



# Section B Sustainability Statement

Energy

Sustainability

Renewables

Efficiency

Standards

4th August, 2008

## 9-23 Third Cross Road Twickenham

Mixed Use Development



Carried out for

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# Section B Sustainability Statement



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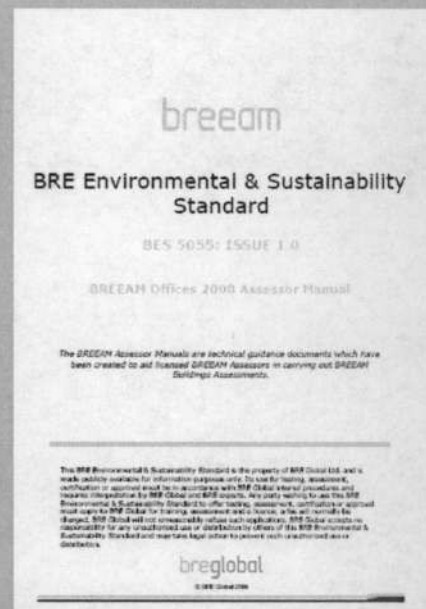
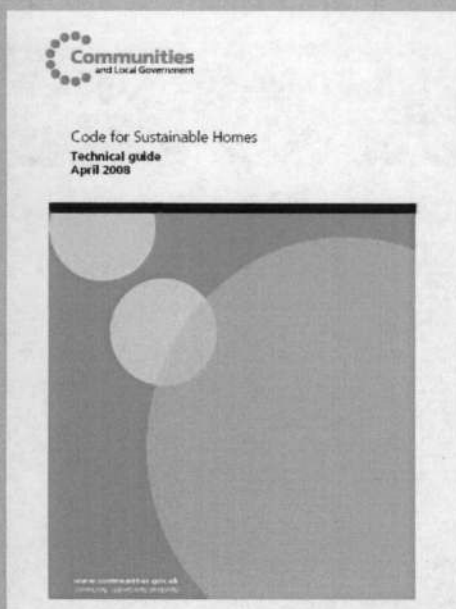
## Introduction

This remainder of this document is to be used to explain features of the developments design that meet Richmond Council's Sustainable Construction Checklist. In particular the report addresses the following issues:

- Environmental Rating - pg 20, 34 and 29
- Energy Saving (already covered in Section A)
- Renewable Energy (already covered in Section A)
- Construction Materials - pg 24 and 32
- Water Saving/ Recycling - pg 23 and 32
- Recycling - pg 25 and 32
- Surface Water Run Off - pg 25 and 33
- Microclimate - pg 26 and 28
- Public Transport - pg 31
- Cycling and Walking - pg 22 and 31
- Green and Open Spaces - pg 27 and 33
- Light Pollution - pg 33
- Flood Resistant Design - pg 25
- Construction Process - pg 25, 27, 28 and 30

Through designing the development to meet Code Level 4 and BREEAM 'Excellent' standard, the client is committing to producing a development where sustainability is central to the project.

This section of the report assesses the predicted environmental performance of the proposed Third Cross Road development, based on the information provided by the design team. It analyses a range of environmental measures, loosely utilising the Code for Sustainable Homes (Section B1) and BREEAM Offices (Section B2) methodology.



## Environmental Rating

BREEAM and the Code for Sustainable Homes (Code) are the most widely used sustainable development standards in the UK and as described below are likely to set the path towards zero carbon developments in the future.

The Code for Sustainable Homes was launched in December 2006 as a replacement of BREEAM EcoHomes for new residential buildings. The Code and BREEAM office are national standards for sustainable design and construction of new residential as well as new and refurbished offices respectively.

Although the Code is currently voluntary, many councils are now setting Code levels as mandatory targets and it is likely to become a national requirement in the near future.

Each standard requires the development to gain credits by meeting numerous sustainable design principles over a broad range of ten key areas:

- Energy
- Water
- Materials
- Surface Water Run-Off (included in BREEAM pollution)
- Waste (included in BREEAM materials)

- Pollution
- Health and Wellbeing
- Management
- Ecology (for BREEAM known as Land use and Ecology)
- Transport (Not included in the Code)

The client is committed to meeting The Code Level 4 standard (broadly set at EcoHomes 'Excellent') and BREEAM office 'Excellent' standards. The Richmond Sustainable Construction Checklist requires all new developments to achieve 'Excellent' standards in BREEAM and EcoHomes and therefore the client's goals are in line with the requirements.

Code and BREEAM preassessments have been carried out and are included as an appendice to this document.



In July 2007 the Department of Communities and Local Government released a document exploring the possibility of making the Code for Sustainable Homes a mandatory target for new homes. In doing this a strategy towards zero carbon residential developments by 2016 would be set. Above is an estimation of how these levels might be implemented between now and 2016.

It is the governments aim that non-residential developments will be zero carbon by 2019. In order to achieve this It is likely that a similar path to that set by residential standards will be adopted and this is almost certain to be based upon current BREEAM standards.

# Section B1 - The Code

## Energy

### CO<sub>2</sub> reduction over Part L compliant Design

The Level 4 CO<sub>2</sub> reduction requirement is to improve upon current building regulations by at least 44%. This means the Dwelling Emissions Rate (measured in kgCO<sub>2</sub>/m<sup>2</sup>) must be 44% lower than the Target Emissions Rate for the building.

The Dwelling Emissions Rate includes reduction from energy efficiency measures and on site renewable energy generation compared to a Target Emissions Rate baseline of expected emissions for a typical development.

Energy efficiency measures include improvements in fabric performance and levels of energy efficient lighting compared to building regulations requirements. Preliminary SAP calculations have been carried out to assess the saving from these measures (details of the outputs from the SAP calculations are included in Section A, the Energy Report).

The Preliminary SAP calculations demonstrate that the improvements bring about average energy efficiency savings (excluding CO<sub>2</sub> from appliances, which are only to be included when aiming for the Code Level 6) of 21%, with a minimum of a 18% improvement for the worst performing dwelling.

The remaining CO<sub>2</sub> emission reduction required for Level 4 will be provided by specifying additional on-site renewable or low carbon energy generation technologies as already discussed.

Our calculations demonstrate that a further 46.3% of CO<sub>2</sub> reduction is expected from the combination of the Ground-Source Heat Pump and Solar Thermal systems.

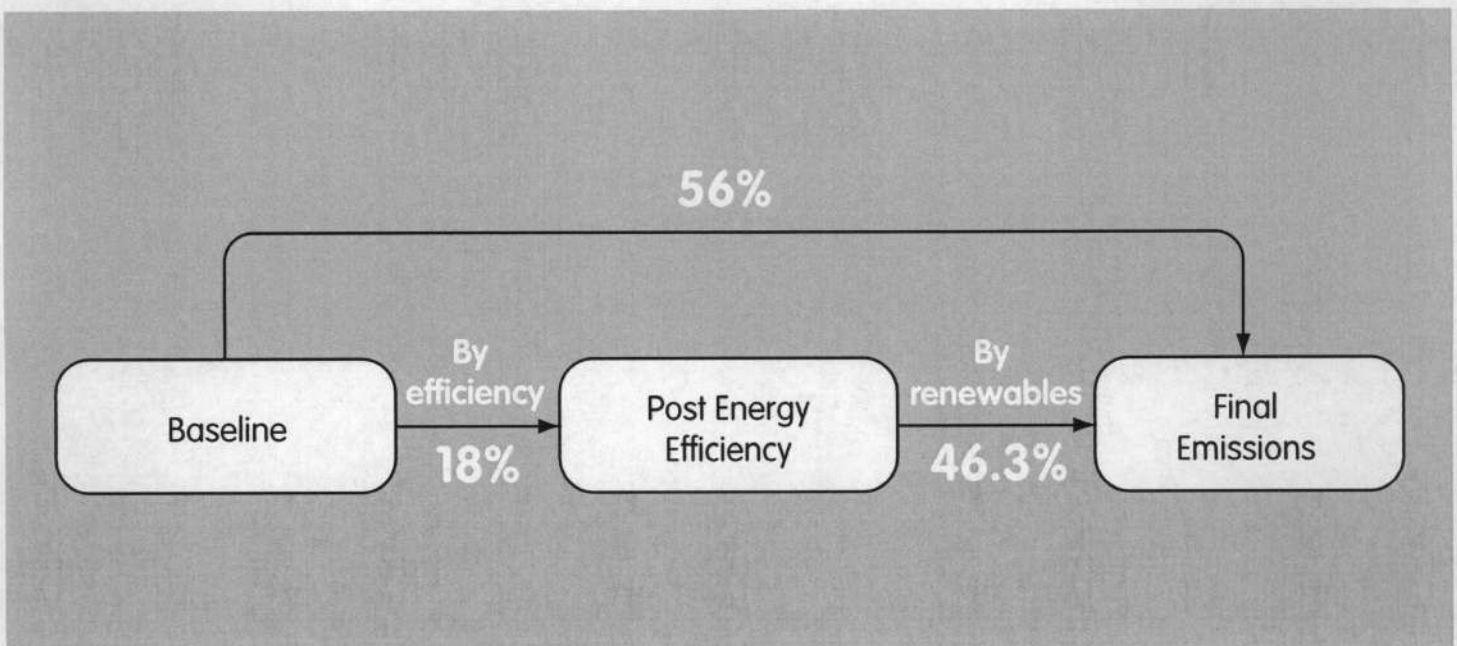
Combined, the final emissions reduction over a Part L compliant design would equal 56%, which goes beyond the Code level 4 requirement of 44%.

Further code credits will be achieved in the following energy-related areas:

### External Lighting

External security lighting is to be fitted with PIR sensors, daylight cut-off devices and have a maximum power of 150W. Where possible, solar powered lighting will be specified.

These measures are intended to reduce the use of external lighting when not required and to ensure that a low energy strategy is installed.



**Building Fabric**

The preliminary SAP calculation carried out give an expected heat loss parameter of 0.98 W/m<sup>2</sup>K; this low value demonstrates the efficient performance of the building fabric and good air tightness.

**Drying Space**

Clothes driers will be supplied within each unit. For the houses, this will be provided in the gardens; in the flats, it will be provided within well ventilated dedicated drying stores. This will reduce the need for tumble dryers, which consume significant amounts of electricity.

**Eco-labelled Goods**

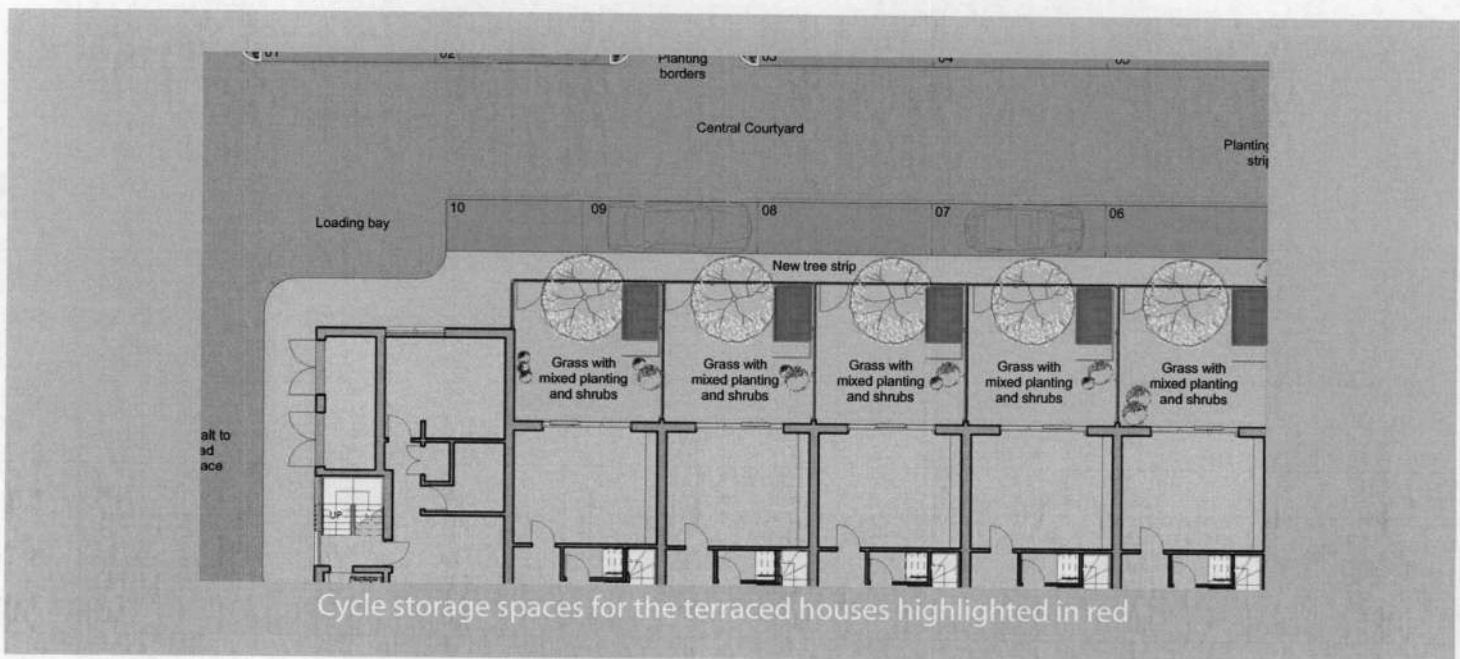
The developer will encourage residents to purchase efficient appliances by providing information on the benefits of efficient white goods and the EU energy efficiency labelling scheme.

**Cycle Storage**

A total of 20 cycle spaces are available for the houses and one space for each one-bedroom flat, to be located in safe, secure and weatherproof sheds in gardens. This will help to encourage residents to reduce their transport CO<sub>2</sub> emissions, particularly for short journeys, and will also promote a healthy lifestyle.

**Home Office**

Each unit will incorporate an area with 1.8 metres of wall space, well daylight and with additional electrical and data provisions where it is possible to setup a home office, possibly helping to reduce the need to commute to work.



**Water**

**Internal Potable Water Use**

Through targeting the Code for Sustainable Homes Level 4 standard the development is committing to reach a maximum water consumption of 105 litres per person per day.

Several efficiency measures will be taken to reduce consumption in order to meet the mandatory target and address issues of water shortage in the UK. The following are intended to be implemented at Third Cross Road:

- Dual flush WC's - 4 litre full flush 2 litre half
- Low flow showers - 6 litres/minute
- Spray taps and flow regulators - less than 3 litres/minute for hand basins and 4.5 litres / second for kitchen sinks.

As an example of how the development might meet the water requirement see the table below.

Easily accessible pipes and fittings providing ease of maintenance - This will address the issue of water distribution losses, responsible for a significant part of water consumption.

**External Potable Water Use**

Where planted outdoor space is provided, rainwater will be collected from roof areas and stored in external storage butts for irrigation use.

**Rainwater Harvesting and Greywater Recycling**

Full rainwater harvesting and greywater recycling to reduce potable water use were both considered for the project, but due to the expense involved in laying additional plumbing networks, were rejected. The design team believe that reducing CO<sub>2</sub> reduction is of greater urgency than water use; therefore, the project's budget was concentrated on energy efficiency and renewable systems.



Rain water storage for plant irrigation

Fitting	Consumption per use	Use per day	Use factor	Consumption (l/person/day)
WC (Full Flush)	4 litres per flush	4.80	0.33	6.34
WC (Half Flush)	2 litres per flush	4.80	0.67	6.43
Wash Basin Tap	3 litres per min	7.90	0.45	10.59
Shower	6 litres per min	0.60	5.00	18.00
Bath	175 litres to overflow	0.40	0.40	28.00
Kitchen Sink Tap	4.5 litres per min	7.90	0.45	15.88
Washing Machine	45 litres per cycle	0.34	1.00	15.30
Dishwasher	13 litres per cycle	0.30	1.00	3.90
			Total	104.44

## Materials

### Environmental Impact of Materials

Embodied energy is the energy that has gone into the manufacture, processing and the transportation of the materials to site. Where possible, materials with as low embodied energy as possible will be selected and, where high embodied energy materials are specified, their volume is to be minimised.

Below are the likely materials and build ups for the major building elements for the residential buildings, along with their environmental rating:

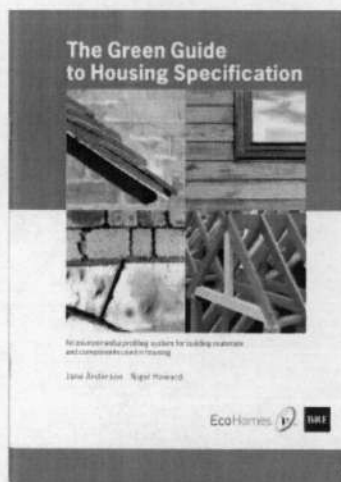
- Windows - double glazed hardwood timber framed FSC windows with low e coating - A+ rated
- External Wall Ground - Brickwork outer leaf, insulation, blockwork inner leaf, plasterboard - A to A+ rated
- External Wall Upper - timber cladding or composite panel on insulation, blockwork, plasterboard - A+ to B rating
- Internal Walls - Timber stud, plasterboard, paint - A+ rating
- Ground Floor - Screeded in situ 50% GGBS (if possible) concrete slab, over insulation on polyethylene dpm laid on blinded aggregate sub-base - C-D rated
- Upper floor - Timber frame with insulated SIP panels - A+ to B rating
- Roof - Timber trussed rafters and joists with insulation, roofing underlay, counterbattens, battens and UK produced fibre cement slates - A+ rating

### Responsible Sourcing of Materials

Wherever timber is used in the development, it is intended to specify timber from sustainable sources, FSC- or PEFC-certified whenever possible. This will include both structural building elements as well as finishing materials.

Where practical, materials with a high recycled or waste content will be specified. For example, reclaimed fibre-cement slates tiles will be used for the residential roofs and reclaimed timber decking for landscaped areas.

When possible, aggregate from the demolition of the current hard landscaping on site will be crushed and used for the substrate materials for the building base, road and drive surfaces. On-site reuse is preferable to off-site recycling due to the lower transport emissions expected.



The Green Guide to Housing Specification







### Runoff

#### Surface Water Runoff

Peak run-off rates and annual run-off volumes are unlikely to be increased from the current level with the new development. A small amount of attenuation from roof water run-off will be provided by the use of external water storage for garden irrigation. Soft landscaping which replaces existing hardstanding will also significantly reduce surface runoff rates.

#### Flood Risk

The development site qualifies as having a low annual probability of flooding. This means that the chance of flooding each year is less than 0.1% (1 in 1000) or less.

### Waste

#### Waste Storage and Recycling Facilities

The building will provide residents with a dedicated area for waste and recycling storage that will comply with the minimum storage capacity set out in BS 5906. There will also be at least 60 litres storage in an internal dedicated storage position.

The development will also provide facilities for the dwellings to join in with Richmond borough

council's recycling scheme. In line with Richmond's policy, the development will provide storage for at least 180 litres of waste and 50 litres of recyclables for the flats, and 360 litres of waste and 100 litres of recyclables for the houses. As required, the storage facilities will be within 30 metres of external doors and 10 metres of access roads.

#### Construction Site Waste Management

Demolition and construction waste accounts for 33% of all UK waste (Defra UK). CIRIA (Construction Industry Research and Information Association) estimates that 1/7th of all construction materials are wasted.

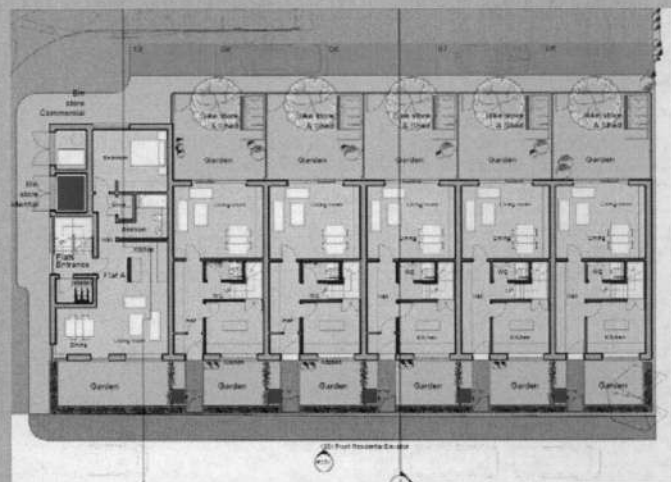
The development will minimise its impact by providing a Site Waste Management Plan (SWMP) to sort, reuse and recycle construction waste on site where possible.

#### Composting

The developers will work with the council to ensure that the dwellings can join the Richmond kitchen waste collection scheme



Flood Risk Map - indicating the site to have a low flood risk. Source: Environment Agency Flood Risk Map



Location of waste and recycling storage for the residential part of the development

**Pollution**

**Global Warming Potential**

Global warming potential (GWP) is a measure of how effective a gas is at preventing the passage of infra-red radiation (i.e. the Earth's heat). The Kyoto Protocol has set limits to six specific gases that contribute towards global warming.

A common use of gases with a high GWP is as a blowing agent for producing some insulation materials.

The development will specify insulation materials that have a Global Warming Potential (GWP) of less than 5.

**NOx Emissions**

Since NOx has a GWP 310 times worse than CO2 it is important to reduce its production by avoiding its release during the burning of fossil fuels. Power stations are the main cause of the higher level NOx emissions whilst domestic boilers and heating systems can cause lower level emissions.

The development's heating is provided by a combination of gas boilers, solar thermal hot water and GSHP heating, which produce low NOx emissions as compared to biomass or totally electric heating systems. Efficiency of supply will be a key concern when specifying the exact heating system.

**Health and Wellbeing**

**Daylighting**

The provision of good daylighting reduces the amount of artificial lighting used inside the development and has been proven to improve the health of occupants through the release of serotonin.

The development incorporates large glazed areas which will provide good levels of natural light. The development will aim for:

- Kitchens to achieve a minimum average daylight factor (adf) of 2% and studies, living and dining rooms a minimum of 1.5%
- 80% of working planes to have a view of sky

**Sound Insulation**

The development will seek to exceed the building regulation's sound insulation requirements by providing:

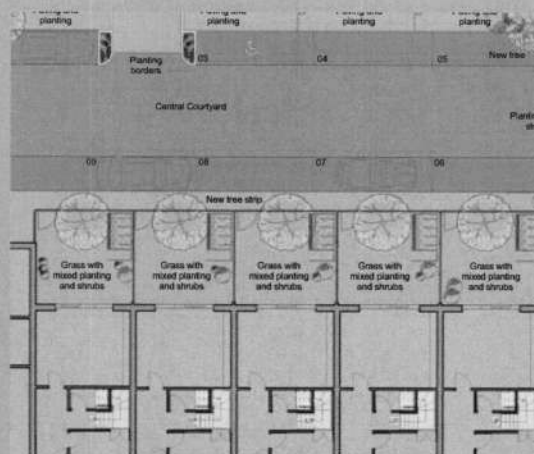
Airborne sound attenuation values of 8dB or higher than Building Regulations' Part E requirements. Impact sound attenuation values of 8 dB or lower than Building Regulations' Part E requirements.

**Private Space**

The provision of open space for residents will be met by the provision of gardens will be provided for the houses and ground floor flat, and terraces to the first and second floor flats.

Gas	GWP
Carbon Dioxide	1
Methane	21
Nitrous Oxide	310
Hydrofluorocarbons (HFC's)	140-11700
Perfluorocarbons	6500-9200
Sulphurhexafluoride	23900

Source: National Atmospheric Emissions Inventory, UK Emissions of Air Pollutants 1970-2003, DEFRA, UK, (GWP) based on 100 year time horizon.



The development includes large windows for daylighting and outdoor garden areas

## Management

### Home User Guide

The Third Cross Road development will provide 'Home User Guides' to all residents ensuring that residents are aware of how to achieve the energy consumption levels of the dwelling. The guide will include operational instructions for the building as well as maintenance information and a guide to the surrounding area and amenities

### Considerate Constructors Scheme

The specifications will require constructors to be compliant with the Considerate Constructors Scheme, achieve formal certification under it and to go significantly beyond best practice (a considerate constructors score of 24 or greater).

### Construction Site Impacts

To minimise construction site impacts, constructors will be required to monitor, report and set targets for:

- CO<sub>2</sub> / energy use from site related activities
  - CO<sub>2</sub> / energy use from site related transport
  - Water consumption from site activities
- and in addition adopt best practice policies in respect to air, dust and water pollution resulting from site activities.

### Security

The development will consult an Architectural Liaison Officer or Crime Prevention Design Advisor at the design stage and incorporate their security recommendations into the design.

## Ecology

### Ecological Value of Current Site

As the site is currently entirely hardstanding, it is likely that the current site will be deemed to be of low ecological value.

### Ecological Enhancement

The planned scheme will improve upon the ecological value of the site by providing areas of planting and soft landscaping. By redeveloping an existing brownfield site, the development is limiting the damage that could be done to the biodiversity and ecology of undeveloped greenfield sites.

### Building Footprint

The ratio of net internal floor area to net internal ground floor area will be 2.5:1 for the houses and 3:1 for the flats.

Energy Efficiency Rating		
	Current	Potential
Very energy efficient – lower running costs		
(92-100) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>		[H11]
(55-68) <b>D</b>	[H10]	
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient – higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

Example of Energy Performance Certificate that will be provided. Source: Communities and local government



Example site plan, consisting of buildings and hardscaped surface parking

### Monitoring

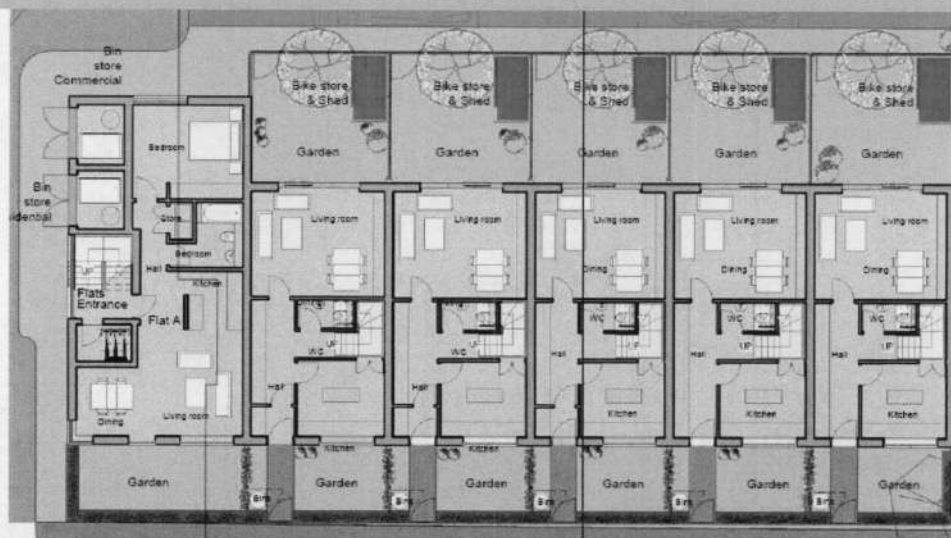
Along with the monitoring of construction waste and water already discussed, the development will also include metering and monitoring of gas and electricity to all units. This will allow the building manager to calculate the Building Emissions Rate and Dwelling Emissions Rate for the building and each unit.

The post-occupancy energy data will be combined with water use data and the recorded CO<sub>2</sub> savings of the renewable energy systems in a post occupancy assessment. The results of this assessment can be compared to the by design estimations to ensure that the building performs to the environmental performance specified.

### Microclimate

The proposed design has little hard standing; where present, trees along the front facade will help to provide shade. If hard standing is left unshaded, it can significantly contribute to the urban heat island. Additionally, soft landscaping will replace existing hardscape for large areas of the site.

The design and size of the building should have little to no effect on wind turbulence and funnelling to the pavements on Third Cross Road and neighbouring areas, given the density and scale of surrounding areas and the fact that it is substituting existing buildings on site.



Hedges and trees on Third Cross Road and in gardens will provide some shade to the hardstanding

### The Code Pre Assessment

A Code for Sustainable Homes pre-assessment has been carried out using the aspirations and targets set out by the client; the results are shown below.

The development intends to meet Code Level 4 by implementing the measures discussed in this report.

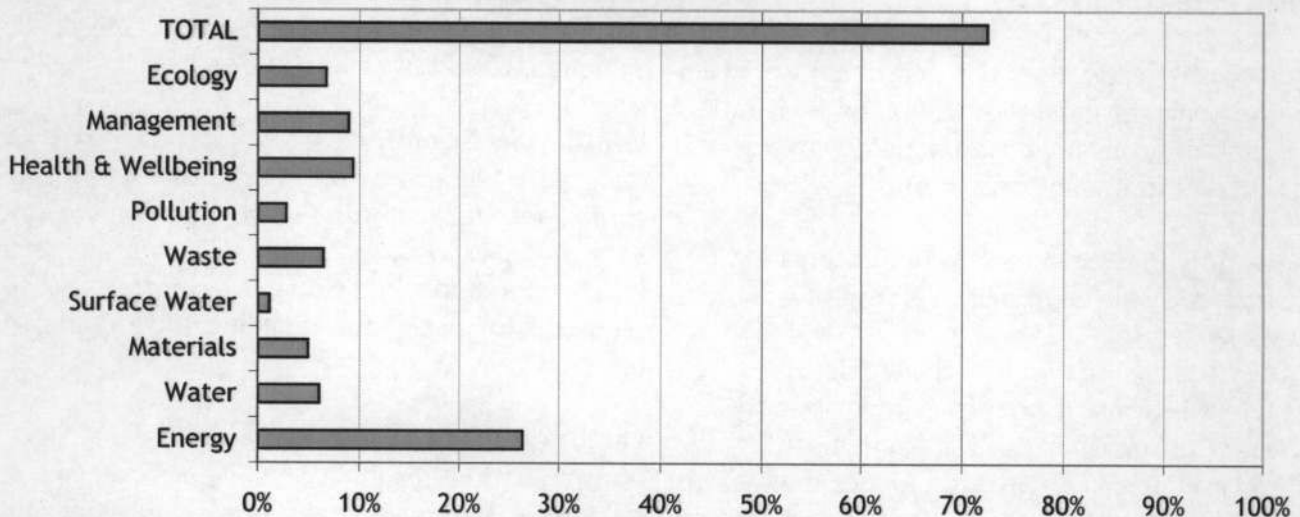
Development Name and Dwelling Description: **Third Cross Road**

**PREDICTED RATING - CODE LEVEL: 4**

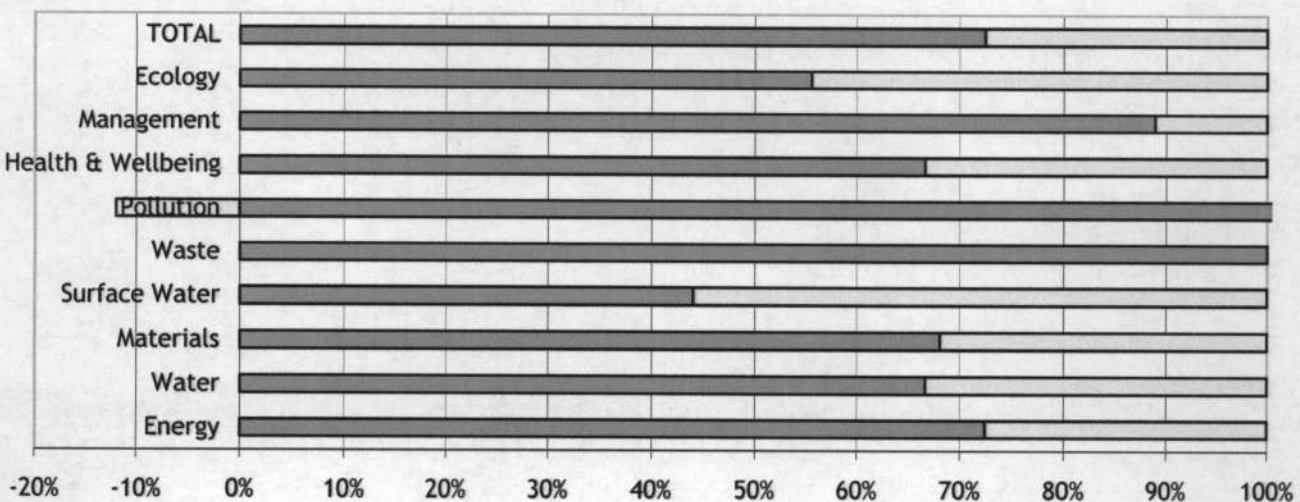
Breakdown: **Energy - Code Level: 4**  
**Water - Code Level: 4**

**Mandatory Requirements: All met**  
**% Points: 72.45% - Code Level: 4**

Graph 1: Predicted contribution of individual sections to the total score



Graph 2: Predicted percentage of each credit and total score achievable



NOTE: The rating obtained by using this Pre Assessment Estimator is for guidance only. Predicted ratings may differ from those obtained through a formal assessment, which must be carried out by a licensed Code assessor.

## Section B2 - BREEAM Management

### Commissioning

An appropriate team member is to be appointed to monitor commissioning on behalf of the client to ensure that the project will be carried out in line with current building regulations.

Evidence is also to be provided showing that seasonal commissioning will be carried out during the first year of building occupation.

### Considerate Constructors

The specifications will require constructors to be compliant with the Considerate Constructors Scheme, achieve formal certification under it and to go significantly beyond best practice (a considerate constructors score of greater than 24).

### Monitoring and Best Practice Techniques

Constructors will be required to monitor, report and set targets for

- CO<sub>2</sub> / energy use from site related activities
- CO<sub>2</sub> / energy use from site related transport
- Water consumption from site activities

and, in addition, adopt best practice policies in respect to air, dust and water pollution resulting from site activities.

Additionally, at least 75% of timber used in temporary site works will be responsibly sourced.

### User Guide

A guide is to be provided which will cover information relevant to the occupants on the operation and environmental performance of the commercial building.

## Health

### Daylighting

Large glazed areas to the north east and southwest facades will provide a high level of daylighting to more than 80% of the space. All desks will be within 7m of a window and internal blinds will be provided to reduce the effects of glare.

### Lighting

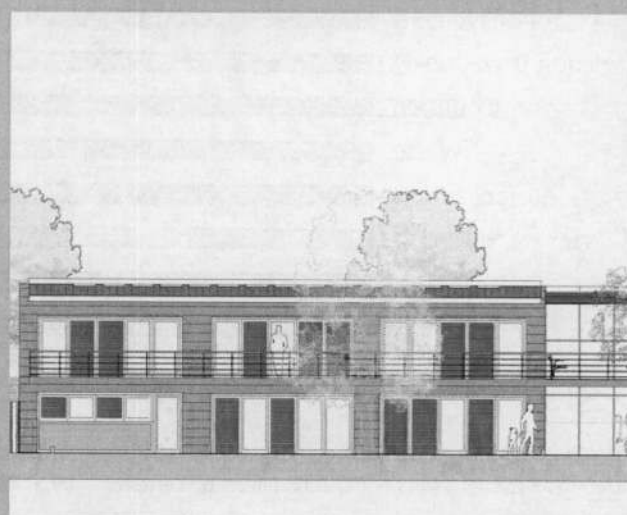
High frequency ballasts will be fitted to all CFL and fluorescent lamps. Appropriately maintained illuminance levels will be achieved in line with the CIBSE Code for Lighting. Lighting will be zoned to give occupants flexibility in lighting choices, to ensure that the desired illuminance level can be achieved without excessive energy use.

### Ventilation & Comfort

Openable windows on the north east and south west facades for 5% or more of the floor area will provide the potential for natural cross flow ventilation. Individual thermostats will be provided for each unit, enabling local control of temperatures

### Legionella

Contamination resulting from legionella will be minimised by avoiding the use of humidification systems and by ensuring appropriate precautions for hot water systems are abided by.



The large openable windows and doors will provide natural ventilation and high levels of daylight

**Energy**

**CO<sub>2</sub> Emissions**

The commercial part of the development is aiming to achieve between a 10-20% improvement above the CO<sub>2</sub> emissions set out in the 2006 building regulations.

This target is to be achieved by ensuring the same U-values and air permeability levels as set in the previous section for the residential element.

**Metering**

Sub-metering will be provided for areas of substantial energy use. This will help the building manager to accurately identify systems which are not performing as expected and where energy savings can be made.

By sub-metering each unit, occupants can be accurately billed for their energy use and are therefore incentivised to reduce appliances and lighting consumption.

**External Lighting**

All of the external luminaries are to be energy efficient and all light fittings are to be controlled for the presence of daylight. Daylight sensors will help to ensure that artificial lights are not used when daylight levels are sufficient.

**Transport**

**Public Transport**

The development's location near to bus and rail links ensures that good access is available to and from public transport networks for commuting and business travel.

**Transport CO<sub>2</sub> Emissions**

CO<sub>2</sub> emissions arising from transport to and from the development has been estimated as 426kg/person/year.

This low level will be achieved by providing just 6 car parking spaces and promoting the use of more CO<sub>2</sub> efficient public transport. An example being the inclusion of 9 secure, weatherproof cycle storage spaces for the commercial section.

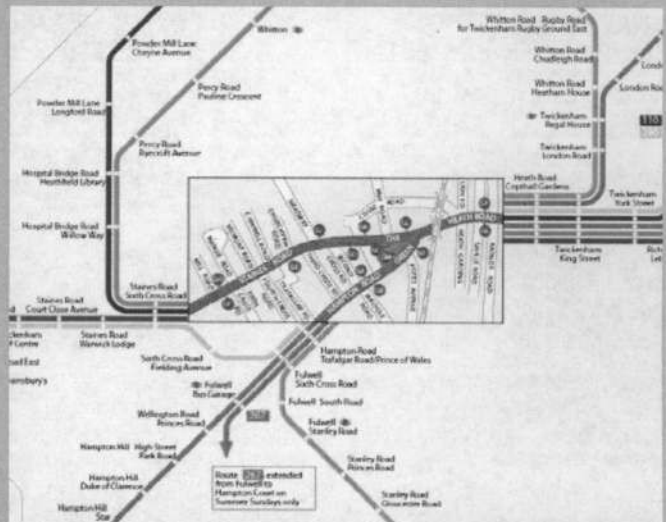
**Travel Plan**

A travel plan will be developed and tailored to the specific needs of the users of this development.

The travel plan will be included in information available to occupants to ensure they are aware of the local transport network and amenities that are reachable by foot or public transportation.



Air Tightness Test being carried out



Bus routes in the Area Source: TFL

**Water**

**Consumption**

The project intends to reduce potable water consumption by including the following efficiency measures:

- Dual flush toilets with a full flush of 6 litres and part flush of 4.
- Bathroom taps with auto shut off valves
- Kitchen taps with aerators
- Waterless Urinals

**Metering**

Water metering with a pulsed output will be provided which will help to accurately monitor water use and identify systems that are not performing as expected.

**Leak Detection**

A leak detection system is to be specified which will detect any major leaks within the water system of the site. Once detected, appropriate measures can be taken to stop water flow and repair the system.

**Shut-Off**

Proximity detection valves will be incorporated into bathroom facilities which will reduce additional water waste from leaking fixtures.

**Materials**

**Building Elements**

The key building elements of the development (windows, external walls, floors and roof) will be specified with ratings of between A and C as defined by the BRE's Green Guide to Specification and as shown in the table below.

**Floor Finishes**

All floor finishes will be specified or supplied by future occupants of the building

**Sourcing**

Where timber is used in the development, the designer intends to specify it from sustainable sources and FSC- or PEFC-certified whenever possible.

Where practical, materials with a high recycled or waste content will be specified. An example of this is the reclaimed steel flat roof.

**Recycling**

A central dedicated storage space for recyclable materials is to be provided at ground floor level to allow occupants to effectively dispose of recyclable wastes.

Possible Build - Up	Rating
External Walls - Ecomasonry outer leaf, insulation, blockwork	A+
Internal Walls - Fairfaced engineering brick	B
Windows - double glazed hardwood timber framed FSC	A+
Ground Floor - Power floated in-situ 50% GGBS reinforced concrete slab	B
Upper Floor - Power floated in-situ 50% GGBS reinforced concrete slab	B
Roof - In-situ 50% GGBS reinforced concrete slab, vegetated roof	B or C

Likely material specification for the commercial building



Commercial side: recycling, bike storage and changing areas



**Land Use**

**Previous Use**

The site is currently has 100% hardstanding coverage and has been previously used as a carp park. By building on a 'brown field' site the developer is avoiding building on undeveloped 'green field' space.

**Ecological Value**

It is likely that the site will be governed to be of low or insignificant ecological value. The planned scheme will improve upon the ecological value of the site by providing areas of planting and soft landscaping.

**Pollution**

**Refrigerants & Insulants**

Refrigerants will be avoided by avoiding mechanically cooling and instead providing adequate comfort through free cooling methods. Where insulation materials are specified we will ensure that they have a Global Warming Potential of less than 5.

**NOx Emissions**

The project team will specify high efficiency gas boilers with emissions of less than 40 mgNOx/kWh.

**Flooding**

As already described, the development is in a zone defined as having a low annual probability of flooding.

**Water Course pollution**

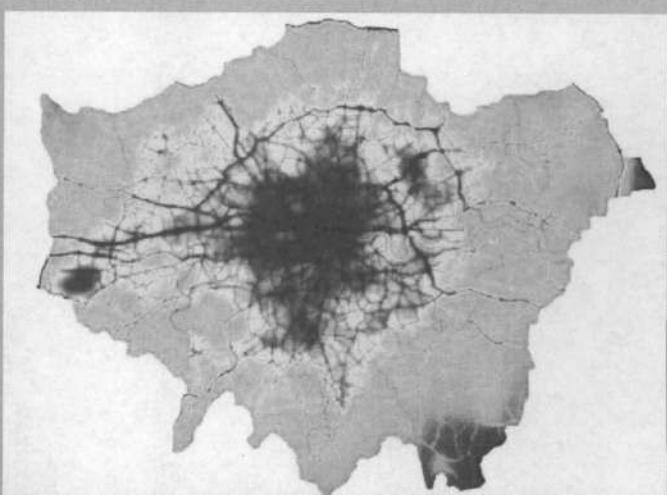
The hardstanding vehicle accessed areas will include measures such as oil seperators / interceptors and filtration to treat water run-off

**Light Pollution**

The project team will ensure that the external lighting will be designed in consideration of the guidance from the Institution of Lighting Engineers - Guidance Notes for the Reduction of Obtrusive Light. In particular the lighting design will aim to reduce the Upward Light Ratio to below 15% and reduce vertical illuminance to less than 5 Lux.



Light pollution in the UK Source: ROE



Annual average NOx emissions in London showing the areas of concern. Source London Plan

### BREEAM Pre Assessment

A BREEAM Office pre-assessment has been carried out using the aspirations and targets set out by the client; the results are shown below.

The development intends to meet the 'Excellent' Level by implementing the measures discussed in this report.

<b>BREEAM Rating: Third Cross Road</b>	<b>Excellent</b>
--	------------------

Core & Design & Procurement Credit Allocation Table					
Overall Credit Allocation	Env Weighting	Available	Achieved	Percentage section credits achieved	Overall Weighted Percentage
Management	15%	9	9	100.00%	15.00%
Health & Wellbeing	15%	13	11	84.62%	12.69%
Energy		18	8	44.44%	
Transport		15	14	93.33%	
<b>Energy &amp; Transport</b>	25%	33	22	66.67%	16.67%
Water	5%	6	5	83.33%	4.17%
Materials	10%	12	8	66.67%	6.67%
Land Use & Ecology	15%	10	4	40.00%	6.00%
Pollution	15%	15	10	66.67%	10.00%
<b>Totals</b>					<b>71.19%</b>

BREEAM Rating	% Benchmark
Unclassified	<25
Pass	≥25 - <40
Good	≥40 - <55
Very Good	≥55 - <70
Excellent	≥70

