

Environment and Sustainability Assessment

Birmingham City Council is required to assess any positive or negative impacts that any policy/strategy/ decision/development proposal is likely to have on the environment. To complete the assessment, you should consider whether that policy/development/proposal will have a positive or a negative impact on each of the key themes by placing a (✓) for positive, (x) for negative and (?) for unclear impact, and (N/A) for non-applicable impact. The assessment must be completed for all Cabinet reports. It is the responsibility of the Service Director signing off the report to ensure that the assessment is complete. The officers from the sustainability team can help to fill the assessment especially during the early days of implementation.

Theme	Example
Natural Resources - Impact on natural resources including water, soil, air.	<p>Does the decision increase water use?</p> <p>Does the decision have an impact on air quality?</p> <p>Does the decision discourage the use of the most polluting vehicles (private and public) and promote sustainable modes of transport or working from home to reduce air pollution?</p> <p>Does the decision impact on soil?</p> <p>For example, development will typically use water for carrying out various operations and, once complete, water will be needed to service the development. Providing water to development and treating affluent water requires energy and contributes to climate change. Some of the activities including construction or disposal of waste may lead to soil pollution. The decisions may lead to more journeys thereby deteriorating air quality and thus contribution to climate change and greenhouse gases.</p>
Energy use and CO ₂ emissions.	<p>Will the decision have an impact on energy use?</p> <p>Will the decision impact on carbon emissions?</p> <p>Most day-to-day activities use energy. The main environmental impact of producing and using energy such as electricity, gas, and fuel (unless it is from a renewable source) is the emission of carbon dioxide.</p>
Quality of environment.	<p>Does the decision impact on the overall quality of the built environment?</p> <p>Decisions may have an impact on the overall setting, character and distinctiveness in the area. For example, if development involves ground digging and excavations etc. it may have an impact on the local archaeology.</p>

Impact on local green and open spaces and biodiversity	<p>The proposal may lead to localised impacts on the local green and open spaces which may have an impact on local biodiversity, trees and other vegetation in the area.</p> <p>Will the proposal lead to loss (or creation) of green and blue infrastructure?</p> <p>For example, selling an open space may reduce access to open space within an area and lead to a loss of biodiversity. However, creating a new open space would have positive effects.</p>
Use of environmentally sustainable products, equipment and packaging'	<p>Will the decision present opportunities to incorporate the use of environmentally sustainable products (such as compostable bags, paper straws etc.), recycled materials (i.e. Forest Stewardship Council (FSC) Timber/wood), non-polluting vehicles, avoid the use of single use plastics and packaging.</p>
Minimising waste	<p>Will the decision minimise waste creation and the maximise recycling during the construction and operation of the development/programme/project?</p> <p>Will the decision provide opportunities to improve recycling?</p> <p>For example, if the proposal involves the demolition of a building or a structure, could some of the construction materials be reused in the new development or recycled back into the construction industry for use on another project?</p>
Council plan priority: a city that takes a leading role in tackling climate change and deliver Route to Zero.	<p>How does the proposal or decision contribute to tackling and showing leadership in tackling climate change and deliver Route to Zero aspirations?</p>

Project Title:	Holy Trinity Catholic School	
Department:	Team: Education Infrastructure (Capital	Person Responsible for assessment: Mick Day / Susan Thomas

Education & Skills	Investment)			
Date of assessment: 08/03/2021		Is it a new or existing proposal? New		
Brief description of the proposal: The project includes internal re-modelling of existing teaching spaces, administration area's and circulation space; the provision of a new sports hall and changing rooms in order to accommodate a permanent increase in pupil numbers in fit-for purpose accommodation.				
Potential impacts of the policy/development decision/procedure/ on:	Positive Impact	Negative Impact	No Specific Impact	What will the impact be? If the impact is negative, how can it be mitigated, what action will be taken?
Natural Resources- Impact on natural resources including water, soil, air	YES			Water usage will be reduced as areas of St Chads and St Michael's are refurbished these will be fitted with water saving measures, LED lighting and vehicle usage is expected to remain the same.
Energy use and CO ₂ emissions	YES			<p>An Energy Statement has been prepared in support of the planning Application Ref: 2020/04217/PA, involving erection of a single-storey detached SEN teaching block and a double-storey detached sports hall at Holy Trinity Catholic Media Arts College.</p> <p>The following hierarchy has been followed with regards to optimising energy use:</p> <ul style="list-style-type: none">• Be Lean – Use Less Energy• Be Clean – Efficient Energy Supply• Be Green – Renewable Energy <p>This is a widely adopted and recognised set of principles to guide design, planning and development decisions to optimise energy provision. The Hierarchy prioritises minimising the need for energy consumption through firstly design and energy efficiency and then through generating the reduced energy demand via renewables. The Hierarchy can also help to balance the economic and environmental dimensions of sustainability, supporting choices which are both environmentally and economically sustainable.</p>

				<p>It is considered that of the above principles carbon reduction forms the most appropriate approach from both a practical and financial perspective. The industry is broadly in agreement that the energy efficiency and low carbon technologies have the greatest impact offsetting CO₂ emissions. Therefore, it is logical to encourage enhanced mitigation through energy efficiency and low carbon technologies in the first instance, as opposed to applying renewables as the first option at a significantly greater cost.</p> <p>The table below shows the resulting CO₂ and energy demand for both buildings before and after applying the ‘Be Lean’ measures outlined above.</p> <p>As shown, the figures are predicted to be lower than the base case. This is due to the high performance of building fabric and services.</p> <table><tr><th>Stage of Energy Hierarchy</th><th>Building</th><th>Energy demand (kWh/yr)</th><th>Energy consumption savings (%)</th><th>Regulated CO₂ emissions (kg/yr)</th><th>Regulated CO₂ emission savings (%)</th></tr><tr><td rowspan="3">Baseline</td><td>Sports Hall</td><td>407,030</td><td>N/A</td><td>4,396</td><td>N/A</td></tr><tr><td>SEN Block</td><td>14,060</td><td>N/A</td><td>90,631</td><td>N/A</td></tr><tr><td>Total</td><td>421,090</td><td>N/A</td><td>95,026</td><td>N/A</td></tr><tr><td rowspan="3">Be Lean</td><td>Sports Hall</td><td>389,579</td><td>4.3</td><td>88,784</td><td>2.0</td></tr><tr><td>SEN Block</td><td>14,580</td><td>-3.7</td><td>4,229</td><td>4.0</td></tr><tr><td>Total</td><td>404,159</td><td>4.0</td><td>93,013</td><td>2.1</td></tr></table> <p><i>Regulated Energy & CO₂ savings from Be Lean Stage</i></p> <p>These measures save 2,013 kg (2.1%) of CO₂ emissions and 16,931 kWh/yr (4.0%) of energy demand, over the baseline.</p>	Stage of Energy Hierarchy	Building	Energy demand (kWh/yr)	Energy consumption savings (%)	Regulated CO ₂ emissions (kg/yr)	Regulated CO ₂ emission savings (%)	Baseline	Sports Hall	407,030	N/A	4,396	N/A	SEN Block	14,060	N/A	90,631	N/A	Total	421,090	N/A	95,026	N/A	Be Lean	Sports Hall	389,579	4.3	88,784	2.0	SEN Block	14,580	-3.7	4,229	4.0	Total	404,159	4.0	93,013	2.1
Stage of Energy Hierarchy	Building	Energy demand (kWh/yr)	Energy consumption savings (%)	Regulated CO ₂ emissions (kg/yr)	Regulated CO ₂ emission savings (%)																																					
Baseline	Sports Hall	407,030	N/A	4,396	N/A																																					
	SEN Block	14,060	N/A	90,631	N/A																																					
	Total	421,090	N/A	95,026	N/A																																					
Be Lean	Sports Hall	389,579	4.3	88,784	2.0																																					
	SEN Block	14,580	-3.7	4,229	4.0																																					
	Total	404,159	4.0	93,013	2.1																																					
Quality of environment	YES			Building orientation was carefully considered to maximize solar gain during winter month to reduce heating demand. Building Glazing was design to allow natural daylight to reduce the																																						

				requirement of artificial lighting.
Impact on local green and open spaces and biodiversity	YES			<p>The buildings proposed as being constructed are specific to their use, this being education. The teaching facility will be flexible within the school curriculum. The spaces created can be put to uses as required by the school and suitable for a broad range of subjects.</p> <p>The sports hall will be a specific and bespoke building, suitable for all types of indoor sports activities. Whilst primarily used by the school, the building can be made available for community use. The building will be designed to Sport England guidelines.</p> <p>It is the intention to limit ecological impact on the site by retaining trees, in particular to the outer / boundary limits of the school ground. It is not the intention to build on green space, and instead make use of brown sites that have already been developed. The 2 sites that have been chosen for re-development include a hard surface tarmac area to become the new location for the sports hall, and a temporary building standing on a concrete plinth to become the small teaching hub.</p>
Use of sustainable products and equipment	YES			The use of single use plastics and packaging will be avoided. Hardcore and such materials are to be delivered in bulk to reduce vehicle trips as will all material deliveries where possible.
Minimising waste	YES			<p>In order to control cost, waste generated from new materials will be strictly limited. The proposed materials to be procured in line with requirements will include:</p> <p>Brickwork to walls, all unused bricks to be returned to supplier.</p> <p>Blockwork to inner walls, all unused bricks to be returned to supplier.</p> <p>All glazing ordered to measure, and off site fabricated.</p> <p>All roofing ordered to measure.</p> <p>All steelwork to be ordered to measure and off site fabricated.</p> <p>All internal partitioning ordered to measure.</p> <p>The Main contractor will provide a method statement identifying recycling proposals and local suppliers to be used. Transportation to and from site to be controlled, kept to a minimum and</p>

				restricted to specific times.
Council plan priority: a city that takes a leading role in tackling climate change	YES			<p>The energy strategy has been developed in order to comply with Part L2A 2013 of the Building Regulations which requires a carbon emission calculation to be carried out. SBEM calculation have been carried out for the development based upon the planning drawings and construction specification.</p> <p>The Adopted Birmingham Development Plan 2031 requires new developments to maximise energy efficiency and the use of low carbon energy and to incorporate low and zero carbon forms of energy generation where possible, or to connect into low and zero carbon energy generation networks where they exist and where practicable. Further analysis on the Planning Conditions and Drivers can be found in section 3.2 Planning Conditions.</p> <p>Please refer to the energy statement that has been prepared to satisfy the planning requirements to grant permission for the proposed SEN teaching block and sports hall at Holy Trinity Catholic Media Arts College. The statement includes an energy demand assessment outlining how selected energy efficiency, low carbon and renewable energy measures have been considered and selects those which have been deemed appropriate for the scheme.</p>
Overall conclusion on the environmental and sustainability impacts of the proposal	The environmental and sustainability impact of this project has been fully assessed in the design stage to ensure it has a positive outcome.			

If you require assistance in completing this assessment, then please contact: ESAGuidance@birmingham.gov.uk