



BREEAM Domestic Refurbishment 2014

Assessor's Validation statement (Design stage)

**Site: Kenavon Drive Additional 4 units
(BREEAM-0131-7767)**

Revision A

Date: 23/05/2025



Building Details :

The four dwellings form part of a mixed-use new development, involving the repurposing of a previously uninhabited void space located above a newly built commercial unit. The dwellings have been constructed in accordance with Building Regulations 2013, Part L1A.

A BREEAM Domestic Refurbishment assessment is required by the Local Planning Authority (LPA), as the scheme involves a change of use from an uninhabited, newly built commercial space to four 2-bedroom residential units. Based on the evidence provided, I have awarded a score of 68.50%, achieving a 'Very Good' rating for all four dwellings.

The commercial elements of the development have all achieved a BREEAM New Construction 'Very Good' rating (BREEAM-0096-4304-1-1 PCR West Block Retail; BREEAM-0096-5129-1-1 Yoga PCR certificate, BREEAM-0096-5137-1-1 Nursery PCR) and as such, sitewide evidence—including documentation related to CCS, surface water runoff and ecology—has been reused to support this Domestic Refurbishment assessment.

Management

Man 01 Home Users Guide

The developer has provided a draft Home User Guide [1], which includes the information outlined in the User Guide Contents List. In addition, their design specification document [2] section 8.1 confirms that the final Home User Guide will be provided to all dwellings before handover.

The guide covers the following items:

- About BREEAM Domestic Refurbishment. – pg 31 pdf
- Recommendations Report. –pg 14 pdf Safety section ; pg 28 Saving energy; saving water ; ecology ; Sustainable DIY; pg 37 Maintenance
- Energy Efficiency. – pg 28 -low energy light fittings ; Saving energy; Energy performance certificate ; pg 23 pdf Heating
- Water Use. – pg 28 of 39 pdf saving water
- Transport Facilities. – pg 10 of 39 pdf
- Materials and Waste. – pg 29 of 39 Sustainable DIY ; responsible purchasing ; pg 11 Refuse and recycling
- Emergency Information. – pg 4 of 39 Emergency Helpline ; pg 7 of 39 pdf Emergency Assistance
- Local Amenities. – pg 11 Facilities at Huntley Wharf and Huntley Wharf - Host Brochure
- Provision of Information in Alternative Formats. Pg 4 pdf Berkeley Customer Service
- SuperHomes Network. – is not applicable as this is new built
- Links and References. – pg 29 of 37 pdf useful link; pg 5 pdf Quick reference

Man 2: Responsible construction practices

Option 1 : the site was registered with Considerate Constructors Scheme; the monitor's report and final certificate confirms that a score of 40 with a minimum score of 13 for each section has been achieved and 2 credits plus exemplary credits are awarded.

Man 3: Construction Site Impacts (Large-scale refurbishments – Construction site impacts)

C1 : the developer has provided their Sustainable Procurement Plan confirms the sections c&e in Checklist A-4: Large-scale refurbishments are in place. (One credit is awarded)

c. An environmental materials policy

e. 80% of site timber is reclaimed, re-used or responsibly sourced. (Ref to page 1 , last para of BGSP05 Sustainable Specification and Procurement Policy June 2017)



Man 04 Security

All external doors and accessible windows meet the minimum security requirements.

External doors and Windows are certified to PAS 24:2012 and SBD.

This has been confirmed through the developer's design stage specification [2] section 8.4. The Velfac website also confirms that VELFAC 200 windows have been tested to PAS 24 standards and are compliant with Part Q. Additionally, an SBD (Secured by Design) certificate has been provided to demonstrate compliance.

Man 05 Protection and Enhancement of Ecological Features

A site survey is carried out by a suitably qualified ecologist (SQE) to determine the presence of ecological features.

A preliminary ecological appraisal [1.1] was carried out by biodiversity by design on behalf of the client in July 2016 based on their survey at Riba stage 1 (ref to page 8 of 67, section 1.2)

Page 9 of 67 pdf section 2.2 confirms that A Phase 1 Habitat Survey of the Site was completed on the 9th May 2015 in line with standard survey methods (JNCC, 2010)

Email [2] from Dr Michael Wells of Biodiversity by Design Ltd (2nd email in the chain) confirms that he is a suitably qualified ecologist and pg 67 pdf shows his signature.

Protected species have been identified as present on-site, the relevant Statutory Nature Conservation Organisation (SNCO) has been notified and protected species have been adequately protected.

All existing features of ecological value on the refurbishment site potentially affected by the works, are maintained and adequately protected during refurbishment works.

The ecologist has confirmed that a number of mature trees and species-poor hedgerows comprising native species were present within the Site at the time of survey and these features were considered to be of some ecological value. It was not feasible to retain a number of these trees and hedgerows, which had to be removed in order to facilitate the new development, however proposals include the planting of new trees and shrubs and additional biodiversity planting, including a flowering lawn mix (See Appendices E and F). (Ref to page 6 of 16 pdf section 2 of GN 13 [3] and [1] Appendices E&F)

Where a suitably qualified ecologist has been appointed to recommend appropriate ecological features that will positively enhance the ecology of the site and where the developer adopts all general ecological recommendations and 30% of additional recommendations.

Section 6 (Page 49-51 pdf) of PEA [1] confirms their recommendations, including installing terraces and planted rafts by the riverside, green roofs and facades, tree & shrub planting, ornamental planting in courtyard, urban wildflower meadows, bird/bat boxes, and sand martin boxes.

Recommendations for ecological enhancements were provided within the PEA were adopted by later ecologist The Temple Group (March, 2017) ref to page 11 of 16 pdf of GN13 [3] and Appendixes B-I

[1] Appendixes E-I confirms that a 100% of ecologist's recommendations were included into the design.

Hea 2: Sound insulation

The developer has provided construction drawings[1][2] of the building elements, confirming that Robust Details E-WS-5, E-WM-17, and E-FC-10 have been implemented in the construction of the party walls and party floors. These details have been verified [3] by the assessor, confirming that three credits can be awarded under the relevant criteria.

As outlined in the building details section, the party walls and party floors are newly constructed and have been designed to fully comply with Part E of the Building Regulations for sound insulation performance.

Section 7.2 of the developer's design stage specification [2] also confirms that a 5dB improvement will be achieved through a standard programme of pre-completion sound testing.

Hea05 Ventilation

A minimum level of background ventilation is provided for all habitable rooms, kitchens, utility rooms and bathrooms in



accordance with CN1 via trickle vents on windows and MEV.

A minimum level of extract ventilation is provided in all wet rooms (e.g. kitchen, utility and bathrooms), compliant with section 5, Building Regulations Approved Document Part F 2010 via MEV system , as detailed in CN2.

A minimum level of purge ventilation is provided in all habitable rooms and wet rooms, compliant with section 7, Building Regulations Approved Document Part F, 2010 via MEV (Continuous Ventilation) in accordance with CN3

Ventilation - Advanced Ventilation

Centralised MEV (Make and model - Greenwood CMEV.4e) can provide both background and purge ventilation. Ventilation is provided for the dwelling that meets the requirements of Section 5 of Building Regulations Part F in full.

Ref to drawings O446-37454-SW-ZZ-M-7157 & O446-37454-SW-ZZ-M-7159 Ventilation layout show that extract fan/valve in wet rooms and kitchen; Openable windows in all habitable rooms.

Hea 07 Safety – C1-C4 and CN2-7

C1: The dwellings are equipped with a compliant fire detection and smoke alarm system. Please refer to MEP apartment layout drawings O446-37454-SW-ZZ-E-7158 and O446-37454-SW-ZZ-E-7160, which show the locations of smoke, heat, and fire detection and alarm systems.

C2: CO₂ detectors are not required, as there are no gas supplies. This is confirmed in the developer's design stage specification (Section 7.6) and supported by drawings O446-37454-SW-ZZ-E-7158 and O446-37454-SW-ZZ-E-7160.

C3: Not applicable – these are newly built flats.

C4: The fire and smoke alarm systems are fitted with battery backup. Please refer to the legends in drawings O446-37454-SW-ZZ-E-7158 and O446-37454-SW-ZZ-E-7160 for further detail.

Ene 1: Improvement in Energy Efficiency Rating

Ene 2: Energy Efficiency Rating Post Refurbishment and Ene 3: Primary Energy Demand

Ene 4: Renewable Technologies

CN2: A copy of the post-refurbishment Design Stage Predicted Energy Performance Certificate (PEA) report and SAP 2012 worksheets has been provided by the developer. The SAP 2012 assessment was completed by Accredited Domestic Energy Assessor Jon West (ID: EES/008114) using Elmhurst Energy software from the link below : <https://getting-new-energy-certificate.service.gov.uk/find-an-assessor/search-by-name?name=Jon+West+>

Elmhurst Energy is licensed by the Department for Communities and Local Government to accredit competent persons for assessing the CO₂ emission rate of domestic buildings in line with Building Regulations compliance.

In addition, a copy of the output from the BREEAM Domestic Refurbishment Energy Calculator has been completed by the assessor, based on the submitted SAP reports.

The results show that the following credits can be awarded :

Ene 01 : 0 credits

Ene 02 : 3.5 credits

Ene 03 : 7 credits

Ene 04 : 2 credits



Ene 5: Energy Labelled White Goods

- Fridges and freezers or fridges/freezers have an E rating

BEKO BCFD473 7519520069 - E rating (Ref to product datasheet 1)

- Dishwashers have an D+ rating

BEKO din16430_Integral Dishwasher –D Rating(Ref to product datasheet 2)

- Washer-dryers and tumble dryers have an D-D rating under the EU energy efficiency labelling scheme

BEKO WDL854431W Washer Dryer an C-D rating (Ref to product datasheet 3)

Ene 06: Drying space – credit not sought

Ene 07: Lighting

All space lighting will be served by low energy light bulbs, being bulbs with a luminous efficacy of greater than 45 lumens per circuit watt. All burglar security lighting will have a maximum wattage of 150W, incorporate a PIR sensor or daylight cut off sensor.

All other security lighting will be low-energy and have day light cut-off sensors or a time switch.

Internal lighting : the energy required for internal lighting is minimised through the provision of a maximum average wattage across the total floor area of the dwelling of 9 watts/m2.

The above criteria have been confirmed by the developer's design stage specification [2] section 1.6.

Ene 08: Energy Display Devices

Electricity is the primary heating fuel for these dwellings. Electricity consumption data are displayed to the occupants via the E.ON Smart Meter.(Ref to developer's design stage specification section 1.8)

The developer has provided the E.ON Smart Meter Guide, which confirms compliance with Criteria 4 and 5, as well as CN2 and CN3, ref to text highlighted in yellow.

Ene 09: Cycle Storage

These 2-bedroom dwellings will have storage for 1 cycle per home, this is confirmed by the developer's design stage specification section 1.8.

Location: Secure communal cycle storage within the ground floor. Ref to drawings reference : O446-AA5990C-M-00-A-4225-GA Site Plan-M-L00

Security measures: Cycle store with steel fixing set in concrete which allows both the wheel and the frame to be locked securely, located within 100m of the main entrance to the flats (Ref to design stage specification section 1.8)



Ene 10 : Home Office

Criterion 1 : Sufficient space and services have been provided which allow the occupants to set up a home office in a suitable room with adequate ventilation.

Ref to Drawings O446-37454-SW-ZZ-E-7158 & O446-37454-SW-ZZ-E-7158 show twin double power sockets;
Telephone/data point ; openable window

Wat 1: Internal Water Use

Internal potable water use will achieve 105 litres per person per day for all flat types. As per developer's design stage specification [2] section 2.1

Element	Performance
Kitchen taps flow rate	5.3 Litres per minute
Other basin taps flow rate	5 Litres per minute
WCs flush volume (full/part)	4.5/3 Litres
Shower flow rate	9 Litres per minute
Bath volume	156 Litres
Dishwasher water consumption	0.98 litres per place setting
Washing-machine water consumption	8.17 litres per kg

Water efficiency calculations have been completed by the developer, confirming that a consumption rate of 105 litres per person per day has been achieved for each plot.

Wat 2: External water Use

This credit is to be achieved by default, as the only private outdoor space provided is via balconies.

Ref to the 2024_11.04 Mid Block Elevation Sketches drawing show that only balconies provided and the developer's confirmation (refer to design stage specification [2] section 2.2.

Wat 03 Water Meter

Criterion 1 and CN1 : the developer has confirmed in their design stage specification [2] section 2.3 confirms that the water meter (Thame Water Inline Meter - Itron Aquadis+ Cold Water Meter) being installed will provides a visible display of mains potable water consumption to occupants. The meter is a permanent feature secured in a location visible to occupants and capable of recording and displaying historic water consumption to allow water consumption to be monitored over time. The meter is capable of displaying current consumption either instantaneously or at half hourly intervals.

The water meters are being located in the riser, please see MEP water schematics O446-37454-M1-ZZ-M-6051 and



O446-37454-M5-ZZ-M-6056 and the developer's design stage specification [2] section 2.3

Make and model : Thame Water Inline Meter - Itron Aquadis+ Cold Water Meter) datasheets page 3 of 4 communication section confirms the water meter is pre-equipped with the proven Cycle technology.

Mat 1: Environmental Impact of Materials

Credit not sought

Mat 2: Responsible Sourcing of Materials Elements

Pre-requisite Criterion 1a: the developer has provided their sustainable specification and procurement policy confirms that all timber and timber-based products used on the project will be 'legally harvested and traded timber. (Ref to 1. BGSP05_Sustainable_Specification_and_Procurement_Policy_June_2017, page 1 of 3 section 2)

Criterion 2 : Group Sustainable procurement plan is in place.

Point 1: The Sustainable Specification and Procurement Policy[1], in the second paragraph of sections 1 and 2, details the risks and opportunities.

Point 2: The Sustainable Specification and Procurement Policy [1] outlines the aims, objectives, and targets. Sections 4 and 5 specify the aim to reduce procurement demand in divisional offices and on sites, with the target of striving for continual improvement and innovation in approach. Objectives are referenced in section 3.

Point 3: Page 1 of 3, section 2, details the policy [1] for procuring sustainably sourced materials and local materials where available.

Point 3: The Sustainability Department Guide_Commercial [2] demonstrates that a strategy assessment of sustainably sourced materials, available both locally and nationally, has been carried out for the project. It identifies the products chosen based on sustainability credentials (refer to page 3 of 3, recommendation section and pre-order section).

Point 3: The Sustainability Standard for Contractors [3] confirms the procedures for checking sustainability credentials (refer to page 8 of 21; page 17 of 21, section 3.8 Material Sourcing).

Point 4: The Sustainability Standard for Contractors Checklist [4] demonstrates the procedures for implementing and reviewing the sustainable procurement plan with the contractors (refer to page 9 of 18, section 3.8).

Mat 03 Insulation - Prerequisite and Embodied Impact

Greater than 80% of the thermal Insulation used in External walls, Ground floor, Roof and Building services will be responsibly sourced.

Was 1: Household Waste - Recycling Facilities

Criterion 1

Reading Borough Council's waste collection scheme services these dwellings. Information obtained from the Local Planning Authority (LPA) website confirms that the Council operates:

- An alternate weekly collection system for refuse and recycling
- A weekly food waste collection service
- An on-request clinical waste service
- A fortnightly green waste collection service
- A bulky waste collection service

(Page 2 of 18, PDF). Page 8 of 18 further confirms that more than three types of recyclable materials are collected.

C1 & CN4

The developer's design-stage specification (Section 5.1) confirms that one internal recycling container will be provided with a minimum total capacity of 30 litres. The recycling storage provision will meet the following requirements:

- Located in a dedicated, unobtrusive position, within a kitchen cupboard, near the non-recyclable waste bin
- Provided in addition to non-recyclable waste storage
- Designed as a fixed feature of the dwelling

Criterion 5



The dwellings do not have significant external private space (only balconies are provided). Reading Borough Council operates a weekly kitchen food waste collection service, as referenced on page 2 of 18 in the PDF.

Based on the above, two credits have been awarded.

Was 2: Refurbishment site waste management

C3&CN2, C4-C6 and CN7 : The developer has provided their Site Waste Management Plan for the development. The SWMP covers the following:

- A target benchmark for resource efficiency, i.e. m³ of waste per £100,000 of project value or tonnes of waste per £100,000 of project value (in line with the credit available) - [Predictions & targets' tab shows resource efficiency and waste minimisation targets](#); [Project details confirm the project value](#).
- Procedures and commitments for minimising non-hazardous construction waste in line with the benchmark and best practice. - [Waste Minimisation & Management' tab shows procedures for how waste will be minimised for concrete and hazardous waste](#)
- Specify waste minimisation actions relating to at least three key waste groups as referenced in [Table - 32](#) and recording decisions taken) : [Predictions & targets' tab shows the waste streams](#).
- Procedures for minimising hazardous waste: [Waste Minimisation & Management' tab shows procedures for how waste will be minimised for concrete and hazardous waste](#).
- Procedures for sorting, reusing and recycling construction and demolition waste (if generated) (according to the waste streams generated by the scope of the works) either off site or through a licensed external contractor - [Project Details' tab confirms in the introduction section that the waste management plan will be reviewed in conjunction with the waste data tool, the bottom of the page shows a revision schedule to record updates to this document](#).
- Procedures for measuring the amount of construction and demolition waste (if generated) diverted from landfill [Waste Minimisation & Management' tab Row 6 confirms the measuring](#)
- Licence details for the waste carrier, and permit details for the site the waste is taken to, if waste is removed off site - [Project details Row 7 para 4](#)
- The name or job title of the individual responsible for implementing the above - ['Project Details' tab Project Team section shows name](#)

C7&C8 : are not applicable as these are newly built flats.

C9 : is achieved.

C10&CN8: [Predictions & targets' tab Row 57](#) confirms that at least 90% % of non-hazardous construction waste generated by the project will be diverted from landfill achieving 3 credits, no demolition will be occurred as these are newly built flats.

Pol 1: Nitrogen Oxide Emissions

Credit not sought

Pol 02 Surface Water Runoff - Neutral Impact on Surface Water

C1 : there is no change in the size of the building footprint or hardstanding as a result of the refurbishment.
C2-C4 not applicable ,no new hardstanding areas as the change us of work/refurbishment is on the first floor

Pol03: Flood Risk (site wide flood risk assessment and surface water run off strategy)

C3:
The PBA site-specific Flood Risk Assessment (FRA) [1] confirms the development is located in Flood Zones 1 and 2. As detailed in sections 3.1.3–3.1.4 (p. 12 of the FRA, Part 1), parts of the site are at medium risk of river flooding. Section 3.2 (p. 12 pdf) assesses surface water flood risk, while section 3.3.2 (p. 14) evaluates flood risks from fluvial,



sewer, groundwater, and highways. Section 6.1.8 (p. 22) confirms the development is safe, does not increase flood risk, and meets NPPF objectives.

C4 : The final building and site design adhere to the recommendations of an appropriate consultant, following the hierarchy in Section 5 of BS 8533:2011. Refer to sections 4.2.1–4.2.4 (p. 19) and section 6.1.6 (p. 22), which confirm the redevelopment includes a 300mm freeboard above existing ground levels to mitigate surface water flooding during extreme rainfall events. The Proposed Finished Ground Levels and First floor drawing (37454/2001/010, PBA) is included in Appendix I of the Drainage Statement [2]. Section 1.4.1 (p. 7 of FRA) states the FRA was prepared in line with the NPPF, local planning policy, and relevant British Standards (BS 8533).

C5

Section 4.4.5 (p. 20) of the FRA [1] confirms the impermeable area of the site will not increase due to the development. Sections 4.3.1–4.3.2 (p. 10 of 127, Drainage Statement [2]) indicate the density of the proposed brownfield redevelopment precludes the use of long term storage or rainwater re-use, to reduce the volume discharge from the site. However, the proposals will not increase the impermeable area of the site and therefore the volumetric run-off will not exceed the volume prior to redevelopment.

Page 2 of the FRA confirms it was prepared by a Flood Risk Analyst and reviewed by the Director of Civil Engineering at PBA.