

JD Sports, Bury

Sustainability Planning Statement – Creche and Hub Buildings JD Sports

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1.1 Building Regulations (Part L 2013)

The new development is to be compliant with United Kingdom Building Regulations Part L2A Conservation of fuel and power in new buildings other than dwellings (2013 edition).

An energy assessment for the proposed development is to be undertaken based on the requirements of Part L2A (2013). The assessment is to be based on the National Calculation Methodology (NCM) calculated with approved software.

The development will comply with the existing Bury Council policy document, The Bury Unitary Development (UDP) adopted in 1997, and the Development Control Policy Guidance Note 16 (SDP16) adopted in October 2008. SDP16 item 5a states the requirement to improve on the 2006 Building Regulations Approved Document L by a minimum of 25% reduction in CO₂.

Additionally, both local and regional policy are currently being refreshed with the Bury Council, Bury Local Plan, and the Greater Manchester Combined Authority (GMCA), Places for Everyone (PfE). The direction of travel of the emerging policies are to be taken into consideration.

1.1.1 Building Fabric Performance

Improvements over the Building Regulation minimum standards are to be sought for the development, with the target building fabric performance in order to improve performance with respect to operational energy use as part of a strategy to design the building fabric to the standards required to become a net zero carbon building in operation by 2038 in line with the draft Greater Manchester Places for Everyone development plan.

These are indicatively summarised in the following table:

Detail	Part L2A minimum values	Target Values
Exposed floor average area weighted U-value (W/m ² K) *	0.25	0.10 – 0.14
Roof average area weighted U-value (W/m ² K)	0.25	0.10 – 0.14
Wall average area weighted U-value (W/m ² K)	0.25	0.15 – 0.18
External Window average area weighted U-value (including glass,	2.20	1.20 – 1.40

frame and solid panels) (W/m ² K)		
Façade total solar transmission g-value	0.68	0.32 – 0.4
Glazing visible light transmission (VLT)	0.71	0.70
Glazing frame factor (%) – typical value	-	10%
Glazed pedestrian doors U-value (W/m ² K)	2.20	1.20 – 1.40
Air permeability @ 50 Pascals (m ³ /hr/m ²)	10.00	2.00 – 3.00

Table 1-1 - Building Fabric Values

The final target values will be developed during the design development of the project.

1.1.2 Energy Efficient Services

To further reduce energy demand, the efficiency of the building services is to be maximised. The building design will apply advanced dynamic simulation modelling such as CIBSE TM54 or Design for Performance methodology to accurately predict the actual energy consumption. This will allow the design to be developed so that the operational carbon performance of the building will be on target for net zero carbon by 2038.

1.1.3 Low Carbon Energy Sources

The feasibility of incorporating Air/Ground Source Heat Pumps (A/GSHP) and photovoltaic (PV) panels on to the roof of the building is to be considered for the development. A target of 10% of predicted energy needs is to be met from low carbon energy sources.

1.2 Energy Performance Certificate

The building contractor is to ensure an EPC B rating is achieved.

1.3 BREEAM

Current Bury Council planning guidance detailed in SDP16 is for a new building to achieve BREEAM Very Good. The emerging GMCA policy document, Places for Everyone has reference to achieving at least BREEAM Excellent (or equivalent) for the ‘Ene 01 – reduction of energy use and carbon emissions’ category or an equal alternative. The BREEAM standard does not go far enough in terms of energy performance for JD Sports, and it is recognised in the property industry that there is a performance gap between energy efficiency standards used by BREEAM and actual energy consumption.

Consequently, it is proposed that advanced dynamic simulation modelling such as CIBSE TM54 or Design for Performance methodology (dependant on building) be used instead of BREEAM to accurately predict the actual energy consumption. This will allow the design to be developed so that the operational carbon performance of the building will be on target for net zero carbon by 2028 for new development and to aid in Greater Manchester being carbon neutral by 2038.

To demonstrate the equivalent standard to BREEAM Very Good is achieved on the project, an outline of sustainability concepts that the project will take inspiration from, without carrying out the formal BREEAM assessment, are shown on the next page.

1.4 Demolitions

Most existing demolition materials on site will be reused on site. The small amount that are removed from site will be sent for recycling wherever possible.

Health & Wellbeing



With people spending up to 90% of their lives indoors, the impact that buildings have on the health & wellbeing of occupants is of growing importance. The development will aim to provide an environment that has a positive impact on its occupants.

- **Good daylight** will be achieved in occupied spaces through the balanced and considered use of glazing.
- Design internal and external lighting systems to provide appropriate illuminance (lux levels, thereby giving a more comfortable environment for occupants.
- Central Air Handling Units (AHU) will maintain a consistent supply of filtered fresh air to maintain good **indoor air quality**.
- Good **thermal comfort** will be achieved in occupied spaces through heating and cooling systems.
- **Low VOC** materials and finishes will minimise internal sources of pollutants.
- Enabling occupants to experience **best practice acoustic performance levels** appropriate to the functional activities in occupied spaces.

Transport



As the second largest emitter of CO₂ in the UK, the transport of people is a priority area in achieving the UK's net zero carbon ambition. Supporting alternatives to fossil fuel is key.

- The promotion of **walking and cycling** with strong connection links from the site to the surrounding area. This is further supported with the provision of cycle storage facilities for occupant use.
- Good **public transport** links in the immediate vicinity with further national links in the nearby city centre.
- The inclusion of cabling infrastructure to enable **electric vehicle charging** to be provided to 10% of the parking spaces.

Water



Climate change continues to place increasing pressure on the UK's water supply, with an increase in the frequency and severity of droughts. Furthermore, the energy and carbon emissions associated with the treatment of fresh water places water conservation at the forefront.

- **Water efficient** fixtures and fittings will be specified to reduce water consumption below the levels required for national building regulations.
- **Metering and sub-metering** of consumption will enable ongoing, targeted reductions in water use.
- **Leak detection and shut-off** will prevent both major and minor leaks within the buildings as well as in external areas.
- The need for **irrigation** will be minimised through appropriate landscaping which are adapted to the UK's conditions.

Materials



As well as carbon emissions, materials can have much wider social and environmental impacts which need to be considered.

- All **timber** used in the project will be from a responsible or sustainable source, using certified FSC or PEFC sources.
- To ensure **responsible and sustainable procurement**, materials will be specified in line with a documented sustainable procurement plan.
- Materials that are **durable and resilient** will be specified to maximise their lifespan and avoid the need for disposal and replacement.

Waste



Buildings and building sites produce a significant amount of waste per year.

- The use of a **Resource Management Plan** will set targets for resource efficiency and procedures for waste management.
- Appropriate and accessible **waste facilities** will be provided to encourage occupants to recycle waste effectively.

Land Use & Ecology



As well as a climate crisis, the UK faces a biodiversity crisis with a rapid decline in biodiversity in recent years. The built environment can respond to this through sustainable land use, habitat protection and creation as well as improvement of long-term biodiversity for the site and surrounding land.

- Using the external landscape to integrate **biodiversity** and create a microclimate for planting.
- Diversity of planting to create valuable habitat throughout the seasons.

Energy



We will take note of the direction of travel of The Greater Manchester development plan, Places for Everyone, to see that the development either meets this standard or the existing Bury Council requirement to improve on Part L of the Building Regulations 2006 by 25%, achieve equivalent to BREEAM very good and target 10% of predicted energy needs from low carbon decentralised energy sources.

The GM emerging Zero Carbon framework will also be referred to, to inform the strategy and align with GM future aspirations.

- Encourage the design of **energy efficient** buildings with energy performance above national building regulations.
- Reduce the building's energy consumption through the specification of energy efficient external lighting.

- Reduce the building's energy consumption through the adoption of passive design solutions, free cooling and **low or zero carbon (LZC)** energy sources.
- Reduce the building's operational greenhouse gas emissions (CO₂-eq) through the design, installation and commissioning of energy efficient refrigeration systems.
- Reduce the building's energy consumption by specifying the optimum number and size of energy efficient transportation systems.

Pollution



- The site will feature no **on-site combustion** for heating and hot water which would be detrimental to local air quality.
- **External lighting** will be designed to minimise the impact of light pollution. Light fittings will be specified with a reduced light spill and controlled using photocells and timeclocks to limit unnecessary operation.
- Limits to noise emitting plant to prevent impacts on its surroundings.
- Responsible construction practices to minimise resource use and the impact of noise, dust and pollution.

Environmental Compliance



Construction sites are responsible for significant impacts, especially at a local level. These arise from noise, potential sources of pollution, waste and other disturbances. Impacts such as increased energy and water use are also significant.

- **Early stage engagement** of the design team as well as wider stakeholders to maximise opportunities for sustainable outcomes.
- **Responsible construction management** to uphold sustainable practices through the construction stage. This includes ISO14001 accreditation of the supply chain. The use of the Considerate Constructor's Scheme to demonstrate wider best practice.
- **Robust quality assurance** and handover procedures, including commissioning to carry forward the design intent into the operation stage

