

Sustainability Measures on the Brighton Station Site – December 2004

Brighton & Hove City is committed to achieving a high standard of sustainability in developments throughout the city. On the Brighton Station Site sustainability is high on the agenda. The development itself is a low car development in accordance with current policies within the Brighton & Hove Local Plan, in close proximity to transport links at Brighton Station and the London Road.

The Legal Obligations

As part of the planning permission a S106 Legal Obligation was signed with the developer. Within the S106, many of the obligations are related to achieving sustainability. For instance a Travel Plan is required on a block by block basis in order to help reduce the number of car trips generated by the development. In addition, Employment Strategies are required to ensure recruitment and recruitment advertising is cascaded from local to regional and not the reverse. The S106 also addresses urban biodiversity by requiring the creation of a 'greenway' through the centre of the site, which will incorporate a range of wildlife habitats.

Schedule 4 of the S106 deals specifically with the issue of sustainability. The schedule lays out a detailed series of criteria which commit the developer to a methodological approach to achieving energy efficiency in the development. Schedule 4 requires that:

- 40% savings in Carbon (CO₂) emissions be achieved for each Block
- a Framework Sustainability Document be submitted laying out how these savings will be achieved
- all residential development achieve BRE Ecohomes 'Very Good Standard'
- all retail, office and industrial buildings meet BREEAM 'Very Good Standard'
- all other development achieve Bespoke BREEAM 'Very Good Standard'
- Green Procurement Procedure should be submitted and adopted for each Block
- promotional material should be supplied to all occupiers and residents on energy efficiency and conservation, and providing the philosophy behind BREEAM

There was an assumption at the time of the agreement that the 40% CO₂ emissions savings would be achieved through the implementation of a Combined Heat and Power Plant (CHP plant) serving the entire development. This would have enabled the development to generate its own heat and power, requiring a reduced demand (an estimated 40%) of mains gas and electricity.

However, the CHP plant will not now be going ahead and the development will have to achieve CO₂ savings through energy efficiency in the development with some use of renewables technology to produce energy on site where commercially viable. This requires the construction of highly efficient buildings with a reduced demand for mains gas and electricity through sustainable design and construction. To this end the development is likely to incorporate measures such as: passive solar heating; passive ventilation and cooling; natural daylighting and sunlighting; improved insulation; water re-use and reduction measures; and use of energy efficient appliances throughout. In terms of energy generation on site, there are suggestions that there may be two 'mini' CHP plants on the site, subject to planning approval, these may be located in

one of the hotels and on the supermarket Block. This may contribute to some of the CO2 emission savings for these blocks.

In order to achieve 40% CO2 savings from a 'typical' building of similar use, a base case for energy use for each different building type has been agreed (eg retail, residential, hotel, office, etc). The base case from which to achieve 40% CO2 emissions savings was agreed with the council with the assistance of the Building Research Establishment.

The developer will have to provide a series of independently assessed documents to demonstrate that they are on track to achieve or supersede the 40% target. These include AM11 Building Energy and Environmental Modelling Predictions, Efficiency of Development Reports, BRE pre and post Construction Reviews and Certificates.

In addition to the 40% CO2 savings, the developments will achieve a high standard in other aspects of sustainability. The residential blocks will be provided with a car share scheme to minimise car use and associated pollution and congestion. The Green Procurement Procedure will ensure sustainability criteria are imposed on the use of materials chosen for their durability, recyclability, ecological impact, non toxicity, embodied energy etc. The BREEAM and Ecohomes certification looks at a range of sustainability issues including waste, materials, impact on natural environment, energy efficiency, transport. This will encourage each developer to address the full range of sustainability issues affecting the development.

The Sustainability Schedule (Schedule 4) requires that the developer commits to putting sustainability high on the agenda through *each stage* of development right up to when buildings are occupied.

In this way the council will secure a highly sustainable development for the New England Quarter site.

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