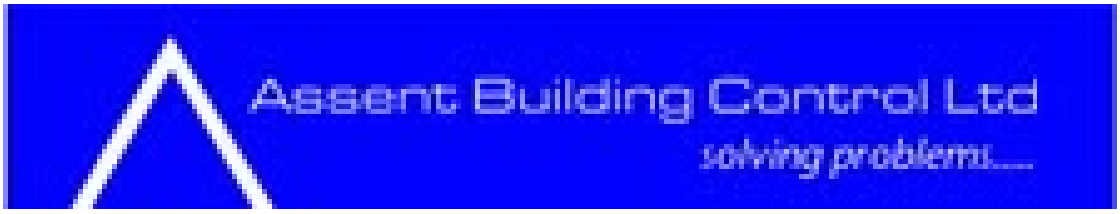
Code for Sustainable Homes

Technical Guide November 2010 - Full Technical Guide

Pre-Assessment Report



Report Reference:	**YH51628**
Site Registration:	
Site Name:	**25-28 Welby Street**
Assessor Number:	**STRO005659**
Company:	**Assent Building Control Ltd**
Assessor:	**Della Miller**

Site Details	
Site Name:	25-28 Welby Street
Site Registration:	
Site Address:	25-28 Welby Street
City/Town:	Manchester
County:	Greater Manchester
Postcode:	M13 0EL
No. of Dwellings:	1
No. of Dwelling Types:	0
Planning Authority:	Manchester City Council
Funding Body:	

Assessor Details	
Company:	Assent Building Control Ltd
Assessor Name:	Della Miller
Cert Number:	STRO005659
Address:	Assent House 4 Navigation Court Calder Park
City/Town:	Wakefield
County:	West Yorkshire
Postcode:	WF2 7BJ
Tel:	01924 229180
Email:	della@assentbc.co.uk

Client Details	
Company:	Njoy Student Living
Contact Name:	Njoy Accommodation Managament Ltd
Job Title:	
Email:	
Tel:	
Address:	Langdage Hall
City/Town:	Manchester
County:	Greater Manchester
Postcode:	M14 5RJ

Architect Details	
Company:	
Contact Name:	
Job Title:	
Email:	
Tel:	
Address:	
City/Town:	
County:	
Postcode:	

Developer Details	
Company:	
Contact Name:	
Job Title:	
Email:	
Tel:	
Address:	
City/Town:	
County:	
Postcode:	

Dwelling ID	Plot No.	Address	Social Unit
1	25	25 Welby Street	No

Development Summary & Ratings

Dwelling ID	Dwelling Type	Description	Level	Score
		25 Welby Street	0	33.6899637

Deviations from Standard

No deviations from standard

Score Sheet for 25-28 Welby Street

	ENE									WAT		MAT			SUR		WAS			POL		HEA				MAN				ECO					Summary	
Dwelling ID	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**1**	**2**	**1**	**2**	**3**	**1**	**2**	**1**	**2**	**3**	**1**	**2**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**5**	**Score**	**Level**
1	0	0	2	1	2	2	0	1	1	3	1	7	0	0	0	2	4	0	1	1	0	1	0	1	0	3	0	0	2	0	0	0	0	1	33.69	0

Summary Score Sheet

Dwelling Type: 25 Welby Street

Dwelling ID: 1

	Credit Score	Credits Available	Score Assessment Sub Total	Credits Available	%	Weighting Factor	Points Score
Energy & CO2 Emissions							
ENE 1 Dwelling Emission Rate	0	10	9	31	29.03	36.4	10.57
ENE 2 Fabric Energy Efficiency	0	9					
ENE 3 Energy Display Device	2	2					
ENE 4 Drying Space	1	1					
ENE 5 Energy Labelled White Goods	2	2					
ENE 6 External Lighting	2	2					
ENE 7 Low or Zero Carbon Energy Technologies	0	2					
ENE 8 Cycle Storage	1	2					
ENE 9 Home Office	1	1					
Water							
WAT 1 Internal Water Use	3	5	4	6	66.67	9	6
WAT 2 External Water Use	1	1					
Materials							
MAT 1 Environmental Impact of Materials	7	15	7	24	29.17	7.2	2.1
MAT 2 Responsible Sourcing (Basic Building Elements)	0	6					
MAT 3 Responsible Sourcing (Finishing Elements)	0	3					
Surface Water Run-off							
SUR 1 Management of Surface Water Run-Off from Site	0	2	2	4	50	2.2	1.1
SUR 2 Flood Risk	2	2					
Waste							
WAS 1 Household Waste Storage and Recycling Facilities	4	4	5	8	62.5	6.4	4
WAS 2 Construction Site Waste Management	0	3					
WAS 3 Composting	1	1					
Pollution							
POL 1 Global Warming Potential of Insulants	1	1	1	4	25	2.8	0.7
POL 2 NOx Emissions	0	3					
Health & Wellbeing							
HEA 1 Daylighting	1	3	2	12	16.67	14	2.33
HEA 2 Sound Insulation	0	4					
HEA 3 Private Space	1	1					
HEA 4 Lifetime Homes	0	4					
Management							
MAN 1 Home User Guide	3	3	5	9	55.56	10	5.56
MAN 2 Considerate Constructors Scheme	0	2					
MAN 3 Construction Site Impacts	0	2					
MAN 4 Security	2	2					
Ecology							
ECO 1 Ecological Value of Site	0	1	1	9	11.11	12	1.33
ECO 2 Ecological Enhancement	0	1					
ECO 3 Protection of Ecological Features	0	1					
ECO 4 Change of Ecological Value of Site	0	4					
ECO 5 Building Footprint	1	2					
	Level Achieved: 0		Total Points Scored: 33.69				

Evidence for ENE 1 (Dwelling Emission Rate)
Only Part L 2010 Building Regulations compliance achieved. 0 credits allocated
As the dwellings were constructed before the 2010 Part L Building Regulation changes a SAP assessment has not been undertaken. However as a pre 2010 Final Certificate has been issued for Building Regs and the main heating is supplied by an air source heat pump it is not unreasonable to assume that the SAP would show an improvement above Part L particularly as it would have been assessed using SAP 2005.
Assumptions for ENE 1

Evidence for ENE 2 (Fabric Energy Efficiency)
Not Sought 0 credits allocated
As a SAP is not availabe it is not possible to antipate what the FEE would be. However when the planning condition was imposed the development, if it had been registered for CSH at the time, would have been assessed against the May 2009 Code version. Ene 2 would then have given credits for the Heat Loss Parameter using SAP 2005. It is therefore reasonable to assume that some credits would have been achieved.
Assumptions for ENE 2

Evidence for ENE 3 (Energy Display Device)
Correctly specified display device showing current primary heating fuel consumption data. Correctly specified display device showing current consumption data.
It would be possible to retro- fit a correctly specified display device showing both primary Heating fuel and current consumption data. The cost of a unit is approximately £450 + VAT. However Ene 3 in the May 2009 CSH version gave credits for the proportion of Low Energy light fittings.
Assumptions for ENE 3

Evidence for ENE 4 (Drying Space)
Compliant external drying space
A rotary dryer could be fitted retrospectively in each garden to the correct CSH specifications to achieve these credits. In reality the occupants will most likely have already made suitable arrangements for external drying.
Assumptions for ENE 4

Evidence for ENE 5 (Energy Labelled White Goods)
A+ rated fridge & freezers or fridge/freezer A rated washing machine and dishwasher AND B rated washer-dryers & tumbles dryers, or EU energy efficiency labelling scheme leaflet where washing machines and/or dishwashers not provided
These credits could be achieved retrospectively by installing the correctly rated appliances. In reality the occupants will already have the appliances they need and these may or may not achieve the required energy efficiency rating.
Assumptions for ENE 5

Evidence for ENE 6 (External Lighting)
Compliant space lighting Compliant security lighting
These credits could be achieved retrospectively but space and security lighting is probably already installed. Without details of the specifications it is not possible to say if they are compliant with CSH.
Assumptions for ENE 6

Evidence for ENE 7 (Low or Zero Carbon Energy Technologies)
Credit(s) not sought or contribution of low or zero carbon technologies less than 10%
It is not possible to presume any credits for this issue wiithout an assessment.
Assumptions for ENE 7

Evidence for ENE 8 (Cycle Storage)
2 or 3 bedroom dwelling - Storage for 1 cycle per dwelling
There is insufficient space in the garage as shown for space for 4 cycles in addition to a car. It may be possible to achieve 2 credits if a correctly specified shed were to be erected in the garden.
Assumptions for ENE 8

Evidence for ENE 9 (Home Office)
Compliant home office
These credits could be achieved if a room with suitable daylighting were to be supplied with the correct connections as specified in the CSH Technical Guilde.
Assumptions for ENE 9

Evidence for WAT 1 (Internal Water Use)
Internal water use less than or equal to 105 litres per person per day
It would be possible to undertake a water calculation and changes could be made retrospectively but to this would be costly and disruptive.
Assumptions for WAT 1

Evidence for WAT 2 (External Water Use)
Compliant communal rainwater collection system
A rainwater butt could be retrospectively fitted to achieve these credits.
Assumptions for WAT 2

Evidence for MAT 1 (Environmental Impact of Materials)
Mandatory requirements met: At least 3 elements rated A+ to D, 7 credits scored
The evironmental impact of the materials could be calculated but it would be going against the intention of Code to replace elements of the building fabric if the development failed to meet the Code standard. It would also be costly, time consuming and disruptive.
Assumptions for MAT 1

Evidence for MAT 2 (Responsible Sourcing (Basic Building Elements))
Zero credits or credits not sought
This cannot be done retorspectively.
Assumptions for MAT 2

Evidence for MAT 3 (Responsible Sourcing (Finishing Elements))
Zero credits or credits not sought
This cannot be done retorspectively
Assumptions for MAT 3

Evidence for SUR 1 (Management of Surface Water Run-Off from Site)
Mandatory requirements not met. Credits not available
A hydrologists could be commisioned to prepare a report to assesses the surface water run off from the development and the flood risk of the site. It is reasonable to presume that the mandatory requirment of Sur 1 would be achieved but it is unlikely that the water quality is improved so no credits would be available.
Assumptions for SUR 1

Evidence for SUR 2 (Flood Risk)
Low flood risk - zone 1
This can be assessed but the cost of a Hydrologist to prepare a report would be disportionate to the outcome which is a matter of fact that cannot be changed.
Assumptions for SUR 2

Evidence for WAS 1 (Household Waste Storage and Recycling Facilities)
Mandatory requirements met: Adequate storage of household waste with accessibility in line with checklist WAS 1. Local authority collection: Before collection sorting with appropriate internal storage of recyclable materials
These credits can be achieved retrospectively but the changes required would be disruptive internally and the access to the external bins would have to be assessed.
Assumptions for WAS 1

Evidence for WAS 2 (Construction Site Waste Management)
Credit not sought
This cannot be done retorspectively
Assumptions for WAS 2

Evidence for WAS 3 (Composting)
Individual compositing facility/facilities
These credits could be achieved retropectively.
Assumptions for WAS 3

Evidence for POL 1 (Global Warming Potential of Insulants)
All insulants have a GWP of less than 5
This could be assessed but if any of the insulants have a GWP of more than 5 it would not be possible to make changes.
Assumptions for POL 1

Evidence for POL 2 (NOx Emissions)
Credit(s) not sought
This cannot be done retorspectively.
Assumptions for POL 2

Evidence for HEA 1 (Daylighting)
All rooms (kitchen, living, dining and where applicable the home office) have 80% of the working plane with direct light from the sky
This may or may not achieve some credits but as the windows cannot be changed retorspectively a report would be an additional cost and a paper exercise.
Assumptions for HEA 1

Evidence for HEA 2 (Sound Insulation)
Credit(s) not sought
The dwellings will have sufficient sound insulation in accordance with Building Regulations at the time but are unlikely to go above and beyond to satisfy CSH standards. This cannot be changed retorspectively.
Assumptions for HEA 2

Evidence for HEA 3 (Private Space)
Individual private space provided.
This cannot be changed retorspectively and but there is outdoor space so whether it is sufficient will have to be assessed.
Assumptions for HEA 3

Evidence for HEA 4 (Lifetime Homes)
Credits not sought
This cannot be done retorspectively.
Assumptions for HEA 4

Evidence for MAN 1 (Home User Guide)
All criteria inline with checklist MAN 1 Part 1 - Operational Issues will be met All criteria inline with checklist MAN 1 Part 2 - Site and Surroundings will be met
This can be done retorspectively but as the occupants are already familiar with the controls within the dwelling and the amenties in the surrounding area the reports would not provide any additional useful information. The cost of the report would be in the region of £600 + VAT and would be a paper exercise.
Assumptions for MAN 1

Evidence for MAN 2 (Considerate Constructors Scheme)
Credits not sought
This cannot be done retorspectively.
Assumptions for MAN 2

Evidence for MAN 3 (Construction Site Impacts)
Credit(s) not sought
This cannot be done retorspectively.
Assumptions for MAN 3

Evidence for MAN 4 (Security)
Secured by design section 1 & 2 compliant
This issue is on-going and being addressed.
Assumptions for MAN 4

Evidence for ECO 1 (Ecological Value of Site)
Credit not sought
This cannot be done retorspectively.
Assumptions for ECO 1

Evidence for ECO 2 (Ecological Enhancement)
This cannot be done retorspectively.
Assumptions for ECO 2

Evidence for ECO 3 (Protection of Ecological Features)
This cannot be done retorspectively.
Assumptions for ECO 3

Evidence for ECO 4 (Change of Ecological Value of Site)
This cannot be done retorspectively.
Assumptions for ECO 4

Evidence for ECO 5 (Building Footprint)
Housing ratio of 2.5:1
This can be assessed and may result in 1 credit being achieved.
Assumptions for ECO 5

Assessor Declaration

I Della Miller, can confirm that I have compiled this report to the best of my ability, I have based all findings on the information that is referenced within this report, and that this report is appropriate for the registered site.

To the best of my knowledge all the information contained within this report is correct and accurate. I have within my possession all the reference material that relates to this report, which is available for inspection by the client, the clients representative or Stroma Certification for Quality Assurance monitoring.

Signed:



Della Miller
Assent Building Control Ltd
12 June 2013

Information about Code for Sustainable Homes

The Code for Sustainable Homes (the Code) is an environmental assessment method for rating and certifying the performance of new homes. It is a national standard for use in the design and construction of new homes with a view to encouraging continuous improvement in sustainable home building. The Code is based on EcoHomes©.

It was launched in December 2006 with the publication of 'Code for Sustainable Homes: A stepchange in sustainable home building practice' (Communities and Local Government, 2006), and became operational in England from April 2007.

The Code for Sustainable Homes covers nine categories of sustainable design. Each category includes a number of environmental issues. Each issue is a source of impact on the environment which can be assessed against a performance target and awarded one or more credits. Performance targets are more demanding than the minimum standards needed to satisfy Building Regulations or other legislation. They represent good or best practice, are technically feasible, and can be delivered by the building industry. The issues and categories are as follows:

- Energy & CO2 Emissions
  - Dwelling Emission Rate
  - Building Fabric
  - Internal Lighting
  - Drying Space
  - Energy Labelled White Goods
  - External Lighting
  - Low or Zero Carbon Technologies
  - Cycle Storage
  - Home Office
- Water
  - Internal Water Use
  - External Water Use
- Materials
  - Environmental Impact of Materials
  - Responsible Sourcing of Materials - Basic Building Elements
  - Responsible Sourcing of Materials - Finishing Elements
- Surface Water Run-off
  - Management of Surface Water Run-off from the Development
  - Flood Risk
- Waste
  - Storage of Non-Recyclable Waste and Recyclable Household Waste
  - Construction Site Waste Management
  - Composting
- Pollution
  - Global Warming Potential of Insulants
  - NOx Emissions

- Health & Wellbeing
  - Daylighting
  - Sound Insulation
  - Private Space
  - Lifetime Homes
- Management
  - Home User Guide
  - Considerate Constructors Scheme
  - Construction Site Impacts
  - Security
- Ecology
  - Ecological Value of Site
  - Ecological Enhancement
  - Protection of Ecological Features
  - Change in Ecological Value of Site
  - Building Footprint

The Code assigns one or more performance requirements (assessment criteria) to all of the above environmental issues. When each performance requirement is achieved a credit is awarded (with the exception of the four mandatory requirements which have no associated credits). The total number of credits available to a category is the sum of credits available for all the issues within it.

Mandatory minimum performance standards are set for some issues. For four of these, a single mandatory requirement is set which must be met, whatever Code level rating is sought. Credits are not awarded for these issues. Confirmation that the performance requirements are met for all four is a minimum entry requirement for achieving a level 1 rating. The four un-credited issues are:

- Environmental Impacts of Materials
- Management of Surface Water Run-off from Developments
- Storage of Non-Recyclable Waste and Recyclable Household Waste
- Construction Site Waste Management

If the mandatory minimum performance standard is met for the four un-credited issues, four further mandatory issues need to be considered. These are agreed to be such important issues that separate Government policies are being pursued to mitigate their effects. For two of these, credits are awarded for every level of achievement recognised within the Code, and minimum mandatory standards increase with increasing rating levels.

The two issues with increasing mandatory minimum standards are:

- Dwelling Emission Rate
- Indoor Water Use

For one issue a mandatory requirement at Level 5 or 6:

- Fabric Energy Efficiency

The final issue with a mandatory requirement for Level 6 of the Code is:

- Lifetime Homes

Further credits are available on a free-choice or tradable basis from other issues so that the developer may choose how to add performance credits (converted through weighting to percentage points) achieve the rating which they are aiming for.

The environmental impact categories within the Code are not of equal importance. Their relative value is conveyed by applying a consensus-based environmental weighting factor (see details below) to the sum of all the raw credit scores in a category, resulting in a score expressed as percentage points. The points for each category add up to 100.

The weighting factors used in the Code have been derived from extensive studies involving a wide range of stakeholders who were asked to rank (in order of importance) a range of environmental impacts. Stakeholders included international experts and industry representatives.

It is also important to note that achieving a high performance in one category of environmental impact can sometimes result in a lower level of performance for another. For instance, if biomass is used to meet heating demands, credits will be available for performance in respect of energy supplied from a renewable source, but credits cannot be awarded for low NOX emission. It is therefore impossible to achieve a total percentage points score of 100.

The Code uses a rating system of one to six stars. A star is awarded for each level achieved. Where an assessment has taken place by where no rating is achieved, the certificate states that zero stars have been awarded:

Code Levels	Total Points Score (Equal to or Greater Than)
Level 1 ★☆☆☆☆☆	**36 Points**
Level 2 ★★☆☆☆☆	**48 Points**
Level 3 ★★★☆☆☆	**57 Points**
Level 4 ★★★★☆☆	**68 Points**
Level 5 ★★★★★☆	**84 Points**
Level 6 ★★★★★★	**90 Points**

Formal assessment of dwellings using the Code for Sustainable Homes may only be carried out using Certified assessors, who are qualified ‘competent persons’ for the purpose of carrying out Code assessments.

Energy & CO2 Emissions
ENE 1: Dwelling Emission Rate **Available Credits:**10 **Aim:**To limit CO2 emissions arising from the operation of a dwelling and its services in line with current policy on the future direction of regulations.
ENE 2: Fabric Energy Efficiency **Available Credits:**9 **Aim:**To improve fabric energy efficiency performance thus future-proofing reductions in CO2 for the life of the dwelling.
ENE 3: Energy Display Device **Available Credits:**2 **Aim:**To promote the specification of equipment to display energy consumption data, thus empowering dwelling occupants to reduce energy use.
ENE 4: Drying Space **Available Credits:**1 **Aim:**To promote a reduced energy means of drying clothes.
ENE 5: Energy Labelled White Goods **Available Credits:**2 **Aim:**To promote the provision or purchase of energy efficient white goods, thus reducing the CO2 emissions from appliance use in the dwelling.
ENE 6: External Lighting **Available Credits:**2 **Aim:**To promote the provision of energy efficient external lighting, thus reducing CO2 emissions associated with the dwelling.
ENE 7: Low or Zero Carbon Technologies **Available Credits:**2 **Aim:**To limit CO2 emissions and running costs arising from the operation of a dwelling and its services by encouraging the specification of low and zero carbon energy sources to supply a significant proportion of energy demand.
ENE 8: Cycle Storage **Available Credits:**2 **Aim:**To promote the wider use of bicycles as transport by providing adequate and secure cycle storage facilities, thus reducing the need for short car journeys and the associated CO2 emissions.
ENE 9: Home Office **Available Credits:**1 **Aim:**To promote working from home by providing occupants with the necessary space and services thus reducing the need to commute.

Water
WAT 1: Indoor Water Use **Available Credits:**5 **Aim:**To reduce the consumption of potable water in the home from all sources, including borehole well water, through the use of water efficient fittings, appliances and water recycling systems.
WAT 2: External Water Use **Available Credits:**1 **Aim:**To promote the recycling of rainwater and reduce the amount of mains potable water used for external water uses.

Materials
MAT 1: Environmental Impact of Materials **Available Credits:**15 **Aim:**To specify materials with lower environmental impacts over their life-cycle.
MAT 2: Responsible Sourcing of Materials - Basic Building Elements **Available Credits:**6 **Aim:**To promote the specification of responsibly sourced materials for the basic building elements.
MAT 3: Responsible Sourcing of Materials - Finishing Elements **Available Credits:**3 **Aim:**To promote the specification of responsibly sourced materials for the finishing elements.

Surface Water Run-off
SUR 1: Management of Surface Water Run-off from developments **Available Credits:**2 **Aim:**To design surface water drainage for housing developments which avoid, reduce and delay the discharge of rainfall run-off to watercourses and public sewers using SuDS techniques. This will protect receiving waters from pollution and minimise the risk of flooding and other environmental damage in watercourses.
SUR 2: Flood Risk **Available Credits:**2 **Aim:**To promote housing development in low flood risk areas, or to take measures to reduce the impact of flooding on houses built in areas with a medium or high risk of flooding.

Waste
WAS 1: Storage of non-recyclable waste and recyclable household waste **Available Credits:**4 **Aim:**To promote resource efficiency via the effective and appropriate management of construction site waste.
WAS 2: Construction Site Waste Management **Available Credits:**3 **Aim:**To promote resource efficiency via the effective and appropriate management of construction site waste.
WAS 3: Composting **Available Credits:**1 **Aim:**To promote the provision of compost facilities to reduce the amount of household waste send to landfill.

Pollution
POL 1: Global Warming Potential of Insulants **Available Credits:**1 **Aim:**To promote the reduction of emissions of gases with high GWP associated with the manufacture, installation, use and disposal of foamed thermal and acoustic insulating materials.
POL 2:NOx Emissions **Available Credits:**3 **Aim:**To promote the reduction of nitrogen oxide (NOX) emissions into the atmosphere.

Health & Wellbeing
HEA 1: Daylighting **Available Credits:**3 **Aim:**To promote good daylighting and thereby improve quality of life and reduce the need for energy to light the home.
HEA 2: Sound Insulation **Available Credits:**4 **Aim:**To promote the provision of improved sound insulation to reduce the likelihood of noise complaints from neighbours.
HEA 3: Private Space **Available Credits:**1 **Aim:**To improve quality of life by promoting the provision of an inclusive outdoor space which is at least partially private.
HEA 4: Lifetime Homes **Available Credits:**4 **Aim:**To encourage the construction of homes that are accessible and easily adaptable to meet the changing needs of current and future occupants.

Management
MAN 1: Home User Guide **Available Credits:**3 **Aim:**To promote the provision of guidance enabling occupants to understand and operate their home efficiently and make the best use of local facilities.
MAN 2: Considerate Constructors Scheme **Available Credits:**3 **Aim:**To promote the environmentally and socially considerate, and accountable management of construction sites.
MAN 3: Construction Site Impacts **Available Credits:**2 **Aim:**To promote construction sites managed in a manner that mitigates environmental impacts.
MAN 4: Security **Available Credits:**2 **Aim:**To promote the design of developments where people feel safe and secure- where crime and disorder, or the fear of crime, does not undermine quality of life or community cohesion.

Ecology
ECO 1: Ecological value of site **Available Credits:**1 **Aim:**To promote development on land that already has a limited value to wildlife, and discourage the development of ecologically valuable sites.
ECO 2: Ecological enhancement **Available Credits:**1 **Aim:**To enhance the ecological value of a site.
ECO 3: Protection of ecological features **Available Credits:**1 **Aim:**To promote the protection of existing ecological features from substantial damage during the clearing of the site and the completion of construction works.
ECO 4: Change in ecological value of site **Available Credits:**4 **Aim:**To minimise reductions and promote an improvement in ecological value.
ECO 5: Building footprint **Available Credits:**2 **Aim:**To promote the most efficient use of a building’s footprint by ensuring that land and material use is optimised across the development.

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