**Sustainability and Energy Statement**

**Planning Guidance**

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**November 2022**



# Context

This Planning Guidance is intended to support implementation of the East Dunbartonshire Local Development Plan (LDP). The relationship between the LDP, Supplementary Guidance and Planning Guidance is established in Scottish Government Circular 6/2013, and summarised in the table below.

| **Document** | **Purpose and Scope** |
| --- | --- |
| LDP | Sets out the Council’s policies for the development and use of land, including community strategies which identify opportunities for development, for the period up to ten years from adoption.  This guidance supports LDP 2017 and LDP2. This guidance refers to policies in LDP2 as the Council’s up to date policy position. |
| Supplementary Guidance | Supplementary Guidance is statutory as it forms part of the development plan, and has that status for decision making. It is limited to the provision of further information or detail in respect of policies or proposals set out in the LDP. Supplementary Guidance will be adopted with the LDP and lasts for the period of the Plan. |
| Planning Guidance | Non-statutory planning guidance may be used to provide detail on a range of subject areas. This form of guidance should not be termed Supplementary Guidance and will not form part of the development plan. However, adoption of this guidance by the Council gives it formal status, meaning that it may be a material consideration in decision making. Planning guidance can be updated as required and without the need for scrutiny by Scottish Ministers. Such updates are normally required where a specific issue arises during the period of the Plan. |

# Purpose

The purpose of this planning guidance is to support implementation of Policy 9 of the Local Development Plan 2, and may be a material consideration in decision making. Applicants for relevant development types should complete the following Sustainability and Energy Statement (SES) form as part of their application. Exempted development types are indicated in Policy 9. The Council will advise where a form should be provided, as part of the validation process. Applicants should answer as fully as possible, to help the Council understand the impact of the proposed development on its responsibilities relating to climate change and sustainability.

# Explanation of Requirements

The criteria set out in the tables below are intended to assist applicants prepare a Sustainability & Energy Statement (SES) as required by Policy 9, ensuring that relevant development proposals contribute to climate change adaptation and mitigation, and the national requirement to achieve net zero carbon emissions by 2045. The level of detail provided should be proportionate to the scale of development and may be discussed with the case officer as part of the planning application process. This will allow for an effective assessment of the proposal and help to speed up the assessment process.

The tables must be used as follows:

* ALL applicants will be expected to meet ALL essential standards in Table 1.
* Proposals that include one or more of the desirable sustainable design features in Table 2 are strongly encouraged.
* There is also an opportunity to provide any additional information. Separate sheets may be used if required.

The Council will only accept a lower level of sustainability where clear evidence, to the satisfaction of the Council, is provided that all of the essential criteria cannot be reasonably achieved or would otherwise undermine the viability of the proposal. Where applicable, this should be set out in the ‘Evidence and Further Details’ column and additional supporting evidence provided where appropriate.

**IMPORTANT NOTE – APPLICANTS WILL BE EXPECTED TO CLEARLY INDICATE WHETHER THE FOLLOWING STANDARDS HAVE BEEN MET, AND TO PROVIDE EVIDENCE OR FURTHER INFORMATION AS APPROPRIATE. SEPARATE PAGES MAY BE USED IN ADDITION TO THIS FORM.**

# Table 1 – Essential Standards Checklist

| **Ref** | **Criteria** | **Evidence and further details** |
| --- | --- | --- |
| 1 | Meets at least 20% of the carbon dioxide emissions reduction standard through the installation and operation of Low and Zero Carbon Generating Technologies, rising to 25% by 2025. Full details of the equipment and their location must be provided with the planning application. |  |
| 2 | Carbon emissions are minimised in accordance with the requirements of the energy hierarchy, as set out in Policy 9. |  |
| 3 | The proposed site is in a sustainable location in line with Policy 11: Transport |  |
| 4 | Does not result in a net loss in biodiversity and complies with the mitigation hierarchy set out in Policy 17: Natural Environment |  |
| 5 | Protects, enhances and expands the green network and creates new green infrastructure in accordance with the requirements of Table 3 in the Green Infrastructure and Green Network Supplementary Guidance |  |
| 6 | For residential developments, homes are designed to be resilient to surface water and fluvial flooding in line with Policy 18: Water Environment and Flood Risk |  |
| 7 | Minimisation of impermeable surfaces to ensure that the development achieves greenfield run-off rates and that surface water run-off is minimised |  |
| 8 | Where a Flood Risk Assessment is required, the proposal accords with SEPAs ‘Climate Change Allowances for Flood Risk Assessment in Land Use Planning’ in line with Policy 18: Water Environment and Flood Risk |  |
| 9 | The proposal includes evidence that passive heating and cooling systems have been incorporated |  |
| 10 | The proposal incorporates the sustainable use of materials as outlined in criteria F-K of Policy 9. |  |
| 11 | The proposal supports the principles of the ‘waste hierarchy’ i.e. reduce, re-use, recycle, as outlined in Policy 20: Managing Waste. For residential proposals, includes dedicated internal storage space for recycling boxes |  |
| 12 | For major proposals, includes a waste management plan in line with Policy 20: Managing Waste |  |

# Table 2 – Desirable Standards Checklist

| **Ref** | **Criteria** | **Evidence and further details** |
| --- | --- | --- |
| 1 | Designed to Building Standards Silver sustainability level or above. |  |
| 2 | Connects to a heat network, where available and in line with the Local Heat and Energy Efficiency Strategy. |  |
| 3 | Where LZCGT is proposed, applicants are encouraged to install shared energy networks rather than individual solutions on separate buildings. |  |
| 4 | Expands local green network habitat links, within and adjacent to the site as set out in Policy 17: Natural Environment |  |
| 5 | Provides food growing opportunities in line with Policy 13: Community Facilities |  |
| 6 | Provides facilities to compost household waste |  |

Appendix 1 - Domestic buildings - sustainability level aspects

All domestic buildings should meet the baseline level in accordance with the Bronze Active Level for Sustainability, which requires that the standards set out in Sections 1-6 of the [Scottish Building Standards Technical Handbook – Domestic Buildings](https://drive.google.com/file/d/1Zz2akStdTb1uEc_db9KH72iySvmDC5X0/view) are achieved.

*However, the Council would encourage all development to achieve Silver Active sustainability level or above. The tables below provide details of what would be required to achieve Silver and Gold levels, and is provided for information only. Please note that the following is a summary of requirements; please refer to the Scottish Building Standards Technical Handbook Section 7 for full details.*

## Silver sustainability level

| **Aspect** | **Details: Silver Active level** | **Confirmation** |
| --- | --- | --- |
| Aspect 1: Carbon Dioxide Emissions | All new dwellings that meet or exceed the Target Emissions Rate (TER) detailed in Section 6 of the Scottish Building Standards Technical Handbook will automatically meet the Silver level criteria in respect of carbon dioxide emissions. |  |
| Aspect 2: Energy for Space Heating | Maximum annual demand for useful energy for space heating should be:   * 40kWh/m2 for houses, or   30kWh/m2 for flats or maisonettes |  |
| Aspect 3: Energy for Water Heating | At least 5% of the dwelling or domestic building’s annual energy demand for water heating should be from:   * heat recovery and/or renewable sources with little or no associated fuel costs (e.g. solar thermal water heating and associated storage or heat recovery from greywater) that are allocated for water heating.   Where a building contains more than one dwelling (such as a block of flats or terrace of houses) the average annual energy demand for water heating may be met by installations of renewable sources and/or heat recovery for the block. |  |
| Aspect 4: Water Use Efficiency | Enhanced or additional products should be provided as follows:   * WCs of average flush volume not more than 4.5 litres * Wash hand basin taps with a flow rate not more than 6 l/m * shower heads with a flow rate not more than 8 l/m, and   1 water butt (with a min. capacity of 200 litres) for outdoor use per dwelling. Dwellings without a private garden or landscaped area, or if there is no access to rainwater collection (for example if there is no external rainwater pipe within the curtilage) are excluded. |  |
| Aspect 5: Optimising Performance | Quick start guide: Provide guidance to the occupants on the ways in which the specific dwelling is intended to function and how to optimise its performance on the scope, format and contents of the guide for occupants. This is additional to the written information to be provided to occupants under Section 6.  Resource use display: Install a real-time resource use monitor that displays electricity use, located in an easily accessible and readable position. |  |
| Aspect 6: Flexibility and Adaptability | Provide a home office space dedicated for home working/study to include:   * A clear space, against a wall or partition, where a desk of 1800mm long x 600mm deep could be placed. Alternatively, the desk space could be ‘L’ shaped in plan as long as each leg of the ’L’ is a minimum length of 1200mm. Diagrams below show the two desk options with associated activity spaces. * 2 switched electrical sockets in addition to those that should be provided under Section 4 of SBS Technical Handbook. * A connection to allow direct access to internet services (unless such a provision is made elsewhere in the dwelling). * For natural daylight there should be line of sight to a window, glazed external door or rooflight.   Generally ventilation, accessibility, safety and escape should meet all the other standards however |  |
| Aspect 7:  Well-being and Security | Noise separation**:** Design performance levels for separating walls and separating floors associated with attached dwellings should be:   * Minimum airborne sound insulation: 58 dB DnT,w * Maximum impact sound transmission: 54 dB L'nT,w   Performance levels for noise isolation for separating walls and separating floors should be verified by carrying out a sound test as indicated in the guidance to Section 5.  Noise reduction between rooms: Design performance level for a minimum airborne sound insulation should be 44 dB Rw.  This refers to all internal partitions in all dwellings and intermediate floors within houses and maisonettes excluding storage cupboards and should be substantiated by manufacturer’s laboratory test certificates.  Enhanced natural lighting: The enhanced apartment should be provided with a glazed area of not less than 1/8th of the floor area of the apartment.  Security: Install a 13 amp fused spur, suitable for an intruder alarm system, located within 2m of the main entrance door. |  |
| Aspect 8: Material Use and Waste | Recycling of solid waste**:** Provide a dedicated internal space with a volume of at least 0.12m3(120 litres) and no dimension less than 450mm, for storing recyclable material.  The storage space should:   * be able to store small amounts of recyclable material (e.g. metal, glass, plastic, cardboard and/or paper) * be easily cleanable * be additional to the general 1m3 kitchen storage in Section 3, and * facilitate temporary storage before transfer to a main storage point or a collection point, whether for the dwelling or for a group of dwellings.   It is recognised that local authority provision, resources and preferences for collecting separately or together will vary across Scotland. Therefore subdivision into containers for different materials is optional. |  |

## Gold sustainability level

| **Aspect** | **Details: Gold level** | **Confirmation** |
| --- | --- | --- |
| Aspect 1: Carbon Dioxide Emissions | Under the guidance to Standard 6.1, the carbon dioxide emissions (Dwelling Emission Rate) is to be 27% lower than the Target Emission Rate set by the 2015 Standards.  To establish this, the TER from SAP 2012 calculation should be multiplied by 0.73, to give a revised figure which the DER should not exceed (this is equivalent to a 42.8% improvement on the 2010 Standards and a 60% improvement on the 2007 Standards).  Where a building contains more than one dwelling (such as a block of flats or terrace of houses) the average carbon dioxide emissions for the proposed block or terrace (DER) may be compared to the average target CO2 emissions (TER) for the ‘notional block or terrace', similar to guidance in Section 6. |  |
| Aspect 2: Energy for Space Heating | Maximum annual demand for useful energy for space heating should be:   * 30 kWh/m2 for houses, or   20 kWh/m2 for flats or maisonettes |  |
| Aspect 3: Energy for Water Heating | Renewables and heat recovery: At least 50% of the [dwelling](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#dwelling) or [domestic building’s](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#domestic_building) annual energy demand for water heating should be from:   * heat recovery and/or renewable sources with little or no associated fuel costs (e.g. solar thermal water heating and associated storage or heat recovery from greywater) that are allocated for water heating.   Where a [building](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#buildings) contains more than one [dwelling](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#dwelling) (such as a block of [flats](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#flat) or terrace of [houses](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#house)) the average annual energy demand for water heating may be met by installations of renewable sources and/or heat recovery for the block. This is similar to the [buildings](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#buildings) with multiple [dwellings](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#dwelling) guidance in Section 6.  Water heating display: A display showing the performance of the primary renewable source, such as a solar collector, should be mounted in easily accessible space, for instance alongside controls for heating equipment or near the bathroom/shower room door. |  |
| Aspect 4: Water Use Efficiency | Enhanced or additional products should be provided to encourage water efficiency as follows:   * 1 water butt (with a min. capacity of 200 litres) for outdoor use per [dwelling](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#dwelling). [Dwellings](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#dwelling) without a garden or landscaped area, or if there is no access to rainwater collection (for example if there is no external rainwater pipe within the curtilage) are excluded, and * 3 of the following 5 items:   + water meter   + WCs of average flush volume to be not more than 3.5 litres   + wash hand basin taps of flow rates not more than 4 l/m and to [kitchen](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#kitchen) or utility room sinks to be not more than 6 l/m   + shower heads with maximum flow rate not more than 6 l/m   rainwater harvesting or greywater recycling system designed to provide water for [toilet](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#toilet) flushing. |  |
| Aspect 5: Optimising Performance | Quick start guide: Provide as for Aspect Silver 5, plus: Direct ‘easy release’ adhesive labels on all key heating and ventilation equipment including (where fitted): [trickle ventilators](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#trickle_ventilator), extract fans, mechanical ventilation with heat recovery (MVHR), heating controls (programmers, Thermostatic Radiator Valves (TRVs)).  Resource use display: Provide as for Aspect Silver 5, plus the real-time resource display indicates gas use (if gas is used for heating), displaying gas use at least at a daily period. |  |
| Aspect 6: Flexibility and Adaptability | Home office: Provide as for Aspect Silver 6.  Mobility space: Provide convenient secure mobility space to accommodate an electric wheelchair(s) and that could also be suitable for pram storage and the storage of a bicycle(s). The size is defined as follows:   * An electric wheelchair (or pram) storage space of: 0.8m x 1.1m on plan, minimum height of 1.8m. For [dwellings](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#dwelling) of 4 [apartments](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#apartment) or more; or over 150m2; space for two electric wheelchairs and * A bicycle storage space of: 2m x 0.75m on plan, minimum height of 1.2m. For [dwellings](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#dwelling) of 3 [apartments](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#apartment) or more; or over 150m2; space for two bicycles: 1m x 1.5m.   A single infant’s pram or pushchair should generally be able to use the mobility space as defined by either the cycle or wheelchair footprint. The space does not need to be able to store a wheelchair at the same time as a pram or bicycle; this diagram shows how the spaces can overlap.  The mobility space should have a socket outlet for recharging. Ideally, it should be adjacent to the accessible entrance. It should not be located in a [protected enclosure](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#protected_enclosure) and it should be outwith the minimum corridor width noted in Section 4, clear of any door way, door swing, stair landing or space identified for a future stairlift installation.  The mobility space in the [dwelling](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#dwelling) would be defined only by the wheelchair size(s) if either of the areas below are present, allowing the bicycle storage provision to be located outwith the [dwelling](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#dwelling):   * A motor vehicle garage could be adequate as long as bicycle storage is outwith a 4.8m x 2.4m space for parking a single motor vehicle or * Communal bicycle storage that is secure (locked with resident only key access) and weather protected. This should be sized on the number of [apartments](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#apartment) in total or overall size of all dwellings served. The communal store should be at ground level or accessible by a ramp.   If separate bicycle storage is allocated (garage or communal store), this does not need an electrical socket outlet. The storage provision for more than one bicycle could be split between a [dwelling](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#dwelling) and a communal store.  General storage provision within a dwelling**:** Accessible storage of 1m3 in volume per [apartment](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#apartment). The storage space should be capable of being closed off with a door but does not need to be off each [apartment](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#apartment).  General storage is in addition to a wardrobe space or built-in wardrobe, or storage that is designated for the future provision of a shower. |  |
| Aspect 7: Well being and Security | Noise separation: Design performance levels for separating walls and separating floors associated with attached dwellings should be:   * Minimum airborne sound insulation: 60 dB DnT,w * Maximum impact sound transmission: 52 dB L'nT,w   Performance levels for noise isolation for separating walls and separating floors should be verified by carrying out a sound test as indicated in the guidance to Section 5.  Noise between rooms**:** Design performance level for a minimum airborne sound insulation should be 45 dB Rw.  This refers to all internal partitions in all dwellings and intermediate floors within houses and [maisonettes](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#maisonette) excluding storage cupboards and should be substantiated by manufacturer’s laboratory test certificates.  Enhanced natural lighting: Provide as Aspect Silver 7 plus the average daylight factor (average DF) for [kitchens](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#kitchen) and living room/dining/study should be 1.5% and 2% respectively,  (refer to SBS Technical Handbook for details of calculations)  Security: Provide as Aspect Silver 7 plus:   * provide doorsets and windows which are tested and certified by a [notified body](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#notified_body) as meeting a recognised standard for security or * install a full intruder alarm system that complies with BS EN 50131 and PD6662 (wired system) or a Class VI alarm to BS 6799 (wire free system) that conforms to Association of Chief Police Officers (ACPO) guidelines.   Outdoor space: Provide private or communal outdoor space with room for occupants to sit outside. The outdoor space should be accessible only to occupants of designated houses or flats and not be occupied by car or cycle parking space, waste storage area, electricity substations or other ancillary features. It must comprise of at least one of the following:   * a private garden, patio, roof terrace or balcony (with the front open to air, or see Note 1 below) of an area no less than 1.5m2/[apartment](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#apartment) (minimum 3m2/home) with a minimum short dimension of 1.2m or * a communal shared garden or courtyard that is:   + of an area no less than 1.5m2/[apartment](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#apartment) (minimum 3m2/home) with a minimum short dimension of 2m   + secure by, for example, resident only key access   + secluded and fully enclosed with [buildings](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#buildings) themselves, walls, fencing or planting are all permitted possibilities to define the space.   Generally issues of daylight, ventilation, safety and escape should meet the guidance of all the other mandatory standards. Access to these spaces should follow the guidance of Section 4.  **Note 1**: In a studio or single bedroom flat (i.e. a flat with 2 apartments or less) then the balcony could be a ‘Juliet’ type where the size could then be provided by a space immediately inside of an inward opening glazed door or door(s) and has a protective barrier externally. This space should not:   * interfere with the defined space or access of an enhanced [apartment](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#apartment) * overlap with minimum furniture provision or associated activity spaces and   interfere with [kitchen](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#kitchen) worktops, appliances or manoeuvring spaces. |  |
| Aspect 8: Material Use and Waste | Recycling of solid waste: Provide as for Aspect Silver 8.  Design for de-[**construction**](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#construct): By consideration of waste minimisation arising from the built-form, one of the following should be adopted:   * Demonstrate that key principles of demountable [construction](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#construct) detailing have been followed. This could be demonstrated by submitted drawings containing reference to guidance such as the Scottish Ecological Design Association’s (SEDA) document on: 'Design and Detailing for Deconstruction'. A minimum of three of the high or medium priority items from the example constructions in the detailed section of this document should be demonstrated clearly or * Provide a detailed plan for deconstruction of the [building](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#buildings) that follows a template such as that on page 21 of the SEDA document. This option provides opportunities to meet this level in this aspect for prefabricated, modularised or flexible internally partitioned [constructions](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#construct) that use techniques that involve off-site manufacturing where the described assembly could be reversed for disassembly or * An option only where a [site](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#site) is occupied and the warrant application is for demolition and [construction](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#construct). Provide a pre-demolition audit of existing [buildings](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#buildings)/structures on [site](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#site). In this option for brownfield developments only, the audit should follow an established methodology such as the ICE Demolition Protocol, referred to by the Waste and Resources Action Programme (WRAP) that:   + produces a Bill of Quantities of the different materials in the [building](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#buildings) to be demolished   + identifies the tonnages of material that can be recovered and   determines the percentage of materials recoverable. |  |

## Platinum sustainability level

| **Aspect** | **Details: Platinum level** | **Confirmation** |
| --- | --- | --- |
| Aspect 1: Carbon Dioxide Emissions | Under the guidance to Standard 6.1, carbon dioxide emissions CO2 Dwelling Emission Rate (DER) is to be 100% lower than the Target Emission Rate (TER) set by the 2010 Standards. To establish this, the DER should not exceed zero. (This net zero carbon equivalent is a 100% improvement on the 2007 Standards).  Where a [building](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#buildings) contains more than one [dwelling](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#dwelling) (such as a block of [flats](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#flat) or terrace of [houses](https://www2.gov.scot/resource/buildingstandards/2017Domestic/chunks/apa.html#house)) the average carbon dioxide emissions for the proposed block or terrace (DER) may be compared to the average target CO2 emissions (TER) for the ‘notional block or terrace', similar to guidance in Section 6. |  |

Appendix 2 - Non-Domestic Buildings Sustainability Level Aspects

*The following is a summary of requirements; please refer to the non-domestic buildings* [*Scottish Buildings Technical Handbook Section 7*](https://drive.google.com/file/d/1gxyE77IMD9uZQmZ1sBAMuswG0itcBO5J/view) *for full details.*

| **Aspect** | **Details: Silver (Active)** | **Confirmation** |
| --- | --- | --- |
| Aspect 1: Carbon Dioxide Emissions | All new non-domestic buildings that meet or exceed the Target Emissions Rate (TER) detailed in Section 6 of the Scottish Building Standards Technical Handbook will automatically meet Silver level in respect of carbon dioxide emissions. |  |
| Aspect 2: Energy for Thermal Comfort and Artificial Lighting | Prioritise natural means of heating, cooling and ventilating building.  Controls for fixed artificial lighting to be installed to meet specified standards.  All fixed services that use energy for providing thermal comfort shall have:   * optimised stop start * a dead band thermostat installed in every teaching space * direct acting weather compensation system * heat recovery where mechanical ventilation is used   To minimise summer overheating, all roof lights and south facing window openings should include measures for the effective control of solar gain. |  |
| Aspect 3: Water Efficiency | Fittings should be provided as follows:   * WCs of average flush volume not more than 4.5 litres and fitted with delayed action inlet valve * Wash hand basin taps with a flow rate not more than 6l/m; fitted with either a timed automatic shut-off or an electronic detection sensor (other than in an accessible or changing places toilet); * Shower heads with a maximum flow rate not more than 8l/m fitted with a timed automatic shut-off (other than in an accessible or changing places toilet) * Water storage container(s) (with a combined minimum capacity of 200 litres) with an overflow discharging to a SUD system, a soakaway, or an outfall to a watercourse   In addition:   * At least 10% of the annual energy demand for water heating required should be from heat recovery and/or renewable sources with little or no associated fuel costs (e.g. solar thermal water heating and associated storage) * The design and construction of school roofs, and hard surfaces should include one or more of the following Sustainable Urban Drainage measures capable of controlling 50% capacity of the predicted rainfall for the overall site and also enhance the biodiversity value of the site:   + Attenuation ponds   + Swales   + Rainwater harvesting for the flushing of WCs   + Permeable surfaces to enable total infiltration of surface water to the underlying ground   A green roof or living wall |  |
| Aspect 4: Biodiversity | Allotment: Provision of a dedicated area set aside for use as an allotment with an area of at least 5% of the building footprint. The allotment area should contain:   * 2 composting containers (combined minimum capacity not less than 160 litre) * Water storage container(s) (with a combined minimum capacity of 200 litres) with an overflow discharging to a SUD system, soakaway, or outfall to a watercourse * Dedicated space for a greenhouse (with a minimum area of 6m2 * Covered enclosure with a minimum area of 6m2 giving protection from inclement weather for the secure storage of maintenance equipment   Natural boundary: 25% of length of the site boundary not forming part of the building elevation to be defined/augmented by planting or natural features  Natural habitat/native woodland: provision of a dedicated area of approximately 15% of the overall site area capable of evolving into a designated natural habitat area or native woodland area  Biodiversity strategy document: provision of an ecological report and bespoke user guide for the school related to enhancing biodiversity and developing ecological understanding |  |
| Aspect 5: Wellbeing | Achievement of a minimum average daylight factor of 3% to be achieved in classrooms at a working plane.  Indoor air quality monitor: all teaching classrooms to have a real-time display measuring carbon dioxide ppm levels and temperature  Acoustics: a written design specification to be provided by a specialist acoustic consultant to determine appropriate acoustic performance levels for all classrooms  Room height: to assist designers to meet the specified natural daylight factors and reduce the likelihood of a classroom having increase carbon dioxide concentrations levels, 80% of all classroom areas should achieve an average minimum floor to ceiling height of 3500mm for secondary schools and 3000mm for a primary school |  |
| Aspect 6: Flexibility and Adaptability | Cycle storage:   * Storage ratios of 1 space per 20 staff, and 1 space per 20 pupils to be achieved for primary schools * Storage ratios of 1 space per 20 staff, and 1 space per 10 pupils to be achieved for secondary schools   With a minimum of 2 spaces for visitors no more than 50m rom the principal entrance; 50% of overall capacity to provide shelter from inclement weather; 50% of overall capacity to be within 100m of the principal entrance of the school building in an area of visual surveillance, protected from vehicular traffic, and which does not cause an obstruction to pedestrian flow. All bicycle stands should be securely fixed to a hard surface or permanent vertical surface, and for primary schools up to 50% of the cycle storage spaces can be replaced by a non-motorised scooter parking facility.  Staff active travel facilities to be provided on a ratio of 1 per 10 cycle storage spaces, or part thereof:   * Shower and adjacent seating * 2 clothes hooks * A secure locker * A dedicated drying space   Pupil active travel facilities, per pupil:   * 1 secure active travel locker   Shared space vehicle parking and drop-off areas  External teaching space: an external structure for teaching, external performance or outdoor play |  |
| Aspect 7: Material use and waste | Recycling of solid waste: a strategy document is to be provided as part of the user guide in Aspect 8 which identifies dedicated spaces for the collection and storage of everyday recyclable materials.  A dedicated external storage space to be provided which caters for recyclable materials (including excess food waste that is not composted on site), generated by users of the  building during occupation. The space allocated should have a washable hard surface area to accommodate waste containers required by the waste collection authority. Convenient access to the contents of the container should be provided to allow removal.  The hard surface may be a collection point designated by the waste collection authority where the container can be removed or emptied. If the hard surface is not the collection point then there should be an accessible route along which the container can be transported to the collection point.  The storage area should have provision for washing down and draining into a wastewater drainage system. Gullies should incorporate a trap that maintains a seal even during periods of disuse. Walls and floors should be of an impervious surface that can be washed down easily and hygienically. |  |
| Aspect 8: Optimising Performance | User information guide:   * To provide guidance for use by the building occupants on the ways in which all classrooms are intended to function (heating cooling, lighting and ventilation) and how to optimise energy performance. This is additional to the written information to be provided for occupants under Section 6 of the Technical Handbooks. * A summary of information to be affixed at the entrance of each classroom to provide guidance to the building user on the ways in which the specific classroom is intended to function (heating, cooling, lighting and ventilation) and how users can optimise the performance   Resource use displays:   * Install a real-time resource use monitor(s) with the data linked to a visual display located in an easily accessible and readable position at the principal entrance area to the building. For the purpose of teaching, monitoring and recording purposes by pupils staff and the local community that displays energy use for heating, ventilation, cooling, lighting and small power. |  |

Appendix 3 –Additional information

Please provide any additional information relating to sustainability in support of the proposal (optional):