Local Plan Monitoring Paper: **Sustainable Development and Climate Change**

Local Authority: City of London

Monitoring date: 31st March 2019

Core Strategic Policy CS15: Sustainable Development and Climate Change.

Published by the Department of the Built Environment,

April 2020

Contents

Executive Summary

Sustainability sets out the quality of not being harmful to the environment or depleting natural resources, and thereby supporting long term ecological balance.

The City of London Local Plan Core Strategic Policy CS15 Sustainable Development and Climate Change sets out how the City will enable city business and residents to make sustainable choices in their daily activities creating a more sustainable city. Thus, policy includes reference to a range of themes including:

- BREEAM assessments,
- Carbon emissions
- Energy use,
- Assessment of air quality.

Since its introduction in 1990 the BREEAM system of rating commercial buildings for their level of sustainability has become an industry standard.

BREEAM aims to raise awareness of the benefits of sustainable buildings and adoption of sustainable solutions. The high level of recognition of this standard has resulted in potential occupiers looking to take up space in office buildings with better ratings – as this can provide lower running costs as well as a healthy work environment for employees.

Most developments in the City of London have achieved a 'Very Good' assessment at both pre-assessment and post construction stages. New build office development is far more likely to receive an 'Excellent' BREEAM assessment rating than office refurbishment developments. The main reason for this is that new build developments have far greater scope to implement sustainability measures.

The demand for office buildings with high BREEAM scores has led to developers aiming to achieve higher scores and heavily promoting high BREEAM ratings in marketing material. In line with Policy CS15 a significant number of permissions (75%) for new developments over 10,000m^2 of B1 floorspace since 1st April 2014, are set to achieve an 'Excellent' rating. As at March 2019 one building in the City of London had met the 'Outstanding' BREEAM rating, this was the Bloomberg development.

In terms of the categories used in the assessment criteria, energy has tended to receive a relatively low level of BREEAM credits compared to higher levels of credits achieved for pollution and use of water.

Redevelopment provides an opportunity to improve the energy and carbon performance of individual buildings in the City of London. Adopted planning policies have evolved with aim of minimising carbon emissions through carbon reduction targets set out in the London Plan. Any shortfall in the delivery of minimising the carbon reduction is accounted for by an offset payment to the City Corporation through a section 106 Agreement. As at 31st March 2019 a balance of £250,000 had been paid by eight schemes which did not meet the carbon reduction evaluation criteria. Six schemes met the assessment criteria. The regulated carbon emissions were primarily delivered through the Be Lean criteria with a small level of reductions delivered through the Green assessment criteria.

Energy assessments shows a decreasing level of energy consumption in the City of London. This is consistent with energy use trends in Greater London. The prime energy fuel type is electricity.

1. Policy Context

This report focuses on analysis of data available which enables the City Corporation to analyse the delivery of sustainability through development schemes. Sustainability is defined as:

"The quality of not being harmful to the environment or depleting natural resources, and thereby supporting long-term ecological balance".

The City of Local Plan Core Strategic Policy CS15: Sustainable Development and Climate Change sets the policy relating to Sustainable Development and Climate Change.

Core Strategic Policy CS15: Sustainable Development and Climate Change

To enable City businesses and residents to make sustainable choices in their daily activities creating a more sustainable City, adapted to the changing climate by;

1. Requiring all development proposals to demonstrate the highest feasible and viable sustainability standards in the design, construction, operation and "end of life" phases of development. Proposals for major development should aim to achieve a BREEAM rating of "Excellent" or "Outstanding". Residential development should aim to achieve a minimum standard of Code for Sustainable Homes level 4, rising to level 6 by 2016 in line with Government targets.

2. Requiring development to minimise carbon emissions and contribute to a City-wide reduction in emissions:
   - (i) Adopting energy-efficiency measures;
   - (ii) Enabling the use of decentralised energy, including the safeguarded Citigen Combined Cooling Heating and Power (CCHP) network, CCHP-ready designs in areas where CCHP networks are not yet available, and localised renewable energy technologies;
   - (iii) Adopting offsetting measures to achieve the Government's zero carbon targets for buildings.

3. Avoiding demolition through the reuse of existing buildings or their main structures, and minimising the disruption to business and residents, using sustainably sourced materials and conserving water resources.

4. Requiring development to positively address:
   - (i) Local air quality, particularly Nitrogen Dioxide and particulates PM_{10} (the City's Air Quality Management Air Pollutants);
   - (ii) Protection of the City's quiet areas and quiet times of day for businesses (daytime) and residents (night-time);
   - (iii) The need to limit the City's contribution to light spillage and 'sky glow';
   - (iv) Water quality and flood risk particularly in areas at risk of sewer flooding;

(v) Land contamination, ensuring development does not result in contaminated land;

(vi) The need to enhance biodiversity and provide for its conservation and enhancement, particularly for the City's flagship species and the City's priority habitats (urban green spaces, churchyards and cemeteries, built structures and the tidal Thames)

5. Incorporating climate change adaptation measures into development and the City's infrastructure, including street scene, transport and utility infrastructure, social and emergency infrastructure, and heritage assets, having regard to the need to protect their historic significance.

This report includes an analysis of:

- BREEAM assessments: assessing pre and post application stages and focussing on the City's four key credit criteria of, energy, pollution, water and materials.
- How development is minimising carbon emissions and contributing to the City-wide reduction in emissions through carbon assessments.
- The evaluation of energy use in the City of London.
- Assessment of air quality in the City of London.

With regards to the need to enhance biodiversity for its conservation and enhancement, a range of delivery has been achieved through the provision of open spaces and green roofs which is analysed in the respective monitoring reports relating to these topics.

2. BREEAM Assessments

What is BREEAM?

Building Research Establishment Environmental Assessment Method (BREEAM).

BREEAM is an internationally recognised sustainability rating scheme used in building design, construction and use. BREEAM aims to help clients measure and reduce the environmental impact of their building.

Introduction

The City of London Local Plan 2015 Core Strategic Policy CS15: Sustainable Development and Climate Change sets the context for developing the monitoring programme in association with the development management Policy DM15.1 Sustainability Requirements (set out below).

Policy DM 15.1 Sustainability Requirements

1. Sustainability Statements must be submitted with all planning applications in order to ensure that sustainability is integrated into designs for all development.
2. For major development (including new development and refurbishment) the Sustainability Statement should include as a minimum:
    - BREEAM or Code for Sustainable Homes pre-assessment;
    - An energy statement in line with London Plan requirements;
    - Demonstration of climate change resilience measures.
3. BREEAM or Code for Sustainable Homes assessments should demonstrate sustainability in aspects which are of particular significance in the City's high-density urban environment. Developers should aim to achieve the maximum possible credits to address the City's priorities.
4. Innovative sustainability solutions will be encouraged to ensure that the City's buildings remain at the forefront of sustainable building design. Details should be included in the Sustainability Statement.
5. Planning conditions will be used to ensure that Local Plan assessment targets are met.

[1] The code for Sustainable Homes was withdrawn by Government in March 2015.

An explanation of the BREEAM assessments in the context of the City of London is set out in Appendix 1.

Evaluation of BREEAM Assessments

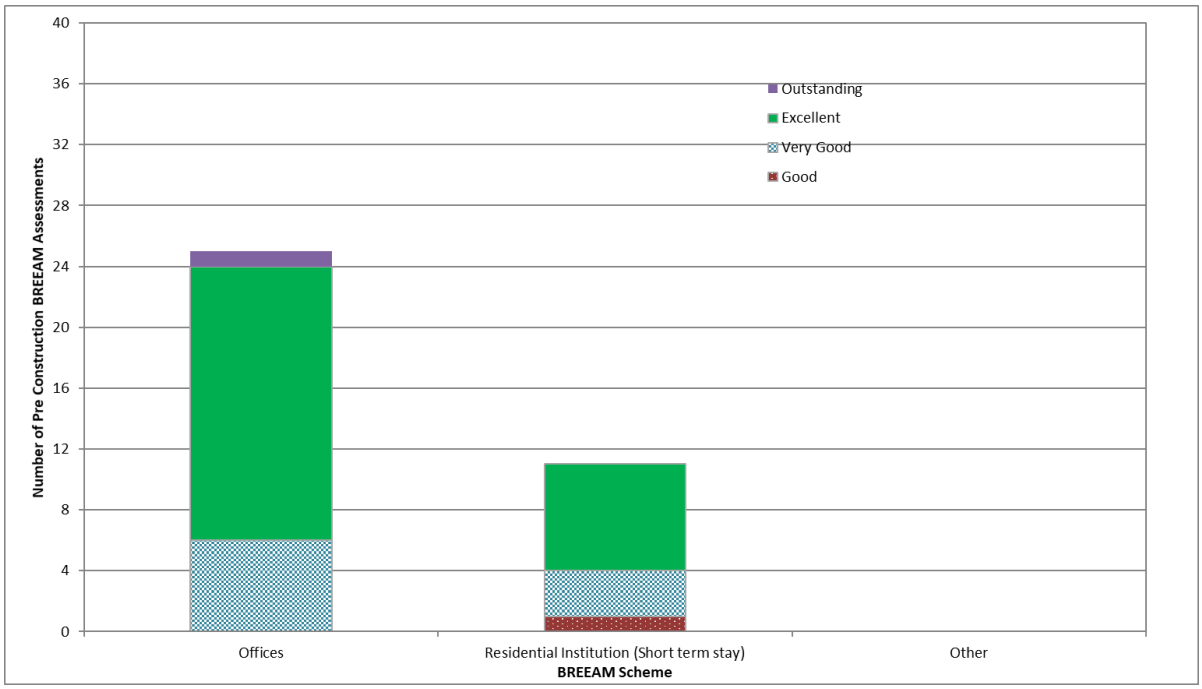
Developers are required to submit a BREEAM pre-assessment as part of the planning application for all major development. This section analyses:

- The number of scheme pre-assessments (under construction);
- An analysis of BREEAM schemes by type of development.

Appendix 2 sets out for completed schemes in the period 2011/12 to 2018/19 details of BREEAM assessments including:

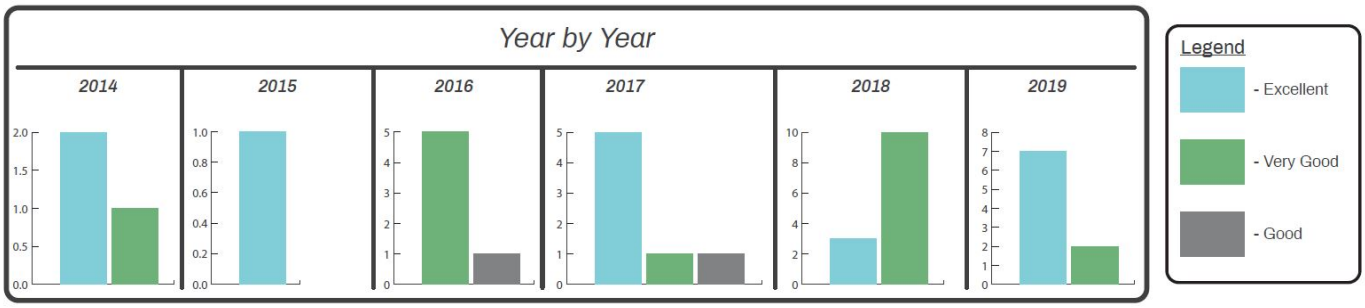
- Financial year of completion,
- Planning application Reference,
- Address,
- Other known address where applicable,
- BREEAM version,
- Development Type
- Pre-Assessment Rating,
- Post Construction Rating (where available).

Graph 1 shows the number of BREEAM pre-assessments in the City of London and their BREEAM ratings arranged by type of BREEAM scheme (1st April 2011 – 31st March 2019), detailing Offices, Residential Institutions (Short term stays), and Other (Domestic, Non-Domestic and Retail).



Graph 1: Number of BREEAM pre-assessments 2011/12 to 2018/19

This number may seem low, but for most BREEAM related schemes, data is submitted to discharge conditions on the original decision. Since 1st April 2011 there have been 59 BREEAM pre-assessments in the City of London, on schemes which have been marked as under construction or are already complete. A total of 3 pre-assessments were submitted since the date of the last monitoring report (1st April 2018 to 31st March 2019).



The time series Infographics 1 sets out how many pre-assessments have been received per year and the amount within each BRE ranking.

Infographic 1: Time series of assessments received per year and BREEAM rating

It is hard to gather if there is any trend year on year, one positive is that the number of Excellent ratings is high despite the criteria getting harder with each version of BREEAM. The rating achieved will often depend on the whether the scheme is for refurbishment or new build. For example, for sites that are Listed Buildings and/or located in Conservation Areas there is a high level of refurbishment instead of new build and schemes are likely to achieve a "Very Good" rating. For new build development, the City Corporation now imposes planning conditions requiring a minimum rating of BREEAM "Excellent".

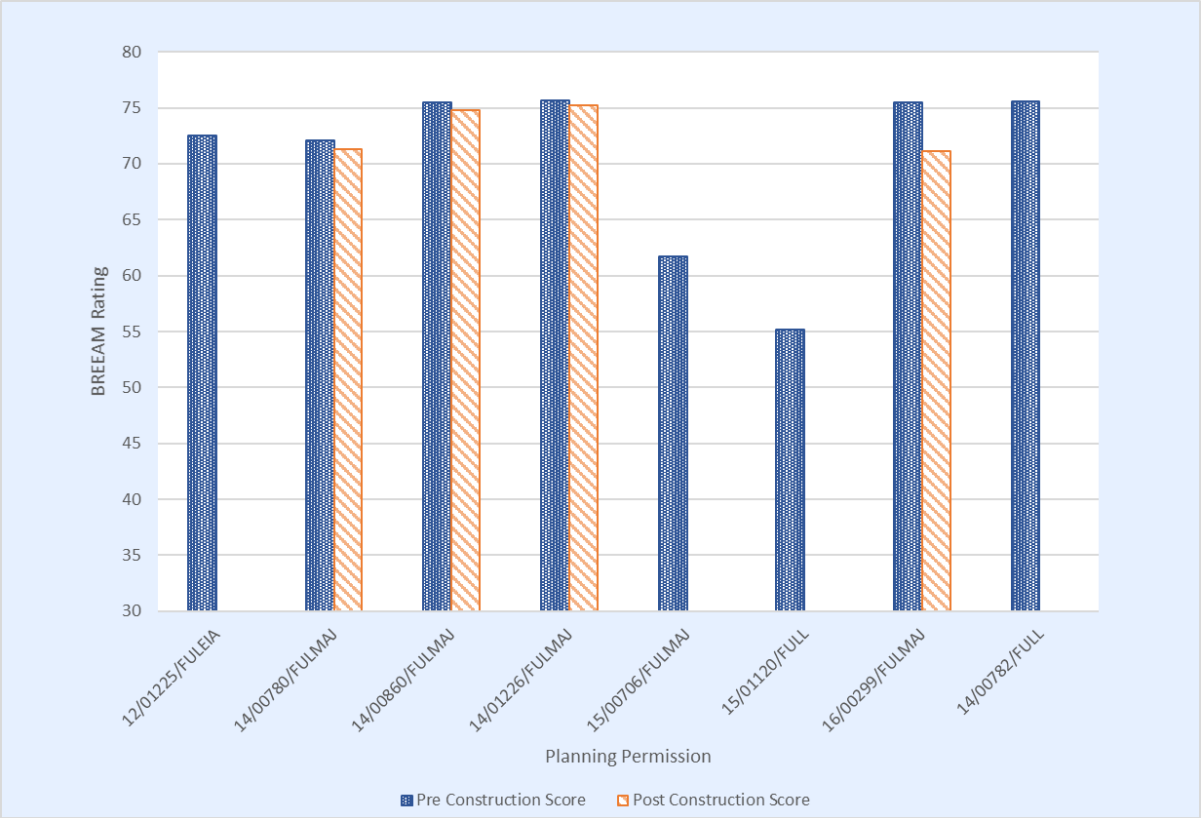
BREEAM pre-assessments for schemes currently Under Construction at 31/03/2019

Graph 2: BREEAM pre-assessment score for schemes under construction schemes at 31/03/2019

Graph 2 sets out the pre-assessment scores for schemes under construction as at 31/03/2019, showing the BREEAM pre-assessment rating value against the benchmarks of Good, Very Good, Excellent and Outstanding. There were 13 schemes under construction with 5 looking to achieve an Excellent rating.

BREEAM Post Construction Assessment

The City of London introduced a planning condition in 2016 which requires a post construction stage BREEAM assessment to be submitted upon completion of the scheme. This enables an evaluation of the pre and post assessment scores. Post construction assessments are often slightly delayed and follow the submission of an application to discharge a condition. The City Corporation expect a target rating of 'Excellent' and, if not, that all reasonable endeavours have been used to achieve an 'Excellent' rating.



Graph 3: Completed schemes in 2019 with an excellent pre-score: comparison to post construction certificate received.

Graph 3 sets out post construction assessments in 2019 for developments including a comparison with the pre-construction assessment. The graph shows that developments normally achieve the same BREEAM rating as assessed at pre-assessment stage.

A total of 8 office schemes have been completed in the period since the last report (1st April 2018 – 31st March 2019). An example is Walsingham House, an office refurbishment with a two-storey extension which achieved a score of 75.2% at post construction stage. This was the highest for the reporting period, delivering good scores in transport, materials, water and waste.

Environmental (Sustainability) Categories

The Building Research Establishment (BRE) website sets out how BREEAM operates:

"BREEAM assessment measures sustainable value in a series of categories, ranging from energy to ecology. Each of these categories addresses the most influential factors, including low impact design and carbon emissions reduction; design durability and resilience; adaptation to climate change; and ecological value and biodiversity protection. Within every category, developments score points - called credits – for achieving targets, and their final total determines their rating."

In order to assess buildings accurately BREEAM provides Environmental Weightings within the nine main sustainability categories which are used to determine the overall BREEAM score. A tenth category (Innovation) was introduced in 2008 to make 'additional credits' available which fall outside the standard BREEAM assessment issues and criteria. If developments go above and beyond sustainable best practice in certain areas, then innovation credits are applied.

BREEAM credits can be traded through a 'balanced score-card' approach in order to achieve the target BREEAM rating of a building's performance. However minimum standards of performance are set in key areas such as energy and water and mandatory credits are required to achieve higher BREEAM ratings in order that environmental standards are maintained.

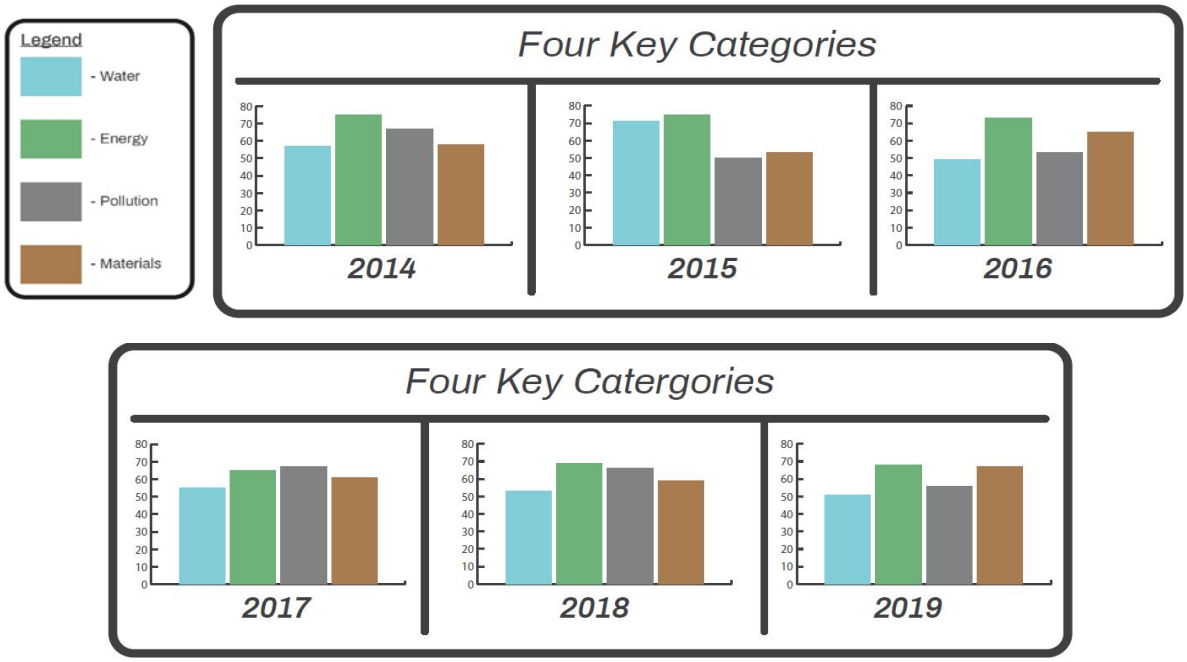
The City Corporation monitors all nine main sustainability categories but takes a key interest in monitoring four of the key categories.

Key BREEAM Categories Monitored by the City Corporation	Remaining BREEAM Categories
Water	Land Use & Ecology
Energy	Transport
Pollution	Management
Materials	Health and Wellbeing
	Waste

Key Categories; Energy, Pollution, Water & Materials

This section analyses the credits for the four key categories in the context of the City of London – energy, pollution, water and materials analysing data relating to these categories to provide an indication of how these categories are performing. This is set out in Infographic 2. This analyses each of the prime criteria on a year by year basis.

No specific trends can be identified, but a score of at least 50% is being achieved in each of the four key categories. Changes in the BREEAM scheme in 2014 and 2018 have made it more difficult to achieve some criteria credits and these changes will be reflected in the criteria from 2015/16 and from 2019/20.



Infographic 2: Year by year breakdown of pre-assessments received and averages for the four main categories

Water:

Due to the effects of climate change, extreme weather events such as flash flooding, drought and heat waves are set to become more frequent. The City of London is in an area of serious water stress, making it vulnerable to such occurrences.

The City of London needs to develop resilient sustainability measures to respond to the risk of flooding, for example the City has carried out work on green roofs. The risk of flooding in the City is low but some areas are vulnerable to flash flooding and the flood defence walls will need to increase in height to mitigate against rising sea levels.

Energy:

Due to the high number of credits in this section, it is often not a key target for developers.

Pollution:

The City of London has been declared an Air Quality Management Area because of high levels of nitrogen dioxide and particulates (PM10) due to transport emissions and high-density development in central London. The scores average at 59% overall.

Materials

The level of development in the City means that reducing embodied carbon in buildings and resource efficiency are key to the sustainability of property in the Square Mile. The materials credits will assist in the development of circular economy approaches in the City.

Other Categories

Due to the City's location, Transport, Waste and Land Use & Ecology credits are often seen as easier to achieve and hence have performed at above 90% in Transport, 60% in Waste and 75% in Land Use & Ecology since 2011. Management and Health and Wellbeing are becoming increasingly important in the new 2018 BREEAM criteria and will be continued to be monitored.

The innovation category is one that is hard to achieve as once someone has implemented an innovative credit on their development, future developments can no longer claim credits for the same innovation. The Bloomberg building in the City achieved Innovation credits and is the only scheme in the City so far to achieve an Outstanding rating.

3. Carbon Assessments

Policy Background

Buildings are responsible for over 76% of the carbon emissions within Greater London[1] with commercial buildings responsible for most emissions in the City of London.

Redevelopment presents an opportunity to improve the energy and carbon performance of individual buildings and the City as a whole. Adopted planning policies in the London Plan and City of London Local Plan have evolved in the last decade with the aim to secure carbon reduction, moving towards zero carbon buildings from 2020.

London Plan

The London Plan sets out policy for minimising carbon dioxide emissions.

London Plan Policy 5.2 Minimising Carbon Dioxide emissions

Planning decisions

A Development proposal should make the fullest contribution to minimising carbon dioxide emissions in accordance with the following energy hierarchy:

1. Be lean: use less energy
2. Be clean: supply energy efficiently
3. Be green: use renewable energy

B The Mayor will work with boroughs and developers to ensure that major developments meet the following targets for carbon dioxide emissions reduction in buildings. These targets are expressed as minimum improvements over the Target Emission Rate (TER) outlined in the national Building Regulations leading to zero carbon residential buildings from 2016 and zero carbon non-domestic buildings from 2019.

……see London Plan for further details…….

For new development, where developers are unable to meet London Plan carbon reduction targets on-site, the shortfall can be accounted for through a carbon offsetting financial contribution to the relevant borough which is secured through a S106 agreement. This requires London Planning Authorities to:

- Set out a carbon offset fund that is ring fenced to secure delivery of carbon savings.
- Set a price for carbon i.e. per price per annual tone of Carbon, that developers pay to make up any shortfall in on site carbon reductions, securing contributions through Section 106 agreements.
- Identify a suitable range of projects that can be funded through the carbon offsetting fund.
- Put in place a suitable monitoring procedure to enable reporting to the GLA.

[1] https://www.london.gov.uk/sites/default/files/london_environment_strategy.pdf

The London Plan requires that the carbon offsetting contribution must be ring fenced to deliver carbon reduction elsewhere. There is no requirement to deliver equivalent carbon savings to offset the development's shortfall over a 30-year period (known as carbon equivalence).

A carbon offsetting contribution is payable where development is unable to meet carbon emission reduction targets on site. Within the City of London this requirement has been applied to planning applications from 2014 (which included previous schemes with significant variation in design) as set out in the London Plan and the Mayor's Sustainable Design and Construction Supplementary Planning Guidance 2014 (SD&C SPG).

Current Guidelines are set out in the GLA Energy Assessment Guidance, published October 2018.

City of London Planning Policy

Requirements for development to minimise carbon emissions and contribute to a City-wide reduction in emissions were initially set out in City of London Local Development Framework Core Strategy adopted September 2011. This included adopting offsetting measures to achieve the Governments' zero carbon targets for buildings.

The Core Strategy was superseded by City of London Local Plan which was adopted in 2015 incorporating the carbon assessment guidelines set out by the GLA.

The City of London Corporate Plan commits the City to:
"Provide a clean environment and drive down the negative effects of our own activities" as part of a longer-term aim to move to a Zero Carbon Emissions City.

The City of London Local Plan requires carbon offsetting contributions on major development, where the energy strategy shows that the development will be unable to meet the London Plan carbon targets. This is set out in Core Strategic Policy CS15 and the associated Development Management Policies.

Core Strategic Policy CS15: Sustainable Development and Climate Change

To enable City businesses and residents to make sustainable choices in their daily activities creating a more sustainable City, adapted to the changing climate, by:

1. Requiring development to minimise carbon emissions and contribute to a City wide reduction in emissions: (i) adopting energy-efficiency measures; (ii) enabling the use of decentralised energy, including the safeguarded Citigen Combined Cooling Heating and Power (CCHP) network, CCHP ready designs in areas where CCHP networks are not yet available, and localised renewable energy technologies; (iii) adopting offsetting measures to achieve the Government's zero carbon targets for buildings.

Policy DM 15.2 Energy and CO2 emissions assessments

1. Development design must take account of location, building orientation, internal layouts and landscaping to reduce likely energy consumption.
2. For all major development energy assessments must be submitted with the application demonstrating:

- energy efficiency – showing the maximum improvement over current Building Regulations to achieve the required Fabric Energy Efficiency Standards;
- carbon compliance levels required to meet national targets for zero carbon development using low and zero carbon technologies, where feasible;
- where on-site carbon emission reduction is unviable, offsetting of residual CO2 emissions through 'allowable solutions' for the lifetime of the building to achieve national targets for zero-carbon homes and non-domestic buildings. Achievement of zero carbon buildings in advance of national target dates will be encouraged;
- anticipated residual power loads and routes for supply.

Policy DM15.4 Offsetting of carbon emissions

1. All feasible and viable on-site or near-site options for carbon emission reduction must be applied before consideration of offsetting. Any remaining carbon emissions calculated for the lifetime of the building that cannot be mitigated onsite will need to be offset using 'allowable solutions'.
2. Where carbon targets cannot be met on-site the City Corporation will require carbon abatement elsewhere or a financial contribution, negotiated through a S106 planning obligation, to be made to an approved carbon offsetting scheme.
3. Offsetting may also be applied to other resources including water resources and rainwater run-off to meet sustainability targets off-site where on-site compliance is not feasible.

The City Corporation has set up a "Carbon Fund" to receive offsetting payments. This is set out within the framework of the London Plan and associated guidance documents. This requires that offsetting payments must be ring fenced to implement carbon reduction projects elsewhere.

The London Plan and the City's Local Plan set targets for carbon emission reduction through development relative to Building Regulations requirements.

The Evolving Assessment Criteria for the Financial Contributions

Where carbon offset payments are required, the level of payments will be calculated based on guidance set out in the City of London Planning Obligations Supplementary Planning Document.

The carbon offsetting contribution is calculated using the following formula based on assessments set out in the development's Energy Strategy. It is calculated based on a post construction assessment based upon the relevant details set out in the Building Control Regulations and associated Energy Statements:

Carbon Off Set Contribution = (T- R) ×Y×Z

Where:
T is the target reduction in carbon dioxide emissions (tonnes CO_2)
R is the actual reduction in carbon dioxide emissions (tonnes CO_2)
Y is the number of years for which the contribution is payable, being 30 years
Z is the cost of carbon per tonne taken from the Mayor's Sustainable Design & Construction SPG (paragraph 2.5.12) being £nn per tonne of carbon dioxide

The legal obligation to pay relevant financial contributions is set out in an associated Section 106 Agreement.

Carbon Assessments for Completed Schemes

The schemes subject to the carbon assessments in the City of London are evaluated upon completion of the development works through the submitted Energy Statement required as part of the Planning Obligations. The financial year 2018/19 was the first phase of schemes being assessed upon completion. A summary of the submitted statements is set out in Table 1.

Carbon Assessments	Financial Year 2018/19
Not meet Criteria	
Payment Received	6
Payment Assessment in progress at 31st March 2019	1
Contributions through an offset project elsewhere	1
London Plan Carbon Targets Met	8
Total	16

Table 1: Evaluation of the Carbon Assessments by Financial Year

For the schemes that did not meet assessment criteria and are subject to a carbon offsetting payment, the City Corporation has set up a "Carbon Fund" to receive offsetting payments and manage expenditure. Table 2 sets out the income, expenditure, net balance carried forward analysed by financial year. The year 2018/19 was the first year income payments were due on the completion of schemes. Thus, it was not until the end of the year 2018/19 that funds became sufficient to deliver any associated carbon offsetting projects.

Contributions and Expenditure	Financial Year
	2018/19
	£
Opening Balance	0
Contribution	250,140
Expenditure	0
Closing Balance	250,140

Table 2: Summary of Carbon Assessment Financial Contributions and Expenditure

Details of the respective schemes are set out in Appendix 3, setting out:

- Completed Schemes where payments were received in 2018/19,
- Completed schemes where the payment was in progress as at the end of the year 31st March 2019,
- Carbon Assessment Contribution delivered through an offset project elsewhere. This includes cases where developers can in agreement with the local planning authority directly fund an offsetting measure. Such measures should aim to have either carbon or financial equivalence to the carbon savings that would otherwise be required on the development site. Within the City of London this applied to the planning permission 14/01251/FULMAJ where payment was made directly to the "Trees for Cities" project in July 2017.

- London Plan Carbon Targets met.

Energy Assessments for Completed Schemes

The Energy Statements for development schemes set out how the respective schemes seek to achieve the regulated carbon emissions set against the relevant Building Regulations applicable at the time of the application.

The London Plan carbon targets have evolved over time. A summary is set out in Table 3.

Applicable to Planning Application Dated	London Plan carbon targets baseline	Carbon Target Reduction (T)	Carbon price per Tonne £ (Z)	Details
From July 2011	Building Regulations Part L2A 2010	25	60	First set of targets implemented
From October 2013	Building Regulations Part L2A 2010	40	60	Revised target reduction
From April 2014	Building Regulations Part L 2013	35	60	Broadly equivalent to 40% in 2010 Regulations
Date after the adoption of the current Draft London Plan	Building Regulations Part L 2013	100	95	To be implemented upon adoption of revised London Plan

Table 3: Carbon Assessments and relevant Building Regulations

Appendix 3 includes at the planning application stage of the scheme:

- Carbon Target baseline applicable
- Carbon Target reduction
- Application stage calculation from the assessment
- Completion stage calculation from the assessment

This sets out an evolving framework for the baseline and targets applicable at planning application stage. Over time, it has become a more significant challenge to meet carbon reduction criteria as standards have increased. Thus, it is difficult to evaluate the relevant schemes against a consistent baseline. The clear factor is that schemes permitted in the later phases are more likely to be subject to higher levels of carbon reduction and potential offset payment.

The Energy Hierarchy

The energy assessments set out the concept of applying an energy hierarchy of

Be Lean ->

Be Clean->

Be Green.

Specific guidance is set out in the Energy Planning, Greater London Authority guidance on preparing energy assessments (March 2016). Table 4 summarises some of key factors relevant within the City of London.

Energy Hierarchy	Be Lean ->	Be Clean ->	Be Green
The Assessment	The passive design measures	Once the demand for energy has been minimised, the space heating and cooling energy demands should be accurately assessed and demonstrated.	Renewable energy technologies
Examples	Optimising orientation, natural ventilation and lighting, thermal mass and solar shading, and active design measures, including high efficacy lighting and efficient mechanical ventilation with heat recovery.	Combined Heat and Power System (CHP) including the Citigen Tri-generation network or connection to a decentralised energy network	Photovoltaics

Table 4: Energy Hierarchy

For completed schemes in 2018/19, the Energy Hierarchy[2] is analysed with reference to the Energy Statements at application stage, and not completion stage. An example relevant to planning permission 13/00339/FULMAJ is set out in Table 5.

[2] Note: for some of the earlier approved schemes in the Energy Assessment data is not available.

Planning Permission	13/00339/FULMAJ
Site Details:	39-53 Cannon Street, 11-14 Bow Lane and Watling Court
BREEAM Baseline	Building Regulations Part L2A 2010
Carbon Target	25.0%
Application Stage Be Lean	26.6%
Application Stage Be Clean	26.6%
Application Stage Be Green	27.2%
Payment required	£0

Table 5: Example of the Energy Hierarchy

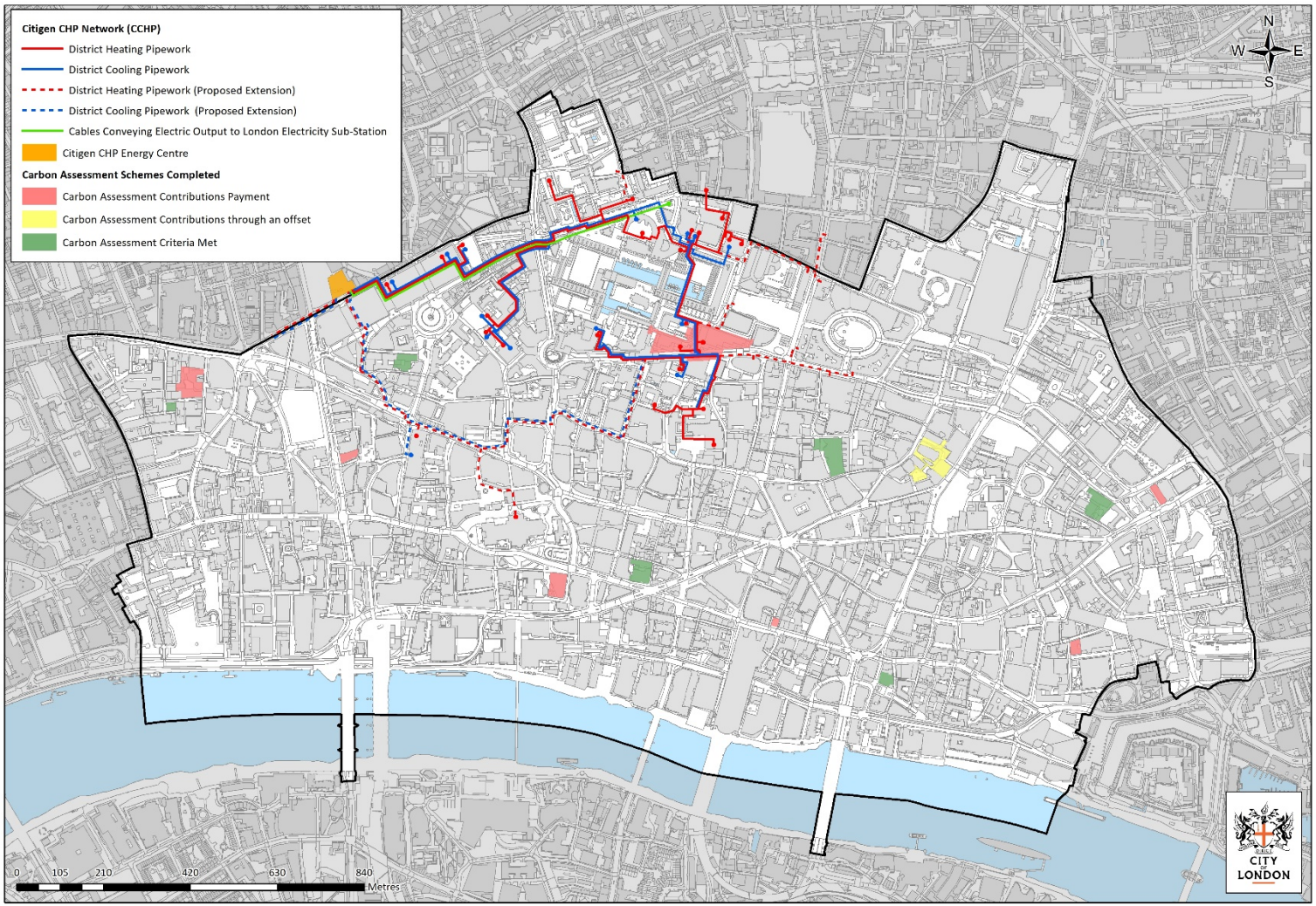
The regulated carbon emissions were primarily delivered through the Be Lean criterion with a focus on the examples of optimising orientation, natural ventilation and lighting, thermal mass and solar shading, and active design measures, including high efficacy lighting and efficient mechanical ventilation with heat recovery.

Contributions under Be Clean were low. The developer had investigated the potential to link to the Citigen Combined Heat and Power network or an option for connection to new District Heating networks in the vicinity of the development.

Small scale contributions under Be Green were delivered through a range of photovoltaic rooftop applications, including solar heating

Spatial Distribution of Completed Schemes Subject to Carbon Contributions

The Be Clean element of the Carbon Assessment includes utilising examples of energy services delivered through Combined Heat and Power Systems (CHP) such as the Citigen Tri-generation network or connection to a decentralised energy network. Map 1 sets the spatial distribution of completed schemes subject to Carbon Assessments set with the context of the Citigen CHP Network. This shows that only one of the relevant schemes was in the immediate locality of the District Heating and Cooling network. A consistent theme in the assessment for each of the sites was the practicality of linking energy provision to the current network.



Map 1: Carbon Assessment Schemes and the Citigen CHP Network

Evaluation of the City of London Carbon Offsetting Fund Projects Delivery

The Mayor of London's Sustainable Design and Construction Supplementary Planning Guidance states that "it is essential that boroughs identify a suitable range of projects that can be funded through the carbon dioxide off-set fund" (paragraph 2.5.18) and that "preference should be given to retrofitting publicly owned property as this would provide wider community benefit" (paragraph 2.5.19). There is no requirement to deliver equivalent carbon savings to offset the development's shortfall over a 30-year period (known as carbon equivalence).

The City of London's Carbon Fund is programmed to be used for carbon reduction projects on City Corporation owned properties (excluding investment properties) where the widest community benefit can be achieved and where measures will deliver carbon reductions additional to those which could otherwise be achieved. The projects are managed by the City Surveyor's Corporate Energy Team and a project plan will be developed in 2019/20 setting out proposals for use of funds accrued by the end of 2018/19.

Due to the current level of funds available, the City Corporation is taking a proportionate approach to the choice of carbon reduction projects. This focuses on the City Corporation's operational properties within the City boundary where will be a public benefit and funding the projects where the City Corporation can deliver the highest levels of carbon reductions. The GLA has set out detailed guidance which may be used in future to prioritise projects.

4. Air Quality

Policy DM 15.6 Air Quality

Policy CS15 provides strategic guidance on air quality in the City of London. Detailed development management guidance is set out in Policy DM 15.6:

1. Developers will be required to consider the impact of their proposals on air quality and, where appropriate, provide an Air Quality Impact Assessment.
2. Development that would result in deterioration of the City's nitrogen dioxide or PM_{10} pollution levels will be resisted.
3. Major developments will be required to maximise credits for the pollution section of the BREEAM or Code for Sustainable Homes assessment relating to on-site emissions of oxides of nitrogen (NOx).
4. Developers will be encouraged to install non-combustion low and zero carbon energy technology. A detailed air quality impact assessment will be required for combustion based low and zero carbon technologies, such as CHP plant and biomass or biofuel boilers, and necessary mitigation must be approved by the City Corporation.
5. Construction and deconstruction and the transport of construction materials and waste must be carried out in such a way as to minimise air quality impacts.
6. Air intake points should be located away from existing and potential pollution sources (e.g. busy roads and combustion flues). All combustion flues should terminate above the roof height of the tallest building in the development in order to ensure maximum dispersion of pollutants.

Monitoring Air Quality

The City of London has produced an Air Quality Strategy (2015-2020) which aims to reduce levels of pollution and encourage both businesses and residents alike to take steps to help minimise pollution. One of the main causes of poor air quality in the City is emissions from road vehicles.

The City Corporation monitors change in air quality in fulfilment of Part IV of the Environmental Act 1995 Local Air Quality Management on an annual basis. This monitoring shows that levels of air pollution in the City of London have been falling, particularly at background sites which are defined as areas away from busy roads. Levels of annual average nitrogen dioxide at St Bartholomew's Hospital and the centre of the Barbican Estate met the required health target from April 2014 through to March 2016.

5. Use of Energy in the City of London

Introduction

The BREEAM Assessments and Carbon Monitoring enable an evaluation of the delivery of the City's sustainability objectives through new development schemes in the City of London. However, there is a large range of existing development for which it is desirable to monitor the overall use of energy.

The Government Department for Business, Energy & Industrial Strategy (BEIS) produces statistics on energy consumption over the period from 2005 to 2017. The total final energy estimates at a regional and local level in 2017 are based on consumption statistics from the following four sub-national consumption datasets:

- Electricity
- Gas
- Road transport (Fuel consumed rather than where it is purchased)
- Residual fuel (non-electricity, non-gas and non-road transport)

More information is available in the Department of Energy & Climate Change (DECC) methodology and guidance booklet – Sub-national consumption statistics (December 2017).

Fuel Type	Consuming Sector
Petroleum Products	Industrial and Commercial Domestic Rail Road Transport
Coal	Industrial and Commercial Domestic
Manufactured Solid Fuels	Industrial and Commercial Domestic
Gas	Industrial and Commercial Domestic
Electricity	Industrial and Commercial Domestic
Bioenergy and Waste	All

Table 6: Fuel types and consuming sectors analysed in the City of London

Table 6 sets out the six fuel types and four consuming sectors which are analysed for the City of London. For the purposes of this report we will refer to figures set out in gigawatt hour (GWh).

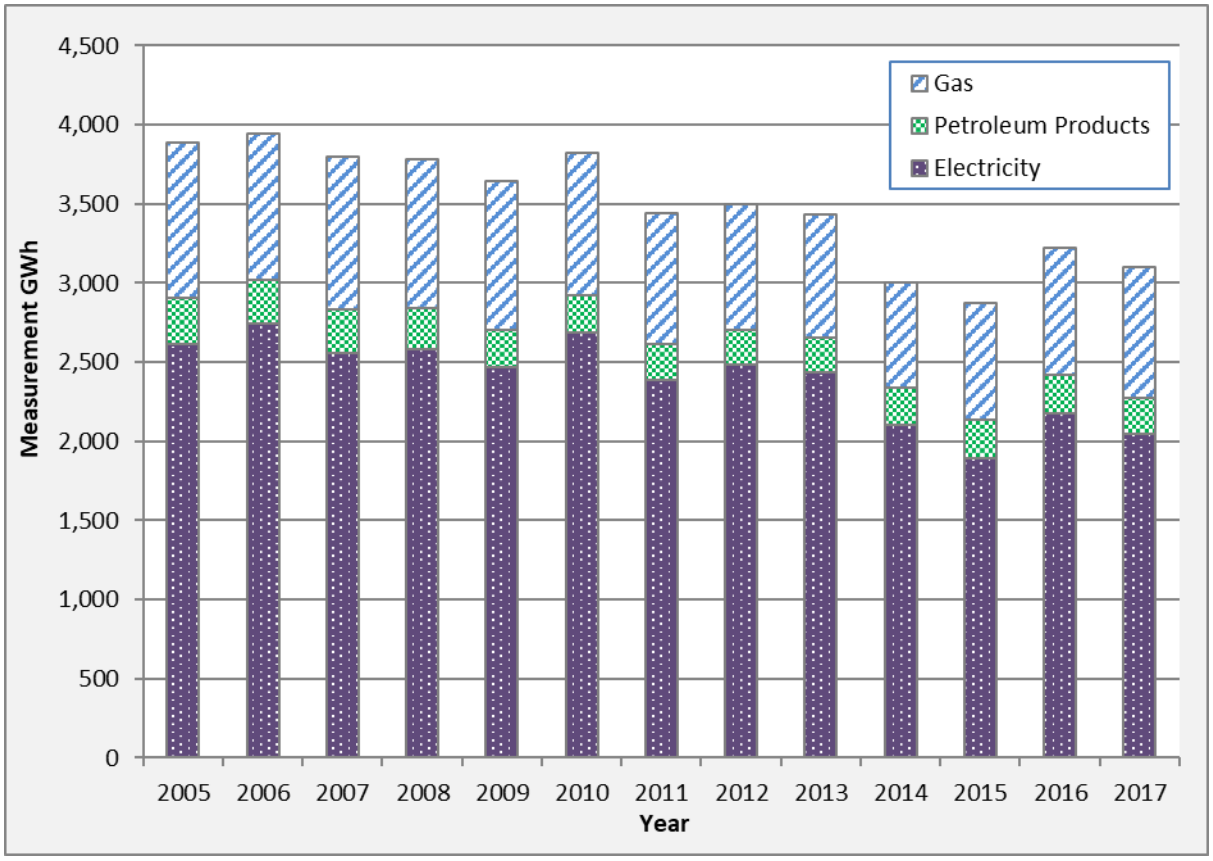
Energy consumption in the City of London

Graph 4 sets out the energy consumption analysed by consuming sectors in the City of London for the years 2005 through to 2017. Over this period the energy consumption figures have fluctuated, but overall, generally declined.

Graph 4: Energy consumption – consuming sectors in the City of London

Source: The Department for Business, Energy & Industrial Strategy, Sub-national total final energy consumption in the United Kingdom (2005 – 2017)

The industrial and commercial sector consumes by far the highest amount of energy in the City of London. Consumption in this sector has shown a gradual decrease over the period 2006 to 2017. Both the transport and domestic sectors consume very little by comparison and are very low compared to energy consumption in the rest of Greater London.

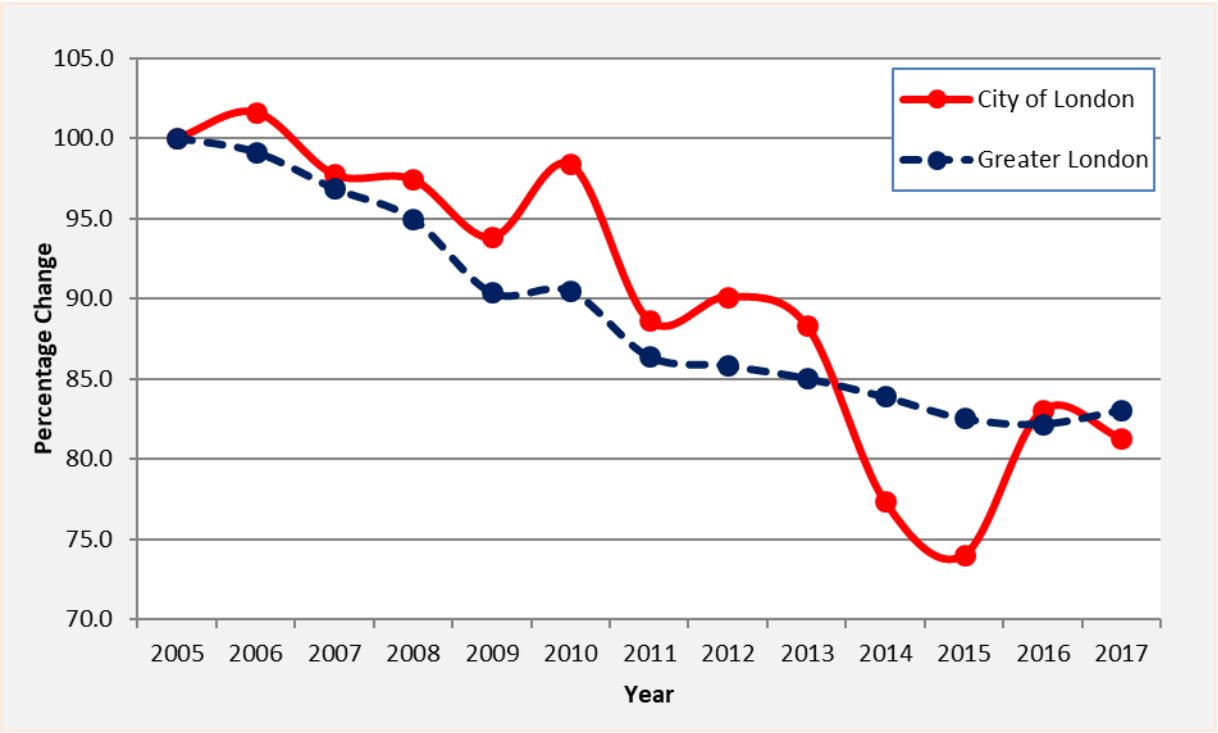


Graph 5: Energy Consumption – Fuel Types in the City of London

Graph 5 sets out the energy consumption analysed by fuel types in the City of London for the years 2005 through to 2017. The highest energy consumption was for electricity (Industrial and Commercial) followed by gas and petroleum. Coal, manufactured fuels and bio energy produced nil returns.

Energy consumption in City of London and Greater London

Whilst there has been a change in the levels of energy consumption in the City of London, it is important to compare this with trends for the Greater London region. The energy consumption for Greater London has declined year on year reducing from 156,000 GWh in 2005 to 129,550 in 2017. The prime consuming sector in Greater London is domestic and the prime type of fuel is gas, with 61,000GWh used. Energy consumption in the City of London makes up only 2.5% of the energy consumption in Greater London. However due to the high level of electricity consumption in the City, this makes up 6.9% use of electricity in Greater London.



Graph 6: Energy Use Trends in the City of London compared to Greater London

Graph 6 compares trends in energy consumption by percentage using the year 2005 as the base year. This shows that the overall use of energy in both the City of London and Greater London has decreased at similar rates over the period 2005 – 2017.

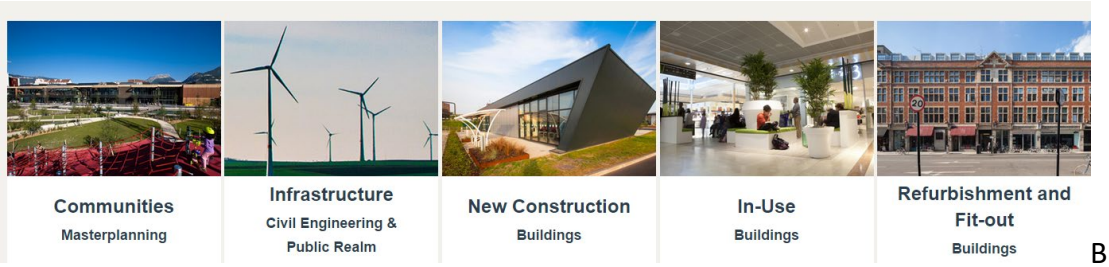
Appendix 1: BREEAM Assessments

BREEAM Assessments

BREEAM is an evidence-based system which emphasises best practice, continual improvement and the delivery of a more sustainable healthier built environment. Certification is achieved through the submission of project documentation and on-site post-occupancy performance testing. It is the measure of sustainability for master planning, infrastructure, buildings and communities, covering all stages of an asset's life, including new construction, in-use and refurbishment.

BREEAM is administered by BRE, an independent and impartial, research-based advisory, testing and training organisation. BREEAM was launched in the late 1980s and in 1990 the first version for assessing new office buildings was introduced. The BREEAM Office standard was revamped in 1998 introducing weighting for sustainability issues and was further developed in 2008 which resulted in minimum standards, credits and post construction stages. In 2011 BREEAM New Construction was launched, updated in 2014, with the latest update in 2018.

BREEAM Lifecycle Stages



BREEAM originally focussed on individual new buildings at the construction stage but now encompass the whole life cycle of buildings from planning to in-use and refurbishment. BREEAM includes a number of technical standards which are regularly revised and updated due to on-going changes in sustainability. Therefore, the BREEAM standard can apply to various buildings whether they are for new or existing buildings, refurbishment schemes or master plan developments. Figure Appendix 1A shows some of the types of schemes covered by the BREEAM assessment method.

Figure Appendix 1A: BREEAM Assessment – Scheme Types

Source: BREEAM website

BREEAM rating benchmarks

BREEAM's aim is to encourage improvement in the sustainability performance of buildings and the BREEAM score provides a way of measuring the environmental impact of a building. The key use for the methodology is to boost the performance of the building during the design phase and define the environmental requirements in the management of schemes.

BREEAM Rating	Percentage Score
Outstanding	≥ 85
Excellent	≥ 70
Very Good	≥ 55
Good	≥ 45
Pass	≥ 30
Unclassified	< 30

Table 7: BREEAM Rating Benchmarks (2011)

Table 7 sets out the BREEAM Benchmarks. The rating benchmark level provides the sustainability performance of new Non-Domestic buildings and enables comparison between BREEAM buildings.

Most the buildings in the City of London receive an 'Excellent' (best practice) or 'Very Good' (advanced good practice) rating. It is worth noting that the rating score can differ between different versions of BREEAM. For example, under the 2006 BREEAM version it would have been easier to obtain an Excellent rating than if the same scheme was undertaken at a later stage under 2011 BREEAM version.

Independent trained and qualified BREEAM Assessors undertake the BREEAM assessment using the appropriate assessment tool and calculators and once complete BRE Global Limited will issue a BREEAM certificate which accurately reflects the scheme's performance against the BREEAM standard (Figure Appendix 1B). A BREEAM Pre-Assessment Estimator can be used to provide an indication of performance against the BREEAM scheme which is available on the BREEAM website.

If a development is a mixed-use building or consists of more than one building it will require a separate BREEAM rating and certificate for each use and for each individual building. BREEAM sets different criteria and benchmarks for assessment according to each building so it is important that separate assessment scores and ratings are required for each building type or use in the development.

Example

If an application is for 10,000m^2, and 6,000m^2 is for Office (B1) and the remaining 4,000m^2 is for Retail (A3). Two BREEAM assessments will be required, one to measure the sustainability standard in comparison with the BREEAM office assessment, and one to measure the standard of the retail.

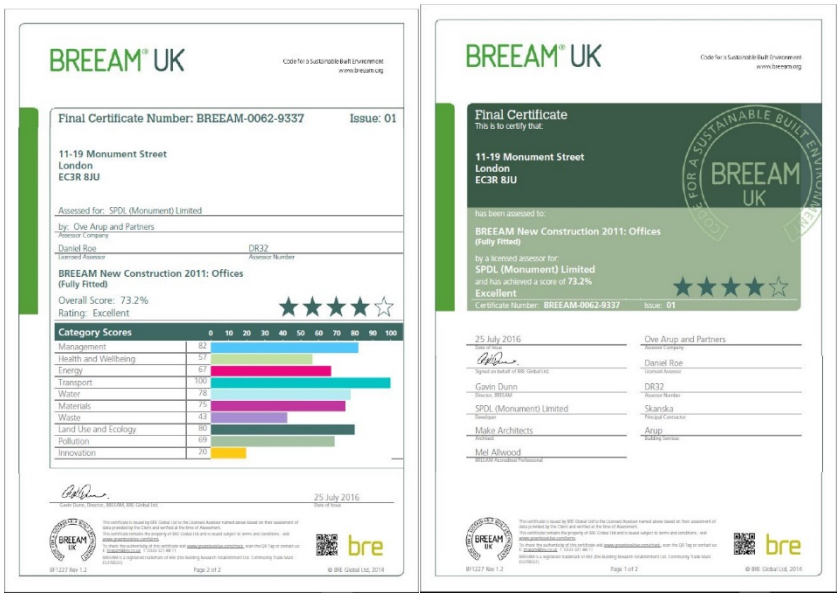


Figure Appendix 1B: Example of BREEAM (Final) Certificate

BREEAM development schemes in the City of London

Typical BREEAM schemes in the City of London cover offices, bespoke/hotels and retail developments. This report focuses on offices and hotels. BREEAM develop and operate several schemes, each designed to assess the environmental performance of buildings. In the context of monitoring the assessments for planning purposes in the City of London there are two key types of development to which BREEAM standards apply:

1. BREEAM New Construction Technical Manual

The BREEAM standard against which the sustainability of new Non-Domestic buildings is assessed. The latest update of this standard was launched in May 2014. The new construction technical manual is available to view online and is briefly outlined on the BREEAM website.

"BREEAM UK New Construction is used to improve measure and certify the social, environmental and economic sustainability of new buildings. This is achieved through the integration and use of the technical standard by clients and their project teams at key stages in the design and construction process. BREEAM new construction addresses the major sustainability issues that arise when constructing a new building against key categories"

The assessment criteria and process focuses on the design of the building from concept stage right through to a fully constructed building. It requires evidence to support the design and construction decisions, agreed during the development of the project, and ensures they have been fully implemented.

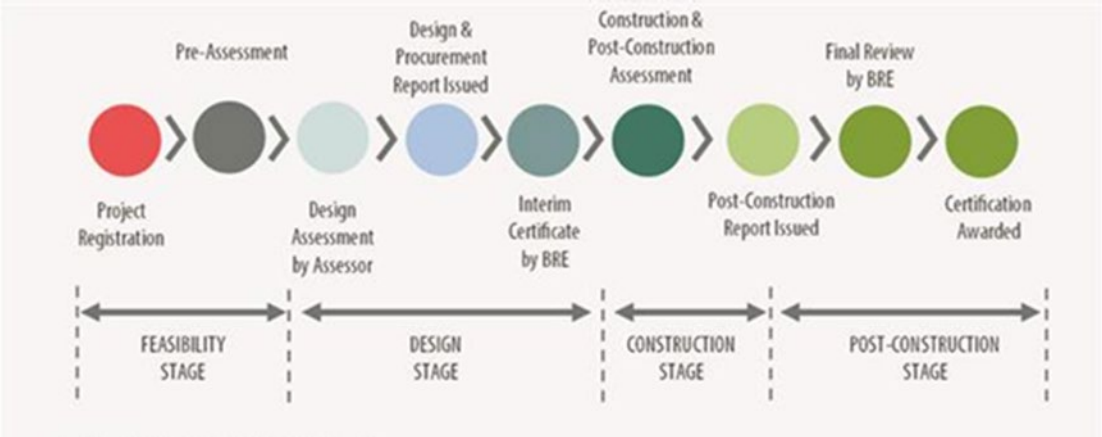
2.The Refurbishment and Fit-out Technical Manual

Is available to view online and is briefly outlined on the BRE website:

"This standard allows real estate investors, developers and building owners to assess and mitigate unnecessary environmental damage caused whilst completing a refurbishment or fit out project. Following the assessment process, a certificate is awarded which recognises the environmental performance of the building once improvements have been made to the external envelope, structure, core services, local services or interior design of a building"

The standard covers a broad range of buildings, ranging from commercial buildings such as retail and offices, to residential institutions such as student accommodation and care homes. It also covers public sector buildings, such as education and healthcare.

BREEAM pre-assessment and post construction stage



BREEAM is set out on the Building Research Establishment (BRE) website. The assessments are carried out by independent assessors in a number of stages (see Figure Appendix 1C).

Figure Appendix1C: BREEAM Certification Process

Source: BREEAM Website

The two stages addressed in this report are:

- A pre-assessment (feasibility stage) results in an interim certificate of assessment being issued. The interim BREEAM rating confirms the building's performance and the certificate will be issued before works start on site. The design must be at an advanced stage for an assessment to be completed in order that a BREEAM Assessor is able to evaluate the building's performance.
- A post construction stage assessment is issued after practical completion of the building works resulting in a final certificate of assessment being issued and a rating awarded.

In addition, there is the option to undertake a Design & Procurement Report (Design Stage) report which can help understand where the design needs to be improved to achieve a higher rating between pre-assessment and post construction stages.

Environmental (Sustainability) Categories

Environmental (Sustainability) Categories analyses the credits for the three key categories which are of greatest importance in the context of the City of London – energy, pollution and water.

BREEAM pre-assessment and post construction stage

Through the Green Book Live, BREEAM has provided spatially all Certified BREEAM assessments for schemes from 2008 onwards. Please note not all the schemes in the monitoring report are listed on this website. Using the search box one can search for any applications within a radius of location, or specific counties across the UK and Europe.

Appendix 2: Completed Schemes in the City of London with BREEAM Assessments

Financial Year of Completion	Planning Application Reference	Address	Address Other	BREEAM Version	Development Type	Pre-Assessment Rating	Post Construction Stage Assessment
2011/12	07/00292/FULEIA	Riverbank House 2 Swan Lane London EC4R 3TS		2006	New Build	Excellent	Not known
2011/12	06/00901/FULEIA	78 Cannon Street & Cannon Street Station Railway & Underground Stations EC4		2008	New Build	Very Good	Not known
2012/13	11/00306/FULL	63 St Mary Axe London EC3A 8AA		2008	New Build	Very Good	Not known
2013/14	06/00915/FULL	Bath House 52 - 60 Holborn Viaduct London EC1A 2FD	60 Holborn Viaduct	2008	New Build	Excellent	Excellent
2013/14	10/00571/FULMAJ	Finsbury Circus House 12 - 15 Finsbury Circus London EC2M 7EB		2008	New Build	Excellent	Excellent
2013/14	11/00630/FULL	City Place House & City Tower 40 & 55 Basinghall Street London EC2V		2008	Refurbishment	Very Good	Very Good
2013/14	09/00847/FULMAJ	8 - 10 New Fetter Lane & 55 Fetter Lane London EC4A 1AP		2008	New Build	Very Good	Very Good
2013/14	09/00450/FULMAJ	6 Bevis Marks London EC3A 7HL		2008	New Build	Excellent	Excellent
2013/14	11/00294/FULMAJ	Centurion House 24 Monument Street London EC3R 8AJ	Monument Place	2008	New Build	Excellent	Excellent
2014/15	08/01061/FULMAJ	20 Fenchurch Street, 14-15 Philpot Lane, 10 Rood Lane, Part Basement of 33-35 Eastcheap, & Part Basement At 37-39 Eastcheap London EC3P 3DP		2008	New Build	Very Good	Excellent
2014/15	11/00228/FULL	Carmelite House 50 Victoria Embankment London EC4Y 0BN	Carmelite Riverside	2008	Refurbishment	Excellent	Excellent
2014/15	12/00055/FULL	125 Wood Street London EC2V 7AN		2008	New Build	Excellent	Excellent
2014/15	11/00969/FULL	72 Fore Street London EC2Y 5EJ	Moorgate Exchange	2008	New Build	Excellent	Excellent
2014/15	12/00474/FULMAJ	8 - 10 Moorgate, 3 & 4 King Arms Yard, 16/16A & 17 Tokenhouse Yard & 8 - 10 Telegraph Street London EC3	The Banking Hall	2011	New Build	Excellent	Not known
2014/15	06/01144/FULL	Land Bounded By Mark Lane, Hart Street, London Street & New London Street London EC3	70 Mark Lane	2008	New Build	Excellent	Excellent
2014/15	09/00353/FULMAJ	100 Cheapside, 1 Honey Lane, 28-30 Lawrence Lane & 39 King Street London EC2		2011	New Build	Very Good	Excellent
2014/15	12/01125/FULL	5 Cheapside London EC2V 6AA	The Sugar Building	2006	Refurbishment	Excellent	Not known
2015/16	11/00049/FULEIA	30 Old Bailey & 60 Ludgate Hill London EC4	New Ludgate	2008	New Build	Excellent	Excellent
2015/16	10/00904/FULEIA	5 Broadgate London EC2M 2QS		2008	New Build	Excellent	Excellent
2015/16	07/00735/FULL	40-42 Chancery Lane, 43-45 Chancery Lane, 2-3 Cursitor Street & 20-21 Tooks Court London EC4A 1NE	40 Chancery Lane	2006	New Build	Excellent	Excellent
2016/17	16/00867/PODC	5 Broadgate London EC2M 2QS		2008	New Build	Excellent	Excellent
2016/17	17/00069/MDC	21, 21a Lime Street					Very Good
2016/17	16/00772/MDC	11 - 19 Monument					
2016/17	16/00910/MDC	7 - 11 Finsbury Circus	River Plate House				

Details of completed office schemes with BREEAM rating

2017/18	14/01141/FULL	8 Salisbury Square, London, EC4Y 8AP	Salisbury Square House	2014	Refurbishment	Very Good	Not known
2017/18	14/01138/FULL	20 Old Bailey, London, EC4M 7AN		2008	Refurbishment	Very Good	Not known
2017/18	14/01096/FULMAJ	24 King William Street, London, EC4R 9AJ		2011	Refurbishment	Very Good	Very Good
2017/18	15/00509/FULMAJ	20 Farringdon Street, London, EC4A 4AB		2014	New Build	Excellent	Not known
2017/18	14/00579/FULL	72 - 75 Fenchurch Street & 1 Lloyds Avenue, London, EC3M 4BR	Dixon House	2011	New Build	Very Good	Not known
2017/18	13/00339/FULMAJ	39-53 Cannon Street, 11-14 Bow Lane And Watling Court, London, EC4		2011	New Build	Excellent	Excellent
2017/18	16/00946/FULL	9 - 10 Angel Court, London, EC2R 7HB		2014	Refurbishment	Very Good	Not known
2017/18	15/00165/FULL	8 Devonshire Square, London, EC2M 4PL		2008	Refurbishment	Very Good	Not known
2017/18	13/00974/FULL	1 New Street Square, London, EC4	75 Shoe Lane And The International Press Centre	2014	New Build	Very Good	Not known
2017/18	16/00236/FULL	85 Queen Victoria Street, London, EC4V 4AB	Senator House	2014	Refurbishment	Very Good	Not known
2017/18	15/01368/FULL	111 Cannon Street, London, EC4N 5AR		2014	New Build	Excellent	Not known
2017/18	15/00086/FULMAJ	160 Aldersgate Street, London, EC1A 4DD		2014	New Build	Excellent	Excellent
2018/19	12/01225/FULEIA	40 Shoe Lane, 70 Farringdon Street, Plumtree Court, 42 Shoe Lane, 12 Plumtree Court And 57 Farringdon Street, London, EC4A	Fleet Building	2011	New Build	Excellent	Not known
2018/19	15/00706/FULMAJ	55 Gresham Street, London, EC2V 7HQ		2014	Refurbishment	Very Good	Not known
2018/19	14/01226/FULMAJ	35 Seething Lane, London, EC3N 4AH	Walsingham House	2014	Refurbishment	Excellent	Not known
2018/19	14/00860/FULMAJ	33 King William Street, London, EC4R 9AS		2011	New Build	Excellent	Excellent
2018/19	14/00780/FULMAJ	2 - 6 Cannon Street, London, EC4M 6YH		2014	New Build	Excellent	Not known
2018/19	16/00299/FULMAJ	90 Fetter Lane, London, EC4A 1EN		2014	New Build	Excellent	Not known
2018/19	15/01120/FULL	71 - 73 Carter Lane, London, EC4V 5EQ		2008	Refurbishment	Very Good	Not known
2018/19	11/00332/FULEIA	61 St Mary Axe, 80-86 Bishopsgate, 88-90 Bishopsgate, 12-20 Camomile Street, 15-16 St Helen's Place And 33-35 St Mary Axe (North Elevation Only) , London, EC3		2008	New Build	Excellent	Not known
2018/19	14/00027/FULMAJ	52-54 Lime Street & 21-26 Leadenhall (Prudential House), 27 & 27A Leadenhall Street (Allianz Cornhill House) & 34-35 Leadenhall Street & 4-5 Billiter Street (Winterthur House) London, EC3		2011	New Build	Excellent	Excellent
2018/19	14/00782/FULL	51 Eastcheap, London, EC3M 1JP		2008	Refurbishment	Excellent	Not known

Details of completed office schemes with BREEAM rating

Financial Year of Completion	Planning Application Reference	Address	Address Other	BREEAM Version	Development Type	Pre-Assessment Rating	Post Construction Stage Assessment Rating
2014/15	12/00145/FULMAJ	24 - 26 Minories London EC3N 1BQ	Motel One	2008	New Build	Excellent	Excellent
2015/16	13/00360/FULL	Bowring House 28 Great Tower Street London EC3R 5AT	Premier Inn	2011	New Build	Very Good	Not Known
2015/16	14/00762/FULL	Temple Bar House 23 - 28 Fleet Street London EC4Y 1AA	Z Hotels	2008	Refurbishment	Very Good	Not Known

Details of Details of completed hotel schemes with BREEAM rating

Appendix 3: Carbon Assessment Payments for completed schemes 2018/19

Application Number for Development Scheme	ADDRESS	Date Scheme Completed	Date of Decision	Carbon Target Baseline	Carbon Target	Application Stage Calculation	Completion Stage Calculation	Application Number for Carbon Assessment Stage	Payment
									£
Not met the London Plan Carbon Target - Payment Received 2018/19									
13/00590/FULMAJ	9 -13 Aldgate High StreetLondonEC3N 1AH	30/09/2017	08/04/2014	Building Regulations Part L2A 2010	25.00	35.10	9.93	18/01238/PODC	129,816.00
15/00509/FULMAJ	20 Farringdon StreetLondonEC4A 4AB	31/03/2018	22/12/2015	Building Regulations Part L 2013	35.00	22.00	28.95	18/00717/PODC	25,650.00
10/00832/FULEIA	Land Bounded By London Wall, Wood Street, St. Alphage Gardens, Fore Street, Fore Street Avenue, Bassishaw Highwalk, Alban Gate Rotunda, Alban Highwalk, Moorfields Highwalk And Willoughby Highwalk, London, EC2	30/09/2018	26/08/2011	Building Regulations Part L2A 2010	40.00	25.00	31.84	18/01104/PODC	11,745.15
14/00780/FULMAJ	2 - 6 Cannon StreetLondonEC4M 6YH	31/03/2019	30/07/2015	Building Regulations Part L 2013	35.00	25.33	22.99	18/01239/PODC	64,476.00
16/00299/FULMAJ	90 Fetter LaneLondonEC4A 1EN	31/03/2019	26/10/2016	Building Regulations Part L 2013	35.00	27.81	27.81	18/00974/PODC	13,086.00
14/01226/FULMAJ	Walsingham House 35 Seething LaneLondonEC3N 4AH	31/03/2019	08/01/2016	Building Regulations Part L 2013	35.00	32.75	23.71	18/01253/PODC	5,364.00
									250,137.15
Not met London Plan Carbon Target -Payment Assessment in progress at 31st March 2019									
15/01368/FULL	111 Cannon StreetLondonEC4N 5AR	30/09/2018	24/11/2016	Building Regulations Part L 2013	35.00	38.00	18.12	19/00117/PODC	**14,472.00**
Not met London Carbon Target - Contributions through an offset project									
14/01251/FULMAJ	15 Bishopsgate & Tower 42 Public Realm.LondonEC2N 3NW	30/09/2017	04/01/2016	Building Regulations Part L 2013	35.00	30.93	37.00	17/00663/PODC	**14,382.00**
London Plan Carbon Target Met									
13/00049/FULMAJ	11 - 19 Monument Street, 46 Fish Street Hill And 1 - 2 Pudding LaneLondonEC3R	31/03/2017	23/09/2013	Building Regulations Part L2A 2010	25.00	21.70	25.00	16/00935/PODC	0.00
13/01082/FULMAJ	Mitre Square, International House, Duke's Place, 11 Mitre Street & 1 Mitre SquareLondonEC3	31/03/2017	09/06/2014	Building Regulations Part L2A 2010	40.00	43.00	40.20	16/01163/PODC	0.00
13/00985/FULL	1 Angel Court And 33 Throgmorton StreetLondonEC2N 2BR	30/09/2017	17/11/2014	Building Regulations Part L2A 2010	25.00	25.71			0.00
13/00339/FULMAJ	39-53 Cannon Street, 11-14 Bow Lane And Watling CourtLondonEC4	31/03/2018	27/02/2014	Building Regulations Part L2A 2010	25.00	30.26	30.26	17/00917/PODC	0.00
14/00866/FULL	25 - 26 Furnival StreetLondonEC4A 1JT	31/03/2019	27/04/2015	Building Regulations Part L 2013	35.00	37.00			0.00
16/00215/FULMAJ	Dewhurst House24-30 West SmithfieldLondonEC1	31/03/2019	17/11/2016	Building Regulations Part L 2013	35.00	35.25	35.93	18/00794/PODC	0.00

Further Contacts

Sources

City of London Corporation

GLA

The Department for Business, Energy & Industrial Strategy

BRE Global

Green Book Live

Copyright

Contacts

Queries regarding this report can be made to General planning enquiries

Telephone: 0207 332 1710

Email: plans@cityoflondon.gov.uk

Address:

Department of the Built Environment

Guildhall

PO Box 270

London

EC2P 2EJ

Carolyn Dwyer, BEng (Hons), DMS, CMILT, FCIHT

Director of the Built Environment

The City of London Corporation is the Local Authority for the financial and commercial heart of Britain, the City of London.