WH179

Jul 2022

Anglia Square, Norwich
Energy Assessment and Sustainability Strategy Report

Addendum

Dated July 2022

Weston Homes

Anglia Square, Norwich

Addendum to Energy Assessment and Sustainability Strategy Report

Amended Application Issue

Issue 1 – 15 July 2022

Weston Homes

MEINHARDT

ANGLIA SQUARE, NORWICH

ADDENDUM TO ENERGY ASSESSMENT AND SUSTAINABILITY STRATEGY REPORT

AMENDED APPLICATION ISSUE

Quality Assurance Page

Issue	Date	Prepared By	Checked By	Approved By	Remarks
1	15/7/2022	Mr R. Wilkes			Amended Application Issue

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1 Purpose of this Update

A hybrid planning application (Ref. 22/00434/F) (the Application) was submitted by Weston Homes (the Applicant) to Norwich City Council (NCC) on 1st April 2022 for the comprehensive redevelopment of Anglia Square and various parcels of mostly open surrounding land, (the Site), as shown within a red line on drawing 'ZZ-00-DR-A-01-0200'.

The Application comprised a full set of technical documents to assess the potential impacts of the proposals, including an EIA which covered a number of topics. In respect of the energy and sustainability strategy, this was described and explained in the Energy Assessment and Sustainability Strategy Report (Rev P2, dated 5th April 2022) by Meinhardt. Please refer to the original documents for further details.

Following submission of the Application, and completion of the statutory consultation exercise, the Applicant has worked with NCC to review the consultation responses received from the local community, statutory consultees and other key stakeholders, so as to identify an appropriate response where considered relevant. As a result of consideration of these comments, as well as ongoing discussions with NCC, a number of changes to the Application as originally submitted are now proposed, including the following;-

- Reduction in height by 1 storey of Blocks A and D;
- Realignment of basement and ground level car park accesses to Block A;
- Repositioning of houses and apartments forming Block B;
- Amendments to the housing mix;
- Raising of Block C ground level to above 100 year (+climate change) flood levels;
- Distance between Block C and 4-10 Beckham place increased;
- Elevational changes and repositioning of Block L (Stump Cross building);
- Roof ridge and eaves on east side of Block M reduced in height;
- Introduction of 2 storey podium between Blocks E and EF to provide larger car park;
- Proposed crossings on Edward Street (opposite Beckham Place) and Pitt Street (by Tooley Lane removed; and
- Landscape amendments.

These changes comprise the Amended Application submitted in July 2022. Overall, the Amended Application continues to seek consent for up to 1,100 dwellings and up to 8,000 Sqm (NIA) non-residential floorspace and associated development. However, since the amendments result in minor changes to the full development description, an updated version of the full Amended Application description is contained in Section 2 of this document.

This Addendum to the Energy Assessment and Sustainability Strategy Report sets out where necessary a response to the Energy Strategy related comments received on the Application as originally submitted, then describes how the design has been developed and adapted as a result of these and other comments, and finally considers the implications of the changes to the scheme now proposed.

The changes in the Amended Application arising from the Energy Strategy related comments are summarised in the table below.

Comment Received	Response From Project Team
	Norwich City Council
In terms of non-commercial the GNLP target is BREEAM "Very Good" - I cannot find a measure of this in the assessment	Please refer to Section 3 of this Addendum.
There is consideration in the report of existing/planned district heating networks – but there is no evidence that there has been consideration of '*opportunities to make the most of any available local economies of scale to maximise provision of energy from sources of 'decentralised and renewable or low carbon energy sources'*	The provision of a site-wide heat network has been considered but was not proposed for the Anglia Square development as a heat network would incur significant distribution heat losses whilst transferring heat energy from communal heat generators to individual dwellings and commercial units. Whilst this may be reduced through optimised network design and use of pipework insulation, these losses cannot be avoided entirely. The new-build residential and commercial properties at Anglia Square have high levels of fabric insulation and therefore low heat losses. The proportion of heat losses compared to delivered heat energy is therefore significant. A site-wide heat network is generally most appropriate when a suitable very low carbon heat source is available (such as a waste to heat plant) and as detailed in the report there is no such source available in this location. The local heat pumps proposed achieve lower carbon emissions than a site-wide network with central heat pumps, as they have a similar seasonal efficiency to the central heat pumps but do not incur the same losses.
Can you please sense check the carbon reductions achieved?	The detailed application achieves a 2% reduction over Part L 2021 through passive design and energy efficiency. The detailed application achieves a 39.7% reduction over Part L 2013 through passive design and energy efficiency. The detailed application achieves an overall 60.3% reduction over Part L 2021. The detailed application achieves an overall 75.4% reduction over Part L 2013 - against the GNLP target of 19%. Renewables expected to provide 56% of the detailed application's energy demand

The energy and sustainability strategies outlined in the originally submitted Energy Assessment and Sustainability Strategy Report are unaffected by the Energy Strategy related comments or the minor changes proposed in the Amended Application.

2 Amended Application Description

Hybrid (part full/part outline) application on site of 4.65ha for demolition and clearance of all buildings and structures and the phased, comprehensive redevelopment of the site with 14 buildings ranging in height from 1 to 8 storeys, for a maximum of 1,100 residential dwellings, (houses, duplexes and flats) (Use Class C3); a maximum of 8,000 sqm flexible retail, commercial and other non-residential floorspace (retail, business, services, food and drink premises, offices, workshops, non-residential institutions, community hub, local community uses, and other floorspace (Use Classes E/F1/F2/Sui Generis (public conveniences, drinking establishments with expanded food provision, bookmakers and/or nail bars (up to 550sqm), and dry cleaner (up to 150sqm))); service yard, cycle and refuse stores, plant rooms, car parking and other ancillary space; with associated new and amended means of access on Edward Street and Pitt Street, closure of existing means of access on Edward Street, New Botolph Street, Pitt Street and St Crispins Road flyover, formation of cycle path between Edward Street and St Crispins Road, formation of wider footways, laybys and other associated highway works on all boundaries, formation of car club parking area off New Botolph Street, up to 450 car parking spaces (at least 95% spaces for class C3 use, and up to 5% for class E/F1/F2/Sui Generis uses), hard and soft landscaping of public open spaces comprising streets and squares/courtyards for pedestrians and cyclists, other landscape works within existing streets surrounding the site, service infrastructure and other associated work; (All floor areas given as maximum Net Internal Area);

Comprising;

Full planning permission on 2.25ha of the site for demolition and clearance of all buildings and structures, erection of 8 buildings ranging in height from 1 to 7 storeys for 353 residential dwellings (Use Class C3) (142 dwellings in Block A, 25 dwellings in Block B, 21 dwellings in Block C, 28 dwellings in Block D, 8 dwellings in Block J3, 81 dwellings in Block K/L, and 48 dwellings in Block M) with associated cycle and refuse stores), and, for 5,411sqm flexible retail, commercial and other non-residential floorspace (retail, business, services, food and drink premises, offices, workshops, non-residential institutions, community hub, local community uses, and other floorspace (Use Classes E/F1/F2/Sui Generis (public conveniences, drinking establishments with expanded food provision, bookmakers and/or nail bars (up to 550sqm), and dry cleaner (up to 150sqm))), service yard, cycle and refuse stores, plant rooms, car parking and other ancillary space, with associated new and amended means of access on Edward Street, closure of existing means of access on Edward Street and New Botolph Street, formation of cycle path from Edward Street to St Crispins Road, formation of wider footways, laybys and other associated highway works on Edward Street, New Botolph Street, and Magdalen Street, formation of car club parking area off New Botolph Street, 137 car parking spaces (at least 95% spaces for class C3 use, and up to 5% for class E/F1/F2/Sui Generis uses) within Blocks A and B, hard and soft landscape works to public open spaces comprising streets and squares for pedestrians and cyclists, other landscape works, service infrastructure and other associated works; (All floor areas given as maximum Net Internal Areas);

and

Outline planning permission on 2.4ha of the site, with landscaping and appearance as reserved matters, for demolition and clearance of all buildings and structures, erection of 6 buildings (Blocks E – H and J) ranging in height from 2 to 8 stories for up to 747 residential dwellings, (houses, duplexes, and flats) (Use Class C3), a maximum of 2,589 sqm flexible retail, commercial and other non-residential floorspace (retail, business, services, food and drink premises, offices, non-residential institutions, local community uses and other floorspace (Use Classes E/F1/F2/Sui Generis (drinking establishments with expanded food provision, bookmakers and/or nail bars (up to 550sqm), and dry cleaner (up to 150sqm))); cycle and refuse stores, plant rooms, car parking and other ancillary space; with associated new and altered means of access on Pitt Street and St Crispins Road, closure of means of access on Pitt Street and St Crispins Road flyover, formation of wider footways, laybys and other associated highway works on Pitt Street and St Crispins Road, a maximum of 313 car parking spaces (at least 95% spaces for class C3 use, and up to 5% for class E/F1/F2/Sui Generis uses), service infrastructure and other associated works (landscaping and appearance are reserved matters); (All floor areas given as maximum Net Internal Areas).

3 BREEAM Pre-Assessment

An initial BREEAM pre-assessment has been carried out for a typical commercial unit to confirm that a rating of ‘Very Good’ is achievable, and that all mandatory elements can be met.

The assessment has been completed as ‘Shell and Core’ under the New Construction 2018 methodology.

The BREEAM pre-assessment report is provided below and demonstrates a target rating of 59.57% which provides sufficient margin to achieve the minimum 55% required to achieve a ‘Very Good’ rating.

BREEAM® UK

www.breeam.com

BREEAM New Construction 2018

Planning Stage

Pre-assessment

Anglia Square

15 July 2022 Assessment Report

Marks & Spencer's BREEAM Excellent Cheshire Oaks store (Image: Marks & Spencer)

bre

Assessment references

Registration number:	Rev 1	**Date created:**	15/7/2022
Created by:	Chris Grubb		

Site details

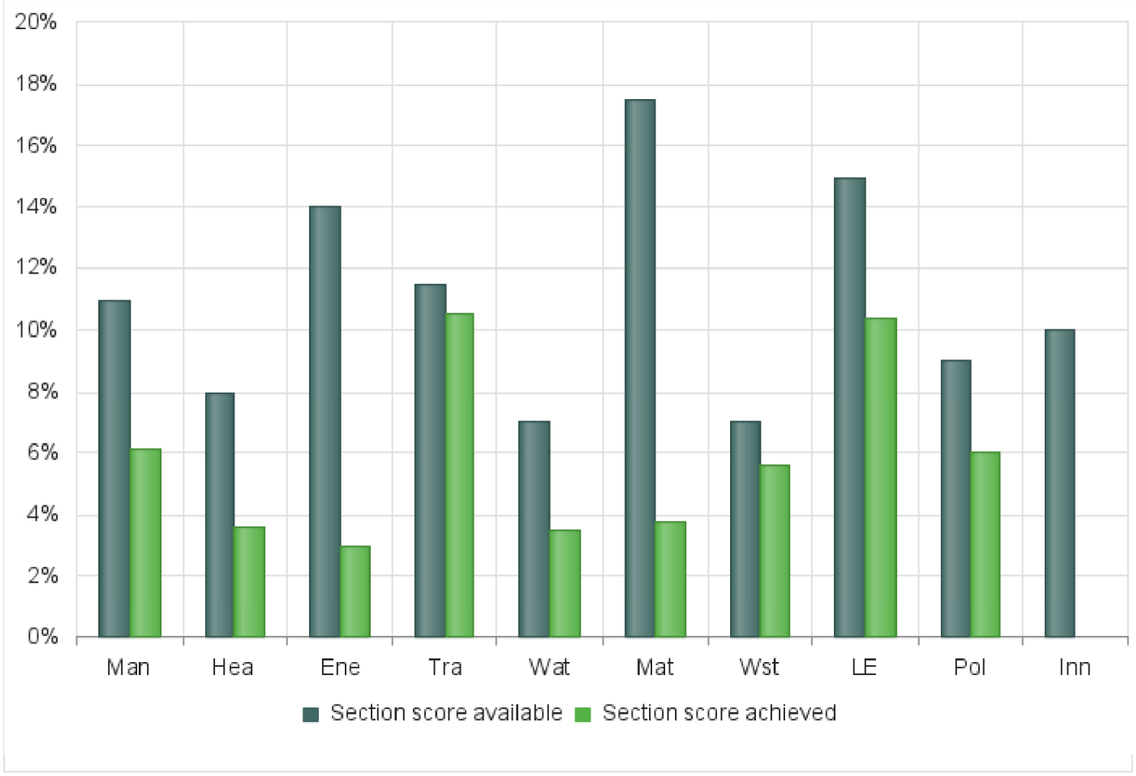
Site name:	Anglia Square
Address:	
Town:	Norwich
County:	
Post code:	
Country:	United Kingdom

BREEAM Rating

	Credits available	Credits achieved	Credits targeted	% Credits achieved	Weighting	Category score	Target score
Man	18.0	10.0	12.0	55.56%	11.00%	6.11%	7.33%
Hea	11.0	5.0	5.0	45.45%	8.00%	3.63%	3.63%
Ene	19.0	4.0	13.0	21.05%	14.00%	2.94%	9.57%
Tra	12.0	11.0	11.0	91.67%	11.50%	10.54%	10.54%
Wat	8.0	4.0	4.0	50.00%	7.00%	3.50%	3.50%
Mat	14.0	3.0	3.0	21.43%	17.50%	3.75%	3.75%
Wst	10.0	8.0	8.0	80.00%	7.00%	5.60%	5.60%
LE	13.0	9.0	9.0	69.23%	15.00%	10.38%	10.38%
Pol	12.0	8.0	7.0	66.67%	9.00%	6.00%	5.25%
Inn	10.0	0.0	0.0	0.00%	10.00%	0.00%	0.00%
Total	127.0	62.0	72.0	48.82%	-	52.47%	59.57%
Rating	-	-	-	-	-	★★☆☆☆ **Good**	Very Good

BREEAM New Construction 2018

Performance by environmental category



Issue scores

Please Note: X means the exemplary credit for the relevant issue

Management

Man 01 Project Brief and design
2 / 4

Man 02 Life cycle cost and service life planning
0 / 4

Man 03 Responsible construction practices
4 / 6 X: 0 / 1

Man 04 Commissioning and handover
4 / 4

Man 05 Aftercare
N/A

Health and Wellbeing

Hea 01 Visual comfort
1 / 4 X: 0 / 1

Hea 02 Indoor air quality
0 / 1

Hea 04 Thermal comfort
2 / 2

Hea 05 Acoustic performance
1 / 1

Hea 06 Security
1 / 1 X: 0 / 1

Hea 07 Safe and Healthy Surroundings
0 / 2

Energy

Ene 01 Reduction of energy use and carbon emissions
0 / 13 X: 0 / 5

Ene 02 Energy monitoring
2 / 2

Ene 03 External lighting
1 / 1

Ene 04 Low carbon design
1 / 3

Ene 05 Energy efficient cold storage
N/A

Ene 06 Energy efficient transportation systems
N/A

Ene 07 Energy efficient laboratory systems
N/A

Ene 08 Energy efficient equipment
N/A

Transport

Tra 01 Transport assessment and travel plan
2 / 2

Tra 02 Sustainable transport measures
9 / 10

Water

Wat 01 Water consumption
3 / 5 X: 0 / 1

Wat 02 Water monitoring
1 / 1

Wat 03 Water leak detection
0 / 2

Wat 04 Water efficient equipment
N/A

Materials

Mat 01 Life cycle impacts
0 / 7 X: 0 / 3

Mat 02 Environmental impacts from construction products
0 / 1

Mat 03 Responsible sourcing
2 / 4 X: 0 / 1

Mat 05 Designing for durability and resilience
1 / 1

Mat 06 Material efficiency
0 / 1

Waste

Wst 01 Construction waste management
4 / 5 X: 0 / 1

Wst 02 Use of recycled and sustainably sourced aggregates
0 / 1 X: 0 / 1

Wst 03 Operational waste
1 / 1

Wst 04 Speculative finishes (Offices only)
N/A

Wst 05 Adaptation to climate change
1 / 1 X: 0 / 1

Wst 06 Design for disassembly and adaptability
2 / 2

Land use and ecology

LE 01 Site selection
1 / 2

LE 02 Ecological risks and opportunities
2 / 2 X: 0 / 1

LE 03 Managing impacts on ecology
3 / 3

LE 04 Ecological change and enhancement
3 / 4 X: 0 / 1

LE 05 Long term ecology management and maintenance
0 / 2

Pollution

Pol 01 Impact of refrigerants
1 / 3

Pol 02 Local air quality
2 / 2

Pol 03 Flood risk management and reducing surface water run-off
3 / 5

Pol 04 Reduction of Night Time Light Pollution
1 / 1

Pol 05 Noise attenuation
1 / 1

Innovation

Inn 01 Innovation
0 / 0 X: 0 / 10

Initial details

Technical manual issue number : Issue 3.0

Project scope : Shell and core

Building type (main description) : Retail

Sub-group : Shop or shopping centre

Assessment stage : Design (interim)

Building floor area (GIA) :

Building floor area (NIFA) : 1099.2 m^2

Is the building designed to be untreated? : No

Building services - heating system type : Air system

Building services - cooling system type : Comfort cooling

Does the building have external areas within the boundary of the assessed development? : No

Are commercial or industrial-sized refrigeration and storage systems specified? : No

Are building user lifts present? : No

Are building user escalators or moving walks present? : No

Are there any water demands present other than those assessed in Wat 01? : No

Are there statutory requirements, or other issues outside of the control of the project, that impact the ability to provide outdoor space : No

Are there any systems specified that contribute to the unregulated energy load? : No

Are the Post-occupancy stage credits targeted in Ene 01 issue? : No

Are laboratories present? : No

Are there fume cupboard(s) and/or other containment devices present? : No

Category assessment
Management (Man)

Man 01 Project Brief and design

To optimise final building design through recognising and encouraging an integrated design process and robust stakeholder engagement.

Assessment criteria	
Stakeholder consultation (interested parties) :	Yes
Project delivery planning :	Yes
Prerequisite: Have the client and the contractor formally agreed performance targets? :	Yes
BREEAM Advisory Professional (Concept Design) :	No

Credits awarded : 2

Man 02 Life cycle cost and service life planning

To promote the business case for sustainable buildings and to deliver whole life value by encouraging the use of life cycle costing to improve design, specification, through-life maintenance and operation.

Assessment criteria	
Elemental LCC :	No
Component level LCC options appraisal :	No
Capital cost reporting :	Yes
Capital cost of the project :	0 Â£k/m^2

Credits awarded : 0

Man 03 Responsible construction practices

To recognise and encourage construction sites which are managed in an environmentally and socially considerate, responsible and accountable manner.

Assessment criteria	
Prerequisite: Are all timber and timber-based products used during the	Yes

construction process of the project 'legally harvested and traded timber'? :	
Environmental management :	No
Prerequisite: Have the client and the contractor formally agreed performance targets? :	Yes
BREEAM Advisory Professional (site) :	Yes
Responsible construction management :	2
Monitoring of construction site impacts :	Yes
Utility consumption :	Yes
Transport of construction materials and waste :	Yes
Exemplary level criteria - Responsible construction management :	No

Key Performance Indicators: Construction site energy use

Energy consumption (total) - site processes :

Energy consumption (intensity) - site processes :

Key Performance Indicators: Construction site greenhouse gas emissions

Process greenhouse gas emissions (total) - site processes :

Carbon dioxide emissions (intensity) - site processes :

Credits awarded : 4

Man 04 Commissioning and handover

To encourage a properly planned handover and commissioning process that reflects the needs of the building occupants.

Assessment criteria

Commissioning testing schedule and responsibilities :	Yes
Commissioning - design and preparation :	Yes
Testing and inspecting building fabric :	Yes
Handover - have a technical and a non-technical building user guide been developed prior to handover? :	Yes
Handover - have a technical and a non-technical training schedule been prepared around handover? :	Yes

Credits awarded : 4

Man 05 Aftercare

To ensure the building operates in accordance with the design intent and operational demands, through providing aftercare to the building owner and occupants during the first year of occupation.

Assessment criteria - N/A

Health and Wellbeing (Hea)

Hea 01 Visual comfort

To encourage best practice in visual performance and comfort by ensuring daylighting, artificial lighting and occupant controls are considered.

Assessment criteria	
Daylighting (building type dependent) :	0
View Out :	No
External lighting for Shell and core, and Shell only assessments :	Yes

Credits awarded : 1

Hea 02 Indoor air quality

To encourage and support healthy internal environments with good indoor air quality.

Assessment criteria	
Pre requisite: Indoor air quality (IAQ) plan :	Yes
Ventilation :	No

Credits awarded : 0

Hea 04 Thermal comfort

To ensure the building is capable of providing an appropriate level of thermal comfort.

Assessment criteria	
Thermal modelling :	Yes
Design for future thermal comfort :	Yes

Key Performance Indicators
PMV and PPD Indices :

Credits awarded : 2

Hea 05 Acoustic performance

To ensure the building is capable of providing an appropriate acoustic environment to provide comfort for building users.

Assessment criteria	
Criteria performance requirements or SQA bespoke requirements? :	Criteria performance requirements
Indoor ambient noise level :	Yes

Credits awarded : 1

Hea 06 Security

To encourage the planning and implementation of effective measures that provide an appropriate level of security to the building and site.

Assessment criteria	
Security of site and building :	Yes
Exemplary level criteria :	

Credits awarded : 1

Hea 07 Safe and Healthy Surroundings

To encourage the provision of safe access around the site and outdoor space that enhances the wellbeing of building users. .

Assessment criteria	
Safe Access :	No
Outside Space :	No

Credits awarded : 0

Energy (Ene)

Ene 01 Reduction of energy use and carbon emissions

To minimise operational energy demand, primary energy consumption and CO2 emissions.

Energy performance

Country : England

Can a .inp file be uploaded? : No

Without the .inp file being uploaded only the standard methodology can be used. This may impact the number of credits that can be awarded. :
Energy Production by Technology :

Energy & CO_2 Emissions Summary :

Actual building energy demand :

Notional building energy demand :

Actual building primary energy consumption :

Notional building primary energy consumption :

Actual building CO_2-eq emissions (BER) :

Notional building CO_2-eq emissions (TER) :

Towards carbon negative (exemplary credits)

Zero net CO_2-eq emissions :

Energy performance - Building score

Heating and cooling demand energy performance ratio (EPRdem) :

Primary consumption energy performance ratio (EPRpc) :

Total BREEAM credits achieved : 0.0

CO_2-eq energy performance ratio (EPRco2-eq) :

Overall building energy performance ratio (EPRnc) :

% improvement BER/TER :

Prediction of operational energy consumption

Has a design workshop focusing on operational energy performance been carried out? : No

Has the operational energy performance of the building been substantially improved? : No

Post-occupancy stage (exemplary credits)

Maximum credits achieved in Ene 02 Energy monitoring? : Yes

The client or building occupier commits funds to pay for the post-occupancy stage? : No

The energy model is submitted to BRE and retained by the building owner? : No

Credits awarded : 0

Ene 02 Energy monitoring

To encourage the installation of energy sub-metering that facilitates the monitoring of operational energy consumption. To enable managers and consultants post-handover to compare actual performance with targets in order to inform ongoing management and help in reducing the performance gap.

Assessment criteria

Sub-metering of end use categories : Yes

Sub-metering of high energy load and tenancy areas : Yes

Credits awarded : 2

Ene 03 External lighting

To reduce energy consumption through the specification of energy efficient light fittings for external areas of the development.

Assessment criteria

External lighting has been designed out? : No

Is external lighting specified in accordance with the relevant criteria? : Yes

Credits awarded : 1

Ene 04 Low carbon design

To encourage the adoption of design measures, which reduce building energy consumption and associated carbon emissions and minimise reliance on active building services systems.

Assessment criteria	
Has the first credit within Hea 04 been achieved? :	Yes
Passive design analysis :	No
Free cooling :	No
Low and zero carbon technologies :	Yes

KPI

Total on-site and/or near-site LZC energy generation :

Expected energy consumption and CO_2-eq emissions reduction resulting from passive design measures :

Expected energy consumption and CO_2-eq emissions reduction resulting from passive design measures as a percentage :

Expected reduction in CO_2-eq emissions resulting from the LZC technologies :

Expected reduction in CO_2-eq emissions resulting from the LZC technologies as a percentage :

Credits awarded

: 1

Ene 05 Energy efficient cold storage

To encourage the installation of energy efficient refrigeration systems, in order to reduce operational greenhouse gas emissions resulting from the system's energy use.

Assessment criteria - N/A

Ene 06 Energy efficient transportation systems

To encourage the specification of energy efficient transport systems within buildings.

Assessment criteria - N/A

Ene 07 Energy efficient laboratory systems

To encourage laboratory areas that are designed to minimise their operational energy consumptionand associated CO2 emission

Assessment criteria - N/A

Ene 08 Energy efficient equipment

To encourage installation of energy efficient equipment to ensure optimum performance and energy savings in operation

Assessment criteria - N/A

Transport (Tra)

Tra 01 Transport assessment and travel plan

To reward awareness of existing local transport and identify improvements to make it more sustainable.

Assessment criteria	
Travel plan :	Yes

Credits awarded : 2

Tra 02 Sustainable transport measures

To maximise the potential for local public, private and active transport through provision of sustainable transport measures appropriate to the site.

Assessment criteria	
Prerequisite :	Yes
Location type (based on existing AI) :	25 ≤ AI < 40 (urban centres)
Number of points achieved overall :	7

Credits awarded : 9

Water (Wat)

Wat 01 Water consumption

To reduce the consumption of potable water for sanitary use in new buildings through the use of water efficient components and water recycling systems.

Assessment criteria	
Are all the components specified and installed by the tenant not the developer? :	Yes
Please select the calculation procedure used :	Standard approach
Credits awarded :	3
Exemplary performance :	

Key Performance Indicators

Standard approach data: :

Water Consumption from building micro-components :

Water demand met via greywater/rainwater sources :

Total net water consumption :

Improvement on baseline performance :

Key Performance Indicator - use of freshwater resource: :

Total net Water Consumption :

Default building occupancy :

Credits awarded : 3

Wat 02 Water monitoring

To reduce the consumption of potable water in new buildings through the effective management and monitoring of water consumption.

Assessment criteria	
Water meter on the mains water supply to each building :	Yes
Sub-metering/monitoring equipment on supply to plant/building areas :	Yes

Pulsed output or other open protocol communication output and BMS connection :	Yes

Credits awarded : 1

Wat 03 Water leak detection

To reduce the consumption of potable water in new buildings through minimising wastage due to water leaks.

Assessment criteria

Leak detection system :	No
Flow control devices :	No

Credits awarded : 0

Wat 04 Water efficient equipment

To reduce water consumption for uses not assessed under Wat 01 by encouraging specification of water efficient equipment.

Assessment criteria - N/A

Materials (Mat)

Mat 01 Life cycle impacts

To reduce the burden on the environment from construction products by recognising and encouraging measures to optimise construction product consumption efficiency and the selection of products with a low environmental impact (including embodied carbon), over the life cycle of the building.

Assessment criteria

Total Mat 01 credits achieved - taken from the Mat 01/02 Results Submission Tool :	0
Total Exemplary credits achieved - taken from the Mat 01/02 Results Submission Tool :	0

Credits awarded : 0

Mat 02 Environmental impacts from construction products

To encourage availability of robust and comparable data on the impacts of construction products through the provision of EPD.

Assessment criteria

Mat 02 credit achieved - Taken from the Mat 01/02 Results Submission Tool. :	0

Credits awarded : 0

Mat 03 Responsible sourcing

To facilitate the selection of products that involve lower levels of negative environmental, economic and social impact across their supply chain including extraction, processing and manufacture.

Assessment criteria

Prerequisite: All timber and timber based products are 'Legally harvested and traded timber' :	Yes
Has the enabling sustainable procurement credit been achieved? :	Yes
Mat 03 minimum scope level :	Superstructure
Percentage of available for percentage of RSM points achieved :	10 %

Credits awarded : 2

Mat 05 Designing for durability and resilience

To reduce the need to repair and replace materials resulting from damage to exposed elements of the building and landscape.

Assessment criteria

Protecting vulnerable parts of the building from damage and exposed parts of the building from material degradation :	Yes

Credits awarded : 1

Mat 06 Material efficiency

To avoid unnecessary materials use arising from over specification without compromising structural stability, durability or the service life of the building.

Assessment criteria

Material optimisation measures investigated and implemented at all relevant stages :	No

Credits awarded : 0

Waste (Wst)

Wst 01 Construction waste management

To reduce construction waste by encouraging reuse, recovery and best practice waste management practicesto minimise waste going to landfill.

Assessment criteria

Is demolition occurring under the developer's ownership for the purpose of enabling the assessed development? :	Yes
Pre-demolition audit :	Yes
Compliant Resource Management Plan :	Yes
Have waste materials been sorted into separate key waste groups? :	Yes
Exemplary level criteria :	

KPI

Measure/units for the data being reported :	m^3
Non-hazardous construction waste (excluding demolition/excavation) - fill in to award 'Construction resource efficiency' credits :	
Total non-hazardous construction waste generated :	
Non-hazardous non-demolition construction waste diverted from landfill - fill in to award diversion from landfill credit :	
Total non-hazardous non-demolition construction waste diverted from landfill :	
Non-hazardous demolition waste diverted from landfill - fill in to award diversion from landfill credit :	
Total non-hazardous demolition waste generated :	
Total non-hazardous demolition waste to disposal :	
Non-hazardous excavation waste diverted from landfill - fill in to award credit :	
Material for reuse :	
Material for recycling :	
Material for energy recovery :	
Hazardous waste to disposal :	

Credits awarded : 4

Wst 02 Use of recycled and sustainably sourced aggregates

To encourage the use of more sustainably sourced aggregates, encourage reuse where appropriate and avoid waste and pollution arising from disposal of demolition and other forms of waste.

Assessment criteria

Is demolition occurring under the developer's ownership for the purpose of enabling the assessed development? :	Yes
Pre-requisite: pre-demolition audit :	Yes

Projects Sustainable Aggregate points :

KPI

Total quantity of aggregate :

% of high - grade aggregate that is recycled/ secondary aggregate by application :

Credits awarded : 0

Wst 03 Operational waste

To encourage the recycling of operational waste through the provision of dedicated storage facilities and space.

Assessment criteria

Compliant recycling and non-recyclable waste storage allocated :	Yes
Static waste compactor(s) or baler(s) :	Yes
Vessel(s) for composting suitable organic waste and water outlet :	Yes

Credits awarded : 1

Wst 04 Speculative finishes (Offices only)

To minimise the wastage associated with the installation of floor and ceiling finishes in lettable areas in speculative buildings where tenants have not been involved in their selection.

Assessment criteria - N/A

Wst 05 Adaptation to climate change

To minimise the future need of carrying out works to adapt the building to take account of more extreme weather changes resulting from climate change and changing weather patterns.

Assessment criteria

Resilience of structure, fabric, building services and renewables installation :	Yes
Exemplary level - responding to climate change :	

Credits awarded : 1

Wst 06 Design for disassembly and adaptability

To avoid unnecessary materials use, cost and disruption arising from the need for future adaptation works as a result of changing functional demands and to maximise the ability to reclaim and reuse materials at final demolition in line with the principles of a circular economy.

Assessment criteria

Design for disassembly and functional adaptability - recommendations :	Yes
Disassembly and functional adaptability - implementation :	Yes

Credits awarded : 2

Land use and ecology (LE)

LE 01 Site selection

To encourage the use of previously occupied or contaminated land and avoid land which has not been previously disturbed.

Assessment criteria

Percentage of proposed development's footprint on previously occupied land: :	100 %
Contaminated land :	No

Credits awarded : 1

LE 02 Ecological risks and opportunities

To determine the existing ecological value associated with the site and surrounding areas, and the risks and opportunities for ecological protection and enhancement.

Assessment criteria

Assessment route selection :	Comprehensive
Prerequisite - Statutory obligations :	Yes
Survey and Evaluation :	Yes
Determining ecological outcomes :	Yes
Exemplary level - Wider site sustainability :	

Credits awarded : 2

LE 03 Managing impacts on ecology

To avoid, or limit as far as possible, negative ecological impacts associated with the site and surrounding areas resulting from the project.

Assessment criteria

Assessment route :	Comprehensive
Prerequisite - Ecological risks and opportunities :	Yes
Planning and measures on-site :	Yes

Managing negative impacts :	2

Credits awarded : 3

LE 04 Ecological change and enhancement

To enhance ecological value of the area associated with the site in support of local, regional and national priorities.

Assessment criteria

Assessment route :	Comprehensive
Prerequisite - Managing negative impacts on ecology :	Yes
Ecological enhancement (Comprehensive route only) :	Yes
Change and enhancement of ecology (Comprehensive route only) :	2

Credits awarded : 3

LE 05 Long term ecology management and maintenance

To secure ongoing monitoring, management and maintenance of the site and its habitats and ecological features, to ensure intended outcomes are realised for the long term.

Assessment criteria

Assessment route :	Comprehensive
At least one credit achieved under LE 04 for 'Change and Enhancement of Ecologyâ :	Yes
Prerequisite - Statutory obligations, planning and site implementation :	Yes
Management and maintenance throughout the project :	No
Landscape and ecology management plan :	No

Credits awarded : 0

Pollution (Pol)

Pol 01 Impact of refrigerants

To reduce the level of greenhouse gas emissions arising from the leakage of refrigerants from building systems.

Assessment criteria

Refrigerant containing systems installed in the assessed building? :	Yes
Prequisite: All systems (with electric compressors) comply with BSÂ EN 378:2016 (parts 2 and 3) and (where applicable) Institute of Refrigeration Ammonia Refrigeration Systems code of practice? :	Yes
Total Direct Effect Life Cycle CO2eq (DELC). Emissions from the system : Global Warming Potential (GWP) of the specified refrigerant(s) 10 or less? :	No

Leak detection

Are all the systems hermetically sealed? :	Yes

Credits awarded : 1

Pol 02 Local air quality

To contribute to a reduction in local air pollution through the use of low emission combustion appliances in the building.

Assessment criteria

Is the project required to connect to a District Heating system, and it supplies all heating and hot water demands to the building? :	No
How many credits have been achieved? :	2

Credits awarded : 2

Pol 03 Flood risk management and reducing surface water run-off

To avoid, reduce and delay the discharge of rainfall to public sewers and watercourses, thereby minimising the risk and impact of localised flooding on and off-site, watercourse pollution and other environmental damage.

Assessment criteria

Prerequisite: Has an appropriate consultant demonstrated and confirmed the development's compliance with all sought credits? :	Yes
Has a site-specific flood risk assessment been conducted? :	Yes

Annual probability of flooding :	Low
Has the pre-requisite for the Surface Water Run-Off credits been achieved? :	Yes
Has the Surface Water Run-Off - Rate credit been achieved? :	Yes
Has the Surface Water Run-Off - Volume credit been achieved? :	No
Minimising watercourse pollution :	No

Credits awarded : 3

Pol 04 Reduction of Night Time Light Pollution

To ensure that external lighting is concentrated in the appropriate areas and that upward lighting is minimised, reducing unnecessary light pollution, energy consumption and nuisance to neighbouring properties.

Assessment criteria

External lighting has been designed out? :	No
Does external lighting meet all relevant criteria? :	Yes

Credits awarded : 1

Pol 05 Noise attenuation

To reduce the likelihood of noise arising from fixed installations on the new development affecting nearby noise-sensitive buildings.

Assessment criteria

Noise-sensitive areas/buildings within 800m radius of the development :	Yes
Is the site compliant with all relevant criteria? :	Yes

Credits awarded : 1

Innovation (Inn)

Inn 01 Innovation

To support innovation within the construction industry through the recognition of sustainability related benefits which are not rewarded by standard BREEAM issues.

Assessment criteria

Number of 'approved' innovation credits achieved? :	0

Credits awarded : 0

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