# 23 A and 23 B, Ravenshaw Street, Camden NW6 1NP

Sustainability Strategy

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### 1 Introduction

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- 1.1 RPS has been commissioned to prepare a Sustainability Statement in support of a full planning application, for the development of 12 apartments on land occupied by 23 A and 23 B Ravenshaw Street and land adjoining no 23 A and 23 B Ravenshaw Street, Camden, NW6 1NP.
- The aim of the Sustainability Statement is to demonstrate how sustainability issues have been addressed during the design process of the proposal. The statement refers to the environmental aspect of sustainability; socio-economic issues are identified in a separate Design Statement. The document is accompanied by an EcoHomes pre-assessment estimator (2006 v1.2), which provides an evaluation of the likely rating that the development would achieve under a formal EcoHomes assessment.
- 1.3 This report includes the following: -
  - The methodology used to construct this statement, including the policy documents that provide context to the statement.
  - An identification of the general sustainability themes.
  - A summary of the proposed development in the context of the site and its location, and an
    overview of the sustainability measures that have been proposed for the development.
     These measures are presented in the context of policy requirements, and assist in the
    estimation of an EcoHomes rating.
  - A table summarising the proposed sustainability measures.
  - A completed EcoHomes Pre- Assessment based on information set out in this statement and provided by the developer.
  - Information relating to the Considerate Constructors Scheme.

#### **Background to Sustainability Statements**

- 1.4 Sustainable Development, as defined by the Government, is the integration of social, economic and environmental objectives. "A better Quality of Life" (1999) sets out the main aims of sustainable development as being: -
  - Social progress that meets the needs of everyone,
  - Effective protection of the environment,
  - Prudent use of natural resources.
  - Maintenance of high and stable levels of economic growth and employment.

- 1.5 Many of the key issues of sustainable development can be addressed through considerate planning and design. The Sustainability Statement presents ways in which the development proposal for 23a and b Ravenshaw Street will incorporate sustainability measures into the design so to conform to current policy and regulations.
- The sustainability measures that are proposed for the development are presented alongside predicted EcoHomes assessment scores where appropriate. These scores are an estimation of the likely performance of the development if it was to be assessed under a formal EcoHomes assessment. The scores reflect the anticipated performance of the development on the basis of the sustainability measures proposed. Where detailed information was not available to aid the completion of the pre-assessment, assumptions have been made and are clearly stated.

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## 2 Methodology

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- In order to properly assess the development proposal, Camden Borough Council have requested that a sustainability statement should be included, which meets the requirements of policy SD9 of the adopted UDP, in relation to sustainable design and construction. In this case the local authority requests that the development proposal must include the following elements.
  - A BREEAM Pre-Assessment Estimator.
  - A statement showing how the proposal will, through design measures, reduce energy consumption, reduce water consumption and water runoff, reduce the use of materials and resources in construction, and reduce waste from the construction process.
- 2.2 This sustainability statement has been prepared to meet the requirements of Camden Borough Council.
- 2.3 The preparation of this Statement was based on a comprehensive review of local policy and guidance documents. The Building Research Establishment (BRE) method for assessing the environmental impact of dwellings (EcoHomes) was also used as a guide for identifying specific measures that meet the Council sustainability agenda.
- 2.4 The following planning policy and supplementary planning guidance was reviewed for the Sustainability Statement:
  - Camden Borough Council UDP Adopted June 2006, including policies: S1, S3, S9, SD1, SD 6, SD 9, SD 11, SD 12, T1 B1 and B2.
  - Camden Borough Council Supplementary Planning Guidance, 2002.
- 2.5 The following documents were reviewed for the Sustainability Statement:
  - The Mayor's Energy Strategy, 2004.
  - Camden Borough Council Green Buildings Guide.
  - Camden's Local Agenda 21 Plan 'Action for a Sustainable Camden', 2001.
- 2.6 Camden Borough Council has not produced a formal sustainability checklist for new developments. Instead, the Council have suggested broad sustainability categories within the Supplementary Planning Guidance document (2002).
- The following sustainability themes have been interpreted from this guidance. These themes relate to the potential sustainability issues emanating from the proposed development, and include ways in which these themes may be addressed to create sustainable buildings. The following themes relate to the environmental aspects of sustainability, as socio-economic issues are dealt with in a separate design statement.

- Energy efficiency: the objective is to minimise energy needs in dwellings and reducing CO<sub>2</sub> emissions by providing appropriate insulation levels, using passive solar design principals and using energy efficient lighting and appliances.
- Sustainable building materials: this theme covers a range of sustainability impacts
  including, minimising the energy required for producing and transporting building
  materials, using recycled material from local sources as far as possible and by choosing
  materials with a low embodied energy.
- Renewable Energy: The objective is to incorporate renewable energy technologies to
  provide at least 10 % of the buildings energy requirements from a renewable resource.
   Such technologies may include solar water heating systems, passive solar design,
  photovoltaic cells, small-scale wind turbines, and borehole cooling and ground source
  heat pumps.
- Green Travel: the objective is to minimise car usage and to encourage walking, cycling and the use of public transport.
- **Health and Well-being**: this theme deals with making homes a comfortable environment with the provision of adequate natural light in habitable rooms, whilst ensuring noise insulation and the use non-toxic materials.
- Water Conservation and Management: the objective is to minimise water use for both domestic purposes and garden watering, whilst managing rainwater runoff.
- Waste Management: the amount of waste generated in the construction process and in households is to be minimised following the national waste strategy: reduce, reuse, and recycle.
- Buildings and Wildlife: the objective is to protect and enhance biodiversity in all developments.
- 2.8 The sustainability measures that are proposed as part of this development have been developed in accordance with these themes. These measures are presented in detail in the following section.

# 3 Summary of Proposals

#### **Existing Situation**

- 3.1 The application site covers an area of approximately 473.7m<sup>2</sup>, and consists of 23a and 23b Ravenshaw Street, and land adjacent to these properties. The site comprises a two-storey end of terrace house that has been converted into two flats in the 1970's. The area of land adjacent to these properties is covered with hard standing, and forms a gap in the terrace of houses. This area is used for car parking. The rear of the site is a railway embankment.
- The site is located within 500 metres of Kilburn underground station and West Hampsted rail and underground station, and within 600 metres of Brondesbury train station. The availability of public transport with good links to nearby town centres makes the application site easily accessible from urban centre.

#### **Summary of Development Proposals**

- The proposal for the development of Ravenshaw Street incorporates the demolition of the existing no's 23a and 23b flats, and the plan to develop the site to provide 12 new flats. The application comprises:
  - 3 no. studio apartments,
  - 1 no. one-bed flat,
  - 5 no. two-bed flats, and
  - 3 no. three-bed flats.
- It is proposed that each flat will include the provision of outdoor space. The three flats situated at ground floor and basement levels will include private gardens. Flats on the first and second floor will have balconies and the studio on the top floor will incorporate a private roof terrace.
- 3.5 6 no. car parking spaces will be situated at the basement level and accessible from the road by a mechanical scissor lift. The proposal also includes secure parking for 15 cycles.
- The following sustainability measures have been incorporated into the design of the development. The measures reflect the ways in which sustainability issues have been taken into consideration during the design process.

#### **Energy Efficiency**

3.7 The domestic sector is responsible for 44% of the energy use in London. The majority of energy provided in these homes is used for heating and hot water systems, with the remainder used to power lighting and electrical appliances. Reducing the amount of energy

- used in homes by maximising efficiency is a key component of reducing the greenhouse gas emissions that arise from developments.
- 3.8 Supplementary planning guidance identifies various methods for maximising energy efficiency. Methods include the use of passive solar gain principles, the choice of heating and ventilation systems and choice of materials.
- 3.9 The proposal addresses energy efficiency in two ways: by providing high insulation levels for the building fabric and by including energy efficient heating systems, lighting and appliances.

#### Insulation levels

- 3.10 Reducing the heating demand for the development through the incorporation of appropriate insulation materials will increase the energy efficiency of the development and consequently decrease the CO<sub>2</sub> emissions arising from the dwellings.
- Insulation levels are dependent on the choice of construction materials and structural design. The envelope of the building will incorporate building elements with U Values that will equal or exceed standards set out in ADL2A of the Building Regulations (2006). The use of appropriate Insulation levels for the development will ensure that the Dwelling Emission Rate does not exceed 24kg/m² of CO₂ per year, achieving a minimum of 7 credits when assessed against the SAP for an EcoHomes assessment.
- 3.12 Energy efficient heating systems such as combi-boilers for space and water heating will be selected to achieve a minimum of 1 credit for NO<sub>x</sub> emissions using a boiler class of 4 or above (BS EN 257:1994). The heating system will also comply with the SEDBUCK 'A' rating for Building Regulations part L (2002). This system specification will achieve one credit under the EcoHomes assessment. It is likely that a further credit will be achieved when assessed in a formal EcoHomes assessment, due to the proposed incorporation of renewable energy technologies offsetting a proportion of the greenhouse gas emissions from the development.
- Initial calculations within the energy statement assumes that approximately 21% of the energy reduction will come from reduced electricity demand (lighting, small power, motors and air conditioning) whilst the remaining 79% from reduced heating demand provided by gas. As electricity has a higher CO2 emission factor then electricity, the reduction in annual consumption of up to 22%.

#### Reducing energy demand

- 3.14 The proposal includes measures to reduce the demand for energy in the development. A separate energy statement has been produced which identifies measures for reducing energy demand in detail. This section gives a general account of the measures proposed to yield greater energy efficiency.
- 3.15 Any white goods including washing machines, dishwashers, refrigerators and freezers that are provided by the developer will be "A-rated" in terms of their energy consumption (C-rated

for tumble-dryers), following the EU Energy Efficiency Rating Labelling Scheme. When no white goods are provided, information on the EU energy Efficiency Labelling scheme will be supplied as part of a home user guide, alongside other information relating to the environmental performance of their home, including information relating to the site and surroundings.

- Low energy or energy efficient lighting will be provided in the shared areas of each flat. Lighting of this type will also be fitted in the kitchen and bathrooms by means of specific fitting types that only accept low energy bulbs. All of which will be designed to exceed the current Building Regulation "reasonable provision" level of 45 luminaire-lumens/circuit/Watt. The provision of low energy lighting will account for at least 40% of the internal space of each flat. In addition, low energy or energy efficient lighting will be provided in the shared building areas. These communal areas will be illuminated using compact fluorescent lamps.
- 3.17 A heat reclaim system is proposed for the bathrooms. The units will be used to heat incoming fresh air by using heat generated in the bathrooms. This heat would otherwise be wasted, which subsequently lowers the heating demands for the building. The incorporation of mechanical ventilation systems in the development will comply with standards in part F of the building regulations.
- 3.18 The construction phase will also involve the use of energy, which will be minimised by meeting the environmental requirements of the Considerate Constructors Scheme (see the Appendix for general information on the scheme).

#### Sustainable Building Materials

- The construction phase of a development, from the extraction and transport of raw material to the production of building material and its transport to the building site, involves the use of a significant amount of energy and has many detrimental environmental impacts, all of which can be minimised.
- 3.20 The project will aim to use sustainable building materials as far as possible and will aim to apply the following environmentally responsible practices:
  - Meet the environmental requirements of the Considerate Constructors Scheme,
  - Use recycled and secondary aggregates, where practical and feasible,
  - Use timber from sustainably managed forests,
  - Select construction materials that obtain an 'A' rating from the Green Guide for Housing Specification,
  - Finishing materials will be responsible sourced,

 Reuse materials where practical from the demolition of existing buildings in accordance with best practice set out in the ICE Demolition Protocol (2006). See waste section for further details on reuse of recovered materials.

#### Renewable Energy

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- 3.21 The London energy strategy 'Green Light to Clean Power' states that developments should seek to obtain 10 % of the developments electricity demand through the use of a renewable energy source. A separate energy statement has been prepared for the development, which identifies ways in which the energy requirements for the development may be met through the use of renewable technologies. This statement analyses options to provide 10% of energy from a renewable technology based on a cost benefit analysis.
- The development will incorporate renewable energy technologies in line with current policy. The feasibility of these options has been assessed in the energy statement for the development. These are discussed in the Energy Report that accompanies the application. At the time of this report, the most feasible option is to generate heat from ground source heat pumps.

#### Green Travel

- 3.23 Transport impacts amount to a significant sustainability problem in the UK. These impacts are felt most profoundly in urban areas. Transport energy consumption has increased by 95% since 1970 and car use per person increased by more than 90% in the same period. In 2000, the three main reasons for a car trip were for shopping, commuting and visiting friends.
- 3.24 Camden Borough Council UDP (2006) sets specific policies to reduce the need to travel, especially by private car and to ensure access to public transport and other environmentally friendly forms of transport, whilst encouraging walking and cycling.

#### Public Transport and Amenities

3.24 Policy T1 – 'Sustainable Transport' highlights the need for locating developments in areas that are accessible to public transport. The site is located within 500 metres of Kilburn underground station and West Hampsted rail and underground station, and within 600 metres of Brondesbury train station. The availability of public transport with good links to nearby town centres makes the application site easily accessible from urban centre.

The site is also within walking distance from a number of amenities and services. The development is within 500m of four GP surgeries, five primary schools, a post office as well as Fortune Green and Sumatra Green amenity areas.

#### Cycling

3.26 Camden's supplementary planning guidance also stresses the value of providing adequate accessibility for cyclists' as being a key component of sustainable building. The development includes the proposal to incorporate secure cycle storage facilities for 13 bicycles to encourage the use of cycling by residents. This meets the council's cycle parking standards as specified in the adopted UDP, Appendix 6 – Parking Standards.

#### Health and Well-being

- 3.27 The resident's quality of life will be ensured by providing natural light through the sizing of windows to meet the day lighting criteria standards for all habitable rooms, as set out in British Standard BS 8206: Part 2. In addition, semi-private amenity space is provided for the individual dwellings by way of garden or balcony.
- Appropriate wall materials and sound insulation will be used to ensure that the development will be equal to or exceed standards presented in the Building Regulations (2003), Document E. This will be accompanied by a programme of Noise monitoring conducted by a suitably trained consultant, by way of pre-completion testing, to ensure that a minimum of 2 credits are achieved in a formal EcoHomes assessment.
- 3.29 The use of non-toxic materials throughout the development will be ensured by selecting construction materials that obtain an 'A' rating from the Green Guide for Housing Specification as mentioned previously.

#### Water Conservation and Managment

3.30 The use of water for domestic purposes has dramatically increased over the last 2 decades. Water is a precious natural resource and its sustainable management is essential to protect the water environment and to meet current and future water demands.

#### Water Conservation

- 3.31 The proposed development will reduce water demand by incorporating low water use fittings such as 6/4 litre dual flush WC, wash basin taps with flow regulators as well as showers with a flow rate which does not exceed 9 litres per minute. Baths will be of standard size, with a capacity between 150 and 200 litres. The specification of bathroom fittings will achieve an estimated usage of 38.92M² water/bedspace/year and give 3 credits under pre assessment conditions,
- 3.32 Water will also be collected for use outside the development. Suitably sized water collection butts will be provided in the garden areas to collect water for landscaped areas.

#### Water Management

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3.33 Water will also be used responsibly during the construction phase. Water will be used efficiently during this phase in accordance with practices set out in the considerate constructor scheme.

#### Waste Management

- The UK government approach to addressing the waste problem and minimising the use of natural resources is to practise the 3R's in the Waste Hierarchy, i.e. reduce reuse recycle. The sustainable waste management principals will be adopted for both the construction and operational phases of the development.
- 3.35 Camden Borough council demonstrate some of the highest recycling rates in London, where over 20% of all waste arising from residential developments is recycled. In order to help enhance these standards, recycle bins will be provided for each apartment. Three bins will be located within the kitchen of each dwelling so that recyclable waste can be sorted. A number of larger bins will be situated in a dedicated communal area on the ground floor of the development. All bins will exceed a capacity of 30 litres. In addition, the Council operates a weekly kerbside collection for recyclable materials and conducts bi weekly refuse collection along Ravenshaw Street to ensure regular removal of waste from the development.
- Principles of the Waste hierarchy will also be reflected in the proposal during the construction phase. An on-Site management plan will be prepared to demonstrate how waste will be handled during the construction process. Such principals will ensure that waste arisings from the construction process will be disposed of responsibly and recycled where appropriate. Pollution from water and dust will also be monitored and managed appropriately to limit on-site pollution incidents. Water consumption will be monitored from site activities to limit unnecessary water consumption.

#### **Buildings and Wildlife**

- 3.37 Biodiversity has an important function within urban areas, providing pleasant areas of amenity whilst maintaining the ecological function of natural systems. Biodiversity does not simply refer to threatened or endangered species, but encompasses all living things. Scope subsequently exists within the development proposal to incorporate measures to enhance the ecological value of the site.
- 3.38 Policy N5 of the UDP concerns the conservation and enhancement of biodiversity throughout the borough. The principle here is to minimise the damage to existing ecology and then, where possible, to enhance it by creating habitats for nature.

#### **Enhancing Biodiversity**

3.39 The development proposal includes the provision of garden space for the flats that will comprise lawns and landscaping, as well as balconies with window planters. This gives opportunities to enhance the ecological value of the site by the provision of new plant species that will be selected for their ecological value, and to encourage other wildlife into the garden areas.

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# 4 Summary of Measures

|             | Issues identified from   |  |
|-------------|--|--|
| Main themes | sustainability themes  | Proposed Measures to be incorporated into the development  |
|             | relating to policy guidance                                    |  |
| Energy      | Provision passive solar gain                                   | Insulation levels for external walls, floors and roofs to equal or exceed Building Regulations   |
| Efficiency  | using layout and orientation.                                  | requirements ADL2A.  |
|             | Choice of materials including the specification of insulation. | Use shading elements from the balconies will allow light to filter through in summer, however limit over warming. This will limit the use of comfort cooling.  |
|             | Choice of heating and electrical appliances.                   | Where appropriate white goods will be provided to be "A-rated" in terms of their energy consumption (C-rated for tumble-dryers) following the EU Energy Efficiency Rating Labelling Scheme  The use of low energy lighting in communal areas.  |
|             |  | Sign up to the Considerate Constructors Scheme for energy efficiency during construction phase.  Use of energy efficient water and space heating system that will achieve 1 credit for NOx emissions in the EcoHomes pre-assessment estimator. |

| Main themes                             | Issues identified from sustainability themes relating to policy guidance   | Proposed Measures to be incorporated into the development  |
|---|--|--|
| Sustainable Building Materials          | Embodied energy and transport costs of materials including use of local materials  | Use of timber from sustainably managed forests Sign up to Considerate Construction Scheme  |
| Renewable energy                        | Incorporate renewable energy technologies to offset the demand on non-renewable sources.   | A separate energy assessment has been conducted for the development. It is proposed that at least 20% of the energy demand for the building will be generated from a renewable technology. This is based on the assumption that approximately 21% of the reduction comes from reduced electricity demand (lighting, small power, motors and air conditioning) and 79% from reduced heating demand. As electricity has a higher CO2 emission factor then electricity, the reduction in annual energy consumption is 22%. Ground sourced heat pumps are proposed to be used for this purpose. The reader is refereed to the accompanying energy statement for further information. |
| Sustainable transport and accessibility | Reduce the need to travel, especially by car and provide accessibility to public transport whilst encouraging walking and cycling. | The location of the development demonstrates high levels of accessibility to the wider transport network as well as close proximity to various services and amenities  Provision of 15 weatherproof and secure cycle storage in compliance to council policies on parking provision.   |

| Main themes  | Issues identified from sustainability themes relating to policy guidance | Proposed Measures to be incorporated into the development   |
|--------------|--|---|
| Biodiversity | Conserve and enhance biodiversity  | Minimise damage of existing trees/hedges during construction (Considerate Construction Scheme)  Provide landscaped areas and window planters with plants chosen for their high ecological value |

# **Appendices**

# Appendix 1

EcoHomes Pre-Assessment Estimator

The EcoHomes Pre-Assessment Estimator has been completed for 23a and 23b Ravenshaw street. Certain aspects of the estimator were based on assumptions. These assumptions are listed in the table below. The assessment score for each section and the final score are then presented, followed by the detailed EcoHomes Pre-Assessment Estimator checklist.

| Code  | Description                                 | Credit | % of<br>total<br>score | Assumptions and rational used   |
|-------|---|--------|------------------------|---|
| Ene 1 | Dwelling<br>Emission Rate                   | 7      | 6.42                   | Building materials will comply with or exceed standards set out in ADL2A of the building regulations to ensure that CO2 emissions will not exceed 24Kg/m²/yr. This assumes the use of appropriate measures to limit the energy requirement for the development.   |
| Ene 2 | Building<br>Envelope<br>Performance         | 1      | 0.92                   | This is based on the use of materials which have 'U' values that are appropriate for achieving a heat loss parameter of 1.3 W/m²K or less.  |
| Ene 4 | Eco Labelled<br>White Goods                 | 1      | 0.92                   | Assume that white goods will be included or info on labelling will be included as part of a home user guide.  |
| Ene 5 | Internal Lighting                           | 1      | 0.92                   | The kitchens, bathrooms and shared areas of each flat will use energy efficient or low energy specification bulbs to meet 40% required for 1 credit.  |
| Ene 6 | External Lighting                           | 1      | 0.92                   | All internal space lighting (communal areas) will incorporate Compact Flourecent Lamps.   |
| Tra 1 | Public Transport - Urban and Suburban Areas | 2      | 2                      | No formal investigation into frequency of tranport undertaken, although the development is within 500 metres of a rail and tube station and bus stops. All with good links that are assumed to be regular in peak and off peak times.   |
| Tra 2 | Cycle Storage                               | 1      | 1                      | Although provision is made for each dwelling, this does not strictly meet the requirement of 95% of the dwellings as some flats have multiple residents. One cycle storage is planned for each flat. 1 credit has been awarded as 50% of the dwellings could be served with the 15 allocations, taking into account 3 studio flats, 1 single bed and 2 two-bed flats. |

| Code  | Description                                   | Credit | % of<br>total<br>score | Assumptions and rational used   |
|-------|---|--------|------------------------|---|
| Tra 3 | Local Amenities                               | 2      | 2                      | Assumes safe pedestrian routes to amenities, and due to the urban area and location of schools, doctors and park, It is assumed that a shop and a child play area will be within 1000 Metres to 5 of the amenities needed for an additional credit. |
| Pol 1 | Insulation ODP<br>and GWP                     | 1      | 0.91                   | Assumes that all insulation materials will met the standard of GWP of <5 and ODP of 0.  |
| Pol 2 | NOx Emissions                                 | 2      | 1.82                   | Specify the use of a heating and hot water system with an NOx emission rate no higher than 100 mg/Kwh (1 credit). A second credit may be achieved through the incorporation of renewable energy source off setting the emissions.                   |
| Pol 4 | Renwable and<br>Low Emission<br>Energy Source | 3      | 1.82                   | Energy statement has been conducted achieving 1 credit.  1 additional credit1 is assumed as at least 10 % of the energy is expected to come from a renewable source.  |
| Pol 5 | Flood Risk                                    | 2      | 1.82                   | Preliminary search on the EA website indicates that the area is at low risk from flooding.  |
| Mat 1 | Environmental<br>Impact of<br>Materials       | 8      | 3.6                    | Assumed that windows, roof and floors will obtain an A rating in the green guide for housing.   |
| Mat 4 | Recycling<br>Facilities                       | 6      | 2.71                   | Recycling bins of appropriate size will be installed in the development plus a weekly roadside collection.  |
| Wat 1 | Internal Potable<br>Water                     | 3      | 5                      | Preliminary assessment on water usage indicates that 3 credits will be achieved. This value is derived from the commitment to use 4/6 litre flush WC, Flow regulators on taps, 9 litre/min max output showers and medium size baths in all flats    |
| Wat 2 | External Potable                              | 1      | 1.67                   | Development will incorporate suitably sized water butts for   |

| Code  | Description                        | Credit | % of total score | Assumptions and rational used   |
|-------|------------------------------------|--------|------------------|---|
|       | Water Usage                        |        |                  | watering landscaped areas.  |
| Eco 2 | Ecological<br>Enhancements         | 1      | 1.33             | The design will increase the amount of green space that is currently on site.   |
| Eco 4 | Change of ecological value of site | 2      | 2.67             | Assumed that the change of ecological value compared to the previous use would be minimial and therefore would fall within the range of –3 to +3 species.   |
| Eco 5 | Building<br>Footprint              | 2      | 2.67             | Floors/footprint > 3.5/1  |
| Hea 1 | Daylighting                        | 2      | 3.5              | Initial assessment of the floorplans suggests that the design provides adequate light in all habitable areas, however does not always provide view of the sky.  |
| Hea 2 | Sound Insulation                   | 4      | 7                | Materials to comply with appropriate standards plus the incorporation of pre conditioned sound monitoring to be conducted appropriately to gain 4 credits.  |
| Man 1 | Home User<br>Guide                 | 3      | 3                | Assume that this can be done as part of the developmment.   |
| Man 2 | Considerate<br>Constructors        | 1      | 1                | Contractors are assumed to have signed up to a best practice scheme as part of the tender.  |
|       |                                    |        |                  | A waste management plan that will monitor, sort and recycle will obtain a credit. 2 additional credits are assumed from monitoring water use, adopt best practices for air, reclaim timber and water pollution. |

| Code  | Description               | Credit | % of total score | Assumptions and rational used   |
|-------|---------------------------|--------|------------------|---|
| Man 3 | Construction Site Impacts | 3      | 3                | A waste management plan will be produced highlighting how waste will be handled during the construction process. In addition, best practices in respect of monitoring water use, as well as dust and water pollution, will be adopted by the constructer in accordance with the considerate constructors scheme. All timber used for the frame and internal structure will be responsible sourced from either appropriately managed forests or reused where possible. |

| Issue                | Total Percentage Available | Pre-Assessment Score Awarded |
|----------------------|----------------------------|------------------------------|
| Energy               | 22                         | 10.09                        |
| Transport            | 8                          | 5                            |
| Pollution            | 10                         | 6.37                         |
| Materials            | 14                         | 6.31                         |
| Water                | 10                         | 6.67                         |
| Land Use and Ecology | 12                         | 6.67                         |
| Health and Wellbeing | 14                         | 10.5                         |
| Management           | 10                         | 7                            |
| Total Score          | 100 %                      | 58.61 %                      |

#### **Considerate Constructors Scheme**

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The Considerate Constructors Scheme is a voluntary Code of Considerate Practice, which is adopted by participating construction companies, and everyone involved on the construction site. The Code commits those contractors in the Scheme to be:

- Considerate: All work is to be carried out with positive consideration to the needs of traders
  and businesses, site personnel and visitors, and the general public. Special attention is to be
  given to the needs of those with sight, hearing and mobility difficulties.
- Environmentally conscious: Noise from construction operations and all other sources is to be kept to a minimum at all times. Efforts should be made to select and use local resources wherever possible. Attention should be paid to waste management and the avoidance of pollution. Recycling and the use of recycled materials are encouraged.
- Clean: The working site is to be kept clean and in good order at all times. Safety barriers,
  lights and warning signs are to be maintained in a clean and safe condition. Surplus materials
  and rubbish should not be allowed to accumulate on the site or spill over into the
  surroundings. Dirt and dust from construction operations should be kept to a minimum.
- Good Neighbours: General information regarding the Scheme should be provided for all neighbours affected by the work. Full and regular communication with neighbours, including adjacent traders and businesses, regarding programming and site activities should be maintained from pre-start to completion.
- Respectful: Respectable and safe standards of dress should be maintained at all times. Lewd
  or derogatory behaviour and language should not be tolerated under threat of severe
  disciplinary action. Pride in the management and appearance of the site and the surrounding
  environment is to be shown at all times. Operatives should be instructed in dealing with the
  general public.
- Safe, Construction operations and site vehicle movements are to be carried out with care and consideration for the safety of site personnel, visitors and the general public. No building activity should be a security risk to others.
- Responsible: Ensure that everyone associated with the site understands implements and complies with this code.
- Accountable: The Considerate Constructors Scheme poster is to be displayed where clearly
  visible to the general public. A site's contact details should be obvious to anyone affected by
  its activities

Compliance with the Scheme's Code of Considerate Practice indicates that a site is achieving a standard beyond statutory requirements. A scoring system is used to assess more precisely the level of compliance of the development proposals and help identify any measures that are above and beyond these requirements.

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Dear Sir/Madam,

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In reviewing the following EcoHomes Pre-Assessment Estimator we would like to draw to the attention of planning officers that the estimator, as it stands, appears to presume that a whole range of detailed construction decisions have already been made concerning the development – decisions which, at this stage of the application, have not yet been made.

Additionally, in completing this estimator, one must be aware that commitments made in the questionnaire have the potential at least to gather momentum and evolve into formal conditions attached to any planning consent. Such conditions will almost certainly mature into enforceable Section 106 clauses, with the accompanying financial consequences.

Before presenting the estimator we would like to reassure officers that we appreciate the goals of the planning department is asking us to provide the document, and assure you that we are fully committed to producing a building that would achieve the high sustainability standards that the planner seeks to assure. However, agreeing to detailed construction parameters (such as specific Dwelling Emission Rate figure for example) prior to even choosing a building system and conducting detailed cost estimates leaves us open to a range of unforeseeable financial consequences. So much so that, in our view, it would be unreasonable to expect an applicant in our position to make irreversible commitments to very high standards in these areas without even knowing whether or not a permission is likely to be forthcoming, and, prior to even an initial reaction to the scheme – the extent of any such permission.

Of specific concern to us are Ene1, Ene2, Pol2, Pol4, & Hea2. At this stage our calculations in these areas are based on standard brick and block construction and insulation methods. At this early stage - we can do little else. To do more would require us to produce multiple comparative sets of calculations covering the construction methods that we intended to explore the comparative merits of in due coarse. These include prefabricated concrete panel construction, steel frame panel, SIPS, and Insulated Concrete Formwork. Our eventual choice of building method will inevitabley influence the final estimator score, along with many other decisions yet to be made.

We hope that you would agree with us that at this stage, that it would seem unreasonable to have us go to such lengths and expense - prior to knowing the extent off any building that may reasonably be expect to secure a planning permission.

To conclude, in our view, any final score that the estimator purports to present at this stage, and under the circumstances, could possibly be a heavily distorted and highly unreliable estimate of what the development may be able to score at a later date, once the developer has been given the chance to specify the building in detail. The final score represents more at this stage figures the developer feels able to commit to in the absence of more detailed information, than standards the development may actually be capable of delivering once properly specified. In light of this we have been drawn to the conclusion that reliance on the estimator, at this stage of an application, may perhaps be a little misplaced. It could, arguably, serve as much actually cap the advancement of higher eco standards in new developments, as to promote them, by

inadvertently encouraging developers to simply tick the minimum requirements, and just stick at that, rather than more fully explore a wider range of possibilities that may be available to them on their site.

We hope you find our comments of some assistance in assessing our application.

Your Sincerely

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Mr C S Taylor Applicant Site at 23 Ravenshaw Street NW6