

**Harris City Academy Crystal Palace
Harris Federation**

Building Information

Item Ref.	Item	
1.	A basic description of the project and building	The Harris Crystal Palace project comprises the construction of a new two storey post 16 teaching block of 1654m ² to the main frontage of the existing school building creating education faculties for students with a new glazed atrium feature entrance / exhibition space. In addition existing classrooms adjoining these new construction works shall be refurbished, the refurbished works total 1083m ² .
2.	BREEAM rating and score	Very Good (target rating)
3a.	The key innovative and low impact design features of the building	The Academy's design encompasses the issues of sustainability and the facets that combine to produce the design solution. Energy consumption, building efficiency, orientation, landscape and the choice of materials all affect the sustainable solution.
3b.		The main structural frame is to be steel which is an advantage in that it can be fully recycled at the end of the building's useful life but can also be readily altered / extended should it ever need to be substantially altered.
3c.		The brick choices are from modern clean burn factories in the south east which will minimise travel distances for materials. The bricks once constructed will last for hundreds of years and can be recycled on new projects, or crushed for other products.
3d.		The cedar cladding on the elevations will be from sustainable suppliers compliant to the Timber Trade Federation Standards.
3e.		The render choices from companies such as Sto are also sourcing the maker for their material from low energy factories to reuse.
3f.		The Academy will maximise the use of daylight and lighting control systems to minimise wastage and demonstrate the practical application of energy conservation.
3g.		The position, mass and orientation have all been designed to maximise the energy of the sun. All of these design criteria reduce the demands on the energy consumption of the Academy.
4a.	Total area of site	2.25 hectares
4b.	Gross floor area	9,340m ²
4c.	Basic building cost	£396/m ²

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4d.	Services costs	£255/m ²
4e.	External works	£243/m ²
5a.	Function areas and their size	Ground floor – 10.01, 10.02, 10.03, 10.05, 10.06, 10.08, 10.11, 10.12, 17.01, 19.01 = total floor area - 693m ²
5b.		First floor – 10.09, 10.10, 10.07, 5.03, 5.05, 11.09, 17.05, 17.06 = total floor area - 449m ²
5c.	Area of circulation	214m ²
5d.	Storage area (m ²)	0
6a.	% area of grounds to be used by community	0%
6b.	% area of buildings to be used by community	0%
7a.	Predicted electricity consumption	51 kWh/m ²
7b.	Predicted fossil fuel consumption	122 kWh/m ²
7c.	Predicted renewable energy generation	10.7 kWh/m ²
7d.	Predicted water use	4.41m ³ /person/year
7e.	% predicted water use to be provided by rainwater or greywater	None, no greywater harvesting system has been designed or installed.
8.	Steps taken during the construction process to reduce environmental impacts, i.e. innovative construction management techniques	Regular design meetings were held and various alternative design proposals were considered where possible. One of which alternatives was that the contractor designed and installed concrete pre-cast floor units to allow off-site construction. In addition to this the contractor was obliged to monitor waste and where possible ensure that materials were recycled. In the interest of reducing the impact to the local community and indeed the pupils at the Academy, the methods of Construction were undertaken where possible to help reduce dust and air pollution.
9a.	A list of any social or economically sustainable measures achieved/piloted	Sustainability will operate on a number of levels. At the broad scale, site excavations will be managed to ensure that no material is taken off site unless necessary and that there is a cut and fill balance in the proposed earthworks. At the detail level, porous paving will be utilised to provide natural drainage. Planting design will comprise of predominantly indigenous species to support local wildlife habitats and encourage biodiversity.
9b.		A list of any social or economically sustainable measures achieved/piloted.
9c.		Achieving a significant reduction over building regulations in relation to the building's CO ² emission levels

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		by improving u-values, specifying energy efficient lighting systems/zoning and integrating low carbon technology.
9d.		Ensuring CO ² emissions associated with transport and those travelling to and from the building are minimised through the provision of safe access to well served public transport services, on-site cyclist facilities and the development of a site specific G.
9e.		Ensuring the construction site is managed in an environmentally and socially considerate and accountable manner by committing to achieve ambitious targets under the Considerate Constructors Scheme and minimising construction site impacts.

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Enclosures: N/A
