entrances and garden to the building will be for amenity/operational use only. Any security lighting will be located so as to not affect the neighbouring properties.

LP.2 Is the proposed light design the minimum required for security and operational purposes? (See SPD section 6.2.2)

Technical design of lighting will be undertaken if planning permission is granted. It will meet the minimum requirement for security and operational purposes.

LP.3 Does the proposal minimise potential glare and spillage? Please detail the design measures adopted to ensure this. (See SPD section 6.2.2)

The external lighting will be designed to minimise glare and spillage however detailed design has not been done yet and could be conditioned if necessary.

Biodiversity

Bio.1 Have you submitted East Herts biodiversity checklist? (See SPD section 7.3)

Yes

Bio.2 In accordance with the Biodiversity checklist, does the proposal affect a protected species or habitat? (See SPD section 7.2.4 and 7.3)

No

Bio.3 If a protected species or habitat has been identified, has an ecological survey, with sufficient information been undertaken? (See SPD section 7.2.4 and 7.3)

N/A

Bio.4 If relevant, has an ecological survey, with sufficient information been undertaken to assess the likely ecological impact of the development?

N/A

Bio.5 Has the mitigation hierarchy been applied undertaken, to demonstrate an adverse impact on biodiversity has been avoided? If this is not possible, has the impact been mitigated and then subsequently compensated? (See SPD section 7.2. and 7.3)

N/A

Bio.6 Has a net gain been achieved using a locally approved biodiversity metric? (See SPD section 7.2.5)

The introduction of the green roofs, trees and other landscaping will improve the biodiversity of the site. This increase has not been measured to date but this can be conditioned as necessary.

Bio.7 Has a suitable biodiversity management and monitoring strategy for the site been proposed?

Not yet, this can be conditioned if necessary.

Sustainable Transport

T.1 Have you demonstrated that the development includes measures that reduce the overall need to travel, and particularly by private car? (See SPD section 8.2.2)

Refer to Travel Plan submitted with this application

T.2 Have you demonstrated how, as first principles of design; the scheme's proposals prioritise walking and cycling within the development and link with existing networks beyond the development to deliver healthy and walkable neighbourhoods? (See SPD section 8.2.3)

Refer to Travel Plan submitted with this application

T.3 Where cycling facilities and any bus stops and/or transport hubs are to be provided, have you demonstrated that they accessible and attractive for all users and offer appropriate shelter? (See SPD section 8.2.3)

Yes, refer to Travel Plan & drawings

T.4 Have you included measures (traditional and/or innovative) to encourage uptake of more sustainable modes of transport and engender modal shift from the outset of development? (See SPD section 8.2.2 and 8.2.3)

Yes, refer to Travel Plan & drawings

T.5 Have you developed and submitted to Herts County Council an appropriate Travel Plan, Transport Assessment and/or Statement (as appropriate)? (See SPD section 8.2.4)

Yes, a Travel Plan is submitted with this application

T.6 Where car parking is to be provided, have you provided justification for the number of spaces proposed and made provision for electric vehicle charging in accordance with the Vehicle Parking Provision at New Developments SPD?

No on site car parking is provided as part of the development. Refer to Travel Plan for further details on sustainable transport options.

Waste Management

W.1 Have measures been proposed to reduce, re-use and recycle construction and demolition waste? (See SPD Sections 9.2.2 and 9.2.3)

WRAP Measures to reduce, re-use and recycle construction and demolition waste will be a requirement of the building contract once the project goes ahead.

W.2 How has the internal and external design of the development factored in effective sustainable waste management measures? Has sufficient detail been submitted with the application? (See SPD Section 9.2.4)

There is ample space for storage of waste and recycling around the building and the applicant will develop a waste reduction strategy once they occupy the building. Externally there is space for 3no 940L wheelie bins within 10m of the pavement edge. This allows for general waste, mixed recycling and a medical waste bin for nappies etc.

W.3 Have all the relevant criteria identified in table 13 of the SPD been addressed? (See SPD Section 9.2.4)

Yes

Data Protection Clause

In accordance with the Data Protection Act 2018 the information you supply the Council will be used to process the planning application or any subsequent appeal and retained as per our published corporate data protection privacy policy which may be found here. Your details and comments will be shown on the website and this information may be shared with other Council departments and/or outside partners.

I agree (Please tick this box to confirm your agreement). ☑

If you are happy with the information contained in this checklist, please save the PDF and submit with your planning application.