The key policy in the adopted Borough of Redditch Local Plan regarding the sustainability of this development is Policy 15 Climate Change:

**Policy 15 Climate Change**

**15.2** To be sustainable, new developments must have regard for the need to be climate resilient. For residential development, this policy applies to planning applications of more than 10 units. In order to ensure appropriate consideration of adaptation and mitigation to climate change has been made, applications will be judged against the following criteria:

1. development should be placed in accessible locations in order to reduce greenhouse gas emissions. Proposals should take account of the need for accessibility between any development site and key facilities and consider how flexible and smarter working practices can be maximised to reduce transport emissions.
2. the energy efficiency of the development must be maximised through its siting and orientation, and through the adoption of energy conservation measures, including natural ventilation, heating, street trees and lighting.
3. proposals must seek to meet the new national technical standards, excluding the additional optional standards.
4. all new non-domestic development must be assessed against the BREEAM assessment method (or any other national scheme which supersedes it).
5. all proposals must demonstrate that the use of sustainable, locally sourced and recycled materials has been considered and the waste hierarchy has been considered (waste minimisation, reuse and recycling) during construction.
6. adaptation measures must be maximised, with particular emphasis on the provision, enhancement and retention of Green Infrastructure (see Policy 11 for further detail).

**15.3** The use of small-scale renewable technologies will be encouraged in appropriate locations.

**15.4** Low carbon vehicle infrastructure in appropriate developments and locations will be encouraged.

**15.5** This policy relates to all forms of renewable energy development other than wind energy developments. Wind energy development will be considered against national policy and guidance.

Each specific point of this Policy will be addressed in relation to the proposed Morton Stanley Park Café development:

* 1. **Climate resilience**
1. **Accessible location**

The development has been placed within Morton Stanley Park, in a location which has been considered for improvement to services provision and which is accessible by active transport:

* 1. On foot (via footpaths and underpasses without crossing major roads) from the neighbouring housing estates in Callow Hill, Walkwood, Crabbs Cross, Headless Cross and Webheath.
	2. By cycle - using the Worcestershire County Council Redditch Walking and Cycling map, the park is accessible from most areas of Redditch via a combination of on-road cycle routes, routes recommended by cyclists and traffic free cycle routes, including from National Cycle Route 5. Within the park there is no dedicated cycle route but the tarmac footpaths within the park provide a safe cycling route and there is dedicated cycle parking in view of the proposed cafe.
	3. The skate park facility in the park is a trip attractor for those using skateboards and in line skating, also serving BMX and mountain bikes.
	4. By e-scooter - the Windmill drive entrance to the park is within the area pilot e-scooter trial run by Redditch Borough Council (RBC) in conjunction with Bird.

Regarding public transport, Morton Stanley Park is not directly accessible by bus, but is accessible by a short walk from various bus routes, for example:

1. About 5 minutes from the 47/48 Redditch circular route.
2. About 15 minutes from the 70 Astwood Bank – Redditch route.

The presence of a café and toilets in Morton Stanley Park could encourage visitors who would otherwise drive to use active or public transport instead, as they would no longer need to factor travel time to refreshments and toilets into their transport plans.

1. **Energy efficiency**

Within the topographical constraints of the site, orientation and siting gives regard to optimising passive solar gain and minimising wind chill:

* 1. The building is orientated facing South South East, 25 degrees from true South. All glazing is on the South East side. This maximises winter morning solar gain, when the low winter sun is in the south east (important for a building that will be mainly used during the day) and minimises summer solar gain, reducing overheating risk.
	2. Furthermore, primarily deciduous trees to the North and East of the Building will provide shading from the primarily northerly summer sun and some protection from cold northerly winds.
	3. This shading is increased by the inclusion of a canopy on the southerly and western aspects of the buildings, shaped to minimise impedance of the low south easterly winter morning sun and to maximise shading from the high westerly afternoon summer sun.
	4. An (air-air) air source heat pump (ASHP) which will be the sole heating source. Ventilation will primarily be natural, with mechanical ventilation in the kitchen area to reduce humidity when required and optional comfort cooling from the ASHP.
	5. Lighting is LED with a lifetime (L70) of greater than 50,000 hrs.
1. **National technical standards**

Proposals are in-keeping with current Building Regulations.

1. **BREAAM assessment**

The development has not been assessed against the BREAMM assessment method. In this relatively simple building with budgetary constraints, it was decided that it was preferable to use available funds to maximise the operational energy efficiency and minimise carbon emissions associated with the building, rather than pay for verified BREAMM accreditation that would not significantly affect the actual sustainability measures included within the building. The Climate Change Officer, Environmental Policy Officer and the Regional Principal Energy Projects Officer for the Midlands Energy Hub have been involved throughout the design process.

1. **Sustainable materials**
	1. The building will be of modular construction, with modules manufactured in the UK using labour local to the factory site. Where possible materials will be utilised in their supplied sizes to reduce waste before manufacturing has begun. The modules are produced in a controlled factory environment, allowing far greater control of waste. Different materials can be segregated easily to allow for safe and efficient recycling or disposal; ensuring the amount that goes to landfill is negligible. Manufacturers Wernick use an Environmental Management System accredited to ISO14001:2008.
	2. A site-specific on-site construction phase waste management plan will also be produced and will be subject to approval by RBC as the Client.
	3. The timber cladding will be FSC certified and module manufacturers Wernick are FSC Chain of Custody certified.
	4. Materials have been chosen based on practicality, ease of maintenance, appearance and budget as well as considering environmental concerns. Where materials increase durability, energy efficiency and reduce the load on supporting structures, this can at least partially offset the initial high embodied carbon of materials such as concrete and plastic. Most materials employed, including steel, aluminium and timber, can all be recycled.
	5. Groundworks and external works will be completed by a locally based contractor.
	6. Groundworks and external works will utilise sustainable aggregates in construction. It will be the intention to use recycled single size aggregate for drainage work which is available from local supplier SE Davis in Redditch
	7. Consideration has been given to the location of the building to enable the effluent discharging from the building can be disposed of via a gravity sewer connecting into the public sewerage system without the need for costly pump installations
2. **Adaptation measures**
	1. Overheating risk has been addressed in (ii) Energy efficiency.
	2. Regarding Green Infrastructure, care has been taken when siting the development to prevent loss or damage to trees. The small area of usually short-mown grass that will be lost is of little significance in this respect.
	3. Cycle parking bays will be installed in close proximity to the building to promote cycling to the park
	4. A water bottle filling station will be installed externally next to the café once the building is operational to promote single use plastic and recycling
3. **Small scale renewable technologies**
	1. The building will be heated by passive solar gain and an (air-air) air source heat pump (ASHP), which will use approximately one third as much electricity as pure electrical heating by extracting heat from the air.
	2. Solar photovoltaic panels were considered for the roof, but the health and safety concerns and vandalism risk were prohibitive, given the building is single storey and does not benefit from natural surveillance.
	3. A small vertical axis wind turbine was considered. However, given the low wind speeds, the carbon and financial cost of the technology would outweigh any electricity generated.
	4. Rather than inappropriately install renewable energy generation technology, it would be preferable for the building occupants to be required to purchase electricity from appropriately sited renewable energy generators via the grid.
4. **Low carbon vehicle infrastructure**
	1. Low carbon active transport vehicles have been covered in (i) Accessible location.
	2. For those using motor vehicles to access the park, a proposal for 7kW electric vehicle charging points for numerous RBC carparks is currently being considered for approval under the RBC MEDIUM TERM FINANCIAL PLAN 2021/22 – 2023/24. This would include Morton Stanley Park carpark near the proposed café and toilets and would be in-keeping with the RBC Ultra-Low Emission Vehicle Strategy 2019.