

50-57 High Holborn EcoHomes & BREEAM Pre- assessments



Prepared by:

Giorgia Franco
Principal Consultant

Reviewed by:

David Cheshire
Regional Director

50-57 High Holborn EcoHomes & BREEAM Pre-assessment

Rev No	Comments	Checked by	Approved by	Date
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MidCity Place, 71 High Holborn, London, WC1V 6QS
Telephone: 020 7645 2000 Website: <http://www.aecom.com>

Job No 60264307

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Figure 1: Site location map showing the project area in High Holborn, London. The map highlights the site boundary in red and shows surrounding streets including Sandland Street, Bedford Row, Hand Court, Browning Street, and First Avenue. Key buildings labeled include Montague House (23 Hand Court), High Holborn House, and Caroline House.

The floor plan of the 1st floor of the National Maritime Museum is divided into several distinct areas, each color-coded and labeled:

- Top Left (Orange):** Labeled "2nd FLOOR" and "3rd FLOOR".
- Top Center (Red):** Labeled "1st FLOOR" and "2nd FLOOR".
- Top Right (Orange):** Labeled "1st FLOOR" and "2nd FLOOR".
- Middle Left (Tan):** Labeled "1st FLOOR" and "2nd FLOOR".
- Middle Center (White):** Labeled "1st FLOOR" and "2nd FLOOR".
- Middle Right (Tan):** Labeled "1st FLOOR" and "2nd FLOOR".
- Bottom Left (Tan):** Labeled "1st FLOOR" and "2nd FLOOR".
- Bottom Center (Tan):** Labeled "1st FLOOR" and "2nd FLOOR".
- Bottom Right (Orange):** Labeled "1st FLOOR" and "2nd FLOOR".

The plan also includes various courtyards and outdoor spaces, such as the "1st FLOOR" and "2nd FLOOR" areas, and the "1st FLOOR" and "2nd FLOOR" areas. The layout is complex, with many rooms and corridors, and the color-coding helps to distinguish between different sections of the building.

Table 1 provides the name and a summary description of each of the uses and Figure 3 identifies the location of each block.

Capabilities on project:
Building Engineering

ref	Block name	Description
1	45 Bedford Row	Change of use from office space. Basement and ground level consist of retail and residential lobby and services space. Floors 1 to 5 each contain one apartment. External facades and most of other external walls are retained (including windows). Internal partitions are new. Top floor is extended.
2	46-48 Bedford Row (terraces)	Change of use from office space. Grade II listed buildings retained as they are with some minor internal changes
3	49-51 Bedford Row	Change of use from office space. Basement and ground level consist of office and residential lobby and services space. Floors 1 to 5 each contain two apartments. External facades, roof and some other external walls are retained (including windows). Internal partitions and party walls are new.
4	Brownlow House	Change of use from office space. Basement and ground level consist of retail and residential lobby and services space. Floors 1 to 3 each contain two apartments. External facades and most of other external walls are retained (including windows). Internal partitions are new. The top floor of the existing building will be demolished and two new mansard floors will be built, accommodating a further 2 apartments on each floor.
5	Office	New build office space.
6	Student accommodation	Upper 4 levels converted into 22 Student Accommodation units within the converted 23 Hand Court
7	Retail units	Retail units on the ground floor in various locations around the perimeter of the site.

Table 1: Classification of the different uses proposed for 50-57 High Holborn

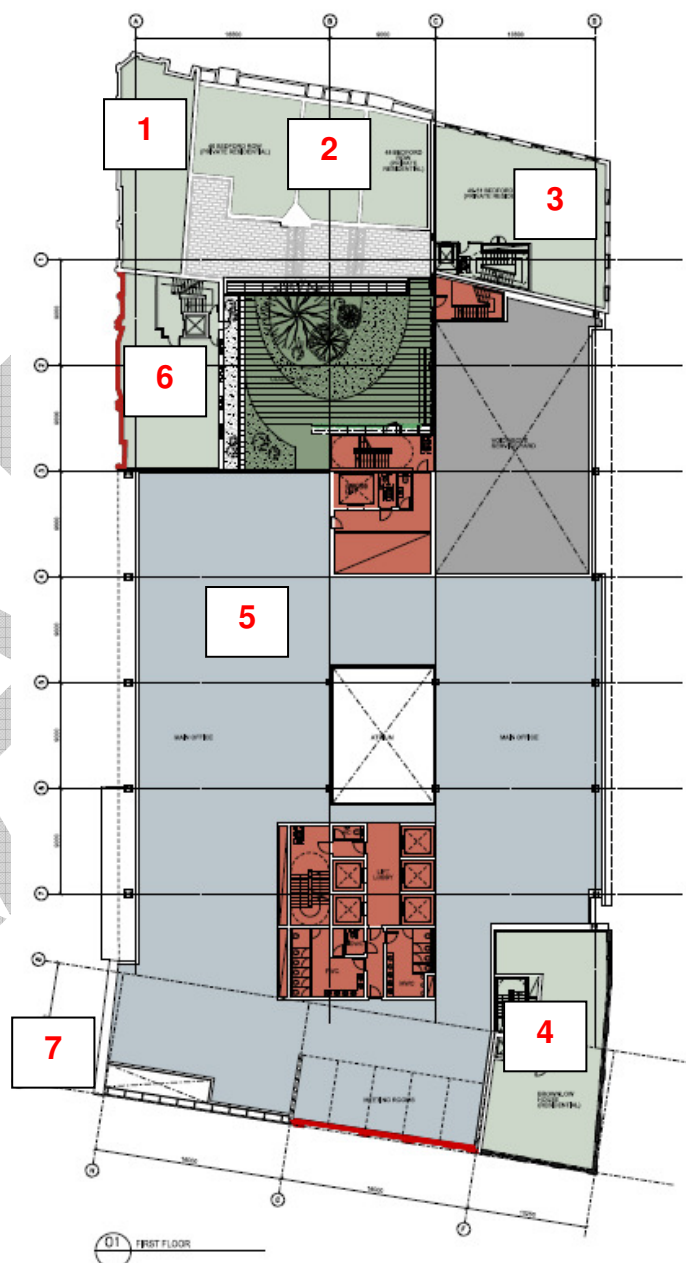


Figure 3: Proposed ground floor general arrangement plan

Capabilities on project:
Building Engineering

1.2 Planning requirements

The following planning policies relate to the application of Sustainability Assessment Tools to new development.

- Camden Core Strategy Policy CS13 Tackling climate change through promoting higher environmental standards
- Camden Development Policies (adoption version 2010) DP22 Promoting sustainable design and construction

DP22 states:

The Council will promote and measure sustainable design and construction by:

d) expecting developments (except new build) of 500 sq m of residential floorspace or above or 5 or more dwellings to achieve "very good" in EcoHomes assessments prior to 2013 and encouraging "excellent" from 2013;

e) expecting non-domestic developments of 500sqm of floorspace or above to achieve "very good" in BREEAM assessments and "excellent" from 2016.

Camden have also produced the Camden Planning Guidance 3 - Sustainability, which states the following with regards to Sustainability Assessment Tools:

The creation of 5 or more dwellings from an existing building will need to be designed in line with EcoHomes

Development involving a change of use or a conversion of 5 or more dwellings or 500sq m of any floorspace, will be expected to achieve 60% of the un-weighted credits in the Energy category in their EcoHomes (...) assessment (...).

Special consideration will be given to buildings that are protected e.g. listed buildings to ensure that their historic and architectural features are preserved.

For both EcoHomes and BREEAM the policy states that: 'You are strongly encouraged to meet the following standards in accordance with Development Policy DP22 – Promoting sustainable design and construction':

<i>Time period</i>	<i>Minimum rating</i>	<i>Minimum standard for categories (% of un-weighted credits)</i>
<i>2010-2012</i>	<i>Very Good</i>	<i>Energy 60%</i>
<i>2013+</i>	<i>Excellent</i>	<i>Water 60%</i> <i>Materials 40%</i>

1.3 Sustainability Assessment Tools

The nature of the site means that the following assessment tools apply to the residential element of the development:

- EcoHomes 2006 for the apartments being refurbished in each block and the 3 terraced houses
- BREEAM 2011 Offices, Retail and Multi-Residential

An EcoHomes Very Good Rating has been targeted for the refurbished dwellings, with a likely score of 58.18%.

A BREEAM Very Good Rating has been targeted for the Offices, Retail and Multi-Residential buildings, with a likely score of 56.6% for the Office; 55.4% for the Multi-residential and 55.8% for the retail.

Pre-assessments have been carried out to demonstrate that these targets are expected to be achieved and suggesting the credits that are likely to be achieved. The pre-assessments for EcoHomes and BREEAM are presented in sections 2 to 5 of this report.

1.4 Assessor details

The EcoHomes pre-assessments have been carried out by Georgia Franco who is a registered and experienced EcoHomes assessor.

Registration number: FABM-GF04

The BREEAM pre-assessments have been carried out by Richard Hollis who is a registered and experienced BREEAM assessor.

Registration number: FABM-RH04

Capabilities on project:
Building Engineering

2 EcoHomes – Refurbished dwellings

Credit Summary EcoHomes 2006	Credit no.	Credits Available	Likely Credits
Energy			
Dwelling Emission Rate	Ene 1	15	10
Building envelope performance	Ene 2	2	1
Provision of drying space	Ene 3	1	1
Eco-labelled white goods	Ene 4	2	1
Internal Lighting	Ene 5	2	2
External lighting	Ene 6	2	1
Section Credit Total		24	16
Percentage of un-weighted credit total per section			67%
Weighted Section Total		22.00	14.67
Transport			
Public transport	Tra 1	2	2
Cycle storage	Tra 2	2	0
Local amenities	Tra 3	3	3
Home office	Tra 4	1	1
Section Credit Total		8	6
Percentage of un-weighted credit total per section			75%
Weighted Section Total		8.00	6.00
Pollution			
Insulation ODP and GWP	Pol 1	1	1
Low NOx emissions	Pol 2	3	1
Reduction of surface runoff	Pol 3	2	0
Zero Emission Energy Source	Pol 4	3	2
Flood Risk Mitigation	Pol 5	2	2
Section Credit Total		11	6
Percentage of un-weighted credit total per section			55%
Weighted Section Total		10.00	5.45
Materials			
Environmental impacts of materials	Mat 1	16	11
Responsible sourcing of materials: basic building elements	Mat 2	6	2
Responsible sourcing of materials: finishing elements	Mat 3	3	1
Recyclable materials	Mat 4	6	2
Section Credit Total		31	16
Percentage of un-weighted credit total per section			52%

Capabilities on project:
Building Engineering

Credit Summary EcoHomes 2006	Credit no.	Credits Available	Likely Credits
Weighted Section Total		14.00	7.23
Water			
Internal water use	Wat 1	5	3
External water use	Wat 2	1	0
Section Credit Total		6	3
Percentage of un-weighted credit total per section			50%
Weighted Section Total		10.00	5.00
Landuse/Ecology			
Ecological value of site	Eco 1	1	1
Ecological enhancement	Eco 2	1	1
Protection of ecological features	Eco 3	1	1
Change of ecological value of the site	Eco 4	4	2
Building footprint	Eco 5	2	2
Section Credit Total		9	7
Percentage of un-weighted credit total per section			78%
Weighted Section Total		12.00	9.33
Health & Wellbeing			
Daylighting	Hea 1	3	0
Sound insulation	Hea 2	4	2
Private space	Hea 3	1	0
Section Credit Total		8	2
Percentage of un-weighted credit total per section			25%
Weighted Section Total		14.00	3.50
Management			
Home user guide	Man 1	3	3
Considerate constructors scheme	Man 2	2	2
Construction site impacts	Man 3	3	2
Security	Man 4	2	0
Section Credit Total		10	7
Percentage of un-weighted credit total per section			70%
Weighted Section Total		10.00	7.00

TOTALS:	100.00	58.18
RATING:		very good

Capabilities on project:
Building Engineering

3 BREEAM Offices

Credit No.	Credit Summary BREEAM New Construction 2011	Credits Available	Likely credits
0.55%	Management		
Man 01	Project brief and design	4	4
Man 01	Construction and handover	2	1
Man 01	After care	2	1
Man 02	Responsible construction practices	2	2
Man 03	Construction site impacts	5	5
Man 04	Consultation	1	1
Man 04	Inclusive and accessible design	1	1
Man 04	Building user information	1	1
Man 04	Post occupancy evaluation	1	0
Man 05	Life cycle cost and service planning	3	2
	Section Credit Total	22	18
	Weighted Credit Total	12.0%	9.8%
1.07%	Health & Wellbeing		
Hea 01	Daylighting	1	0
Hea 01	Glare control and view out	1	0
Hea 01	Internal and external lighting levels	1	1
Hea 02	Minimising sources of air pollution	3	0
Hea 02	Potential for natural ventilation	1	0
Hea 03	Thermal comfort	2	2
Hea 04	Water quality	1	1
Hea 05	Acoustic performance	2	1
Hea 06	Safety and security	2	0
	Section Credit Total	14	5
	Weighted Credit Total	15%	5%
0.70%	Energy		
Ene 01	Reduction of CO2 Emissions	15	2
Ene 02	Energy monitoring	2	2
Ene 03	External lighting	1	1
Ene 04	Low and zero carbon technologies	5	2
Ene 06	Energy efficient transport systems	2	1
Ene 08	Energy efficient equipment	2	0
	Section Credit Total	27	8
	Weighted Section Total	19%	6%
0.89%	Transport		
Tra 01	Public transport accessibility	3	3
Tra 02	Proximity to amenities	1	1
Tra 03	Cyclist facilities	2	2
Tra 04	Maximum car parking capacity	2	2
Tra 05	Travel plan	1	1
	Section Credit Total	9	9

Capabilities on project:
Building Engineering

Credit No.	Credit Summary BREEAM New Construction 2011	Credits Available	Likely credits
	Weighted Section Total	8%	8%
0.67%	Water		
Wat 01	Water Consumption	5	2
Wat 02	Water monitoring	1	1
Wat 03	Major leak detection and prevention	2	2
Wat 04	Water efficient equipment	1	0
	Section Credit Total	9	5
	Weighted Section Total	6%	3%
1.04%	Materials		
Mat 01	Life cycle impacts	5	3
Mat 02	Hard landscaping and boundary protection	1	1
Mat 03	Responsible sourcing of materials	3	2
Mat 04	Insulation	2	1
Mat 05	Designing for robustness	1	1
	Section Credit Total	12	8
	Weighted Section Total	13%	8%
1.07%	Waste		
Wst 01	Construction waste management	4	2
Wst 02	Recycled aggregates	1	0
Wst 03	Operational waste	1	1
Wst 04	Speculative floor and ceiling finishes	1	1
	Section Credit Total	7	4
	Weighted Section Total	8%	4%
1.00%	Land use & Ecology		
LE 01	Site selection	2	1
LE 02	Ecological value of site and protection of ecological features	1	1
LE 03	Mitigating ecological impacts	2	2
LE 04	Enhancing site ecology	3	2
LE 05	Long term impact on biodiversity	2	2
	Section Credit Total	10	8
	Weighted Section Total	10%	8%
0.77%	Pollution		
Pol 01	Impact of refrigerants	3	0
Pol 02	NOx emissions	3	1
Pol 03	Surface water run off	5	2
Pol 04	Reduction of night time light pollution	1	1
Pol 05	Noise attenuation	1	1
	Section Credit Total	13	5
	Weighted Section Total	10%	4%
TOTALS:		100.00%	56.60%
RATING:			Very Good

Capabilities on project:
Building Engineering

4 BREEAM Multi-residential

Credit No.	Credit Summary BREEAM New Construction 2011	Credits Available	Likely credits
0.55%	Management		
Man 01	Project brief and design	4	4
Man 01	Construction and handover	2	1
Man 01	After care	2	1
Man 02	Responsible construction practices	2	2
Man 03	Construction site impacts	5	5
Man 04	Consultation	1	1
Man 04	Inclusive and accessible design	1	1
Man 04	Building user information	1	1
Man 04	Post occupancy evaluation	1	0
Man 05	Life cycle cost and service planning	3	2
	Section Credit Total	22	18
	Weighted Credit Total	12.0%	9.8%
0.94%	Health & Wellbeing		
Hea 01	Daylighting	1	0
Hea 01	Glare control and view out	1	0
Hea 01	Internal and external lighting levels	1	1
Hea 02	Minimising sources of air pollution	3	0
Hea 02	Potential for natural ventilation	1	0
Hea 03	Thermal comfort	2	2
Hea 04	Water quality	1	1
Hea 05	Acoustic performance	4	1
Hea 06	Safety and security	2	0
	Section Credit Total	16	5
	Weighted Credit Total	15%	5%
0.73%	Energy		
Ene 01	Reduction of CO2 Emissions	15	2
Ene 02	Energy monitoring	1	1
Ene 03	External lighting	1	1
Ene 04	Low and zero carbon technologies	5	2
Ene 06	Energy efficient transport systems	2	1
Ene 08	Energy efficient equipment	2	0
Ene 09	Drying space	1	0
	Section Credit Total	26	7
	Weighted Section Total	19%	5%
0.89%	Transport		
Tra 01	Public transport accessibility	3	3
Tra 02	Proximity to amenities	1	1
Tra 03	Cyclist facilities	2	2
Tra 04	Maximum car parking capacity	2	2
Tra 05	Travel plan	1	1
	Section Credit Total	9	9

Capabilities on project:
Building Engineering

Credit No.	Credit Summary BREEAM New Construction 2011	Credits Available	Likely credits
	Weighted Section Total	8%	8%
0.67%	Water		
Wat 01	Water Consumption	5	2
Wat 02	Water monitoring	1	1
Wat 03	Major leak detection and prevention	2	2
Wat 04	Water efficient equipment	1	0
	Section Credit Total	9	5
	Weighted Section Total	6%	3%
1.04%	Materials		
Mat 01	Life cycle impacts	5	3
Mat 02	Hard landscaping and boundary protection	1	1
Mat 03	Responsible sourcing of materials	3	2
Mat 04	Insulation	2	1
Mat 05	Designing for robustness	1	1
	Section Credit Total	12	8
	Weighted Section Total	13%	8%
1.07%	Waste		
Wst 01	Construction waste management	4	2
Wst 02	Recycled aggregates	1	0
Wst 03	Operational waste	1	1
Wst 04	Speculative floor and ceiling finishes	1	1
	Section Credit Total	7	4
	Weighted Section Total	8%	4%
1.00%	Land use & Ecology		
LE 01	Site selection	2	1
LE 02	Ecological value of site and protection of ecological features	1	1
LE 03	Mitigating ecological impacts	2	2
LE 04	Enhancing site ecology	3	2
LE 05	Long term impact on biodiversity	2	2
	Section Credit Total	10	8
	Weighted Section Total	10%	8%
0.77%	Pollution		
Pol 01	Impact of refrigerants	3	0
Pol 02	NOx emissions	3	1
Pol 03	Surface water run off	5	2
Pol 04	Reduction of night time light pollution	1	1
Pol 05	Noise attenuation	1	1
	Section Credit Total	13	5
	Weighted Section Total	10%	4%
TOTALS:		100.00%	55.42%
RATING:			Very Good

Capabilities on project:
Building Engineering

5 BREEAM Retail

This pre-assessment assumes that the retail units are fitted out as part of the works, or that the lease agreement includes a Green Lease Agreement to achieve all credits relating to the fitout.

Credit No.	Credit Summary BREEAM New Construction 2011	Credits Available	Likely credits
0.55%	Management		
Man 01	Project brief and design	4	4
Man 01	Construction and handover	2	1
Man 01	After care	2	1
Man 02	Responsible construction practices	2	2
Man 03	Construction site impacts	5	5
Man 04	Consultation	1	1
Man 04	Inclusive and accessible design	1	1
Man 04	Building user information	1	1
Man 04	Post occupancy evaluation	1	0
Man 05	Life cycle cost and service planning	3	2
	Section Credit Total	22	18
	Weighted Credit Total	12.0%	9.8%
1.00%	Health & Wellbeing		
Hea 01	Daylighting	2	0
Hea 01	Glare control and view out	1	0
Hea 01	Internal and external lighting levels	1	1
Hea 02	Minimising sources of air pollution	3	0
Hea 02	Potential for natural ventilation	1	0
Hea 03	Thermal comfort	2	2
Hea 04	Water quality	1	1
Hea 05	Acoustic performance	2	1
Hea 06	Safety and security	2	0
	Section Credit Total	15	5
	Weighted Credit Total	15%	5%
0.66%	Energy		
Ene 01	Reduction of CO2 Emissions	15	2
Ene 02	Energy monitoring	2	2
Ene 03	External lighting	1	1
Ene 04	Low and zero carbon technologies	5	2
Ene 05	Energy efficient cold storage	2	0
Ene 06	Energy efficient transport systems	2	1
Ene 08	Energy efficient equipment	2	0
	Section Credit Total	29	8
	Weighted Section Total	19%	5%
0.89%	Transport		
Tra 01	Public transport accessibility	3	3
Tra 02	Proximity to amenities	1	1
Tra 03	Cyclist facilities	2	2
Tra 04	Maximum car parking capacity	2	2
Tra 05	Travel plan	1	1

Capabilities on project:
Building Engineering

Credit No.	Credit Summary BREEAM New Construction 2011	Credits Available	Likely credits
	Section Credit Total	9	9
	Weighted Section Total	8%	8%
0.67%	Water		
Wat 01	Water Consumption	5	2
Wat 02	Water monitoring	1	1
Wat 03	Major leak detection and prevention	2	2
Wat 04	Water efficient equipment	1	0
	Section Credit Total	9	5
	Weighted Section Total	6%	3%
1.04%	Materials		
Mat 01	Life cycle impacts	5	3
Mat 02	Hard landscaping and boundary protection	1	1
Mat 03	Responsible sourcing of materials	3	2
Mat 04	Insulation	2	1
Mat 05	Designing for robustness	1	1
	Section Credit Total	12	8
	Weighted Section Total	13%	8%
1.07%	Waste		
Wst 01	Construction waste management	4	2
Wst 02	Recycled aggregates	1	0
Wst 03	Operational waste	1	1
Wst 04	Speculative floor and ceiling finishes	1	1
	Section Credit Total	7	4
	Weighted Section Total	8%	4%
1.00%	Land use & Ecology		
LE 01	Site selection	2	1
LE 02	Ecological value of site and protection of ecological features	1	1
LE 03	Mitigating ecological impacts	2	2
LE 04	Enhancing site ecology	3	2
LE 05	Long term impact on biodiversity	2	2
	Section Credit Total	10	8
	Weighted Section Total	10%	8%
0.77%	Pollution		
Pol 01	Impact of refrigerants	3	0
Pol 02	NOx emissions	3	1
Pol 03	Surface water run off	5	2
Pol 04	Reduction of night time light pollution	1	1
Pol 05	Noise attenuation	1	1
	Section Credit Total	13	5
	Weighted Section Total	10%	4%
TOTALS:		100.00%	55.86%
RATING:			Very Good