

CARBON ENERGY STATEMENT

Masjid E Bilal Islamic Centre
52 Bury Old Road
Prestwich
Manchester
M25 0ER

Proposal

Demolition of the Existing Mosque and Community Facility and the Erection of a Replacement Mosque and Community Facility (F1 (f)).

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1.0 INTRODUCTION

- 1.1 This Carbon Energy Statement is submitted by 'Planning Management Ltd' on behalf of the applicant 'Al-Bilal Mosque'. This Statement accompanies a full planning application which includes the demolition of the existing Mosque and its replacement with a new bespoke replacement Mosque at 52 Bury Old Road, Prestwich, Manchester.
- 1.2 The building currently is of single-storey construction which has been altered and extended in recent years. Extensions to the building have been ad hoc, and over a long period of time, leading to a number of uncharacteristic additions to the original building which are considered not to relate well with the overall character of the area.
- 1.3 There is a small private car park serving the centre between the building and Bury Old Road, a separate public car park is immediately to the south-east, across the access. Houses are located to the north on Woodthorpe Grange, and to the east on Woodthorpe Close.



- 1.4 **Above:** Aerial Image above indicates the application site.



- 1.5 **Above:** South eastern elevation of Al-Bilal Mosque from the adjacent public car park.
- 1.6 The layout plans submitted show the proposed building would be located towards the front of the site in the position of the existing car parking area. A small landscape buffer and paved area of around 6.5m would be retained between the proposed building and the front boundary adjacent to the highway of Bury Old Road. Parking for 20 vehicles would be provided to the south eastern side and rear of the building.
- 1.7 The existing use of the site as a place for public worship and teaching would be retained, whilst the proposed new facility would provide much needed space for offices, Youth recreation, library, a purpose use prayer hall, and improved classroom facilities for existing children to study, these would all be ancillary uses.

2.0 POLICY

- 2.1 Greater Manchester's ambitions to be carbon neutral by 2038 have never been more necessary – it needs to support the creation of resilient, liveable places where walking and cycling are the obvious choice for shorter journeys, where facilities and services are accessible and close at hand and where the past dependency on the car is superseded by a reliable and responsive public transport system.
- 2.2 **Policy EN4 – Energy Conservation** - of the Development Plan states that 'The Council will encourage development which contributes to energy conservation in the Borough. The use of renewable energy resources and the incorporation of energy efficiency measures in built development and the transport system will be encouraged'.
- 2.3 **Policy EN4/2 - Energy Efficiency** - The Council will encourage energy efficiency in development proposals through:
- the promotion of energy efficient modes of transport such as walking, cycling and public transport;
 - seeking the location of new development in areas easily accessible to public transport and local facilities;
 - promoting the efficient use of energy in the design and layout of development.

Places for Everyone

- 2.4 This Plan sets out proposals to support the Greater Manchester ambition to be a carbon neutral city-region by 2038. A key element of this is to set out a pathway for new development to be net zero carbon by 2028 at the latest.
- 2.5 The Plan can contribute to achieving many of these objectives, as well as supporting the overarching goal of sustainable development. This is reflected in the overall strategy, the proposed scale and location of development, and the individual policies and allocations. It includes protecting and enhancing key environmental resources, following the waste hierarchy, reducing waste generation, using sustainable construction techniques, combating and adapting to climate change, reducing carbon

emissions to meet Greater Manchester's 2038 carbon neutrality target date, supporting high levels of economic growth in a way that can benefit all residents, and delivering sustainable patterns of development that minimise the need to travel and reliance on the car.

2.6 **Objective 7:** Playing our part in ensuring that Greater Manchester is a more resilient and carbon neutral city-region.

- Promote carbon neutrality of new development by 2028;
- Promote sustainable patterns of development that minimise the need to travel and contribute to cleaner air;
- Locate and design development to reduce car dependency;
- Facilitate provision of infrastructure for cleaner vehicles;
- Improve energy efficiency and the generation of renewable and low carbon Energy.

2.7 **Policy JP-S2: Carbon and Energy** – This policy aims of delivering a dramatic reduction in greenhouse gas emissions through a range of measures. Development proposals should set out how this has been achieved in an energy statement in accordance with the energy hierarchy, which in order of importance seeks to:

- i. Minimise energy demand;
- ii. Maximise energy efficiency;
- iii. Use renewable energy;
- iv. Use low carbon energy; and
- v. Utilise other energy sources

National; Planning Policy Framework

2.8 The National Planning Policy Framework (2023) sets out the Government's overarching planning policies. At its heart is a presumption in favour of sustainable development.

Paragraph 157 of the Framework states that ‘The planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure’.

2.9 Paragraph 159 states that ‘New development should be planned for in ways that: states that Planning policies and decisions should ensure that developments:

b) can help to reduce greenhouse gas emissions, such as through its location, orientation and design. Any local requirements for the sustainability of buildings should reflect the Government’s policy for national technical standards.

3.0 SUSTAINABLE DESIGN

- 3.1 This report details how the design team has considered the sites potential environmental impacts and how those impacts can be managed and mitigated in line with the Local and National planning policies.
- 3.2 Energy efficiency measures and renewable energy technologies are integral to the building's design and specification. Passive design measures have also been included to prevent overheating and subsequently reduce carbon emissions. Other features such as sustainable material selection, low water consumption and internal and external recycling provision will also contribute to enabling future occupiers to use the site more sustainably.

Sustainable Location

- 3.3 The application demonstrates that the site is well located in terms of local facilities and in close proximity to a number of residential areas, which will facilitate site users' sustainable access to the Mosque.

Walking

- 3.4 In terms of walking accessibility, there are footways located on either side of the carriageway; street lighting is also present. A signalised crossing facility is present on Bury Old Road, approximately 25m to the south-east of the site. Pedestrian refuge islands are also present around 80m to the north-west and 85m to the south-east of the site access.

Cycling

- 3.5 In terms of cycling, this represents a realistic and healthy option to use instead of the private car for making journeys up to 5km as a whole journey or as part of a longer journey by public transport. The application demonstrates that site users residing in Broughton Park, Higher Blackley, Prestwich and Cheetham Hill as well as many of the locations close to the application site, are within a 5km cycle distance from the site.

- 3.6 There is an on-road cycle route which runs along Bury Old Road, which can be accessed approximately 150m to the north-west of the site access. There is also a traffic-free route which begins around 600m to the north of the site from Sheepfoot Lane, which runs through Heaton Park. A signposted on-road route is also present within the vicinity of the site, providing access into Cheetham Hill. This route can be accessed from the Park Road / Castle Hill Road junction, approximately 350m to the east of the site access.

Bus

- 3.7 In terms of bus services, The closest bus stop to the site is the 'King's Road' stop located on the eastern side of the A665 Bury Old Road to the immediate south of the site which provides access to southbound services. The bus stop is within a 40m walk of the site access. The bus stop is sheltered and provides a flag and pole, bin, seating and timetable information.
- 3.8 Further bus stops are available along Bury Old Road, with a north-bound stop 70m from the site access. Bus stops are also available approximately 400m to the northeast of the site and 350m to the south of the site. These stops also provide a flag and pole, seating and timetable information.

Summary

- 3.9 Having regard to the above, it is considered that the site benefits from good levels of accessibility by sustainable modes and has a range of local amenities within close proximity. Access to the site on foot and by cycle are of a good standard and there are multiple transport facilities within close proximity providing access to a range of local destinations. These findings demonstrate that site users and volunteer staff will not need to be reliant on the private car.
- 3.10 The proposed scheme also promotes the use of walking and cycling as the main personal form of transport being provided within a safe secure area. Dedicated cycle parking is provided to promote other modes apart from the car.

Ecology

- 3.11 The majority of the site is developed land, sealed-surface comprising tarmac car parking area and buildings. In the north of the site is an area of bramble scrub where it has become overgrown.
- 3.12 In order for the proposal to compensate for the loss of the scrub, quality planting would be provided on site to achieve the required net gain in biodiversity.

Minimising Energy Demand and Carbon Dioxide Emissions

- 3.13 The design team will ensure the proposed building complies with the relevant Parts of current Building Regulations. This will be achieved through high levels of thermal insulation, careful material specification and efficient systems. The specifics of energy efficiency will be determined at the detailed design stage, and the design team will ensure the proposed development will meet the requirements for energy efficiency, where feasible.
- 3.14 Passive and active design measures such as fabric performance, air tightness and mechanical ventilation will be utilised in the proposed development to prevent overheating and reduce carbon emissions.

Minimising Water Consumption

- 3.15 The design team will ensure that water consumption rates for the proposed development are minimised by specifying low-flow taps and dual flush WCs. The Building Regulations Water Efficiency Calculator can be used to determine the definitive consumption values of the fixtures and fittings that will be specified for the final design.

Climate Change Adaptation: SUDS

- 3.16 The site is positioned near the City centre of Manchester in a highly urbanised location with few permeable surfaces. As a result, it is considered to have an increased risk of surface water flooding, which is likely to be increased by further intensification of the built environment as well as the projected increase in heavy rainfall due to climate change.
- 3.17 The proposed development adds no significant new area to the building footprint and as such, will not increase surface water run-off rates. Excess post development run-off will be discharged to a public sewer. Surface water runoff will be restricted to the equivalent peak runoff rate from the existing developed site for the 1 year critical storm event, reduced by 50% to provide betterment.
- 3.18 It is intended that surface water runoff from the redeveloped site will be restricted to 8.9 l/s, providing 50% betterment over the existing 1 year storm event rate and a discharge made into the public surface water drainage system, maintaining the status quo.
- 3.19 A surface water drainage design has been carried out for the 100 year critical rain storm plus 45% on stored volumes. The additional 45% is to allow for climate change. Attenuation storage is to be provided using underground tanks located under the access.
- 3.20 The run-off from the roof area expected to be relatively uncontaminated and does not require complex treatment prior to discharging into a watercourse or sewer.
- 3.21 The site lies within Flood Zone 1 of the Environment Agency's Risk Flood Map, which is defined as a low risk of flooding; as such, a Flood Risk Assessment (FRA) is not required for the site.

Climate Change Adaptation: Overheating

- 3.22 Through the application of energy efficient design and mechanical ventilation, the design team have worked to ensure that the risk of summer overheating is minimised in line with the 'cooling hierarchy'.
- 3.23 Combinations of high fabric performance and good natural daylighting within the proposed development will create significant benefits in terms of reduced electrical use for lighting, and reduced space heating consumption, as a result of maximising solar gains during winter months.
- 3.24 Also, reducing energy demand is best approached with the fabric first approach, optimising insulation levels and providing efficient heating and lighting systems. Using hot water heat pump/ventilation heat exchangers and CHP systems can help to achieve carbon reductions in line with planning policy requirements. The high-level roof, free from shadows, provides space to plan an efficient solar panel array. Such a system could be used to assist powering the energy requirements for the common areas. The options available to reduce Carbon use would not impact the scheme and could be accommodated behind roof parapets or within plant rooms.

Sustainable Materials, Waste and Construction Impacts

- 3.25 The environmental impact of materials used on site will be minimised by specifying locally supplied, sustainably-sourced, low-impact and recycled material, where feasible. It is anticipated that 100% of the timber used for the proposed development will be from FSC or PEFC sources.
- 3.26 The detailed characteristics of the materials to be specified will be determined at the detailed design stage, however the specified materials will achieve a rating of A+ to D in the BRE's Green Guide to Specification, as these have a low embodied impact on the environment. Materials will also be durable to cater for their level of use and exposure and will not release toxins into the internal and external environment, including those

that deplete stratospheric ozone. Prefabricated building elements will be used where feasible.

3.27 Construction and demolition waste will be minimised on site by utilising the principles of the 'waste hierarchy', thereby limiting the amount of resources used and waste generated. The preferred approach to specifying materials will therefore be:

- i. The use of reclaimed materials;
- ii. The use of materials with higher levels of recycled content; and
- iii. The use of new materials.

3.28 The waste storage area of the proposed development will be located in the yard area which can be easily accessed by the occupants and externally for removal of waste. It will provide sufficient and well-designed storage for recyclables and general waste.

Operational Sustainability

3.29 Lighting and heating controls will be designed to allow for localised control. Full specifications for controls will be developed at the detailed design stage. This information will be provided in full detail to the building users, to ensure the optimal operation of those services.

3.30 Smart meters will be fitted within the building, if feasible, to monitor energy and water consumption, which will help occupants to eliminate unnecessary energy and water use and reduce running costs.

3.31 Waste reduction, re-use and recycling will be encouraged over landfill, and sufficiently sized recycling and general waste storage bins will be provided within the building. These will be easily accessible for all.

3.32 The provision of Building User Guides for the development is encouraged, to ensure that occupants have the correct information to allow for optimal use, operation,

maintenance and environmental performance. The guide should be easy to read, understand and should cover all significant operational and maintenance issues, including how to heat and cool the unit efficiently and effectively.

- 3.33 The site is located in proximity to a number of public transport facilities including Local bus routes. Sustainable transport solutions have also been included as part of the development. The development includes cycle storage for building users.

4.0 CONCLUSION

- 4.1 This Sustainability and Energy Statement demonstrates that the proposed development would meet the sustainability standards and policies set out in Boltons Core Strategy and the National Planning Policy Framework.
- 4.2 The sustainability strategy focuses on the implementation of sustainable systems for energy, water, waste management, and construction management. Much attention has been given to reducing the environmental impact throughout the lifetime of the building, during construction and operation.
- 4.3 In conclusion, the design team has considered the site's potential environmental impacts and this report details how those impacts will be managed and mitigated. The approach to designing and constructing a sustainable development will result in a development that will comply with policies on sustainability, energy and carbon output.