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ENVIRONMENTAL STANDARDS STATEMENT

**8 – 16 Park Grove
Manchester M19 3AQ**

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1.0 Project Description

Erection of building to form place of worship with ancillary education facilities (Class D1) with ancillary landscaping, car parking and boundary treatment, following demolition of existing building.

1.1 Location

Al-Raza Foundation, 8 - 16 Park Grove, Manchester, M19 3AQ

2.0 Environmental Standards

This Environmental Standards Statement (ESS) has been prepared to demonstrate, how the proposed development will relate to the environmental standards defined in Manchester City Council's (MCC) Guide to Development in Manchester, Supplementary Planning Document and Planning Guidance Adopted April 2007 and the objectives adopted in Core Strategy Development Plan published in Document 2012.

This statement reviews relevant national and local planning policy as they relate to core environmental strategy and uses the results detailed in the completed BREEAM pre-assessment to demonstrate compliance.

The need of Environmental Standards Statement has been mentioned in Planning Permission letter as a condition to be removed before commencement of work (condition number 11).

The Guide to Development in Manchester Supplementary Planning Document and Planning Guidance (adopted 2007) indicate number of environmental standards to be considered for each development, mentioned in brief as the following:

- Environmental Design
- Energy Management
- Water Management
- Waste Management
- Reuse of Materials

- Noise management
- Dust Management
- Biodiversity

This Environmental Standards Statement has been prepared to demonstrate how the proposed development "Erection of building to form place of worship with ancillary education facilities (Class D1) with ancillary landscaping, car parking and boundary treatment, following demolition of existing building "will achieve environmental standards, addressing the sustainability aspects.

2.1 Environmental Design

The environmental performance of the development will be assessed using BREEAM (Building Research Establishment's Environmental Assessment Method), which is the world's leading and most widely used environmental assessment method for buildings. It sets the standard for best practice in sustainable design and has become the de facto measure used to describe a building's environmental performance.

The project is a community centre and will be assessed against the BREEAM UK New Construction 2014 scheme for non-domestic buildings (Technical Manual SD5076 3.0 – 2014).

The most efficient products on the market will be considered for this project at the design stage.

During construction, best practice measures will be implemented to minimise potential impacts to sensitive local receptors resulting from emissions to air and water, noise, and vibration.

A wide range of environmental principles have been designed for energy and water efficiency.

As part of the energy reduction strategy, the mosque includes mechanical ventilation and heat recovery systems. The ventilation system chosen has a low specific fan power to minimise the energy required by the fans. The heat recovery minimises energy being lost through exhaust air. This approach ensures a consistent ventilation provision all year round irrespective of external conditions.

2.2 Energy Management

The design approach for the project aims to minimise the energy consumption of the mechanical, electrical and public health systems by implementing both best practice and innovative design using the energy hierarchy.

The largest savings can be achieved by reducing demand by building and client related factors.

- Demand reduction is significantly affected by how a building is operated, maintained, and used especially in relation to occupant density and operating hours of the building and equipment within it.
- Demand reduction of small power loads associated with ICT energy consumption through energy efficiency procurement can have a significant effect on the energy consumption of the building.

For example, by enhancing the insulation to the building envelope, energy efficiency can be improved. To achieve this, the base fabric thermal U-Value requirements as detailed within the Approved Documents L2A 2013 of the building Regulations will be significantly improved upon.

Highly Efficient Heating, Ventilation and Hot Water Systems will be fitted to reduce the carbon and CO₂ emissions as much as possible.

The use of renewable energy equipment's has a major role in saving as well as protecting the environment. The following features are included to reduce the long-term energy use. Other systems are also available in the market which support the use of renewable energy. To protect the environment, following steps will be considered:

- Select equipment based on proven quality and to operate at highest efficiency point.
- Ensure all plant are installed correctly to reduce energy consumption.
- Provide safe access for maintenance to ensure all plant can be maintained easily so it operates at optimal performance.

- All systems to be accurately commissioned and set to work.
- Monitor energy consumption and display the consumption in public to empower individuals to change behaviour and reduce energy consumption.
- Provide details to the building users on how the systems should operate e.g., using Soft Landing approach.
- Consider an alternative energy supplier that uses a high proportion of renewable energy.

Consideration has been given to the use of various aspects of the building services design to enhance the energy efficiency of the building. These include:

- Minimum fresh air systems where possible to reduce fan energy.
- Low velocity air handling units and well-ordered ductwork distribution systems to limit distribution losses.
- Variable speed supply and extract air distribution systems designed to minimise fan energy consumption and specific fan power which requires larger air handling units and lower velocity ductwork systems.
- High efficiency heat recovery on mechanical air handling systems via thermal wheels or plate heat exchangers.
- Optimised flow and return temperatures for low temperature hot water, and chilled water.
- Use of low energy consumption light fittings and efficient light distribution to minimise overall lighting energy including LED lighting where more efficient or appropriate than fluorescent alternatives.
- to benefit from connection to future district heating system.
- Use of CO₂ and other occupancy sensing devices.
- Energy metering, monitoring, and display to encourage responsible consumption.

2.3 Water Management

Use of water on construction sites have a great impact on environments in addition to cost to buy and waste.

The builder will store the water in a reserved area, so wastage be reduced. The current water meter will be shifted to the point. This metering system will be monitored and form a part of the current community centre. Any leaks would be quickly detected and saved the system.

The site is at low risk from flooding and considered being safe. The risk of accumulation of standing water against the buildings has therefore been minimised.

It is acknowledged by the builder, the impact of energy and water usage throughout the construction process and will use a variety of management options.

To conserve water by promoting water efficiency, rainwater harvesting, and sustainable drainage system (SuDS) have been proposed. It will develop a water strategy that will reduce water demand through its design and specification. The consideration to use water in the construction phase will require the contractor to monitor water consumption. The design team will ensure that the building limits its water consumption by specifying water efficient sanitary fittings in the shower and toilet.

The building will incorporate a number of measures to reduce water consumption:

- To regulate water consumption, flow restrictors will be installed on all water outlets.
- All sanitary fittings taps will incorporate the use of infra-red proximity sensors or automatic closing taps.
- Low and dual flush WC's will be utilized.
- Water supply pipework to WC areas will incorporate the use of sanitary shut off valves.
- Where applicable, leak detection will be provided to identify system leaks which otherwise may go un-noticed.

2.4 Waste Management

Prior to commencement of the construction phase, a site waste management plan (SWMP) will be produced by the developer to limit the on and off environmental impacts of the construction. The SWMP will detail:

- Recycled materials
- Waste reduction
- Waste Segregation
- Waste Recovery
- Waste disposal

The development will promote the scope of minimum waste and seek to maximise the use of recycled materials in construction.

Making waste management is a routine matter, a part of daily construction activities.

It is understood that the social, economic and environmental outcomes are directly related to the minimisation of waste. The contractor will work closely with the design team and will request that the supply chain participate in investigation of waste minimisation opportunities and other areas prone to wastage, such as energy loss.

The appointed contractor will implement the following measures to achieve resource efficiency and waste reduction:

- Avoid the over specification of materials
- Incorporate prefabricated components into the design, e.g. prefabricated vertical risers, unitised curtain walling and prefabricated concrete panels
- Liaise with material suppliers to offer take back schemes for off-cuts and packaging materials
- Reduce the requirement for temporary works during construction through considered design and selection of temporary works elements, e.g. looking to retain the existing basement structure to reduce the need for temporary materials
- Prevent over ordering of materials and avoid design changes later in the project
- Select materials which have longer than average life span to

reduce waste through replacement, and that can be recycled at the end of their life

- Look to source reclaimed materials where engineering and structural properties are adequate.
- Look to reuse demolition arising's within the piling mat and also incorporate the existing façade within the design
- Set up an on-site Waste Management Zone to assist segregation and recycling
- Train the supply chain in relation to on-site waste recycling arrangements
- Appoint an on-site waste champion to ensure actions within SWMP are implemented
- Segregate waste into waste types as identified in SWMP

2.5 Noise Management

Site management and activities play a major role in maintaining environmental impact where deliveries and working are carefully planned and scheduled. The contractor will control the existing noise, not to increase the required level, fully recorded and logged prior to commencing the works and, where relevant, will be monitored throughout the duration of the site works. Noise reduction measures will comply or surpass recommendations of BS 5228-1. Noise reduction measures will include:

- Effective silencing of plant and processes, including the use of well-maintained plant
- Enforce a 5mph site speed limit
- Use of mains electricity in place of generators where practicable
- Personal radios banned from site
- Sirens / bells for emergency use only

2.6 Dust Management

The contractor will consider the spread and effect of airborne dust during the works at every supply chain pre-order interview and ensure mitigation / prevention strategy is agreed and presented within the

method statements for every applicable trade and operation.

Dust reduction measures will include:

- A wind sock
- The management of dust-generating activities to be stated in appropriate method statements together with control measures
- Dampening down of dust generating activities
- Covered wagons to be used for the transportation of dust generating materials
- Existing roads will be kept clean and maintained
- Access roads around the construction area will be topped off with tarmac where necessary
- The management of dust-generating activities to be stated in appropriate method statements together with control measures

2.7 Transport Management

To reduce transport-related emissions, it is expected that contractor will develop a project-specific green travel plan and will encourage all those involved to use alternatives to the standard sole occupancy car travel to and from the project. The green travel plan will identify other options for travel including public transport, cycling, and video / teleconferencing arrangements.

2.8 Biodiversity

Al-Raza Foundation is committed to protecting and enhancing biodiversity and to increase and improve habitat diversity across the mosque.

The ecological surveys have been undertaken to establish whether the building provides any habitats suitable for use by protected species. No indications of use of the building by bats, raptors or nesting birds were found during the survey. In addition, the habitat around the site is open and exposed, therefore offering a low potential for foraging.

3.0 Conclusion

Responsible construction will be achieved through effective communication and excellent planning, with the staff fully involved at pre-construction/design and construction stages, where appropriate, the design and construction process so the impact of the works is minimised, and change managed carefully.

Good planning will minimise problems. Any changes to the agreed programme will be discussed and agreed in advance and services shutdowns will be minimised and co-ordinated with the administration.